



# COURSE CATALOG 2015-2016

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**DISCLAIMER:** The information contained in this catalog is to be used as a guide to Nashua Community College for the students, staff members, prospective students and other educational institutions. All information including but not limited to: costs, rules, regulations, program requirements, course content and staff, is subject to change at any time. The college reserves the right to modify aspects of college operations as well as to change tuition and other charges without notice.

Nashua Community College is a smoke-free campus. This catalog is current as of September 11, 2015



## President's Message

Welcome to Nashua Community College. I invite you to tour our lively campus and discover why the 5C's "Challenge, Collaborate, Commit, Communicate and Create" mean so much here.

*Challenge* yourself to reach beyond what you thought possible. *Collaborate* with our dedicated faculty. *Commit* to becoming the best person possible. *Communicate* with other students and embrace the power of knowledge. *Create* the future you desire.

Our faculty is dedicated to your academic excellence and success. We offer a variety of academic services to assist and encourage you on your way to becoming a confident, independent and active learner.

Our new website and ever-growing campus give you a glimpse into the opportunities that await you when you walk through the doors. NCC is on the leading edge of education. Our state of the art facilities in Automotive Technology and Precision Manufacturing emphasize a learning environment where the possibilities are endless. New this year is a Liberal Arts Associate Degree in Anthropology and Sociology as well as Early Childhood and School Aged Para-Educator II Certificates.

The recently adopted New Hampshire Dual Enrollment Program provides students a seamless academic pathway from any of the seven New Hampshire Community Colleges to one of four colleges in the University System of New Hampshire. The University of New Hampshire, Plymouth State University and Keene State and Granite State College will accept an associate degree from NCC with the goal of completing a bachelor's degree in the University System. Governor Maggie Hassan called this amazing program "an important step forward in ensuring all New Hampshire students have access to affordable higher education."

Thank you for choosing Nashua Community College. I am confident you will be pleased with your decision and I welcome you to "Explore Amazing Today" at NCC.

My best,

Lucille Jordan

*"The Community College System of New Hampshire (CCSNH) is committed to providing comprehensive, market-driven, accessible, quality programs of higher education that respond to the needs of students, businesses, and communities."*

## Vision

Nashua Community College (NCC) will meet the changing educational needs of the communities that it serves. Through a process of continuous improvement, the College will become the preferred provider of two-year postsecondary education in the Nashua region

A student-centered, educational institution that will advance and enrich the educational, economic, and cultural life of the diverse community we serve. To help us achieve this vision, NCC selected 7 strategic goals for its strategic plan. NCC will:

- Offer services within a student-centered environment designed to maximize student success.
- Continue to develop a culture that fosters student success and values educational excellence.
- Continue to foster collaboration and communication among local businesses, industries, educational organizations, and government agencies.
- Increase revenue sources through strategic enrollment initiatives.
- Continue to provide a student-centered approach to offering support services and facilities management.
- Deliver integrated, accessible and secure services that leverage existing and emerging technologies.
- Review its shared governance model to improve communication and to ensure transparency in decision making.

# Educated Person

Many institutions contribute to the enhancement of the educated person's sense of self and to her/his overall development. As one of these institutions, Nashua Community College helps students to improve their lives and to become more responsible as informed citizens and educated persons.

In consideration of the attributes needed to maximize one's role as a contributing member of society, the community of NCC has defined a set of essential skills. Among those skills are communications, information literacy, scientific reasoning and quantitative analysis, intellectual curiosity, analytical and creative thinking, problem solving, ethical responsibility, global connectedness, and tolerance for ambiguity.

Recognizing that individuals will grow professionally and intellectually through lifelong learning and experiences, educators at Nashua Community College have chosen four areas as their primary focus for the development of the Educated Person:

- Effective Communication Skills
- Critical and Creative Thinking Skills
- Personal and Social Responsibility Skills
- Global Awareness Skills

It is a goal of NCC that learners will progress in their comprehension and practice of the skills listed below:

## Effective Communication Skills

- Speak effectively in a variety of situations, using verbal and nonverbal communication suitable to topic, purpose, and audience
- Listen actively in a variety of situations to successfully obtain, assess the accuracy of, and share information including that of a quantitative nature
- Write effectively by clearly developing ideas and coherently articulating positions in contexts of increasing complexity
- Read actively to analyze, synthesize, and apply information and ideas accurately from college-level reading across disciplines
- Identify and communicate appropriate information from various media and technologies for specific research contexts.

## Critical and creative thinking skills

- Categorize and evaluate source material, and interpret the meaning and significance of factual information
- Logically formulate, test, and support a hypothesis by application of theories, models, and concepts to concrete examples
- Integrate and creatively synthesize one's own ideas with those of scholarly works to support one's own original and coherent perspective
- Analytically deconstruct for the purpose of understanding and appreciating complex source material
- Demonstrate insight into connections among disciplines, an appreciation of novel perspectives, and a tolerance for ambiguity.

## Personal and social responsibility skills

- Display a strong work ethic and other personal qualities that reflect a commitment to excellence
- Identify and apply the principles of academic integrity, ethical responsibility, and moral judgment
- Act as a responsible member of the local, state, and national community
- Respect diverse viewpoints and collaborate effectively with others in the shared processes of inquiry and problem-solving
- Apply ethical reasoning skills to identify potential consequences that personal choices, political, economic, historical, and other social forces have on the individual and on society.

# College Student Learning Outcomes

## Global awareness

- Appreciate and embrace cultural diversity in the United States and in other areas of the world
- Acknowledge major religious and cultural traditions and how they may impact our lives
- Understand the sociopolitical/economic reasons for immigration to the United States and develop a sense of empathy for new immigrants
- Understand and respect that people from other cultures may communicate differently
- Recognize and embrace opportunities to reach out and improve the lives of others in distant locales.

# Expected Institutional Commitment to the Community

Faculty, Program Coordinators, and Department Chairs, in cooperation with Program Advisory Committees, have established Student Learning Outcomes for all associate degree programs that NCC believes graduates should possess. The section of the catalog listing the associate degree program profiles (program courses and general education courses) and requirements for graduation include the learning outcomes.

In 2014, the Faculty reviewed the Learning Outcomes for all degree programs (program courses and general education courses). The faculty agreed on five singular words that embody the essential skills that we believe all graduates of all degree programs should have.

The words also describe the qualities, characteristics, and skills that are overarching and self-defining. The simplicity in the singular words makes them easy to remember; they can also form a mindset that will lead to continued success. The five words chosen by the faculty are:

## **Commit | Communicate | Collaborate | Create | Challenge**

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

- Engages in programs and activities that expand access to higher education for all members of the community
- Offers college-preparatory instruction that prepares students for success in college-level work
- Provides students with a full range of student development and academic support services
- Offers students the opportunity to contribute to the well-being of others through service learning and volunteerism
- Prepares individuals for employment in a variety of careers in business, the health sciences, computer applications, engineering and industrial technologies, and public service
- Serves as an entry-point for bachelor degree programs by providing the first two years of a four-year program through a sequence of general education that stresses an appreciation of the arts and the humanities, the social sciences, communication and computational skills, the sciences, and computer literacy
- Provides economic development and continuing education activities to meet the needs of business, industry, and government while enhancing employee skills and enriching their lives
- Collaborates with visual and performing arts organizations in the community to elevate the human spirit.

## History

Since 1970, Nashua Community College has been successfully meeting the educational needs of the Greater Nashua area. 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, Computer Engineering Technology, and Computer Science.

Funds were approved in Spring 1999 to build a new library and to upgrade science laboratories. The Walter B. Peterson Library & Media Center 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. The Restaurant Management Program was added in 2005 to provide an opportunity for community college students to have an international experience. Also 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 will be completed for 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.

## Campus Setting

The four buildings contain thirty-one general classrooms, twenty-five program-specific classrooms and laboratories, the Academic Support Center, the Advising Center, the Wellness Center, the Peterson Library, auditorium/lecture hall, administrative and faculty offices, the Maintenance Department, cafeteria, and bookstore. Spaces for more than 500 vehicles offer convenient parking with spaces for handicapped persons. The College is located on the city bus line and is approximately three miles from downtown Nashua.

## Regional Accreditation

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

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

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

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

Commission on Institutions of Higher Education, New England Association of Schools and Colleges 209 Burlington Road, Bedford, MA 01730-1433 (781) 271-0022 email: [cihe@neasc.org](mailto:cihe@neasc.org)

## Specialized Accreditations

**Automotive Technology and Collision Repair Technology** – The programs are certified by the National Automotive Technicians Education Foundation (NATEF) 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** – FAA approval (FAA certificate number NSUTO25K)

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

**Electronic Engineering Technology** - Accredited by the Engineering Technology Accreditation Commission - American Board of Engineering Technology, Inc. (ETAC - ABET) <http://www.abet.org>

**Electronic Engineering Technology** – Nashua Community College's Associate in Science Degree program is part of the Technical Operations – Collegiate Training Initiative (TO-CTI) Program. Graduates of the approved program may be considered and/or selected for permanent positions within the FAA via internships, application of On-the-SPOT Hiring authority for the employment of graduates, or for the training of Upward Mobility Program participants.

**Nursing** – The program has Approval of the New Hampshire Board of Nursing and is accredited by the Accreditation Commission for Education in Nursing, Inc (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326, [www.acenursing.org](http://www.acenursing.org).

## CCSNH Disabilities Services Mission Statement

It is the mission of CCSNH Disabilities Services to provide equal educational access, opportunities, and experiences to all qualified students with documented disabilities who register with the college's Disabilities Services Office. Reasonable accommodations are provided to students to allow them to achieve at a level limited only by their abilities and not by their disabilities. Assistance is provided

in a collaborative way to help students develop strong and effective independent learning and self-advocacy skills, as they assume responsibility for reaching their academic goals.

Students requesting accommodations for disabilities must register with the Disability Coordinator, located in The Learning Commons, and provide documentation to support the request.

## Notice of Nondiscrimination

Nashua Community College does not discriminate in the administration of its admissions and educational programs, activities, or employment practices on the basis of race, color, religion, national origin, age, sex, handicap, veteran status, sexual orientation, or marital status. This statement is a reflection of the mission of the Community College System of New Hampshire and Nashua Community College 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, The Age Discrimination Act of 1967, Title IX of the Education Amendment of 1972, Section 504 of the Rehabilitation Act of 1973, The Americans with Disabilities Act of 1990, Section 402 of the Vietnam Era Readjustment Assistance Act of 1974, and the NH Law Against Discrimination (RSA 354-A).

Inquiries regarding discrimination may be directed to Catherine Barry, Nashua Community College (603) 578-8900 or to Sara A. Sawyer, Director of Human Resources for the Community College System of New Hampshire, 26 College Drive, Concord, NH 03301, (603) 271-6300. Inquiries may also be directed to the Office for Civil Rights, Boston Office, US Department of Education, 33 Arch Street, Suite 900, Boston, MA 02110 Tel: (617) 289-0222, FAX: (617) 289-0150, TDD (617) 223-9695, e-mail [OCRBoston@ed.gov](mailto:OCRBoston@ed.gov); the Equal Employment Commission, John F. Kennedy Federal Building, Government Center, 4th Floor, Room 475, Boston, MA 02203, (617) 565-3200, TTY (617) 565-3204.

To be automatically connected with the nearest EEOC field office, call 1-800-669-6820, TTY 1-800-669-6820; and/or the New Hampshire Commission for Human Rights, 2 Chennell Drive, Concord, NH 03301, (603) 271-2767.

## 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, age, sex, handicap, religion, veterans status, sexual orientation, marital status, or national origin. First priority for admission will be given to residents of New Hampshire. Second priority will be given to students qualifying under the New England Regional Student Program (NERSP). 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. 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](#), or 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 the 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 and pay a nonrefundable \$20 application fee. If reapplication is necessary either for a new program or for a new academic year, the applicant must submit a new application and the \$20 application fee.
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. Nursing applicants will need proof of completion of English, Algebra, Biology, and Chemistry courses.
3. Present, when requested, recommendations from a high school teacher or an employer. The recommendations should reflect character, personality, special abilities, and general qualifications for college study.

4. Submit official transcripts of all previous college work. Grades of courses transferred are not included in the GPA (Grade Point Average). Credits transferred from another institution will be added to the total credits accumulated for graduation as applicable.

## 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 taken 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. Official English translation of all secondary and postsecondary academic records.
2. Applicants whose native language is not English must take the Test of English as a Foreign Language (TOEFL) and earn a core of 500 or better (173 or better on the computer-based test). Information regarding the test can be found on the [Education Testing Service](#) website. 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. For students currently in the United States seeking a student visa, the College may waive the TOEFL requirement and administer the Accuplacer Placement Test.
3. Affidavit of Financial Support (forms may be printed from our website) from the person(s) who will be financially responsible for the student; letter should include student's name, intent to attend Nashua Community College, and the amount of money available. The form must be in English and notarized. The funds must be stated in US dollars. All supporting documents must be included.
4. 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.

## 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 upon information furnished by the student's application and other relevant and available information. 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.

Any student who has, on his/her first admission to the College, been classified as 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.

## Placement Testing

Accuplacer is a set of computerized tests that determines your knowledge in math, reading and writing. Accuplacer testing is required for all associate degree programs and for certificate programs that require math and/or English. The results of the assessment enable us to provide students with crucial early guidance in course placement/selection. Please note that SAT scores are not required. However, if you have SAT scores obtained within the past three years, they may be used for placement instead of the Accuplacer test. A Math SAT score of 520 or higher is required for placement in college level math. A Critical Reading score of 550 or higher and an Essay score of 8 or higher is required for placement in college level English. You can schedule your Accuplacer assessment [online](#).



There is a \$20.00 fee for the Accuplacer Assessment test which must be paid in the NCC Business Office prior to testing.

## Academic Amnesty

A student who has previously attended a college within the CCSNH, and who 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 the original college of enrollment 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.

## Insurance

The College has worked with Cross Insurance Company to offer this [Student Blanket Accident Insurance Plan](#). Please be aware this plan is an accident only plan.

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. Government information on health insurance can be found at [www.healthcare.gov](http://www.healthcare.gov).

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.

## Expenses for 2015-2016

Students will pay tuition on a per credit basis:	
Resident	\$200.00 per credit**
New England Regional Student Program	\$300.00 per credit
Non Resident & International Students	\$455.00 per credit
Comprehensive Student Services	
Fee per credit (Day & Evening Programs) Supports student activities and Wellness Center	\$16.00
Tuition Deposit (non-refundable from matriculated students)	\$100.00
Orientation Fee (non-refundable from matriculated students)	\$30.00
Required Graduation Fee	\$100.00
Diploma Replacement Fee	\$20.00
Academic Instruction Fee (per lab credit)*	\$60.00



Accuplacer Placement Test Fee	\$20.00
Accuplacer Placement Test Retake Fee	\$20.00

\*\*Tuition is **\$200 per credit** for New Hampshire residents, plus a Comprehensive Fee of **\$22 per credit**. Other fees may apply for specific courses. **ALL CHARGES ARE SUBJECT TO CHANGE WITHOUT NOTICE**. For additional information go to <http://www.nashuacc.edu/student-services/business-office/tuition-fees>.

A non-refundable tuition deposit of \$100.00 will be required from all matriculated students. 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 for students identified as evening matriculated students, or 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.

\*A fee will be charged for all Laboratory/Practicum 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 \$60.00 for each course. This will be added to the normal tuition charge for that course. Example:

	CL	LAB	CR
BIOL215N Microbiology	3	3	4
$4 - 3 = 1 \times 60 = \$60$			

This fee will be charged to all students with no exceptions. No other academic instruction fees are permitted without the written authorization of the Chancellor of the Community College System of New Hampshire.

The required graduation fee, paid at the beginning of the spring term by all graduating seniors, covers the cost of a cap and gown and other graduation expenses.

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 \$350.00 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 [www.nashuacc.edu](http://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 \$50.00 late fee will be charged to students who do not comply.

Students who have not accepted their financial aid award (the award letter from financial aid needs to be signed and returned to financial aid), established a payment plan, or paid in full two weeks prior to the start of classes will be 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 or annual 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 or annual enrollment fee for this program. More information can be obtained from the Business Office or on our website by accessing the Finance Options 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 Federal Title IV funds (i.e. Pell, SEOG, Perkins Loans, Stafford Loans) are returned to the federal programs according to the rules and regulations mandated by the Department of Education. For more information on Return of Title IV Funds for Financial Aid Recipients, go to <http://www.nashuacc.edu/student-services/financial-aid>.

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. All refunds require that students complete an official withdrawal form.

In accordance with Federal regulations, refunds for an amount less than \$1.00 (\$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

Please review your rights and responsibilities as a financial aid recipient in the 2015-2016 CCSNH Student Financial Aid Handbook at (<http://www.nashuacc.edu/student-services/financial-aid>).

## 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 award may include a combination of the various types of aid.

## Who Is Eligible for Financial Aid?

To receive federal student aid, a student must:

- Qualify to obtain a college education, either by having a high school diploma or General Educational Development (GED) certificate, or by completing a high school education in a homeschool setting approved under state law; and
- Be a U.S. Citizen or U.S. National (for requirements to be a U.S. Citizen or U.S. National please see <https://studentaid.ed.gov/eligibility#basic-criteria>; and
- Be enrolled or accepted for enrollment as a regular student in an eligible degree or certificate program; and
- Be registered with Selective Service, if you are a male (you must register between the ages of 18 and 25); and
- 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; and
- Sign certifying statements on the Free Application for Federal Student Aid (FAFSA) 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; and
- Not be in default on a federal student loan and not owe a refund on a federal grant; and
- Maintain satisfactory academic progress in college; and
- Not have aid eligibility suspended or terminated due to a drug-related conviction that occurred while receiving Title IV assistance; and
- Not be receiving federal or state financial aid from another institution for the same enrollment period.

In addition:

- Students must be attending a minimum of six (6) credits for federal loans at time of disbursement (Audited courses, Transfer Credits, Credit by Exam, Experiential Learning Credits, and some repeat courses do not count towards eligibility);
- Students must not be receiving federal or state financial aid from another institution for the same enrollment period;
- 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 primary census 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 [www.fafsa.ed.gov](http://www.fafsa.ed.gov) to apply for federal student aid. The FAFSA is available January 1st of each year and must be completed annually for each year the student will be attending college.

Students attending Summer 2015, Fall 2015, and Spring 2016 should complete the 2015-2016 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; those students who apply early will receive priority.

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

- Complete the 2015-2016 FAFSA at [www.FAFSA.ed.gov](http://www.FAFSA.ed.gov) 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 been 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 by regular mail.
- Respond to all correspondence from NCC Financial Aid Office and provide all information requested. (All financial aid forms are available on the NCC webpage under 'Download Forms.')
- Receive a Financial Aid Award Letter listing the aid you are eligible to receive.

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

- Be registered for six (6) credits minimum and Complete Loan Entrance Counseling and Master Promissory Note at [www.studentloans.gov](http://www.studentloans.gov)
- If you are offered and accepted a Perkins Loan, then you must:

- Be registered for six (6) credits minimum and Complete Loan Entrance Counseling and Master Promissory Note (instructions will be mailed separately).
- Complete and return the Award Letter to NCC Financial Aid Office indicating the aid you will accept. Returning the completed Award Letter gives you a payment deferment of the accepted amounts.

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

## NCC Financial Aid Priority Deadlines

Summer 2015 Semester:	April 14, 2015
Fall 2015:	July 20, 2015
Spring 2016:	December 8, 2015

Tuition payment deadline is two (2) weeks before the start of the semester. If the financial aid process is not complete at that time (complete means a signed award letter has been returned to the NCC Financial Aid Office and, if accepting loans, the loan requirements have been completed) you will need to make payment arrangements with the Business Office for any classes you register for. 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.

### How and When to Apply for State, College, and Nonprofit or Private Student Aid

Please see your state's student aid web page to for information on state aid. Please note that NH does not offer a state grant. For information on college, and nonprofit or private student aid, please see the NCC Scholarship information page at <http://www.nashuacc.edu/student-services/financial-aid/scholarship-information>,

### Determining Your Eligibility

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

$$\text{Cost of Attendance (COA)} - \text{Expected Family Contribution (EFC)} = \text{Financial Need}$$

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 award 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)	\$ 4,800
Room and Board	\$ 13,329
Fees	\$ 624
Books and Supplies	\$ 1,400
Transportation	\$ 2,467
Personal Expenses	\$ 1,800
Total Sample Cost of Attendance	\$ 24,420

Note: A student's COA must be reviewed each semester. Generally speaking, the student's enrollment level during the Fall Semester dictates the student's COA for the year. 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
- ¾ time: 9 - 11 credits in a semester
- ½ time: 6 - 8 credits in a semester
- Less than ½ 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 excluded 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 award.

## Awarding of Aid

### Verification

All student 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. The documentation may include some or all of the following:

- 2015-2016 Verification Worksheet
- 2014 Federal Tax Return Transcripts of the applicant
- 2014 Federal Tax Return Transcripts of the applicant's parents (if the student is considered dependent for financial aid purposes)
- 2014 W2s
- 2015-2016 Verification of Supplemental Nutrition Assistance Program (SNAP – formerly known as Food Stamps)
- 2015-2016 Verification of Child Support Paid
- 2015-2016 Verification of Untaxed Income
- 2015-2016 Verification of Identity/Statement of Educational Purpose
- Proof of High School completion or its equivalent

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 awarded and/or disbursed. The documentation must be submitted within fourteen days of request or by the end of the academic year, whichever comes first. If documentation verifies the information submitted on the original application, financial aid will be awarded and disbursed as soon as admission, registration and class attendance can be confirmed. 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. Federal Pell Grants usually are awarded only to undergraduate students who have not earned a bachelor's or a professional degree to aid them with the actual costs of attending college. A Federal Pell Grant, unlike a loan, does not have to be repaid. Amounts can change yearly. The amounts for 2015-2016 range from \$313 to \$5,730. The amount a student gets depends on the student's expected family contribution (EFC); the student's enrollment level; and whether the student attends for a full academic year or less. 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. Students will receive a notice if they are getting close to their limit.

## **Pell Grant and Iraq and Afghanistan Service Grant**

If your parent or guardian was a member of the U.S. armed forces and died as a result of military service performed in Iraq or Afghanistan after the events of 9/11, you may be eligible for additional Programs Federal Pell Grant funds, if at the time of your parent's or guardian's death, you were less than 24 years of age or enrolled in college or career school at least part-time. If you meet those requirements but aren't eligible to receive a Federal Pell Grant due to your EFC being too high, you might be able to get an Iraq and Afghanistan Service Grant. Iraq and Afghanistan Service Grants provide money to college or career school students to help pay their education expenses. However, Iraq and Afghanistan Service Grants have special eligibility criteria. You may be eligible to receive the Iraq and Afghanistan Service Grant if you are not eligible for a Federal Pell Grant on the basis of your expected family contribution but meet the remaining Federal Pell Grant eligibility requirements, and your parent or guardian was a member of the U.S. armed forces and died as a result of military service performed in Iraq or Afghanistan after the events of 9/11, and you were under 24 years old or enrolled in college at least part-time at the time of your parent's or guardian's death. The grant award is equal to the amount of a maximum Federal Pell Grant for the award year but cannot exceed your cost of attendance for that award year. The maximum Federal Pell Grant award for 2015-2016 is \$5,730. The payment procedures are the same as those for the Federal Pell Grant.

## **Federal Supplemental Educational Opportunity Grant (FSEOG)**

*FSEOG* is a grant for undergraduate students with exceptional financial need and does not need to be repaid. Students who are eligible for Federal Pell Grant and have the most financial need will be awarded FSEOG first. Each participating school receives a set amount of FSEOG funds each year from the U.S. Department of Education. Once the full amount of FSEOG funds have been awarded to students, no more FSEOG awards can be made for that year. The amounts for 2015-2016 at NCC range from \$150 to \$450. 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 program encourages community service work and work related to the student's course of study. Students with work-study jobs will work on or off-campus while enrolled. The Federal Work-Study program award funds on a first come, first served basis. The hourly wages for 2015-2016 at NCC range from \$9.00 to \$10.00 per hour. 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.

## **Federal Perkins Loan Program**

The *Federal Perkins Loan Program* is a school-based loan program for undergraduate full-time or part-time students with exceptional financial need. The interest rate for this loan is 5%. Under this program, the school is the lender; you will make your payments to the school that made your loan or your school's loan servicer. The amount you can borrow depends on your financial need, the amount of other aid you receive, and the availability of funds at your college. As an undergraduate student, you may be eligible to receive up to \$5,500 a year and the total you can borrow as an undergraduate is \$27,500. However, due to limited funds, NCC can only award \$1,000 per student for 2015-2016 and not everyone who qualifies for a Perkins Loan will receive one. Additionally, the Federal Perkins Loan Program is being phased out and there are specific disbursement requirements which must be met by eligible students. All students borrowing must complete a Master Promissory Note and Loan Entrance Counseling prior to receiving the funds. NCC will apply the loan funds to the student's school account to pay for tuition, fees, and other school charges. If any loan funds remain, NCC will issue a refund to help pay for other education expenses. You may cancel all or part of the loan at any time before the loan money is disbursed by notifying the school. After the loan money is disbursed, you may cancel all or part of the loan within a certain time frame. You will receive additional information explaining the procedures and time frames for canceling the loan. You have nine months after you graduate, leave school, or drop below six (6) credits before you must begin repayment. This program is being phased out by the Department of Education and may not be available at NCC for 2015-2016.

## **Vermont and Rhode Island State Grant**

The Vermont ([www.vsac.org](http://www.vsac.org)) and Rhode Island ([www.riheaa.org](http://www.riheaa.org)) 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 (<http://www.nashuacc.edu/student-services/financial-aid>) for information about State, College, and Nonprofit or Private Student Aid.



## Direct Loan Program

The Direct Loan Program is the largest federal student loan program. Under this program, the U.S. Department of Education is your lender. Students must be enrolled in a minimum of six (6) 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://studentloans.gov>. First time borrowers at the College must also complete Loan Entrance Counseling at <https://studentloans.gov>. Fiscal Year origination fees and interest rates are listed below.

### *Fiscal Year 16 Origination Fees for loans first disbursed on or after 10/1/15 and before 10/1/16:*

Direct Subsidized Student Loan	1.068%
Direct Unsubsidized Student Loan	1.068%
Direct Parent Plus Loan	4.272%

### *Fiscal Year 15 Origination Fees for loans first disbursed on or after 10/1/14 and before 10/1/15:*

Direct Subsidized Student Loan	1.073%
Direct Unsubsidized Student Loan	1.073%
Direct Parent Plus Loan	4.292%

### *Interest Rates for 2015-2016 Federal Direct Loans on or after July 1, 2015 and prior to July 1, 2016:*

Direct Subsidized Student Loan	4.29%
Direct Unsubsidized Student Loan	4.29%
Direct Parent Plus Loan	6.84%

**Direct Subsidized Loans** are subsidized by the federal government for students who demonstrate financial need. Subsidized means the student is not responsible for payment of interest during periods of at least half time enrollment (six (6) credits or more)\*. Repayment begins six (6) months after graduation, withdrawal, or when enrollment drops below six (6) credits. If you are a first-time borrower on or after July 1, 2013, there is a limit on the maximum period of time (measured in academic years) that you can receive Direct Subsidized Loans. This time limit does not apply to Direct Unsubsidized Loans or Direct PLUS Loans. If this limit applies to you, you may not receive Direct Subsidized Loans for more than 150 percent of the published length of your program. This is called your "maximum eligibility period." Your maximum eligibility period is based on the published length of your current program. You can usually find the published length of any program of study in the school's catalog. For example, if you are enrolled in a two-year associate degree program, the maximum period for which you can receive Direct Subsidized Loans is three years (150 percent of 2 years = 3 years). For more detailed information please see [www.StudentAid.gov/types/loans/subsidized-unsubsidized](http://www.StudentAid.gov/types/loans/subsidized-unsubsidized).

\*Note: If you receive a Direct Subsidized Loan that is first disbursed between July 1, 2012, and July 1, 2014, you will be responsible for paying any interest that accrues during your grace period. If you choose not to pay the interest that accrues during your grace period, the interest will be added to your principal balance.

**Direct Unsubsidized Loans** are not subsidized by the federal government and are not based on financial need. Unsubsidized means the student is responsible for payment of interest during periods of enrollment although actual payment can be deferred. Repayment begins six (6) months after graduation, withdrawal, or when enrollment drops below six (6) credits.

### **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 (0-31 credits earned\*) up to \$5,500 of which only \$3,500 can be subsidized; Sophomore (32+ 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 (0-31 credits earned) up to \$9,500 of which only \$3,500 can be subsidized; Sophomore (32+ 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.ed.gov](https://studentaid.ed.gov).

**Direct Parent PLUS Loans** are federal loans that parents of dependent undergraduate students can use to help pay education expenses not covered by other financial aid. The borrower must not have an adverse credit history. The maximum loan amount is the student's cost of attendance (determined by the school) minus any other financial aid received. The student must complete the FAFSA (Free Application for Federal Student Aid) at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) and the parent must apply for the Direct PLUS loan at <https://studentloans.gov>. If a parent borrower is unable to secure a PLUS loan, the student may be eligible for additional unsubsidized loans to help pay for his or her education expenses. Additional information is available through the Financial Aid Office or at <https://studentaid.ed.gov>.

**Alternative/Private Loans** are offered by various lenders to assist students and parents meet 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 <http://www.ccsnh.edu/sites/default/files/content/documents/finaiddocuments/codeofconduct.pdf>

## Special Circumstances

The financial aid staff calculates each financial aid award individually, based on financial need as demonstrated by the FAFSA. The calculation is usually based on a student's and family's 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. The agreement is a formal contract between the home and host colleges. 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 (or 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 complete the NCC Title IV Authorization Form to participate in the Book Advance Program. The form is mailed to you with your award letter and is also available in the financial aid office.

The Book Advance Program has an electronic and a paper process. The electronic process is not available to all students. As long as you meet the eligibility requirements, your financial aid process is completed and you have authorized the use of your excess financial aid for bookstore charges via the NCC Title IV Authorization form or paper Book Advance form, a book advance will automatically be set up for you.

Students must complete the NCC Title IV Authorization form to participate in the electronic process. This form is completed annually. For those eligible to participate in the electronic process, the book advance spending limit can be found on your Student Information System (SIS) account. (Once you have logged into SIS, select Student tab, select Student Records, select Account Summary by Term, and select the current semester to view Account Detail by Term. Look at the Authorized Financial Aid Section under the Account Detail for term. The spending limit available for books/supplies shows as a negative number beside Account Balance net of Authorized Financial Aid if there is enough financial aid available). If you completed the loan requirements or turned in your signed award letter within the last week, please allow at least two (2) full business days to view your spending limit available on SIS. If all your loan

requirements have been completed and it has been more than two (2) full business days and your spending limit is not showing on SIS, please email the Financial Aid office at "[Nashua Financial Aid@ccsnh.edu](mailto:Nashua_Financial_Aid@ccsnh.edu)".

Students not eligible to participate in the electronic process must complete a paper Book Advance form in addition to the NCC Title IV Authorization form. Students in late start courses may be required to complete a paper Book Advance form. Students with financial aid holds and summer students will be required to complete a paper Book Advance form. The funds will be available in the NCC Bookstore two business days after a paper Book Advance form has been completed. The paper Book Advance form is available in the financial aid office, must be completed each semester, and cannot be faxed or emailed.

You must show your NCC ID and a copy of your schedule at the bookstore when making your purchase.

## Scholarship Programs

### Assistance for Single Parents or Displaced Homemakers

The Single Parent and Displaced Homemaker Program is a program run by Nashua Community College to assist financially disadvantaged single parents, displaced homemakers, and single pregnant women with the cost of attending our college in preparation for high skill, high wage, or high demand occupations in current or emerging professions. The Carl D. Perkins Career and Technical Education Improvement Act of 2006 provides grant funding for this program. The grant must be applied for each semester. Awards will vary based on availability of funds. The program mandates two meetings with an Academic Coach during the semester in which a student receives the award. Further information and the application are on the NCC Scholarship web page.

### Carl D. Perkins Scholarship

The Carl D. Perkins Scholarship is available to students in good academic standing (CGPA of 2.5 or higher) enrolled in a Career and Technical Education Associate Degree who have completed at NCC a minimum of twenty-four (24) credits towards the degree requirements and are attending full-time (12 credits at NCC) for the semester awarded. Award amounts vary based on availability of funds. Further information and the application is available on the NCC Scholarship web page.

### Carl D. Perkins Scholarship for Students in a Non-Traditional Program

A Non-Traditional Program is one in which individuals from one gender comprise less than 25% of the individuals employed in the field to which the program leads. Further information and the application are [available here](#).

### NCC Foundation Scholarship (Swing Into Spring Fundraiser)

This scholarship is for matriculated NCC students who are continuing their education at NCC. It is based on financial need and merit and is offered each Spring. Applications will be available at the beginning of Spring semester.

### Orphans of Veterans Scholarship

Residents of New Hampshire whose veteran parent died as a result of active service in the armed services of the United States, or whose parent has since died from a service connected disability may be eligible for this scholarship. For more information, contact Amy Slattery at the New Hampshire Department of Education, Division of Higher Education - Higher Education Commission by calling (603) 271-2695. Applications are available at <http://www.education.nh.gov/highered/financial/index.htm>.

### Early Childhood Education Tuition Assistance

The Community College System of New Hampshire (CCSNH), in partnership with the Division of Children Youth and Families, Department of Health and Human Resources, is able to provide tuition assistance to eligible students. Students who are eligible must be currently employed, at least part-time, in a NH licensed (or license-exempt) early childhood program, or a licensed family child care program, and must be taking early childhood courses through CCSNH.

For information on this scholarship, visit <http://www.ccsnh.edu/ccnh-foundation/early-childhood-education-tuition-assistance> or contact Teri Laflamme by calling 603-230-3531 or by email at [tlafamme@ccsnh.edu](mailto:tlafamme@ccsnh.edu).

### The Henderson Fund Scholarship for Business Related Majors

Amount: One \$2,500 scholarships for Spring 2015

Deadline: February 10, 2015

Applicant must:

- Be enrolled full time in a Business related major at Nashua Community College
- Have maintained a minimum 2.0 cumulative GPA
- Meet all other application requirements
- [Print Application Here.](#)

## **Human Services/Community Social Services Scholarship**

The NH Department of Health and Human Services, Bureau of Developmental Services through a cooperative agreement with the Community College System of NH (CCSNH), offers grants to students as tuition reimbursement towards a Community Social Services/Human Services Certificate at some of NH's community college. The grants are available to any employee, family member or individual affiliated with one of ten area agencies and their vendors. Applications are available at any of the community colleges, and the students must have the support of an area agency representative. For information on this scholarship, visit <http://www.ccsnh.edu/human-servicescommunity-social-services-scholarship> or email Jayne Barnes at [jbarnes@ccsnh.edu](mailto:jbarnes@ccsnh.edu).

## **Agnes M. Lindsay Trust Scholarship**

This scholarship is for matriculated students with demonstrated financial need who are permanent residents of towns with fewer than 15,000 inhabitants in New Hampshire, Vermont, Massachusetts or Maine. Students must be enrolled for the Fall of 2014, filed a 2014-2015 FAFSA, and have their financial aid process completed. Application is available at the CC of NH Foundation Scholarships page.

## **PSNH NASA Space Grant Scholarship**

This scholarship is for full or part-time students who are enrolled in associate degree or certificate programs in Aviation Technology, Energy Services Technology, Electronics Technology, Geographic Information Systems, Math or Science Teacher Education, Mechanical Engineering Technology, Mobile Equipment Technology and who have a demonstrated interest in pursuing further education or a career in fields of interest to NASA and PSNH.

This Program is made possible through the New Hampshire Space Grant Consortium (NHSGC). The application is available on the CCSNH Scholarship page

## **Brandon Masterson Automotive Technology Tool Scholarship**

The Brandon Masterson Automotive Technology Tool Scholarship is in memory of NCC Automotive Technology Student, Brandon Masterson, who passed away in 2013 just months before his graduation.

During his life, Brandon was a student and person to be emulated. The scholarship is an award up to \$700.00 for the cost of tools and will be awarded to one student each Fall and Spring semester. [Download application here.](#)

## **The Robert Lawton Memorial Scholarship Fund**

This scholarship is established to assist part or full-time students, in a degree-granting Human Services program at Nashua Community College. The \$1,000 scholarship will be awarded annually.

Applicants should meet the following criteria:

- Maintain full- or part-time student status majoring in Human Services
- Complete at least 32 credits in the HS major
- Demonstrate financial need by completing a FAFSA form
- Submit an essay: "Why Do I qualify for the Lawton Memorial Scholarship Award?"
- Secure nomination of a faculty member.

The recipient of the scholarship agrees to send the donor an acknowledgment letter sharing what receiving the award means to them. The application is available on the NCC Scholarships page.

## **New Hampshire Transfer Connections Scholarship**

The top CCSNH applicants to GSC, KSC, PSU, UNH and UNHM will be designated a "NH Transfer Connections Scholar" and will be awarded a scholarship contingent on the availability of funds. Students must attain a minimum cumulative grade point average of 3.0 by the end of the first year of baccalaureate study and retain that minimum GPA for each succeeding semester. The scholarship will

terminate when the NHTC Scholar earns a bachelor's degree, leaves the institution awarding the scholarship, or has received the scholarship for six semesters, whichever occurs first. For the purpose of these awards, UNH and UNHM are considered separate institutions, so the scholarship is not transportable from Durham to Manchester or vice versa. These scholarships will be a discount to the annual tuition rate and will apply only for those students who maintain full time status in their baccalaureate study. Additional information can be found at [http://www.nhtransfer.org/nhtcp\\_scholarship.html](http://www.nhtransfer.org/nhtcp_scholarship.html).

## **American Automobile Association of Northern NE Scholarship**

This scholarship is for students in an Automotive Technology Program at one of the following campuses: White Mts., Lakes Region, Manchester, Nashua. Student must be a NH resident, demonstrate the desire for a career in the automotive service industry. Student must have filed a FAFSA with their Financial Aid office. Preference given to past recipients. Application is available at <http://www.ccsnh.edu/cc-nh-foundation-scholarships>.

## **STEM Scholars Program**

Students planning to study in any of the STEM (science, technology, engineering and math) disciplines including advanced manufacturing are eligible to apply for scholarships through this new program. The NH Charitable Foundation will support students at any point in their undergraduate program as well as graduate study. However, they are most interested in supporting students pursuing two-year or certificate programs. Application is available at <http://www.nhcf.org/page.aspx?pid=1270>.

## **New Hampshire Scholars**

The NH Scholars award at NCC is a \$500 tuition waiver available to High School Students who have graduated from a participating NH Scholar High School (see [nhscholars.org](http://nhscholars.org) for a list of high schools) and who have completed the Core Course of Study upon graduation. NCC may grant up to twelve (12) \$500 NH Scholar awards. Further information and the application is available at the NCC Scholarships page.

## **Valedictorian Scholarship Program**

A one-year tuition scholarship will be awarded to designated New Hampshire high school valedictorians, based on cumulative grade point average, from New England Association of Schools and Colleges accredited institutions. The recipient must be a full time matriculated student in a CCSNH college within 15 months from the time of secondary school graduation. For more information, please contact the Admissions Office at (603) 578-8908. The application is available on the NCC website.

## **Return of Title IV Funds**

Title IV funds are awarded 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 awarded. 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 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 Perkins Loan
4. Federal Direct PLUS Loan
5. Federal Pell Grant
6. Federal Supplemental Education Opportunity Grant (SEOG)
7. Other Title IV Aid Programs
8. Other Federal sources of aid
9. 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	Must complete at least 2/3 (66.666%) 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.

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 +		2.0

## **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 successfully complete at least two-thirds (66.666%) of the total credits he/she attempted throughout his/her academic career at the college. 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 student federal student aid for any attempted credits towards his or her program of study as long as those credits do not exceed 150% of the published length of the student's program of study. All attempted credits are included in the evaluation including transfer credits.

For example, a student enrolled in a financial aid eligible 24 credit certificate program can receive federal student aid for up to 36 attempted credits. A student enrolled in a program of study requiring 64 credits to earn the degree may receive federal student aid for a maximum of 96 attempted credits. 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 will be completed and evaluated to determine what portion of the requirements for that curriculum has been satisfied. The degree audit or academic plan must be submitted with the appeal and will be evaluated on an individual, case-by-case basis.

### **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 as a result of not meeting Satisfactory Academic Progress standards may appeal for a review of that determination. A student must appeal in writing.

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 must submit the following information to the Financial Aid Office:

1. A written explanation of the circumstances that prevented him/her from achieving SAP standards and documentation of any extenuating circumstances. 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 use to regain satisfactory academic progress.

The decision of the appeals committee is final. A student is notified of hi/her appeal's outcome in writing via mail within 10 business days of submission of all required documentation.

## 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.

<b>Satisfactory Academic Progress (SAP) Review FAQs:</b>	
<b>Question</b>	<b>Answer</b>
When is my academic progress reviewed?	At the end of each semester
What academic periods are included?	All periods, even those in which the student did not receive financial aid, was in a different major, and those for which the student was granted academic amnesty
What are the results of the review?	Satisfactory Academic Standing, Warning, or Suspension
What does Warning mean for me?	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.
What happens at the end of the Warning Period?	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 his/her federal

	student aid eligibility for his/her 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.
What does suspension mean for me?	The student 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.
Is there an appeal process if my aid is suspended?	Yes, please see the section on the Appeal process.
Can you regain Financial Aid eligibility once it has been suspended?	Yes, please see the section on Regaining Eligibility.
What does Probation mean?	A student who becomes ineligible for federal student aid 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. During Probation, the student will be eligible to receive federal student aid funding.

Treatment of Repeated Courses, Audited Courses, Incompletes, Developmental/Remedial Courses, English as a Second Language Courses (ESOL), Credits by Examination, Nonpunitive grades, Pass/Fail Grades, Withdrawals

Please refer to the specific section for each course/credit below. The following table is a breakdown of how each type of course or credit is treated in the review.

	<i>Cumulative GPA Component</i>	<i>Completion Rate Component</i>	<i>Maximum Time Frame Component</i>
Repeat Courses	Y	Y	Y
Transfer Credits	N	Y	Y
Consortium Credits	N	Y	Y
Developmental/ Remedial/ESOL	Y	Y	Y
Incompletes	Y	Y	Y
Audit Courses	N	N	N
Nonpunitive Grades	N	Y	Y
Pass/Fail Grades	N	Y	Y
Withdrawals	N	Y	Y

## Repeat Course

Financial Aid will cover a repeated course when it is repeated to replace an unacceptable grade as determined by a specific course and/or major. For one time only it will also cover a repeated course previously passed (per previously passed course). For this purpose, passed means any grade higher than an "F". Only the most recent grade for a course that has been repeated will count towards a student's CGPA. Therefore, grades from prior attempts will be excluded from the student's cumulative GPA. However, all attempts including the most current will be included in the calculation for the completion rate and maximum time frame components.

## **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. Further, audit courses are not included for any of the calculated components.

## **Credit By Examination**

Financial Aid does not cover courses for which a student earns credit through examination. Credit by Examination courses count toward the maximum time frame component, but are excluded from the student's cumulative and completion rate components.

## **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. In late January, 1098-T forms are made available to students. 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.

# Veteran's Assistance

The goal of the Veteran Student Office at Nashua Community College is to assist veterans, reservists and guardsmen to succeed at NCC. Questions or concerns can be directed to:

Maryanne E Murray, Veteran Certifying Official  
Veteran-Student Office, Room 100A  
Phone 603.882.6923 x1563

Forms may be faxed:

Attn: Maryanne E Murray at 603.882.8690

Email: [mmurray@ccsnh.edu](mailto:mmurray@ccsnh.edu)

Office hours: Monday through Thursday 9:00 to 2:00; closed Friday

VA Information: website: [www.benefits.va.gov/gibill](http://www.benefits.va.gov/gibill)

Phone (888) GI-BILL-1 (888-442-4551)

Information on how to apply for educational benefits, benefit eligibility, and changes in enrollment status is available online at [www.benefits.va.gov/gibill](http://www.benefits.va.gov/gibill)

Enrollment verification for properly documented veteran-students is electronically reported to the Veteran Administration after the add-drop period for the college system.

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

All chapters should contact the VCO before adding a major. Additional information may be required by the VA before the College can certify you for a second major.

Veterans whose chapters fall under 30,1606 and 1607 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) 442-4551.

Satisfactory progress toward completion, as specified in the Financial Aid section of this Catalog, must be maintained.

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

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

## Academic Requirements and Policies

### Associate Degree

The minimum requirement for the Associate Degree is 64 credit hours and completion of all specified program requirements. Students must successfully complete a minimum of 24 credit hours in General Education courses such as English, social science, mathematics, humanities, science and a minimum of 32 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 achieve those competencies through developmental math courses offered at 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 through absence or lateness and on what terms.

If a student is absent more than the number of hours the course meets during a two-week period, the faculty may withdraw a student from the course with an "AF" grade any time during the semester. 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 the end of the semester or at any point during the semester that the instructor informs the Registrar's office that the student has been suspended from class.

## Credit Hour Guidelines

1. A credit hour shall be the equivalent of one (1) hour of work per week for a 15/16 week semester.
2. A semester credit hour shall be comprised of the following:  
A. Class | B. Laboratory | C. Clinics | D. Practicum, Fieldwork, etc. | E. Internships\* | F. Co-ops\*\*.

3. A credit hour shall be allocated based on the below:

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.

4. One instructional hour shall be equal to fifty (50) minutes of classroom/direct faculty instruction or laboratory/studio or sixty (60) minutes of clinical, practicum/fieldwork, internship or co-op.

## 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 Services 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. 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; student has a passing grade at time of drop, as determined by the instructor. Does not affect GPA. 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. 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)

**PP:** Provisional Pass; warning (not calculated into GPA)

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

**CS:** Continuing Study. Allows student to re-register for 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. 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, violation of the Student Code of Conduct, disruptive behavior, etc. 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 participate in intercollegiate athletics or 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 and earned a grade of 'C' or higher. Courses successfully completed prior to admission will be considered for transfer.

It is the responsibility of students to furnish the following: (1) official transcript and (2) copy of the course description. A Department Chair, Program Coordinator, or designee will evaluate each program specific course and grade. The Vice President of Academic Affairs determines if the credits should transfer. Students will receive a copy of the list of courses accepted for transfer.

Current students seeking to take a course at another college and wishing to apply that course to their degree must have prior written approval from the Vice President of Academic Affairs and their Department Chair or Program Coordinator. 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. 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 NCC Advising Center.

## **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 Admissions Office will access the grade and recommend to the Vice President of Academic Affairs credits to be granted based on the College's policies relating to the AP scores for the various exam subjects. The minimum score to receive credit varies from 3 to 5. No credit is awarded on any AP exam score of less than 3. The policy stating the specific exam scores for each subject area may be reviewed at the Admissions Office.

## **Credit by Examination (CBE)**

Credit by Examination 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. Students requesting a CBE shall pay a fee of \$25 per credit to the cashier. This fee is non-refundable. Credit will not be given for grades below C. 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.

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.

## **Academic Policy Regarding CLEP Exams**

Students may choose to earn credits by taking a nationally standardized exam known as CLEP (College Level Examination Program). Nashua Community College is an approved testing site for CLEP. The college awards credits for courses in the areas of Composition and Literature, Foreign Languages, Social Sciences, Science and Mathematics. A complete list of the CLEP exams accepted for credit by NCC is available on our website as well as in the Admissions Office and 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). NCC charges an administrative fee of \$25 per exam. For further information and to schedule an appointment, contact the Academic Advising Center at (603) 578-8900 ext 1474. Passing scores for CLEP are 50 and above. 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.

## **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.

## **Prior Learning Assessment**

Credit for prior learning offers students the opportunity to demonstrate the knowledge they have gained through life experiences and apply this knowledge towards 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 prior 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 x current tuition rate x 12 credits).

## 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 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 towards 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 (\$150 per course), reduced time to complete higher education requirements, and increased confidence in high school to college transition.

## 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 not meeting the criteria below will be placed on Academic Probation:

1 – 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: Suspension may be from the program or the institution and is usually for one semester. With the permission of the VPAA, some students may be eligible to continue taking classes as a non-matriculated student. Prior to reapplying for admission, the suspended student must show evidence of having successfully completed, with a 'C' or better, at least two 3-credit courses as a non-matriculated student.

Students not meeting the criteria below will be placed on Academic Suspension:

1 – 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.

## **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 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.

## **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 16 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 opportunity 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 17%. 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 30%. 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 College is proud to report that the percentage of students who began classes in Fall 2013 and continued into Spring 2014 was 72%.

## **Developmental Education Department 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.

1. Students must successfully complete their developmental education courses within 3 enrolled semesters. A plan of study will be developed with the student's advisor to include the sequence of developmental education courses. If a student cannot

finish their developmental courses within three enrolled semesters they must obtain a waiver from the Department Chairperson to continue.

2. Students must take the subsequent developmental education courses in their next enrolled semester of completing the previous one.
3. Pathways to College Success must be successfully completed for students to be considered as finished with their developmental education requirements.
4. Students who test into two or more developmental classes may not take any 200 level classes until successful completion of all developmental education requirements.
5. Developmental Education students may not take an online course during their first enrolled semester.

## **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 problems, needs and interests, the administration and faculty 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 an 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, multi-purpose exercise room, fitness center and locker rooms. 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 all current students who would like to participate in competition. Competition is offered for men, women, and co-ed participants depending on the sport. Competition is provided in the form of games, tournaments and special events each semester. The programs offered are based upon 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.

## Bookstore

The Bookstore serves as a center for the purchase of textbooks and equipment necessary for study at the College. The store is a contract service with Follett Bookstore. The hours of operation are posted on the door. 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.nhctc-nashua.bkstr.com](http://www.nhctc-nashua.bkstr.com).

## Food Services

Café 505 is an on-campus dining facility offering the college community quality food offerings delivered by a staff committed to outstanding service. The café has a core menu plus specials that highlight seasonal foods and culinary trends. Hours of operation are posted [online](#). Additionally, vending machines are available for beverages and snacks.

## Housing

For students who need help locating housing, assistance is available through Student Services. There are no residence halls at the College. Student Services maintains a housing resource page with links to area apartments, classified ads and housing/rental websites. For more information, visit the [Housing Resource](#) page or contact the Admissions Office.

## Graduate Placement

The College is sensitive to the career counseling needs of students and provides a variety of services including computerized career assessment, personal counseling, and interest inventories. Students are assisted in their search for employment through notification of employment opportunities, access to skill building seminars such as resume writing and job search strategies, as well as opportunities for on campus interviews with business representatives. 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 resume 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 resume 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, located in Room 99, assists students with the course selection process, academic concerns, program and degree requirements, transfer options, and other related college practices. The specific hours of operation are posted outside Room 99. Specific contact information and a calendar of activities can be found at [www.nashucc.edu/academic-advising](http://www.nashucc.edu/academic-advising). Students can find the name of their assigned advisor on the Student Information System located on the College's website, [www.nashuacc.edu](http://www.nashuacc.edu) under "e-services."

## Learning Commons

The Learning Commons provides educational support and resources to the College community. Our mission is to offer a friendly environment as we assist you in your college career. These supports include:

The Tutoring Center – Tutoring is available to all students, free of charge. Tutoring is led by faculty members and peer tutors. One-on-one, group, or drop-in tutoring takes place on campus and focuses on the needs of the student.

Disability Services – Students who have documented disabilities may speak with the Disability Coordinator to establish reasonable accommodation plans. Many additional resources are available.

Computer Lab – Students may use the computers to work on their assignments.

Math Center – Staffed by math faculty, the Math Center offers drop-in assistance to all students.

Workshops – Workshops on a variety of subjects are held during the course of each semester.

## The Writing Center

The Writing Center in Room 100 offers students an opportunity to discuss and refine their writing skills through one-on-one sessions with qualified writing consultants. Students will develop self-confidence as writers and have a better understanding of the writing

process. Consulting sessions may focus on research papers, technical reports and other projects such as resume writing and preparing an essay for college transfer.

## English for Speakers of Other Languages

The ESOL Department offers support for non-native speakers of English including language evaluations, advising, tutoring, and social activities such as the International Café, Conversation Partners, and the World Language 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 Professor Elizabeth Berry at (603) 578-6912 or [eberry@ccsnh.edu](mailto:eberry@ccsnh.edu) to set up an appointment.

## Walter R. Peterson Library & Media Center

The Walter R. Peterson Library and Media Center was dedicated in December 2000 in honor of the former Governor of New Hampshire. The 18,000 square foot facility provides traditional library services and a wide range of new media and information technologies. The library houses over 18,000 volumes, 2,000 videos, and 260 journals. A large number of full-text electronic databases is available.

The Walter R. Peterson Library and Media Center contains a large reading room, three conference rooms, a serials room, an electronic classroom, and a faculty/staff instructional development room.

## 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.

If you have a grievance you feel has not been properly resolved by NCC you can access the NH Department of Education, Higher Education Division complaint process through the following link: <http://www.education.nh.gov/highered/compliance-allegation.htm> 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

# 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 falls 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.

## General Education Elective Courses

Elective courses are other courses in liberal arts programs or concentrations 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.*

## General Education: English / Communications – 7 credits minimum

In this group, students demonstrate their ability to communicate effectively through the written and oral format. In literature courses, students demonstrate the ability to interpret and analyze selected works. The course ENGL101N College Composition (4 credits) is required for all students, and is not part of the core. Any one of the other courses listed below will satisfy the requirements for this group.

<b>General Education Core Requirement: English / Communications</b>		<b>Credits</b>
COMM101N	Introduction to Media Studies	3
ENGL102N	Writing about Literature	3
ENGL103N	Professional Writing and Presentations	3
ENGL105N	Introduction to Literature	3
ENGL109N	Oral Communication	3
ENGL122N	Technical Writing	3
ENGL230N or ENGL231N	British Literature I British Literature II	3
ENGL240N or ENGL241N	American Literature I American Literature II	3
<b>General Education Electives: English / Communications</b>		
COMM102N	Principles of Communications	3
COMM115N	Introduction to Media Writing	3
COMM120N	Introduction to Public Relations	3
COMM125N	Introduction to Broadcasting	3



COMM130N	Blog Writing	3
COMM204N	Screenwriting	3
COMM206N	Social Media	3
ENGL206N	Writing Short Stories	3
ENGL215N	Literature by American Women	3
ENGL220N	Honors Contemporary Dramatic Literature	3
ENGL235N	Poetry Workshop	3
ENGL250N	Honors Advanced Creative Writing	3
ENGL255N	Honors Humor in Literature and Other Media	3

## General Education: Science

Through study in this group, students will investigate the laws, scientific methods of inquiry, and theories used to explain the universe, life forms within the universe, and natural phenomena.

General Education Core Requirement: Science		Credits
BIOL101N	Germans 101	4
BIOL105N or BIOL107N	Biology in Focus I Principles of Biology I	4
BIOL115N	Nutrition (no lab)	3
CHEM110N or CHEM130N	Introduction to Chemistry General Chemistry I	4
CHEM135N	Honors The Environment in Chemical Perspective	4
ENVS101N	Environmental Science	4
ENVS105N	Earth Science	4
PHYS101N or PHYS130N	Physical Science I Physics I	4
PHYS115N	Astronomy	4
General Education Electives: Science		
BIOL106N	Biology in Focus II	4
BIOL108N	Principles of Biology II	4
BIOL111N	Basic Human Anatomy and Physiology	4
BIOL130N	Anatomy and Physiology I	4
BIOL131N	Anatomy and Physiology II	4

BIOL201N	Advanced Anatomy and Physiology I	4
BIOL202N	Advanced Anatomy and Physiology II	4
BIOL205N	Basic Pathophysiology (no lab)	3
BIOL210N	Foundations of Microbiology	4
BIOL215N	Microbiology	4
BIOL220N	Ecology	4
BIOL230N	Genetics	4
CHEM131N	General Chemistry II	4
PHYS116N	Meteorology	4
PHYS131N	Physics II	4
PHYS230N	Calculus-Based Physics I	4
PHYS231N	Calculus-Based Physics II	4

### General Education: Behavioral Social Science

In this group, students learn about the interrelationship of individuals with the larger society in which they live. Emphasis is placed on an understanding of the forces within society that help shape the individual.

General Education Core Requirement: Behavioral Social Science		Credits
ANTH108N	Introduction to Archaeology	3
ANTH110N	Cultural Anthropology	3
PSYC101N	Introduction to Psychology	3
PSYC130N	Human Relations	3
PSYC201N	Human Growth and Development	3
SOCI101N	Introduction to Sociology	3
SOCI201N	Contemporary Social Problems	3
SOCI205N	The Changing Family	3
General Education Electives: Behavioral Social Science		
CRMJ101N	Introduction to Criminal Justice	3

CRMJ102N	Criminology	3
PSYC202N	Personality Psychology	3
PSYC205N	Child Psychology	3
PSYC206N	Learning and Behavior	3
PSYC207N	Social Psychology	3
PSYC210N	Abnormal Psychology	3
PSYC212N	Individual Counseling: Theory and Practice	3
PSYC220N	Research Methods	3
PSYC222N	Group Dynamics and Counseling	3
PSYC240N	Alcohol and Drugs	3
PSYC280N	Community Psychology: A Capstone Experience	3
PSYC290N	Psychology Internship: A Capstone Experience	3
SOCI111N	Introduction to Social Work	3
SOCI215N	Sociology of Technology	3
SOCI228N	Social Inequalities: Theory and Practice	3
SOCI250N	Society's Approaches to Health Care Systems	3

### General Education: History / Political Science

Study in this group will help students understand and appreciate divergent views with respect to local, national and international issues. In addition, students will appreciate the nature of cultural and national identity within a growing multicultural setting.

General Education Core Requirement: History / Political Science		Credits
HIST101N or HIST102N	Western Civilization from Ancient Times to 1700 Western Civilization from 1600 to the Present	3
HIST110N	Ancient Civilizations of the World	3

HIST140N or HIST141N	U.S. History from the Colonial Era to Reconstruction U.S. History Since Reconstruction	3
HIST246N	Modern America	3
HIST262N	Honors Movies and Social History of the USA	3
POLS101N	Introduction to Political Science	3
POLS102N	American Government and Politics	3
POLS210N	State and Local Government	3
<b>General Education Electives: History / Political Science</b>		
ECON201N	Microeconomics	3
ECON202N	Macroeconomics	3
HIST210N	The Making of England: 1215-1707	3
HIST215N	New Hampshire History	3
HIST232N	History of Modern Asia	3
HIST241N	American Constitutional History	3
HIST260N	History of Multiculturalism	3
HIST265N	Latin American History: From Independence to the Present	3
HIST285N	Introduction to Historical Research Methods	3
POLS205N	Civic Engagement Project	2
POLS220N	American Politics and Mass Media	3

## General Education: Quantitative Literacy

Through study in this group, students will learn to appreciate logical reasoning, abstraction of ideas, and the analytical approach to problem solving.

<b>General Education Core Requirement: Quantitative Literacy</b>		Credits
MATH106N	Statistics I	4
MATH110N	Algebra and Trigonometry	4
MATH115N	Finite Mathematics	4
MATH120N	Precalculus	4
MATH206N	Statistics II	4
MATH210N	Calculus I	4
<b>General Education Electives: Quantitative Literacy</b>		
MATH108N	Contemporary Mathematics	3
MATH170N	Discrete Mathematics	4
MATH211N	Calculus II	4
MATH212N	Calculus III	4
MATH214N	Honors Calculus I	4
MATH215N	Linear Algebra	4
MATH220N	Differential Equations	4
MATH285N	Individual Project in Mathematics: A Capstone Experience	4

## General Education: Humanities / Fine Arts

Students will explore art, music, and philosophy. Students will be exposed to creative expressions of the imagination and the human intellect.

<b>General Education Core Requirement: Humanities / Fine Arts</b>		Credits
ARTS111N	Photography and Digital Imaging I	3
ARTS120N	Graphic Design Theory	3
HUMA101N	Introduction to the Humanities	3
HUMA102N	Art Appreciation	3
HUMA103N	Music Appreciation	3
HUMA110N	Critical Thinking Skills	3
HUMA130N	Music Composition	3
HUMA230N	Ethics in the Workplace	3
PHIL109N or PHIL130N	Introduction to Philosophy Honors Ancient Greek Philosophy	3
ARTS101N	Introduction to Drawing	3
ARTS112N	Photography and Digital Imaging II	3
<b>General Education Electives: Humanities / Fine Arts</b>		
ARTS200N	Drawing II: Developing a Personal Approach to Drawing	3
HUMA104N	Jazz and Its Roots	3
HUMA120N	Introduction to Theatre	3
HUMA140N	American Cinema	3
HUMA145N	American Popular Culture	3

HUMA220N	Classical Myths in Western Civilization	3
HUMA235N	Law and Ethics for Health Care Providers	3

### General Education: Global Awareness

Students will explore world languages. Students will be exposed to creative expressions of the imagination and the human intellect.

General Education Core Requirement: Global Awareness		Credits
ASL120N	Sign Language I	3
FREN101N	French I	3
GERM101N	German I	3
ITAL109N	Italian I	3
SPAN105N	Spanish I	3
ANTH263N	Honors Introduction to Chinese Culture and Society	3
GEOG110N	World Regional Geography	3
GEOG130N	Human Geography	3
HUMA107N	World Religion	3
General Education Electives: Global Awareness		
ASL121N	Sign Language II	3
ASL220N	Sign Language III	3
ASL221N	Sign Language IV	3
FREN102N	French II	3
GERM102N	German II	3
GERM103N	German III	3

ITAL110N	Italian II	3
SPAN106N	Spanish II	3
SPAN205N	Spanish III	3
SPAN206N	Spanish IV	3

**SPECIAL NOTES:**

While a minimum of 24 credits must be earned to meet the General Education Core Requirements, it is important to note that courses must be completed in the above groups.

With approval of the Vice President of Academic Affairs, other courses may be used to satisfy General Education Core Requirements. The most obvious example in this regard is the transfer of General Education courses from other institutions of higher education.

**Automotive Department General Education Policies**

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

The faculty of the automotive department recognizes the importance of general education courses to the growth and development of students in the automotive program. Each program is designed to provide students with the necessary skills required to pursue careers in any number of the potential opportunities offered within the automotive industry. These programs are designed to 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 who are members of the NCC Automotive Advisory Boards have repeatedly emphasized the fact that these skills, as well as the technical skills are in high demand.

In order to properly develop students with marketable skills that employers will find desirable, as well as meet the requirements of the Associate’s Degree Program offered at NCC, the following guidelines have been established by the NCC Faculty regarding student matriculation in the various automotive programs:

1. All students must take an Accuplacer exam prior to admission into the automotive program. Students that place into 2 or more developmental classes will be required to attend and pass all developmental classes prior to registration into any of the automotive courses. Developmental classes are designed to give students the necessary skills to perform work at a college level. These classes will typically be designated as 09X level classes. Examples: ENGL099N, MATH097N, RDGN096N.
2. If a student is deficient in general education classes as stated by the specific program profile, the student must make up the missing classes in lieu of advancing in the automotive classes until such time as the student has sufficiently met the academic requirements of the program as recommended by the student’s academic advisor.
3. Students cannot be enrolled into a 200 level automotive class if the student is still attending, enrolled into, or needs to pass a developmental class.
4. Students must maintain an effective CGPA to be enrolled in automotive 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 denied from advancing in automotive classes until the student can demonstrate a proper level of academic success.
5. If a student must register for a general education class and there is a conflict between an automotive class and the general education class, the academic class will always take precedence over the automotive 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 graduate or have attained proof of high school completion - AND -
- Have earned the following minimum SAT scores: English score of 550 and Writing score of 8 and/or a Math score of 550 - OR
- Have earned the following minimum Accuplacer scores: Reading 95; Writing 6; Sentence Skills 95 and/or in Math, an 85 in Algebra and 53 in College Level Math.

Current NCC student, having earned at least 9 credits of college-level work with at least 6 credits in General Education courses, and have earned a minimum cumulative GPA of 3.30.

Transfer student from another college/university, have earned a minimum cumulative GPA of 3.30, and have transferred at least 9 credits of college-level work with at least 6 credits in General Education courses.

Transfer student who has 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, students must have:

- Applied and been accepted into the Honors Program
- Successfully completed a minimum of 15 credits of Honors coursework, and:
- Achieved a minimum grade of B- in each Honors course.
- Achieved a minimum cumulative GPA of 3.20 in the degree program.
- Achieved a minimum cumulative GPA of 3.20 in Honors coursework.

HONORS DESIGNATED COURSES				
		CL	LAB	CR
ENGL110N	Honors Expository Writing	4	0	4
CHEM135N	Honors Environment in Chemical Perspective	3	1	4
PHIL130N	Honors Ancient Greek Philosophy	3	0	3
MATH214N	Honors Calculus I	3	0	3
ENGL250N	Honors Advanced Creative Writing	3	0	3
HONN270N	Honors Learning Community	6	0/1	6/7
HONN260N	Topics in Honors Seminar. <i>Previous offerings for HONN260N include:</i>			
HIST262N	Honors Movies and Social History of the USA	3	0	3
ANTH263N	Honors Introduction to Chinese Culture & Society	3	0	3
ENGL255N	Honors Humor in Literature & Other Media	3	0	3

In completing 15 credits of 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.

## Associate in Science in Automotive Technology (Day Program)

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. 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:

- The Automotive Program is accredited by the National Automotive Technicians Education Foundation (NATEF)
- Highly trained ASE Master Certified Instructors
- Modern facility with state of the art equipment

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 web site. The major tool manufacturers offer substantial discounts to enrolled students. The college hosts a “Tool Day” at the college in late August for students needing tools or tool kits. Depending on the tool manufacturer, approximate tool kit cost is between \$1,600 and \$3,500 (prices subject to change).
4. Students are expected to possess a good work ethic and a strong desire to learn.
5. A clean, valid drivers license is normally required for employment in the automotive service industry (see Program Coordinator for details).

Students should familiarize themselves with the Automotive 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.

<b>FIRST YEAR - FALL SEMESTER</b>				
		CL	LAB	CR
AUTO106N	Internal Combustion Engine	2	3	3
AUTO113N	Automotive Electricity and Wiring	2	3	3
AUTO121N	Automotive Service and Maintenance*	2	4	4
ENGL101N	College Composition	4	0	4
		Semester Credits		<b>14</b>
<b>FIRST YEAR- SPRING SEMESTER</b>				
AUTO114N	Automotive Suspension and Steering	2	4	4
AUTO115N	Advanced Automotive Electricity/Electronics	2	3	3
AUTO122N	Automotive Brake Systems	2	4	4

General Education Core Requirement: English / Communications		3	0	3
MATH103N	Topics in Applied College Mathematics <b>or</b>	3	0	3
General Education Core Requirement: Quantitative Literacy		4	0	4
General Education: Open Elective		3	0	3
		Semester Credits		<b>20/21</b>
<b>SECOND YEAR - FALL SEMESTER</b>				
AUTO210N	Engine Performance I	2	3	3
AUTO226N	Automotive Power Trains	2	4	4
AUTO227N	Automatic Transmissions	2	4	4
PHYS101N	Physical Science I	3	2	4
General Education Core Requirement: History / Political Science		3	0	<b>3</b>
		Semester Credits		<b>18</b>
<b>SECOND YEAR- SPRING SEMESTER</b>				
AUTO215N	Engine Performance II	2	3	3
AUTO221N	Automotive Heating and Air Conditioning	2	3	3
AUTO228N	Automotive Engine Repair: A Capstone Experience	2	6	4
General Education Core Requirement: Behavioral Social Science		3	0	<b>3</b>
		Semester Credits		<b>16</b>
		<b>Total Credits</b>		<b>68/69</b>

\*A student must earn a 'C' or better to achieve a passing grade in this course.

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

1. Evaluate, diagnose, and repair various automotive systems using NATEF 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.

## Associate in Science Degree in Aviation Technology (Airframe and Powerplant) (Day Program) FAA Certified Number NSUT025K

The Associate in Science Degree in Aviation Technology prepares men and women 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 License.

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 Technical Standards for details regarding this program.

### AVIATION TECHNOLOGY

FIRST YEAR - FALL SEMESTER				
		CL	LAB	CR
ENGL101N	College Composition	4	0	4
AVTN101N	Maintenance Forms and Records	2	3	3
AVTN102N	Airframe Structures I	2	6	4

AVTN108N	Aviation Drafting and Blueprint Reading	3	0	3
BCPT101N	Computer Technology and Applications	2	3	3
General Education Core Requirement: Quantitative Literacy				
		Semester Credits		<b>14</b>
<b>FIRST YEAR- SPRING SEMESTER</b>				
AVTN103N	Airframe Structures II	3	6	5
AVTN104N	Materials and Process	2	3	3
AVTN106N	Aviation Electronics	2	4	4
PSYC130N	Human Relations	3	0	3
General Education Core Requirement: English/Communications		3	0	3
		Semester Credits		<b>17</b>
<b>SUMMER SEMESTER (9 WEEKS)</b>				
AVTN105N	Airframe Structures II	3	3	4
AVTN202N	Materials and Processes	2	4	3
AVTN203N	Aviation Electronics	3	5	5
		Semester Credits		<b>12</b>
<b>SECOND YEAR- FALL SEMESTER</b>				
AVTN107N	Digital Logic	2	3	3
AVTN204N	Assembly and 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
		Semester Credits		<b>22</b>
<b>SECOND YEAR-SPRING SEMESTER</b>				
AVTN207N	Reciprocating Engines II*	<b>3</b>	6	<b>5</b>
AVTN210N	Turbine Engines and Systems*	<b>3</b>	3	4
AVTN211N	Carburetion and Fuel Systems*	2	3	<b>3</b>
AVTN212N	Engine Electrical Systems*	2	6	4
General Education Core Requirement: History / Political Science		<b>3</b>	0	<b>3</b>
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		<b>3</b>	0	<b>3</b>
		Semester Credits		<b>22</b>
		<b>Total credits</b>		<b>94</b>

\*A student must have completed all FAA General Section courses or possess an FAA Airframe Certificate to be eligible to take these courses.

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.

## The Associate in Science Degree in Business Administration: Accounting Concentration (Day/Evening Program)

The mission of the Department of Business and Technology 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 with a concentration in Accounting offers a mix of both applied and theoretical courses. Specifically, the Accounting concentration 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 with a concentration in Accounting.

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

### BUSINESS ADMINISTRATION: ACCOUNTING

<b>FIRST YEAR- FALL SEMESTER</b>				
ACCT101N	Financial Accounting I	4	1	4
BUS101N	Introduction to Business	3	0	3
BCPT101N	Computer Technology and Applications	2	2	3
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
		Semester Credits		<b>15</b>
<b>FIRST YEAR-SPRING SEMESTER</b>				
ACCT102N	Financial Accounting II	4	0	4
BUS110N	Principles of Management	3	0	3
BCPT208N	Spreadsheet: Excel	2	2	3



General Education Core Requirement: English / Communications	3	0	3
General Education Core Requirement: Quantitative Literacy *	4	0	4
	Semester Credits		17

## SECOND YEAR - FALL SEMESTER

ECON201N	Microeconomics	3	0	3
ACCT201N	Intermediate Accounting	4	0	4
ACCT206N	Cost Accounting	4	0	4
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				17

## SPRING SEMESTER

BUS240N	Business Law	3	0	3
ACCT202N	Intermediate Accounting II	4	0	4
ACCT214N	Accounting Information Systems	3	0	3
ACCT290N	Accounting Internship	1	8	3
OR				
XXXXxxxN	Open Elective**	3	0	3
General Education Core Requirement: Science		3	2/3	4
				17

## Total 66 Credits

\*MATH106N, MATH110N or MATH115N is recommended.

\*\*Consult with advisor.

Upon the completion of the degree in Business Administration with a concentration in 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.

## **Associate in Science Degree in Business Administration: Management Concentration**

The mission of the Department of Business and Technology 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 with a concentration 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 concentration is designed for easy transfer to Bachelor degree programs.

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

### **BUSINESS ADMINISTRATION: MANAGEMENT**

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
BUS101N	Introduction to Business	3	0	3
BCPT101N	Computer Technology and Applications	2	2	3
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
				15

**SPRING SEMESTER**

ACCT102N	Financial Accounting II	4	0	4
BUS110N	Principles of Management	3	0	3
General Education Core Requirement: Science		3	2/3	4
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: Quantitative Literacy *		4	0	4
				18

**SECOND YEAR - FALL SEMESTER**

ECON201N	Microeconomics	3	0	3
BUS230N	Introduction to MIS	3	0	3
ACCT210N	Managerial Accounting	3	0	3
BCPT119N	Software Applications	2	2	3
ENGL109N	Oral Communication	3	0	3
General Education Core Requirement: Quantitative Literacy *		3	0	3
				18

**SPRING SEMESTER**

ECON202N	Macroeconomics	3	0	3
BUS240N	Business Law	3	0	3
BUS204N	Small Business Management	3	0	3
BUS201N	Human Resources Management	3	0	3
BUS290N	Management/Small Business Entrepreneurship Internship	1	8	3
<b>-OR-</b>				
XXXXxxxN	Open Elective**	3	0	3
				15

**Total 66 Credits**

\*MATH106N or MATH110N is recommended

\*\*Consult with advisor

Upon the completion of the degree in Business Administration with a concentration in Management:

1. Students will demonstrate an appropriate application of contemporary management skills and practices in solving real-life business problems.
2. Students will 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. Students will demonstrate an understanding of management theories designed to develop programs to motivate staff.

4. Students will demonstrate the ability to apply financial management skills to meet organizations objectives, compete effectively, and organize data efficiently.
5. Students will 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. Students will 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. Students will demonstrate the ability to utilize research techniques and analytical skills in evaluating business problems in order to develop problem-solving strategies.
8. Students will demonstrate an understanding of various ethical principles and their application in various global business scenarios.

## **Associate in Science Degree in Business Administration: Marketing Concentration**

The mission of the Department of Business and Technology 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 with a concentration 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 degree programs.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

### **BUSINESS ADMINISTRATION: MARKETING**

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
BUS101N	Introduction to Business	3	0	3
BCPT101N	Computer Technology and Applications	2	2	3
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
				15

**SPRING SEMESTER**

BUS104N	Principles of Marketing	3	0	3
MATH106N	Statistics I	4	0	4
BUS213N	Principles of Advertising	3	0	3
CSCI102N	Website Development I	2	2	3
General Education Core Requirement: Science		3	2/3	4
				17

**SECOND YEAR - FALL SEMESTER**

ECON201N	Microeconomics	3	0	3
BUS207N	Sales	3	0	3
BCPT216N	Desktop Publishing	2	2	3
BCPT119N	Software Applications	2	2	3
ENGL109N	Oral Communication	3	0	3
BUS215N	Integrated Marketing Communications	3	0	3
				18

**SPRING SEMESTER**

BUS240N	Business Law	3	0	3
BUS210N	Marketing Strategies: A Capstone Experience	3	0	3
SOCI101N	Introduction to Sociology	3	0	3
BUS294N	Marketing Internship	1	8	3
OR				
XXXXxxxN	Open Elective*	3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				15

**Total 65 Credits**

\*Consult with advisor

Upon the completion of the degree in Business Administration with a concentration in Marketing:

1. Students will demonstrate the ability to apply principles of marketing management to problem-solving activities within corporate and small business scenarios.
2. Students will demonstrate the ability to research, analyze, develop and execute a theoretical marketing plan.
3. Students will demonstrate the ability to apply sales, promotions, merchandising, selling, and consumer behavior models to domestic and international business scenarios.
4. Students will demonstrate an understanding of opportunities and effects of integrated promotional efforts
5. Students will demonstrate an understanding of the importance of relationship marketing.

6. Students will demonstrate the ability to work cooperatively with team members to solve business problem scenarios.
7. Students will demonstrate the ability to use inductive and deductive logic in team settings to understand, solve, and present business problem solutions.
8. Students will demonstrate the ability to work with limited resources of time, money and human capital in developing effective marketing strategies.
9. Students will 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.

## **Associate in Science Degree in Business Administration: Small Business Entrepreneurship Concentration**

The mission of the Department of Business and Technology 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 with a concentration 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.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

### **BUSINESS ADMINISTRATION: SMALL BUSINESS ENTREPRENEURSHIP**

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
BCPT101N	Computer Technology and Applications	2	2	3
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
General Education Core Requirement: Behavioral Social Science		3	0	3

15

**SPRING SEMESTER**

BUS110N	Principles of Management	3	0	3
ACCT102N	Financial Accounting II	4	0	4
BUS104N	Principles of Marketing	3	0	3
General Education Core Requirement: English / Communications		3	0	3
General Education Core Requirement: Quantitative Literacy *		4	0	4
				17

**SECOND YEAR - FALL SEMESTER**

BUS207N	Sales	3	0	3
BCPT216N	Desktop Publishing	2	2	3
BUS213N	Principles of Advertising	3	0	3
BCPT119N	Software Applications	2	2	3
General Education Core Requirement: History / Political Science		3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				18

**SPRING SEMESTER**

BUS201N	Human Resources Management	3	0	3
CSCI102N	Website Development I	2	2	3
BUS204N	Small Business Management: A Capstone Experience	3	0	3
BUS290N	Management/Small Business Entrepreneurship Internship	1	8	3
OR				
XXXXxxxN	Open Elective**	3	0	3
General Education Core Requirement: Science		3	2/3	4
				16

**Total 66 Credits**

\*MATH106N, MATH110N or MATH115N is recommended

\*\*Consult with advisor

Upon the completion of the degree in Business Administration with a concentration in Small Business Entrepreneurship:

1. Students will demonstrate the capability and initiative to identify entrepreneurial opportunities, as well as assessing and evaluating risks by developing a theoretical business plan.
2. Students will demonstrate the ability to prepare, communicate, and present a business plan to a professional audience.
3. Students will demonstrate the ability to conceptualize, plan, finance, manage, and grow a mock small business.

4. Students will demonstrate a working knowledge of research and analytical skills necessary by developing a comprehensive business plan for a successful new business venture.
5. Students will demonstrate the ability to develop tactical, operational, and strategic plans.
6. Students will 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. Students will demonstrate the ability to utilize promotional and public relations concepts, theories and models to develop marketing strategies.
8. Students will demonstrate the ability to synthesize previous coursework while assessing management strengths and weaknesses of business entities.

## Business Studies Certificates

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		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
BCPT101N	Computer Technology and Applications	2	2	3
ACCT102N	Financial Accounting II	4	0	4
BCPT208N	Spreadsheets: Excel	2	2	3
<b>Total 14 Credits</b>				

### Accounting Certificate II

(Prerequisite: Completion of Accounting Certificate I)

Spring Semester		CL	LAB	CR
ACCT201N	Intermediate Accounting I	4	0	4
ACCT214N	Accounting Information Systems	3	0	3
ACCT202N	Intermediate Accounting II	4	0	4
ACCT206N	Cost Accounting	4	0	4
<b>Total 15 Credits</b>				

### Accounting Certificate III

		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
ACCT102N	Financial Accounting II	4	0	4
BUS110N	Principles of Management	3	0	3
BCPT101N	Computer Technology and Applications	2	2	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
General Education Core Requirement: Quantitative Literacy *		4	0	4

**Total 33 Credits**

\*MATH106N or MATH115N is recommended.

### Computer Information Systems Certificate

		CL	LAB	CR
BCPT101N	Computer Technology and Applications	2	2	3
BCPT204N	Word Processing: Word	2	2	3
BCPT208N	Spreadsheets: Excel	2	2	3
BCPT213N	Database Management: Access	2	2	3
BCPT216N	Desktop Publishing	2	2	3
CSCI102N	Website Development I	2	2	3

**Total 18 Credits**

### Human Resources Management Certificate (Day/Evening Program)

		CL	LAB	CR
BUS110N	Principles of Management	3	0	3
BUS240N	Business Law	3	0	3
BUS202N	Labor Relations Management	3	0	3
BUS201N	Human Resource Management	3	0	3

**Total 12 Credits**

### Marketing Certificate

		CL	LAB	CR
BUS104N	Principles of Marketing	3	0	3
BUS213N	Principles of Advertising	3	0	3
BUS210N	Marketing Strategies	3	0	3
BUS207N	Sales	3	0	3

**Total 12 Credits**

## Small Business Management Certificate (Day/Evening Program)

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

		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
BUS104N	Principles of Marketing	3	0	3
BUS110N	Principles of Management	3	0	3
BCPT101N	Computer Technology and Applications	2	2	3
CSCI102N	Website Development I	2	2	3
BUS201N	Human Resources Management	3	0	3
BUS204N	Small Business Management	3	0	3
<b>Total 22 Credits</b>				

## Spreadsheet Certificate

		CL	LAB	CR
BCPT101N	Computer Technology and Applications	2	2	3
ACCT101N	Financial Accounting I	4	1	4
BCPT119N	Software Applications	2	2	3
BCPT208N	Spreadsheets: Excel	2	2	3
General Education Core Requirement: Quantitative Literacy *		4	0	4
<b>Total 17 Credits</b>				

\*MATH106N or MATH115N is recommended.

## Associate in Science in Collision Repair Technology (Day Program)

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

- A heated, down-draft spray booth
- A drive-on frame straightening machine and universal measuring system
- An environmentally friendly waterborne paint mixing system
- HVLP Spray Equipment

This program is accredited by the National Automotive Technicians Education Foundation (NATEF).

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 \$1600.00 and \$3500.00 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 clean, valid drivers license is normally required for employment in the automotive repair industry. (See Program Coordinator for details.)

Students should familiarize themselves with the Automotive Department General Education Policies located in the General Education Policies section of this Catalog

Technical Standards: Please refer to Technical Standards Section 2 for details regarding this program.

## COLLISION REPAIR TECHNOLOGY

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
AUTO121N	Automotive Service and Maintenance*	2	4	4
CRTN101	Basic Collision Repair*	2	6	4
ENGL101N	College Composition	4	0	4
				12
<b>SPRING SEMESTER</b>				
AUTO114N	Automotive Suspension and Steering	2	4	4
CRTN105N	Basic Auto Body Refinishing	2	6	4
General Education Core Requirement: English / Communications		3	0	3
MATH103N	Topics in Applied College Mathematics	3	0	3
OR				
General Education Core Requirement: Quantitative Literacy		4	0	4
General Education: Open Elective		3	0	3
				17/18
<b>SECOND YEAR - FALL SEMESTER</b>				
AUTO113N	Automotive Electricity and Wiring	2	3	3
CRTN201N	Advanced Collision Repair	2	4	4
CRTN210N	Structural Analysis & Repair	2	4	4
PHYS101N	Physical Science I	3	2	4
CRTN235N	Collision Mechanical and Electrical Systems	2	3	3

General Education Core Requirement: History / Political Science	3	0	3
			21

### SPRING SEMESTER

AUTO221N	Automotive Heating and Air Conditioning	2	3	3
CRTN225N	Advanced Automotive Refinishing	2	8	5
CRTN230N	Collision Estimating & Repair: A Capstone Experience	2	6	4
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				18

### Total 68/69 Credits

\*A student must earn a 'C' or better to achieve a passing grade in this course.

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

1. Evaluate, diagnose, and repair various automotive systems using NATEF 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.

## Associate in Science in Computer Networking (Day/Evening Program)

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 Section 6 for details regarding this program.

# COMPUTER NETWORKING

## FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGL101N	College Composition	4	0	4
CSCI101N	PC Assembly/Operating Systems	2	3	3
CSCI104N	Introduction to Telecommunications	2	2	3
CSCI116N	Networking Basics	2	2	3
General Education Core Requirement: History / Political Science		3	0	3
				16

## SPRING SEMESTER

CSCI216N	Routing & Switching Essentials	3	3	4
CSCI161N	Intro to Programming	2	2	3
General Core Education Requirement: English / Communications		3	0	3
General Core Education Requirement: Quantitative Literacy *		3	0	4
Elective in Major**		3	0	3
				17

## SECOND YEAR - FALL SEMESTER

		CL	LAB	CR
CSCI203N	Introduction to UNIX	2	2	3
CSCI204N	Administering Windows Servers	2	2	3
CSCI217N	Scaling Networks	2	2	3
General Education Core Requirement: Behavioral Social Science		3	0	3
CSCI207N	Database Design and Management			
OR				
BCPT213N	Database Management: ACCESS	2	2	3
				15

## SPRING SEMESTER

CSCI210N	Advanced Windows Servers	2	2	3
Elective in the Major**		3	0	3
General Education Core Requirement: Science ***		3	2/3	4
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
CSCI290N	Computer Science Internship	1	8	3

OR

CSCI286N	Networking Capstone Project	3	0	3
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OR

CSCI250N	CCNA Security	2	2	3
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**Total 64 Credits**

\*MATH106N, MATH110N, MATH115N or higher required

\*\*Electives in Major: CSCI, ELET, BCPT, or BUS230N

\*\*\* PHYS101N recommended

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

1. Assemble the components of a PC and install one or more operating systems resulting in a functioning PC that is appropriate for a particular end user.
2. Design a small or medium sized computer network including media types, end devices, and interconnecting devices that meets a customer's specific needs.
3. Perform basic configurations on routers and Ethernet switches.
4. Perform basic tasks expected of a Network Administrator including management of user accounts, shared resources, and network security.
5. Perform operational tasks within a Linux environment, such as the creation and management of files.
6. Construct simple computer programs that accomplish a given task.
7. Perform standard database management operations, such as query creation, query execution and output of results.
8. Use the Internet effectively for learning and troubleshooting.
9. Apply critical thinking skills to resolve troubleshooting issues.
10. Communicate technical information to both technical and non-technical audiences in both written and oral form.
11. Relate networking functions to the OSI model and the TCP/IP protocol stack.
12. Participate effectively as a member of a team.

## Computer Science Certificates

### COMPUTER NETWORKING CERTIFICATE (Day/Evening Program)

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.

		CL	LAB	CR
CSCI101N	PC Assembly/Operating Systems	2	3	3
CSCI116N	Networking Basics	2	2	3
CSCI216N	Routing & Switching Fundamentals	3	3	4
CSCI217N	Scaling Networks	2	2	3
CSCI203N	Introduction to UNIX	2	2	3

CSCI204N	Administering Windows Servers	2	2	3
Choice of CSCI105N, CSCI210N, or CSCI218N		2	2	3

**Total 22 Credits**

### INTERNET DEVELOPER CERTIFICATE (Day/Evening Program)

The Internet Developer Certificate program is designed for working professionals wanting to supplement their existing software development skills with web application skills. An interview with the Web Application Development Program Coordinator is required for admission into the program. Students completing this certificate program will have knowledge of the following competencies:

1. Demonstrate the ability to create static or dynamic web sites in accordance with the web site's purpose utilizing graphic design concepts.
2. Understand the client/server model and the differences between developing software in this environment and the traditional environment.
3. Demonstrate the ability to develop client-side scripts, to validate form data locally or remotely or modify the web page's content via the DOM.
4. Demonstrate the ability to develop server-side scripts to access and maintain data stored either in a flat file or a database.
5. Describe and draw Entity-Relationship diagrams in accordance with a stated problems needs.
6. Use the SQL query language to implement database schemas and the necessary referential integrity.
7. Use the SQL query language to query or update the data stored in the database relations.

		CL	LAB	CR
CSCI102N	Website Development I	2	2	3
CSCI103N	Website Development II	2	2	3
ARTS120N	Introduction to Graphic Design Theory	2	2	3
CSCI201N	Client-Side Scripting Using JavaScript	2	2	3
CSCI206N	Server-Side Scripting Using PHP	2	2	3
CSCI207N	Database Design and Management	2	2	3

**Total 18 Credits**

### WEBSITE DESIGN CERTIFICATE (Day/Evening Program)

The Website Design Certificate program is designed to teach the fundamental information needed to develop and maintain a website. Common web development tools, including HTML, graphics and multimedia are introduced as well as use of web servers and browsers. UNIX and its use and impact on the Internet will also be covered.

		CL	LAB	CR
CSCI106N	Introduction to Software and Web Development	3	0	3
CSCI102N	Website Development I	2	2	3
CSCI103N	Website Development II	2	2	3
CSCI161N	Introduction to Programming	2	2	3
CSCI175N	Intermediate Programming Using C++	2	2	3
CSCI201N	Client-Side Scripting Using JavaScript	2	2	3
CPTN206N	Server Side Scripting Using PHP	2	2	3
CSCI207N	Database Design and Management	2	2	3

## Associate in Science in Criminal Justice (Day Program)

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's 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 Section 4 for details regarding this program.

### CRIMINAL JUSTICE

<b>First Year Fall Semester</b>		CL	LAB	CR
ENGL101N	College Composition	4	0	4
BCPT101N	Computer Technology & Application	2	2	3
CRMJ101N	Introduction to Criminal Justice	3	0	3
CRMJ102N	Criminology	3	0	3
SOCI101N	Introduction to Sociology	3	0	3
				16
<b>Spring Semester</b>				
ENGL109N	Oral Communications	3	0	3
MATH108N	Contemporary Mathematics	3	0	3
CRMJ121N	Criminal Investigations	3	0	3
CRMJ122N	Law Enforcement Organizations	3	0	3
PSYC101N	Introduction to Psychology	3	0	3
				15
<b>Summer Semester</b>				
General Education Core Requirement: Behavioral Social Science		3	0	3
<b>Second Year – Fall Semester</b>				
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
				15

**Spring Semester**

General Education Core Requirement: Science		3	0	3
General Education Core Requirement: History / Political Science		3	0	3
CRMJ260N	Criminal Procedure	3	0	3
CRMJ265	Corrections	3	0	3
CRMJ280N	Criminal Justice Internship -OR-			
CRMJ285N	Criminal Justice Senior Project	3	0	3
				15

**Awarding of Associate Degree Total 64 Credits**

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 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.

## Criminal Justice 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.

### CRIMINAL JUSTICE

<b>FALL SEMESTER</b>		CL	LAB	CR
ENGL101N	College Composition	4	0	4
BCPT101N	Computer Technology & Application	2	2	3
CRMJ101N	Introduction to Criminal Justice	3	0	3

CRMJ102N	Criminology	3	0	3
SOCI101N	Introduction to Sociology	3	0	3
				16

**SPRING SEMESTER**

ENGL109N	Oral Communications	3	0	3
MATH108N	Contemporary Mathematics	3	0	3
CRMJ121N	Criminal Investigations	3	0	3
CRMJ122N	Law Enforcement Organizations	3	0	3
PSYC101N	Introduction to Psychology	3	0	3
				15

**Total 31 Credits**

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.

## **Associate in Science in Culinary Arts (Day Program)**

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 jobs 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.

### **CULINARY ARTS**

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
CULA102N	Principles of Culinary Arts	2	2	3
CULA105N	Food Safety and Sanitation	2	2	3

CULA110N	Basic Food Preparation	1	4	3
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
MATH103N	Topics in Applied College Mathematics	3	0	3
				17

**FIRST YEAR – SPRING SEMESTER**

BCPT101N	Computer Technology and Applications	2	2	3
CULA112N	American Regional Cuisine	1	4	3
CULA120N	Fundamentals of Baking	1	4	3
CULA130N	Menu Development	2	2	3
CULA140N	Nutritional Cuisine	3	0	3
General Education: Open Elective		3	0	3
				18

**SECOND YEAR – FALL SEMESTER**

CULA210N	Intermediate Food Preparation	1	4	3
CULA220N	Food Service Purchasing and Cost Controls	2	0	2
General Education Core Requirement: Humanities / Fine Arts		3	0	3
General Education Core Requirement: History / Political Science		3	0	3
PSYC130N	Human Relations	3	0	3
BIOL115N	Nutrition	3	0	3
				17

**SECOND YEAR – SPRING SEMESTER**

CULA212N	International Cuisine	1	6	4
CULA215N	Garde Manger	1	4	3
CULA235N	Dining Room Service	1	4	3
General Education Core Requirement: English / Communications		3	0	3
CULA290N	*Culinary Internship	1	9	4
				17

**Total 69 Credits**

\*An approved uniform and knife set are required at the start of the program.  
A student must earn a 'C' or better in Culinary Arts classes in order to progress to the next culinary class.

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 relationships, safety 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, beverage management, and storeroom procedures.
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.

## **Associate in Science in Early Childhood Education (Day/Evening Program)**

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 Service Learning opportunities 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.

Candidates must also have a current health form 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. Students must demonstrate sufficient emotional and physical stability to withstand the stresses of ever-changing circumstances and have the ability to respond quickly and appropriately to unexpected child-related events. Students will be required to adhere to the NAEYC Ethical Code of Professional Conduct with regard to interpersonal relationships with teachers, fellow students, children and their families.

### **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.

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.

## EARLY CHILDHOOD EDUCATION

FIRST YEAR - FALL SEMESTER		CL	LAB	CR
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
BCPT101N	Computer Technology and Applications	2	2	3
FYE101N	First Year Experience	1	0	1

General Education Core Requirement: Quantitative Literacy *	3/4	0	3/4
			17/18

**SPRING SEMESTER**

ECE103N	Safe Healthy ECE Programs	3	0	3
ECE104N	Curriculum for Early Childhood Care and Education	3	0	3
ECE105N	Children with Special Needs and Their Families	3	0	3
PSYC101N	Introduction to Psychology	3	0	3
General Education Core Requirement: Science		3	2/3	4
				16

**SECOND YEAR - FALL SEMESTER**

ECE190N	Early Childhood Education Practicum I	1	8	3
ECE200N	Programs for Infants and Toddlers	3	0	3
ECE204N	Behavior Guidance and Classroom Management	3	0	3
ECE215N	Creativity and the Young Child	3	0	3
General Education Core Requirement: English / Communications		3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				18

**SPRING SEMESTER**

ECE203N	Emerging Literacy in Early Childhood Education	3	0	3
ECE290N	Early Childhood Education Capstone Course	1	8	3
ECE230N	The ECE Profession and the ECE Portfolio	1	0	1
General Education Core Requirement: History / Political Science**		3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness**		3	0	3
ECE201N	Organization and Management in Early Childhood Education**	3	0	3
OR				
General Education Core Requirement: Behavioral Social Science**		3	0	3
				16

**Total 67/68 Credits**

This degree meets requirements for State of New Hampshire DHHS Child Development Bureau credential of Lead Teacher Level 2.

\*MATH103N will meet this requirement

\*\*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.

## Early Childhood Education 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, Child Care Bureau 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.

Upon completion of the ECE certificate, students may enter NH Child Care and Early Childhood Education programs as lead teachers, associate level teacher, assistant level teacher.

### EARLY CHILDHOOD EDUCATION CERTIFICATE

		CL	LAB	CR
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
ECE101N	Foundations of Early Childhood Education	3	0	3
ECE102N	Growth and Development of the Young Child	3	0	3
ECE103N	Safe and Healthy Programs in Early Childhood Education	3	0	3
ECE104N	Curriculum for Early Childhood Care and Education	3	0	3
ECE190N	Early Childhood Education Practicum I	1	8	3
ECE230N	The ECE Profession and Professional Portfolio	1	0	1
ECE200N	Dev. App. Programs for Infants and Toddlers*	3	0	3
	OR			
ECE105N	Children with Special Needs and their Families*	3	0	3
	OR			
ECE204N	Guidance and Classroom Management*	3	0	3

#### Total 24 Credits

Meets requirements for State of New Hampshire credential of Associate Level 4 Teacher.

\* Students are advised to meet with their advisor and choose appropriate courses depending on their goals and work requirements.

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

1. Use their knowledge and understanding of the young child's development to provide opportunities and environments that support the physical, social, emotional, language, cognitive, and creative development and learning of children birth through age eight.
2. Understand, respect, and value the need for supportive relationships with the families of young children in relationship to the child's development and learning.
3. Understand and mindfully assist in and use informal and formal observation, documentation and assessment strategies and techniques to plan and individualize the learning environment, curriculum and teacher interactions and practices for young children.
4. Assist in the establishment and maintenance of positive and supportive relationships with young children in an environment that has been designed to be a physically, cognitively, emotionally, and psychologically respectful and healthy learning environment for all young children.
5. Demonstrate college level proficiency in the skills of written and verbal communication.

## Associate in Arts in Educator Preparation (Day/Evening Program)

The Associate in Arts Degree in Educator Preparation offered by Nashua Community College is designed to prepare students to transfer to Educator Preparation Programs at four-year colleges and universities or to work as Paraeducators in school settings.

The Educator Preparation program has been designed using the NH Department of Education Professional Educator Preparation Programs standards and the recommendations of the NH Task Force on Effective Teaching. The degree establishes requirements in three areas: 1) general education; 2) educator preparation; and 3) a major area of concentration.

The *general education* area is a coherent and substantive balance in English and literature; science; mathematics; social science; and humanities/arts/world language. *Educator preparation* courses are designed first to help students determine *if* teaching is a truly career of interest; to provide beginning knowledge, skills and dispositions of effective teachers as they prepare to transfer to four-year institutions; and finally to offer the entry level courses which transfer to many four-year colleges/universities. At the beginning of their Educator Preparation program, all students should also select a *major area of concentration* from one of the following areas: Humanities, Fine Arts, Social sciences, mathematics, sciences, or an interdisciplinary program.

Field-based experiences are required in most Educator Preparation courses. Students are expected to provide their own transportation to these sites. Professional language, behavior and dress are expected at all sites. Students must demonstrate that they have sufficient social, emotional, and physical ability to respond quickly and appropriately to unexpected student and classroom situations.

Students should be advised that NH law requires those *working* in a public school be free of criminal convictions and be fingerprinted. There may be a fee for fingerprinting for NCC Educator Preparation students prior to beginning school observations at *some* schools.

NCC Students are required to take the Praxis Core of Academic Skills for Educators prior to graduation. Students should be aware that college admissions to four-year Educator Preparation programs require a *passing score* on the Praxis and most require a GPA of 2.5 or *higher*. Electives should be taken that assure students are able to meet these requirements.

Because each four-year institution has unique requirements for its Educator Preparation program, it is imperative that, early in their college career, students consider to which institutions they may wish to transfer to be prepared with the appropriate course requirements *for* transfer. Students should contact NCC Academic Advising or the Coordinator of Educator Preparation to be sure their planned program will prepare them for their futures.

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

1. Demonstrate an awareness of and a beginning understanding of the teaching profession in regard to its historical context, the implications of the profession, and the role played by various educational delivery systems in contemporary society;
2. Articulate a beginning philosophy of education that incorporates an understanding of relevant theories and models of education and addresses the needs of diverse learners in the 21st century environment;
3. Demonstrate comprehensive knowledge and skills of literature, science, mathematics, social sciences, and humanities, fine arts/world language and the ways in which society transfers such knowledge to its youth;
4. Demonstrate the ability to make informed decisions in regard to an in-depth study in a particular area based on the student's chosen goals, teaching field, and the need for continued learning;



5. Demonstrate an appreciation for and the beginning knowledge of the skills and dispositions of a highly effective teacher based upon the NH Department of Education Certification of Educational Personnel and related requirements;
6. Demonstrate a beginning understanding and knowledge of curriculum, instruction and assessment as it aligns with requirements of the New Hampshire Department of Education standards.

## EDUCATOR PREPARATION PROGRAM

<b>FIRST YEAR – FALL SEMESTER</b>		CL	LAB	CR
EDU130N	Foundations of Education	3	0	3
ENGL101N	College Composition	4	0	4
General Education Core Requirement: Behavioral Social Science (PSYC101N recommended)		3	0	3
General Education Core Requirement: Science*		3	2/3	4
General Education Core Requirement: Humanities/Fine Arts OR Global Awareness*		3	0	3
				17
 <b>SPRING SEMESTER</b>				
EDU132N	Introduction to Exceptionalities	3	0	3
General Education Core Requirement: English/Communications*		3	0	3
General Education Core Requirement: Quantitative Literacy (MATH106N recommended)		4	0	4
General Education Core Requirement: History/Political Science*		3	0	3
General Education Core Requirement: Behavioral Social Science (PSYC 201N recommended)		3	0	3
				16
 <b>SECOND YEAR – FALL SEMESTER</b>				
EDU131N	Teaching with Technology	2	2	3
General Education Core: Quantitative Literacy (MATH110N or higher recommended)		4	0	4
XXXX xxxx	(Education Elective recommended)*	3	0	3
General Education Elective (or Core Requirement) Humanities/Fine Arts OR Global Awareness*		3	0	3
EDUxxxN	Elective in Major Concentration*	3	0	3
				16
 <b>SPRING SEMESTER</b>				
EDU240N	Creating Positive Learning Environments	3	0	3
General Education Elective (or Core Requirement) Humanities/Fine Arts OR Global Awareness*		3	0	3
General Education Core: Science (must have a lab)*		3	2/3	4
XXXXxxxN	Elective in Major Concentration*	3	0	3
XXXXxxxN	Elective in Major Concentration*	3	0	3

**Minimum Total 65****\*Consult with advisor for transfer**

Notes: Expectations for four-year institutions vary. Students should investigate their future choice(s) in four-year institutions to determine elective coursework and meet with an advisor to discuss all course selections. Course selections should prepare students to pass Praxis Core of Academic Skills for Educators prior to graduation. For assistance, contact Academic Advising or the Program Coordinator for Educator Preparation.

**PARA EDUCATOR II CERTIFICATES**  
**EARLY CHILDHOOD PARA EDUCATOR II CERTIFICATE (Focus on K - Grade 3)**

	CL	LAB	CR
ECE105N Children with Special Needs and their Families	3	0	3
MATH103 Topics in Applied College Mathematics	3	0	3
<b>- OR -</b>			
MATH110N Algebra & Trigonometry	4	0	4
ENGL101N College Composition	4	0	4
ECE204N Behavior Guidance and Classroom Management in Early Childhood Education	3	0	3
ECE203N Emerging Literacy in Early Childhood Education	3	0	3
			Total Credits 16/17

**SCHOOL-AGED PARA EDUCATOR II CERTIFICATE (Focus on Grades 3 - 12)**

	CL	LAB	CR
ENGL101N College Composition	4	0	4
EDU132N Introduction to Exceptionalities	3	0	3
EDU135N Supporting Reading and Writing Skills of Diverse Learners	3	0	3
MATH110N Algebra & Trigonometry	4	0	4
EDU240N Creating Positive Learning Environments	3	0	3
			Total Credits 17

# Associate in Science in Electronic Engineering Technology (Day/Evening Program)

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 Object Oriented C++ programming and embedded controllers 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's Degree is the Engineering Technician, with positive job growth at 5% expected through 2018.

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 required. Other high school courses such as physics, chemistry, electronics and computer programming are recommended. 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 Electronic Engineering Technology Associate Degree Program are to provide students with:

1. A broad understanding of fundamental engineering knowledge and technical skills to analyze and solve complex technical problems in the electronics industry.
2. Proficiency in digital and analog circuit analysis, circuit design and laboratory techniques used in the electronics industry.
3. Effective oral and written communications skills at a level of effectiveness expected in industry employees
4. An ability to ethically and professionally perform in business and society including a respect for diversity and a need to contribute to the community.
5. The skills needed to obtain competitively compensated entry-level positions and/or pursue admissions into programs of advanced study and/or lifelong learning.

Technical Standards: Please refer to Technical Standards Section 5 for details regarding this program.

## ELECTRONIC ENGINEERING TECHNOLOGY

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
PSYC130N	Human Relations -OR-	3	0	3
General Education Core Requirement Elective: Behavioral Social Science				
ELET121N	Digital Circuits I	2	2	3
ELET131N	Circuit Analysis I	3	3	4
ENGL101N	College Composition	4	0	4
MATH110N	Algebra and Trigonometry	4	0	4
				18

**SPRING SEMESTER**

ELET132N	Circuit Analysis II	3	3	4
ELET141N	Electronics I	3	3	4
ENGL103N	Professional Writing and Presentations	3	0	3
MATH120N	Precalculus	4	0	4
CSCI175N	Intermediate Programming using C++	2	2	3
				18

**SECOND YEAR - FALL SEMESTER**

ELET250N	MicroControllers	3	3	4
ELET241N	Electronics II	3	3	4
HUMA230N	Ethics in Workplace	3	0	3
MATH210N	Calculus I	4	0	4
PHYS130N	Physics I	3	3	4
				19

**SPRING SEMESTER**

ELET221N	Advanced Digital Circuits	3	3	4
ELET245N	Communications Theory <b>and/or</b>	2	2	3
MATH211N	Calculus II	4	0	4
ELET274N	EET Capstone Project	1	3	2
PHYS131N	Physics II	3	3	4
				13/17

**Total 68-72 Credits**

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

1. Utilize mathematics, physics and engineering knowledge to solve technical problems.
2. Apply analog and digital circuit design techniques to the building, testing, and maintenance of electrical/ electronic circuits.
3. Apply microcontrollers to the building, testing, operation, and maintenance of electrical/electronic circuits.
4. Analyze and interpret data to utilize for ongoing research or as part of a multi-step problem.
5. Demonstrate a respect for diversity and knowledge of contemporary professional, societal, and global issues.
6. Communicate effectively in written and oral formats.
7. Function effectively on teams.
8. Understand professional, ethical, and social responsibilities.
9. Demonstrate a commitment to quality, timeliness, and continuous improvement.

An agreement with UNH-Manchester will allow NCC students the option of and UNH-Manchester degree in electronic engineering technology and continue their coursework at UNH-Manchester to earn a Bachelor of Science degree in electrical engineering technology.

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

## Associate in Science in General Studies (Day/Evening Program)

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. This program also provides the opportunity to gain credit for prior learning through the portfolio process. 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:

- May be undecided about their future plans
- 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
- Have substantial experience or prior learning that may equate to appropriate college credit that can be documented through the portfolio process.

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 and, if applicable, to earn prior learning assessment credit. Please note that a maximum of 24 credits may be earned through prior learning assessment.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

### Graduation Requirements

A minimum of 64 credits is required for graduation to be distributed in the following manner:

	CR
Specialty and Support courses	32
General Education as follows:	26
ENGL101N College Composition	4
General Education Core Requirement: English / Communications	3
General Education Core Requirement: Science	3
General Education Core Requirement: Behavioral Social Science	3
General Education Core Requirement: History / Political Science	3
General Education Core Requirement: Quantitative Literacy*	3-4
General Education Core Requirement: Humanities / Fine Arts	
<b>OR</b>	
General Education Core Requirement: Global Awareness	3
Open General Education Electives	3-6
Open Elective	6

\*MATH103N will meet this requirement

### Residency Requirements

At least 16 semester credits must be taken at Nashua Community College not including prior learning assessment credit awarded and/or 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 a personal interview if required.
- Participate in 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.

## Associate in Science in Honda Automotive Technology Professional Automotive Career Training (PACT) (Day Program)

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, 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 50% 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. Required interview with the Program Coordinator.
3. 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 \$1,600 and \$3,500.
4. 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.
5. All PACT students are required to complete the internship.
6. All PACT internships carry a per credit tuition charge.
7. Students must be matriculated into the PACT program to take HATN courses.
8. 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 Automotive Department General Education Policies located in the General Education Policies section of this Catalog.

Technical Standards: Please refer to Technical Standards Section 2 for details regarding this program.

## ASSOCIATE IN SCIENCE IN HONDA AUTOMOTIVE TECHNOLOGY

### FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
HATN121N	Honda Service and Maintenance*	2	6	4
HATN113N	Honda Electricity and Wiring	2	6	4
ENGL101N	College Composition	4	0	4
				12

### SPRING SEMESTER

HATN114N	Honda Steering and Suspension	2	6	4
HATN122N	Honda Brakes and Stability Systems	2	6	4
HATN190N	Honda Dealer Internship I**	0	8	2
General Education Core Requirement: English / Communications		3	0	3
MATH103N	Topics in Applied College Mathematics	3	0	3
	OR			
General Education Core Requirement: Quantitative Literacy		4	0	4
				14/17

### SUMMER SEMESTER

HATN205N	Honda Advanced Electrical & Electronic Systems	2	6	4
HATN195N	Honda Dealer Internship II**	0	24	6
General Education: Open Elective		3	0	3
				7/13

### SECOND YEAR - FALL SEMESTER

HATN210N	Honda Engine Performance I	2	6	4
HATN226N	Honda Transmission and Drivelines	2	6	4
HATN191N	Honda Dealer Internship III**	0	8	2
PHYS101N	Physical Science I	3	2	4
General Education Core Requirement: History / Political Science		3	0	3
				15/17

### SPRING SEMESTER

HATN228N	Honda Engine Repair	2	6	4
HATN221N	Honda Heating and AC Systems	2	6	4
HATN192N	Honda Dealer Internship IV**	0	8	2
General Education Core Requirement: Behavioral Social Science		3	0	3

**Total 68 Credits**

\*A student must earn a 'C' or better in order to progress in this program.

\*\*Six Internship credit hours total must be earned in order to graduate.

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 NATEF 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.

## **Associate in Science in Hospitality and Restaurant Management (Day Program)**

The mission of the Hospitality and Restaurant Management Program is to provide both academic preparation and practical experiences that students need to enter and succeed in a hospitality management career. In addition, the program prepares students for transfer to four-year colleges and universities that offer a bachelor degree in a hospitality-related program.

The hospitality industry currently represents the second largest employer in the United States, and the industry is the major part of a rapidly-growing services sector of the economy. To meet the need for college-educated professionals in the hospitality field, the Associate Degree Program in Hospitality and Restaurant Management focuses on a business education and theories of hospitality management that provide graduates with an understanding of the key areas of the industry.

As a key element of the program, students are required to complete a supervised 120 hour internship at a hotel, restaurant, or other approved hospitality organization.

Many exciting career opportunities exist within the hospitality industry. The following examples serve to show the variety of exciting positions that may be pursued depending on experience and interest: front office manager; sales or marketing manager; executive housekeeper; food and beverage manager; banquet manager; restaurant manager; events manager; human resources manager; or hotel manager.

Uniforms are required for scheduled events.

Internship Considerations: Please refer to Technical Standards/Internship Considerations section of this Catalog for details regarding this program.



## Hospitality and Restaurant Management

<b>FIRST YEAR – FALL SEMESTER</b>		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
BCPT101N	Computer Technology and Applications	2	2	3
HOS101N	Introduction to Hospitality	3	0	3
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
				15
<b>SPRING SEMESTER</b>				
BUS104N	Principles of Marketing	3	0	3
BUS110N	Principles of Management	3	0	3
HOS110N	Front Office Operations/Revenue Management	3	0	3
General Education Core Requirement: Science		3	2/3	4
General Education Core Requirement: Behavioral Social Science		3	0	3
XXXXxxxN	Open Elective	3	0	3
				19
<b>SECOND YEAR – FALL SEMESTER</b>				
ENGL109N	Oral Communication	3	0	3
HOS201N	Hospitality Sales and Marketing	3	0	3
HOS210N	Principles of Food and Beverage Management	3	0	3
MATH103N	Topics in Applied College Mathematics	3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				15
<b>SPRING SEMESTER</b>				
BUS240N	Business Law	3	0	3
ECON201N	Microeconomics			
	OR			
General Education Core Requirement: History / Political Science		3	0	3
HOS211N	Bar and Beverage Management	3	0	3
HOS290N	Hospitality and Restaurant Management Internship	1	8	3
General Education: Open Elective		3	0	3

## Total 64 Credits

Upon the completion of the degree in Hospitality and Restaurant Management, graduates will be able to:

1. Describe a hospitality business philosophy.
2. Utilize computer technology appropriate to the industry.
3. Describe the building of a brand positioning statement.
4. Demonstrate an understanding of the sales and marketing skills appropriate for the hospitality industry.
5. Demonstrate appropriate personal skills for the hospitality industry, including professional business etiquette and ethics.
6. Apply basic principles of supervisory management
7. Implement basic operations of a hospitality enterprise.
8. Appreciate and understand the value of diversity.
9. Communicate effectively in a diverse society using visual and written modes within the hospitality industry.
10. Critically reflect on the impact that historical and contemporary culture has on society in general and specifically in the hospitality industry.
11. Apply critical-thinking skills to arrive at reasoned decisions in solving everyday hospitality industry issues.
12. Demonstrate effective research and reporting skills.

## Associate in Science in Human Services

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 crises.

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 Granite State College, Rivier University, and Springfield College of Human Services. Students may enroll into one of these programs 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. 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.

Technical Standards: Please refer to Technical Standards Section 7 for details regarding this program.

## HUMAN SERVICES

### FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGL101N	College Composition	4	0	4
BCPT101N	Computer Technology and Applications	2	2	3
PSYC101N	Introduction to Psychology	3	0	3
HSV111N	Introduction to Human Services	3	0	3
PSYC206N	Learning and Behavior	3	0	3
				16

### SPRING SEMESTER

HSV123N	Supportive Communication Skills	3	0	3
	General Education Core Requirement: Behavioral Social Science	3	0	3
PSYC210N	Abnormal Psychology	3	0	3
HSV190N	Fieldwork I	1	8	3
MATH103N	Topics in Applied College Mathematics			
OR				
	General Education Requirement: Quantitative Literacy*	3/4	0	3/4
				15/16

### SECOND YEAR - FALL SEMESTER

ENGL102N	Writing About Literature			
	OR			
ENGL103N	Professional Writing and Presentations	3	0	3
PSYC212N	Individual Counseling: Theory and Practice	3	0	3
PSYC240N	Alcohol and Drugs	3	0	3
HSV290N	Fieldwork II OR Open Elective	1	8	3
General Education Core Requirement: Science * (lab recommended)		3	0/2	3/4
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				18/19
<b>SPRING SEMESTER</b>				
HSV225N	Family Supports	3	0	3
PSYC222N	Group Dynamics and Counseling	3	0	3
General Education Core Requirement: History / Political Science		3	0	3
HSV291N	Capstone Experience	1	8	3
XXXXxxxN	Open Elective	3	0	3
				15

**Total 65/66 credits**

\*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.

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. 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.

### **HUMAN SERVICES CERTIFICATE (Day/Evening Program)**

		CL	LAB	CR
FYE101N	First Year Experience	1	0	1
BCPT101N	Computer Technology and Applications	2	2	3
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
General Education Core Requirement: Behavioral Social Science		3	0	3
HSV190N	Fieldwork I	1	8	3
<b>Total 26 Credits</b>				

### **Associate in Arts in Liberal Arts (Day/Evening Program)**

The mission of the Associate in Arts in Liberal Arts Degree Program is to prepare students for successful transfer to a four-year baccalaureate degree program. To achieve this purpose, the liberal arts program provides students with a broad academic experience in fundamental areas of human knowledge, and it endeavors to orient them to the intellectual, social, and natural world. In the degree program students will study a coherent and substantive balance of English, mathematics, the sciences, the arts and humanities, and the social sciences.

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.

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 in Arts in Liberal Arts in one of the following concentrations: Communications, English, History, Mathematics, Psychology, or Science.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

## LIBERAL ARTS

<b>FIRST YEAR – FALL SEMESTER</b>	CL	LAB	CR
LIBA102N Liberal Arts Seminar	2	0	2
ENGL101N College Composition	4	0	4
General Education Core Requirement: Behavioral Social Science	3	0	3
General Education Core Requirement: Quantitative Literacy*	4	0	4
General Education: Open Elective	3/4	0	3/4
			16/17
 <b>SPRING SEMESTER</b>			
General Education Core Requirement: English / Communications	3	0	3
General Education Core Requirement: History / Political Science	3	0	3
General Education (or Core Requirement): Quantitative Literacy*	3/4	0	3/4
General Education Core Requirement: Humanities / Fine Arts or Global Awareness	3	0	3
XXXXxxxN      Open Elective	3/4	0	3/4
			15/17
 <b>SECOND YEAR – FALL SEMESTER</b>			
General Education Core Requirement: Science	3	2	4
General Education Elective (or Core Requirement): Behavioral Social Science: or			
General Education Elective (or Core Requirement): History / Political Science	3	0	3
General Education Elective (or Core Requirement): Humanities / Fine Arts or Global Awareness	3	0	3
General Education: Open Elective	3	0	3
XXXXxxxN      Open Elective	3/4	0	3/4
			16/17
 <b>SPRING SEMESTER</b>			
General Education Elective (or Core Requirement): Science	3	2/3	4
General Education Elective (or Core Requirement): Humanities / Fine Arts or Global Awareness	3	0	3
General Education: Open Elective	3/4	0	3/4
General Education: Open Elective	3/4	0	3/4
XXXXxxxN      Open Elective	3/4	0	3/4
XXXXxxxN      Open General Education Elective (as needed)	3/4	0	3/4
			19/23

## Minimum 64 Credits

A minimum of 64 credits must be earned in the required categories to complete the program of studies. A minimum of 16 credits must be earned at NCC, and 8 of those 16 credits must be earned in courses at the 200 level.

\* MATH103N does not meet this requirement

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.

## Associate in Arts in Liberal Arts Anthropology & Sociology Concentration (Day/Evening Program)

The Liberal Arts Degree with an Anthropology and Sociology concentration has been developed to provide the first two years of preparation for a student wishing to complete a bachelor degree with a major in anthropology or sociology. The study of anthropology/sociology is essential because it equips students with the ability to synthesize multiple perspectives and contexts into a holistic view.

The Liberal Arts Degree with an Anthropology and Sociology Concentration is designed to transfer to a four-year institution but can serve as the entry point to a career pathway in field such as politics, government, law enforcement, or education. Careers may include historian, educator, paralegal, archaeologist technician, criminal investigator, court clerk, political analyst, private investigator, law enforcement officer, lawyer, lobbyist, consultant, business, government services (domestic or overseas), public policy management, and community development.

### LIBERAL ARTS ANTHROPOLOGY & SOCIOLOGY CONCENTRATION

FIRST YEAR – FALL SEMESTER		CL	LAB	CR
ENGL101N	College Composition	4	0	4
SOCI101N	Introduction to Sociology	3	0	3
ANTH108N	Introduction to Archaeology	3	0	3
MATH106N	Statistics I	4	0	4
General Education Core Requirement: Global Awareness**		3	0	3
				17
SPRING SEMESTER				
General Education Core Requirement: English/Communications		3	0	3
General Education Core Requirement: History / Political Science		3	0	3

General Education Elective (or Core Requirement): Global Awareness**	3	0	3
General Education Elective: Quantitative Literacy*	3/4	0	3/4
ANTH110N Cultural Anthropology	3	0	3
			15/16

**SECOND YEAR – FALL SEMESTER**

General Education Elective (or Core Requirement): English/Communications	3	0	3
POLS101N Introduction to Political Science			
- OR-			
POLS102N American Government and Politics	3	0	3
SOCI228N Social Inequalities: Theory and Practice	3	0	3
General Education Core Requirement: Science	3	2/3	4
(BIOL115N does not satisfy this requirement)			
General Education Elective: Anthropology*** - OR-			
General Education Elective: Sociology***	3	0	3
			16

**SPRING SEMESTER**

General Education Elective (or Core Requirement): Science	3	2/3	4
(BIOL115N does not satisfy this requirement)			
HUMA107N World Religion - OR			
GEOG110N World Regional Geography	3	0	3
General Education Elective: Anthropology*** - OR-			
General Education Elective: Sociology***	3	0	3
General Education Core Requirement: Humanities/Fine Arts	3	0	3
Open Elective	3	0	3
			16

**Total 64/65 Credits**

\* MATH103N does not meet this requirement. MATH206N is recommended.

\*\*World Language Elective

\*\*\*200-Level Anthropology or Sociology Elective



A minimum of 64 credits must be earned in the required categories to complete this program of study. A minimum of 16 credits must be earned at Nashua Community College. A minimum of 8 credits must be earned at the '200' level.

Some courses require prerequisites please see course descriptions.

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, a student graduating with a Concentration in Anthropology and Sociology is able to:

1. Apply a range of social, behavioral, biological, and scientific methods of inquiry as problem solving tools.
2. Identify the frame of reference and context when analyzing statistical and descriptive data from multiple sources.
3. Synthesize multiple perspectives into a holistic view utilizing a variety of sources and theories to forge a deeper understanding of problems.
4. Cite sources appropriately.
5. Explain how the knowledge and understanding of culture and social structures prepares us to confront contemporary challenges and global interdependency.

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

## **Associate in Arts in Liberal Arts: Biology Concentration (Day Program)**

The Liberal Arts Degree with a Concentration in Biology has been developed to provide the first two years of preparation for a student wishing to complete a bachelor degree with a major in biological sciences, pre-med, health studies, scientific and pharmaceutical research. Students receive a strong foundation in the scientific language and methodology; as well as understanding of physical world and how to apply it from working in an inquiry-based learning environment that is designed as student driven project-based exploration. There are two educational tracks offered one laboratory research based (RESEARCH TRACK), the other more academic with a research paper (NON-RESEARCH TRACK).

Students should have strong reading and math skills and be aware of the extra hours it takes to pursue project-based learning and the advantage of this style of teaching is improved critical thinking skills.

Students are encouraged to work closely with their Program Coordinator 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.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

All students in the Biology concentration are required to complete the following courses:

- BIOL107N, or BIOL105N (with a B or better) and Program Coordinator's Permission.
- Two physical science courses - same series: CHEM130N/CHEM131N, or PHYS130N/PHYS131N, or PHYS230/PHYS231N

Plus

- RESEARCH Track: BIOL215N, BIOL260N, BIOL280 - or,
- NON-RESEARCH Track: BIOL270N + more science electives (this track is more customizable).

Mathematics: Suggested MATH106N and MATH110N (or higher - many University programs require MATH210N/MATH211N).

RECOMMENDED BIOL/CHEM Electives: BIOL108N, BIOL201N, BIOL202N, BIOL205N, BIOL220N, BIOL230N, CHEM135N.

\*\*\*\*If students plan to transfer to UNH, they must take BIOL107N and BIOL108N per pending articulation agreement.

Humanities: HUMA109, HUMA110N, HUMA130N, World Language electives (two courses of the same language). Students are recommended to consult with advisors at both Nashua Community College and the college(s) to which they wish to transfer for guidance about course selection. Careful planning is required to ensure that mathematics and science courses will fulfill bachelor degree requirements. Electives can be supplemented for required courses with Program Coordinator permission to design a particular foundation for your future degree.

## LIBERAL ARTS: BIOLOGY CONCENTRATION

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
BIOL107N	Principles of Biology I*	3	3	4
<b>-OR-</b>				
BIOL105N	Biology Focus I**	3	3	4
CHEM130N	General Chemistry	3	3	4
<b>-OR-</b>				
PHYS130N	Physics I	3	3	4
ENGL101N	College Composition	4	0	4
General Education Core Requirement: Quantitative Literacy		4	0	4
				16
<b>SPRING SEMESTER</b>				
BIOL108N	Principles of Biology II*	3	3	4
<b>-OR-</b>				
BIOLxxxN	Biology Elective**	3	3	4
CHEM131N	General Chemistry II	3	3	4
<b>-OR-</b>				
PHYS131N	Physics II	3	3	4
General Education Elective (or Core Requirement): Quantitative Literacy		4	0	4
General Education Core Requirement: English/Communications		3	0	3
General Education Core Requirement: Humanities/Fine Arts or Global Awareness		3	0	3
				18
<b>SECOND YEAR - FALL SEMESTER</b>				
BIOL215N	Microbiology	3	3	4
BIOL260N	Scientific Inquiry*	2	1	2
<b>-OR-</b>				

BIOL220N	Ecology**	3	3	4
<b>-OR-</b>				
BIOLxxxN	Biology Elective	3	3	4
PSYC101N	Intro to Psychology	3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Arts or Global Awareness		3	0	3
General Education Requirement: History/Political Science		3	0	3
				15/17

**SPRING SEMESTER**

BIOL270N	Advanced Topics in Biology**	3	2/3	3/4
<b>-OR-</b>				
BIOL280N	Biology Capstone Experience*	2	5	4
BIOL230N	Genetics	3	3	4
<b>-OR-</b>				
BIOLxxxN	Biology Elective	3	2/3	4
General Education Elective (or Core Requirement): History/Political Science				
<b>-OR-</b>				
General Education Elective: Behavioral Social Science		3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Arts or Global Awareness**		3	0	3
				16/17

**Total 65-68 Credits**

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, a student graduating with a Concentration in Science is also able to:

1. Demonstrate an understanding of the theoretical principles of a range of disciplines in the physical and biological sciences.
2. Demonstrate the ability to apply appropriate mathematics to problems found in the physical and biological sciences.
3. Demonstrate a wide variety of laboratory techniques in the physical and biological sciences.
4. Generate and maintain accurate lab documentation, including a laboratory notebook.
5. Demonstrate the ability to analyze and draw conclusions from generated scientific data, and be able to present and defend the findings.

# Associate in Arts in Liberal Arts: Communications Concentration (Day/Evening Program)

The Liberal Arts Degree with a Communications Concentration 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 or media studies, or journalism.

Students selecting the Communications concentration 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 reporter or editor, public relations specialist, advertising, social media, educator, among many other choices.

All students in the concentration are required to meet the requirements of the following courses to remain in the Communications concentration:

- ENGL101N College Composition (minimum grade of B- required) Note: transfer or Running Start credit requires a minimum grade of B-; comparable CLEP score is 55-58 or ENGL110N Honors Expository Writing
- COMM101N Introduction to Media Studies (minimum grade of B- is required to remain in the Communications concentration)

Students are encouraged to work closely with their academic advisor while at NCC. An early decision by the student as to the four-year college/university to which he/she plans 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.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

## LIBERAL ARTS: COMMUNICATIONS CONCENTRATION

<b>FIRST YEAR – FALL SEMESTER</b>		CL	LAB	CR
ENGL101N	College Composition	4	0	4
General Education Core Requirement: Science		3	2/3	4
General Education Core Requirement: Quantitative Literacy*		4	0	4
POLS102N	American Government & Politics	3	0	3
				15
 <b>Spring Semester</b>				
COMM101N	Introduction to Media Studies	3	0	3
General Education Core Requirement: Behavioral Social Science		3	0	3
ENGL109N	Oral Communication	3	0	3
General Education Elective (or Core Requirement): Quantitative Literacy*		4	0	4
General Education Elective: Humanities/Fine Art or Global Awareness**		3	0	3
XXXXxxxN	Open Elective	3	0	3
				19
 <b>Second Year – Fall Semester</b>				
COMM115N	Introduction to Media Writing	3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Art or Global Awareness		3	0	3

General Education Elective (or Core Requirement): Science	3	2/3	4
COMMxxxN Elective	3	0	3
POLS220N American Politics and Mass Media	3	0	3
			16

### Spring Semester

COMMxxxN Communications Elective	3	0	3
COMMxxxN Communications Elective	3	0	3
ARTS120N Graphic Design Theory	3	0	3
COMMxxxN Communications Elective	3	0	3
COMM285N Communications Internship	1	8	3
			15

### Total 65 Credits

A minimum of 64 credits must be earned in the required categories to complete the program of studies. A minimum of 16 credits must be earned at Nashua Community College, and 8 of those 16 credits must be earned in courses at the 200 level.

\*MATH106N or MATH110N recommended

\*\*HUMA140N recommended

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, a student graduating with a Concentration in Communications is also able to:

1. display a professional work ethic as a result of adhering to the principle of objectivity.
2. identify and understand the purpose of various media types.
3. understand the global impact of the media.

## Associate in Arts in Liberal Arts: English Concentration (Day/Evening Program)

The Liberal Arts Degree with an English Concentration 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 concentration have the opportunity to plan their courses in one of the following focus areas:

- Literature
- Writing (professional and creative)

Students selecting the English concentration 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, textual studies, American studies or writing.

Career tracks for an English major include educator, writer, editor, reporter, attorney, publishing, foreign service among many other choices. All students in the concentration are required to complete the following courses:

- ENGL101N College Composition (minimum grade of B- required) (Note: transfer or Running Start credit requires a minimum grade of B-; comparable CLEP score is 55-58) or ENGL110N Honors Expository Writing
- ENGL102N Writing About Literature
- ENGL105N Introduction to Literature
- Two semesters of sequential literature courses (ENGL240N/241N or ENGL230N/231N)
- ENGL285N Topics in English Studies Seminar

Students are encouraged to work closely with their academic advisor while at NCC. An early decision by the student as to the four-year college/university to which he/she plans 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.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

## LIBERAL ARTS: ENGLISH CONCENTRATION

<b>FIRST YEAR – FALL SEMESTER</b>		CL	LAB	CR
BCPT101N	Computer Technology and Applications	2	2	3
ENGL101N	College Composition	4	0	4
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: Quantitative Literacy		4	0	4
				14
<b>SPRING SEMESTER</b>				
ENGL102N	Writing About Literature	3	0	3
General Education Core Requirement: History/Political Science		3	0	3
General Education Elective (or Core Requirement): Quantitative Literacy*		3/4	0	3/4
General Education Core Requirement: Humanities/Fine Arts or Global Awareness		3	0	3
ENGL105N	Introduction to Literature	3	0	3
				15/16
<b>SECOND YEAR – FALL SEMESTER</b>				
General Education Core Requirement: Science		3	2/3	4
General Education Elective ( or core Requirement): Behavioral Social Science <b>OR</b> History/Political Science		3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Arts or Global Awareness		3	0	3
ENGL230N	British Literature <b>-OR-</b>	3	0	3
ENGL240N	American Literature I	3	0	3
ENGLxxxN	English Elective**	3	0	3
XXXXxxxN	Open Elective	3	0	3

**SPRING SEMESTER**

General Education Elective (or Core Requirement): Science	3	2/3	4
General Education Elective (or Core Requirement): Humanities/Fine Arts or Global Awareness	3	0	3
ENGL231N      British Literature II <b>-OR-</b>	3	0	3
ENGL241N      American Literature II	3	0	3
ENGL xxxN      English Elective**	3	0	3
ENGL285N      Topics in English Studies Seminar	3	0	3
			16

**Minimum 64 Credits**

A minimum of 64 credits must be earned in the required categories to complete the program of studies. A minimum of 16 credits must be earned at Nashua Community College, and 8 of those 16 credits must be earned in courses at the 200 level.

\* MATH103N does not meet this requirement

**\*\* Suggested Electives for Four-Year Degree Focus****Literature**

ENGL105N / ENGL215N / ENGL230N / ENGL231N / ENGL240N / ENGL241N

**Writing**

ENGL103N / ENGL122N / ENGL206N / ENGL235N

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, a student graduating with a Concentration in English is also able to:

1. create a connection of textual analysis to cross disciplinary subjects.
2. display a professional work ethic as a result of adhering to completeness and timeliness requirements of the curriculum.

## **Associate in Arts in Liberal Arts: History & Political Science Concentration (Day/Evening Program)**

The Liberal Arts Degree with a History and Political Science Concentration 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 study of these disciplines is necessary to equip students with the knowledge and skills needed to function as informed and responsible citizens.

The Liberal Arts Degree with a Concentration 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.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

## LIBERAL ARTS: HISTORY AND POLITICAL SCIENCE CONCENTRATION

<b>FIRST YEAR – FALL SEMESTER</b>		CL	LAB	CR
LIBA102N	Liberal Arts Seminar	2	0	2
ENGL101N	College Composition	4	0	4
HIST101N	Western Civilization from Ancient Times to 1700	3	0	3
MATH106N	Statistics I	4	0	4
GEOG110N	World Regional Geography	3	0	3
				16
 <b>SPRING SEMESTER</b>				
General Education Elective (or Core Requirement): English/Communications		3	0	3
POLS101N	Introduction to Political Science	3	0	3
General Education Core Requirement: Humanities/Fine Arts		3	0	3
MATH206N	Statistics II	4	0	4
HIST285N	Intro to Historical Research Methods*	3	0	3
				16
 <b>SECOND YEAR – FALL SEMESTER</b>				
ECON202N	Macroeconomics	3	0	3
General Education Elective (or Core Requirement): History and Politics**		3	0	3
General Education Elective (or Core Requirement): History and Politics**		3	0	3
General Education Core Requirement: Science		3	2/3	4
General Education Core Requirement: Global Awareness***		3	0	3
				16
 <b>SPRING SEMESTER</b>				
General Education (or Core Requirement): History and Politics**		3	0	3
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Elective (or Core Requirement): Science		3	2/3	4
General Education Elective (or Core Requirement): Global Awareness***		3	0	3
Open Elective		3	0	3
				16



## Minimum 64 Credits

\* HIST285N - Introduction to Historical Research Methods will be offered once every two years during the spring semester. For students who plan to take historical research methods during their second year, they will choose an open elective in the spring of their first year.

\*\*A minimum of 16 credits must be earned at Nashua Community College. Eight (8) of those 16 credits must be earned in courses at the 200-level.

\*\*\* Depending on a student's transfer pathway, it may be recommended that he/she study two semesters of the same world language.

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, a student graduating with a Concentration in History and Political Science 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.

## Associate in Arts in Liberal Arts: Mathematics Concentration (Day/Evening Program)

The Liberal Arts Degree with a Mathematics Concentration 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 Concentration 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 with a concentration 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 the four-year college/university to which he/she plans to transfer will make the advising process more effective.

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

## LIBERAL ARTS: MATHEMATICS CONCENTRATION

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
MATH210N	Calculus I	4	0	4
ENGL101N	College Composition	4	0	4
General Education Core Requirement: Humanities/Fine Arts**		3	0	3
MATH106N	Statistics I	4	0	4
General Education Core Requirement: Science*		3	2/3	4
				19
 <b>SPRING SEMESTER</b>				
MATH211N	Calculus II	4	0	4
MATH215N	Linear Algebra	4	0	4
General Education Core Requirement: English/Communications		3	0	3
General Education Elective (or Core Requirement): Science*		3	2/3	4
				15
 <b>SECOND YEAR - FALL SEMESTER</b>				
MATH212N	Calculus III - Multivariate Calculus	4	0	4
MATH220N	Differential Equations	4	0	4
General Elective Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: History/Political Science**		3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Arts OR Global Awareness***		3	0	3
				17
 <b>SPRING SEMESTER</b>				
CSCI175N	Intermediate Programming Using C++	2	2	3
General Education Elective (or Core Requirement): Behavioral Social Science or				
General Education Elective (or Core Requirement): History/Political Science		3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Arts OR Global Awareness***		3	0	3
MATH170N	Discrete Mathematics	4	0	4
XXXXxxxN	Open Elective	3	0	3
				16
 <b>Total 67 Credits</b>				

\*Recommended Lab Science courses are Calculus-Based Physics I and Calculus-Based Physics II.

\*\*Recommended Humanities electives are Introduction to Philosophy, Critical Thinking Skills, or Music Composition.

\*\*\*Two courses of the same foreign language are recommended.

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

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, a student graduating with a Concentration in Mathematics is also 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.

## Associate in Arts in Liberal Arts: Psychology Concentration (Day/Evening Program)

The Liberal Arts Degree with a Psychology Concentration 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 careers in the field of professional psychology typically require a master's degree or doctoral degree, depending upon the career path selected.

The courses in this concentration 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 the four-year college/university to which he/she plans to transfer will make the advising process more effective.

Technical Standards: Please refer to Technical Standards Section 8 for details regarding this program.

### LIBERAL ARTS: PSYCHOLOGY CONCENTRATION

FIRST YEAR - FALL SEMESTER		CL	LAB	CR
ENGL101N	College Composition-	4	0	4
BCPT101N	Computer Technology and Applications	2	2	3
PSYC101N	Introduction to Psychology	3	0	3
MATH106N	Statistics I	4	0	4
				14

## SPRING SEMESTER

PSYC201N	Human Growth and Development	3	0	3
PSYC220N	Research Methods	3	0	3
General Education Core Requirement: Humanities/Fine Arts		3	0	3
XXXXxxxN	Open Elective	3	0	3
MATH206N	Statistics II	4	0	4
General Education Core Requirement: English Communications		3	0	3
				19

## SECOND YEAR - FALL SEMESTER

PSYC210-N	Abnormal Psychology	3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Arts Global Awareness		3	0	3
BIOL105N	Biology in Focus I	3	3	4
PSYCxxxN	Psychology Elective-	3	0	3
General Education Elective (Core Requirement): Behavioral Social Science		3	0	3
				16

## SPRING SEMESTER

PSYC290N	Psychology Internship: A Capstone Experience	1	8	3
PSYC207N	Social Psychology-	3	0	3
General Education Elective (or Core Requirement): Humanities/Fine Arts OR Global Awareness		3	0	3
General Education Core Requirement: History/Political Science		3	0	3
General Education Elective (or Core Requirement): Science		3	2/3	4
				16

## Total 65 Credits

A minimum of 65 credits must be earned in the required categories to complete the program of studies. A minimum of 16 credits must be earned at Nashua Community College, and 8 of those 16 credits must be earned in courses at the 200 level.

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, a student graduating with a Concentration in Psychology is also 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.

## Associate in Science in Holistic Massage Therapy

Holistic specifically refers to regarding an individual on all their levels: physically; mentally/emotionally; and spiritually. The Holistic approach to massage rejects the traditional idea of mere treatment of the individual as limited to soft tissue manipulation and incorporates recognized concepts of holistic care. Students learn to develop and provide services that treat the entire client within the scope of their training - now expanded beyond the orthodox idea of a sole physical dimension.

The Associate of Science Degree and Certificate Program in Massage Therapy both provide theory and practical experience to prepare graduates to take the MBLEx (Massage and Bodywork Licensing Exam) for New Hampshire state licensure.

To take any MASS-N courses, students must be matriculated into the certificate or degree program in massage therapy at Nashua Community College or already be a licensed therapist.

A minimum age of 18 is required for enrollment in any palpation dependant class. Continuing education credits are also available for LMTs.

Applicants for the AS in Holistic Massage Therapy must meet the college requirements for admission. The Accuplacer Exam is required before any classes in General Education Core: Quantitative Literacy or General Education Core: English can be taken.

National exams and the State of NH-DHHS rules for massage therapy licensure require a felony-free background over the ten years preceding license application. NCC reserves the right to require felony checks of any prospective or matriculated student at any time. If required, this would be at student's expense. Bureau of Labor Statistics (US Dept. of Labor) projects an increased growth rate of 23% for massage therapy through 2022.

Students in the Holistic Massage Therapy major will be held to the highest professional and ethical standards. Inappropriate behavior or issues pertaining to the quality of touch will not be tolerated and will result in removal from the program at any time. The program is subject to constant review in an effort to meet current and future requirements of this quickly growing field of study.

This class sequence chart is a "checklist" for program completion and courses may be taken in different order than listed. Some classes may have a prerequisite and catalog course descriptions should be consulted. A student may be eligible to take the MBLEx before completing all general education classes.

A meeting with the program coordinator is required for full acceptance into the massage therapy department.

**Technical Standards:** Please refer to Technical Standards - Section 9 for details regarding minimum standards and requirements for this program.

### HOLISTIC MASSAGE THERAPY

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
ENGL101N	College Composition	4	0	4
MASS101N	Swedish Massage I	2	3	3
MASS102N	Anatomy and Physiology for Massage & Bodywork	3	2	4
General Education Core Requirement: History/Political Science		3	0	3

**SPRING SEMESTER**

MASS111N	Musculo-Skeletal Study	1	2	2
MASS121N	Swedish Massage II	2	3	3
MASS131N	Pathology	3	0	3
MASS141N	Oriental Theory and Concepts	3	0	3
MASSxxxN	Massage/Wellness Elective	2	0	2
General Education Core Requirement: Behavioral Social Science		3	0	3
				16

**SECOND YEAR - FALL SEMESTER**

MASS212N	Kinesiology	2	3	3
MASS126N	Massage Therapy Rules & Ethics	1	0	1
MASS233N	Clinical Evaluation and Treatment	2	3	3
MASS135N	Deep Tissue Massage	1	2	2
MASS119N	Massage Business Practices	3	0	3
MASSxxxN	Massage/Wellness Electives (2 or 3 courses)	0	0	6
				18

**SPRING SEMESTER**

CHWN101N	Foundations of Health and Wellness	3	0	3
General Education Core Requirement: English/Communications		3	0	3
MATH103N	Topics in Applied College Mathematics OR			
General Education Core Requirement: Quantitative Literacy		3	0	3/4
General Education Elective		3	0	3
General Education Core Requirement: Humanities/Fine Arts OR Global Awareness		3	0	3
MASS290N	Clinical Internship: A Capstone Experience	0	9	3
				18/19

**Total 66/67 Credits**

Upon the completion of the degree in Holistic Massage Therapy, graduates will be able to:

1. Discuss the scope, definition, history and approaches of holistic massage therapy especially as compared to other alternative medicine health professions.
2. Demonstrate knowledge of the human body systems as understood by Western and Eastern (Asian and Indian) sciences.
3. Understand and show knowledge of anatomy (structure and/or location), physiology (function), pathology (disease) and kinesiology (movement) as well as recognize the interconnectedness of body, mind and spirit.

4. Apply Eastern concepts, principles and approaches to the body including Traditional Chinese Medicine theories, meridian system philosophy, Five Element Theory and Ayurvedic Medicine.
5. Communicate effectively through writing, active listening and speaking while being cognizant of audience and mutual understanding.
6. Develop, apply and evaluate therapeutic massage sessions for each client using theory (physiological, emotional/psychological, and energetic), interview methods, Swedish Massage strokes (effleurage, petrissage, friction, vibration and tapotement), range of motion and massage tools.
7. Understand and apply professional standards, ethics, boundary setting, business and legal practices in massage.
8. Use effective interpersonal skills, both verbal and non-verbal, such as listening, nurturing, patience, and empathy before, during and after the therapeutic session.
9. Demonstrates proficiency in client interviewing, record keeping and communication skills (written and oral) necessary for dialoguing with all healthcare professionals.
10. Respect cultural diversity and demonstrate an authentic appreciation for various ethnic group's culture, body language, approaches to touch therapies, physical attributes, religious beliefs and traditions.
11. Be able to understand one's personal and social responsibility to act with integrity, to be competent, to use moral judgment, to strive for excellence and to develop a strong work ethic in school, career and community.

## Massage Therapy Certificate

The Massage Therapy Certificate Program is designed to prepare the student to enter the profession of therapeutic massage. It meets all State of New Hampshire requirements for licensure and provides a minimum 750 hour course of study. Students gain a basic understanding of anatomy and physiology, as well as various massage interventions for general health and well-being. Electives are provided to make Nashua Community College massage graduates unique and versatile.

Completion of the program will prepare graduates to take the MBLEx (Massage and Bodywork Licensing Exam) required for licensure as a State of New Hampshire Licensed Massage Therapist. Students may complete the program in one year (three semesters) or longer depending on the needs and lifestyle demands of the student. Flexible scheduling allows full time workers to build their course load as needed each term. This is an evening program with some elective courses offered during the day.

Students must be matriculated in the Massage Therapy Certificate program at NCC to register for any MASS-N course. The following exceptions will be considered based on space availability: students enrolled at another educational institution in Massage Therapy; Licensed or Certified Massage Therapists. A minimum age of 18 is required for enrollment in any palpation dependant classes. Continuing education credits are also available for LMTs.

Applicants for Massage Therapy must meet the College requirements for admission. They must also complete Standard First Aid and CPR courses at their own expense during their internship.

National exams and State of New Hampshire licensure require a felony-free background over the ten years preceding license application. NCC reserves the right to require felony checks of any prospective or matriculated massage student at any time. If required, this would be at student's expense.

The Bureau of Labor Statistics (US Department of Labor) projects an increased growth rate of 23% for massage therapy through 2022.

Students in the Massage Therapy Program will be held to the highest professional and ethical standards. Inappropriate behavior and issues pertaining to the quality of touch will not be tolerated and will result in removal from the program at any time. The program is subject to constant review in an effort to meet current and future requirements of this quickly growing field of study.

\* Some elective courses are offered during the day.

## MESSAGE THERAPY CERTIFICATE

<b>FIRST SEMESTER</b>		CL	LAB	CR
MASS102N	Anatomy and Physiology for Massage & Bodywork	3	2	4
MASS101N	Swedish Massage I*	2	3	3
MASS119N	Massage Business Practices	3	0	3
MASSxxxN	Elective **			2/3
				12/13

<b>SECOND SEMESTER</b>		CL	LAB	CR
MASS111N	Musculo-Skeletal Study	1	2	2
MASS121N	Swedish Massage II	2	3	3
MASS131N	Pathology	3	0	3
MASS141N	Oriental Theory and Concepts	3	0	3
MASSxxxN	Elective **			2/3
				13/14

<b>THIRD SEMESTER</b>		CL	LAB	CR
MASS212N	Kinesiology	2	3	3
MASS126N	Massage Therapy Rules & Ethics	1	0	1
MASS233N	Clinical Evaluation and Treatment	2	3	3
MASS135N	Deep Tissue Massage	1	2	2
MASS290N	Clinical Internship: A Capstone Experience	0	9	3
MASSxxxN	Elective **			2/3
				14/15

**Minimum of 37 Credits**

Massage Electives (choose two):

		CL	LAB	CR
CHWN101N	Foundations of Health and Wellness	3	0	3
CHWN105N	Guided Meditation and Imagery*	2	0	2
CHWN110N	Introduction to Homeopathy	2	0	2
CHWN115N	Introduction to Herbology	3	0	3
CHWN120N	Introduction to Reiki Healing	2	0	2
CHWN125N	Yoga, Breath and Movement	2	0	2



MASS105N	Spa Techniques*	2	0	2
MASS124N	Acupressure*	3	0	3
MASS132N	Sports Massage*	2	0	2
MASS134N	Self-Care and Stress Management	2	0	2
MASS136N	Shiatsu*	2	0	2
MASS137N	Pre/Post Natal Massage*	2	0	2
MASS139N	Reflexology*	2	0	2
MASS143N	Chair Massage*	2	0	2
MASS145N	Aromatherapy	2	0	2
MASS147N	Elder Massage*	2	0	2
MASS148N	Somatic Massage*	2	0	2
MASS149N	Russian Massage*	2	0	2
MASS153N	Trigger Point Therapy and Myofascial Release*	2	0	2
BIOL115N	Nutrition	3	0	3

\*Please check course descriptions for prerequisites and corequisites.

\*\*Students must take a minimum of two (2) electives.

## **Associate in Science in Mechanical Design Technology**

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 robot 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 10 for details regarding this program.

## MECHANICAL DESIGN TECHNOLOGY

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
CAD111N	CADD I	3	4	5
MTTN101N	Manufacturing Processes	3	0	3
ENGL101N	College Composition	4	0	4
MATH110N	Algebra and Trigonometry	4	0	4
				16
<b>SPRING SEMESTER</b>				
CAD112N	CADD II	3	4	5
MTTN118N	Machining Technology	2	3	4
MDTN110N	Automation Programming	3	1	3
PHYS130N	Physics I	3	3	4
<b>-OR-</b>				
PHYS101N	Physical Science	3	2	4
				16
<b>SECOND YEAR - FALL SEMESTER</b>				
CAD215N	CADD III (Pro E)	3	6	5
ELET131N	Circuit Analysis I	3	3	4
ELMT203N	Applied Mechanics I	3	1	3
General Education Core Requirement: English/Communications		3	0	3
General Education Core Requirement: History/Political Science		3	0	3
				18
<b>SPRING SEMESTER</b>				
MDTN285N	Design Capstone Project	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
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: Humanities/Fine Arts OR Global Awareness		3	0	3
				17
<b>Total 67 Credits</b>				

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.

## Associate in Science in Nursing

The mission of the Department of Nursing at Nashua Community College is to provide students the opportunity to earn an Associate in Science 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.

The program has Approval of the New Hampshire Board of Nursing and Accreditation from the Accreditation Commission for Education in Nursing, Inc. (ACEN), 3343 Peachtree Road NE, Suite 850, Atlanta, Georgia 30326, [www.acenursing.org](http://www.acenursing.org).

All Applicants for Admission to the Associate in Science in Nursing Program.

Applicants seeking admission to the Associate in Science in Nursing must meet all general admission requirements of the College, as well as provide evidence of the following:

- High school or college credits in biology, algebra, chemistry, and English with grade of C or better.
- High performance on the Test of Essential Academic Skills V (TEAS V). The TEAS V is a standardized admission test from Assessment Technologies Institute™ (ATI). Test performance is measured relative to the applicant pool, by a minimum score over the fiftieth percentile in each of the subcategories on the test. The test subcategories are: Reading, Math, Science, and English/Language Usage. (see [www.atitesting.com](http://www.atitesting.com) for more information about preparing for this test).
- Two letters of professional reference on forms provided by the College.
- Ability to meet the Health, Character, and Technical Standards for the ASN Program (please see below).
- An applicant who has attended another nursing education program within the past five years must also submit a letter of reference from the director of the nursing program at the previous school.
- Nursing program applications must be completed by January 31st to be considered for acceptance in the fall class.
- Applicants meeting the above requirements will be ranked according to TEAS scores and previous college grade in Anatomy and Physiology I, using a point ranking system. TEAS V Science category scores over the 60th percentile rank will receive an additional point on the admission ranking scale.

### General Admission Requirements

- High school transcript or GED
- Application form with non-refundable \$20.00 fee
- Take Accuplacer if required

### ESOL Applicants

ESOL applicants must attain a minimum score of 83 on the Test of English as a Foreign Language (TOEFL iBT) as advised by the National Council of State Boards of Nursing ([www.ncsbn.org](http://www.ncsbn.org)).

## Selection Criteria

Preference will be given to applicants who:

- Are New Hampshire residents.
- Have a greater number of non-nursing courses completed relative to the applicant pool.
- Attain higher scores relative to the applicant pool on the TEAS V and TOEFL iBT (if required), using the admission ranking scale.
- Have a history of academic and/or work success.
- Have basic experience in health-related employment.
- Acceptance to the nursing program is conditional and based on a required satisfactory criminal background check.

Admission decisions will be made by the Vice President of Student Services and the Chairperson of the Department of Nursing. Enrollment capacity is limited, and admission is competitive. Qualified students who are not accepted in the initial selection process may be assigned to a prioritized waiting list based on the above criteria. They may be subsequently admitted if an opening becomes available prior to the beginning of the fall semester. The waiting list will be discarded once classes begin. Students still desiring admission must then reapply following the above procedure. Highly qualified students who have taken few or no non-nursing courses may be offered admission to a three-year program of study.

## Transfer Credit

Transcripts of previous college credits may be submitted to be evaluated for transferability. Science and Nursing credits may be no more than five years old with a minimum grade of B-.

## Licensed Practical Nurses

- Licensed Practical Nurses (LPN) with college credits in nursing completed in the past five years and with current nursing practice may be able to challenge by exam up to eight credits in nursing.
- Other college courses may be evaluated for transferability.
- The LPN may earn 4 credits applicable to NURS130N by taking the ATI Fundamentals of Nursing exam and scoring a minimum of Level 2. Satisfactory performance on a simulated patient care experience in the nursing laboratory may earn 4 credits applicable to NURS120N. \* The LPN applicant must request ATI exam for advanced standing by May 1st in order to be exempt from NURS120N and NURS130N.
- Graduates of practical nursing programs who meet criteria for admission to the Associate in Science in Nursing and have not yet taken NCLEX-PN may be considered.
- All general admission requirements of the College and admission requirements to the nursing program must be met, including scores from the Test of Essential Academic Skills V.

## Health, Character, and Technical Standards for the Associate of Science in Nursing Program

Technical standards have been established to inform the student of minimum standards needed to satisfactorily function in the program and ultimately in the profession. Applicants who feel they may not be able to meet one or more of the technical standards listed below should contact program officials to discuss individual cases. All academically qualified candidates will be considered for admission provided the technical standards for classroom and clinical experiences can be met with reasonable accommodations.

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 stresses, 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. Attendance at classes and clinical experiences is expected. An additional clinical fee may be charged for any clinical make up time. Students are expected to provide their own transportation to all clinical experiences. Technical standards are listed below.

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, non-verbally, 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.

## Upon Acceptance

It is understood that acceptance is conditional upon submission of satisfactory evidence in the form of the following documents no later than August 1st.

- Evidence of current health status (student health form).
- A transcript demonstrating the completion of BIOL201N Anatomy and Physiology I with a minimum grade of B- and PSYC101N Introduction to Psychology.
- Immunity or immunization against measles, mumps, rubella (MMR), varicella, hepatitis B, and Tdap. Annual influenza immunization is required for all nursing students.
- Two-year certification in cardiopulmonary resuscitation (CPR) at the healthcare provider level (American Heart Association, CPR for the Professional Rescuer).
- Mantoux testing to assess for prior tuberculosis exposure.
- Personal medical insurance. Students are responsible for obtaining and maintaining current accident/health insurance and must provide documentation of insurance coverage yearly. If health insurance information changes during the academic year, the student must notify the department of nursing immediately.

### In addition:

- A fee for nursing liability insurance will be assessed in the second semester tuition bill. Additional fees apply for nursing students. These may include but are not limited to: Assessment Technologies Institute® (ATI) testing package, Criminal Background Check Fees and DocuCare Electronic Medical Record (EMR) software license fee.
- Additional requirements include uniform, stethoscope, watch with a second hand, textbooks, skills lab kit and supplies for lab practice, and testing materials. There will also be occasional fees for field trips, as well as for end-of-program activities and licensure. A list of additional costs for the program is available upon request.
- The Background Check, which may include drug/alcohol screening, is due within thirty days of receipt of conditional acceptance. Instructions will be provided. Random or pre-clinical drug/alcohol screening may occur at any point throughout the program. The cost of any drug/alcohol testing is borne by the student.

## Criminal/Legal Records

Licensing regulations differ among states and may restrict licensure of applicants 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 or to the Board of Nursing in the state in which licensure is desired. An annual Background Check which may include drug screening may be required prior to employment and/or attendance at clinical experiences. Please contact the Board of Nursing in the state in which practice is planned regarding licensure requirements, since there are differences among states. Completion of the program does not guarantee RN licensure.

## 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 B- in Anatomy and Physiology I and II, Microbiology, and in all nursing courses in order to progress in the program. Courses in nursing are taken sequentially and most of them include a clinical component. Degree requirements must be completed within five years of entering the first nursing course. Students must anticipate a schedule of three to five days a week for the nursing courses with a possibility of evening clinical assignments. Employment of more than twenty hours per week is discouraged due to the commitment

required for success in the program. Many students choose to take most or all of the non-nursing courses prior to beginning the first course in nursing. Students who do not meet criteria for progression may seek re-entry at the point of last success on a space-available basis. A student may be granted only one opportunity to re-enter 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, Plymouth State College, Rivier University, Southern NH University, St. Anselm's College and St. Joseph College of Maine. 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 Chair of the Department of Nursing.

### NURSING: TWO YEAR CURRICULUM PLAN

Prerequisite for NURS120N and NURS130N:

		CL	LAB	CR
BIOL130N	Anatomy & Physiology I	3	3	4
PSYC101N	Intro to Psychology	3	0	3
				7

#### FIRST YEAR - FALL SEMESTER

ENGL101N	College Composition I	4	0	4
BIOL131N	Anatomy & Physiology II	3	3	4
PSYC201N	Human Growth and Development	3	0	3
NURS120N	Fundamental Nursing Skills**	0	12	4
NURS130B	Concepts for Nursing Practice**	3	0	3
				18

#### SPRING SEMESTER

NURS140N	Nursing Care I: Concepts and Skills	4	12	8
NURN230N	Pharmacology for Nursing Practice	3	0	3
BIOL210N	Foundations in Microbiology	3	3	4
General Education Core Requirement: Quantitative Literacy*		4	0	4
				19

#### SECOND YEAR - FALL SEMESTER

NURS220N	Nursing Care II: Concepts and Skills	4	18	10
General Education Core Requirement: English / Communications		3	0	3
				13

#### SPRING SEMESTER

NURS240N	Management of Nursing Care Across the Lifespan	4	15	9
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3

**Total 69 Credits**

\*MATH106N recommended

\*\*LPNs may challenge by exam

**NURSING: THREE YEAR CURRICULUM PLAN****FIRST YEAR - FALL SEMESTER**

BIOL130N	Anatomy & Physiology I	3	3	4
ENGL101N	College Composition I	4	0	4
General Education Core Requirement: Quantitative Literacy*		4	0	4
				12

**SPRING SEMESTER**

BIOL131N	Anatomy & Physiology II	3	3	4
PSYC101N	Introduction to Psychology	3	0	3
General Education Core Requirement: English / Communications		3	0	3
General Education Core Requirement: Humanities / Fine Arts or Global Awareness		3	0	3
				13

**SUMMER**

BIOL210N	Foundations in Microbiology	3	3	4
				4

**SECOND YEAR - FALL SEMESTER**

PSYC201N	Human Growth and Development	3	0	3
NURS120N	Fundamental Nursing Skills	0	12	4
NURS130N	Concepts for Nursing Practice	3	0	3
				10

**SPRING SEMESTER**

NURS140N	Nursing Care I: Concepts and Skills	4	12	8
NURS230N	Pharmacology for Nursing Practice	3	0	3
				11

**THIRD YEAR - FALL SEMESTER**

NURS220N	Nursing Care II: Concepts and Skills	4	18	10
				10

**SPRING SEMESTER**

**Total 69 Credits**

\*MATH106N recommended

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 healthcare 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 healthcare 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 effective and efficient.
5. Communicate clearly in goal-oriented, culturally-sensitive, caring, concise, and timely ways using written, verbal, nonverbal, and electronic modalities.
6. Demonstrate accountability for professional practice using legal, ethical, and regulatory guidelines and participate in activities that contribute to lifelong learning.

## Associate in Science in Paralegal Studies (Evening Program)

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 be also 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/Internship Considerations section of this Catalog for details regarding this program and course description for PLGL290N.

All paralegal courses are taught by experienced 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 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.

## **PARALEGAL STUDIES ASSOCIATE DEGREE (Evening Program)**

### **FIRST YEAR - FALL SEMESTER**

		CL	LAB	CR
ACCT101N	Financial Accounting I	4	1	4
PLGL10N	Basic Legal Studies (1st half semester)	3	0	3

PLSN102	Legal Research and Writing (2nd half semester)	3	0	3
BCPT101N	Computer Technology and Applications	2	2	3
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
				18

**SPRING SEMESTER**

ENGL103N	Professional Writing and Presentations	3	0	3
PSYC130N	Human Relations	3	0	3
PLGL230N	Contracts and Business Organizations (1st half semester)	3	0	3
PLGL250N	Family Law (2nd half semester)	3	0	3
General Education Core Requirement: Quantitative Literacy*		4	0	4
				16

**SECOND YEAR - FALL SEMESTER**

ENGL109N	Oral Communication	3	0	3
PLGL210N	Litigation & 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
General Education Core Requirement: Humanities/Fine Arts** OR Global Awareness***		3	0	3
				18

**SECOND YEAR - SPRING SEMESTER**

PLGL240N	Probate, Estates and Trusts	3	0	3
PLGL260N	Criminal Law	3	0	3
PLGL290N	Paralegal Internship and Seminar	1	8	3
OR				
PLGL280N	Paralegal Capstone	3	0	3
General Education Core Requirement: Science****		3	0	3
				12

**Total 64 Credits**

\*MATH106N, MATH110N, or MATH115N are recommended. \*\*HUMA110N, HUMA230N, or HUMA109N recommended.  
 \*\*\* Any language recommended. \*\*\*\*BIOL115N 3 credits; or BIOL111N (lab) 4 credits recommended.

## PARALEGAL CERTIFICATE\* (Evening Program)

		CL	LAB	CR
ENGL101N	College Composition	4	0	4
PLGL101N	Basic Legal Studies	3	0	3
PLGL102N	Legal Research & Writing	3	0	3
PLGL230N	Contracts and Business Organizations	3	0	3
PLGL220N	Real Estate Law	3	0	3
PLGL210N	Litigation & 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

**Total 28 Credits**

\* Note: Paralegal Certificate courses offered and to be taken in same semesters listed under Associate Degree.

## Associate in Science in Precision Manufacturing

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 1 for details regarding this program.

# PRECISION MANUFACTURING

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
MTTN101N	Manufacturing Processes	3	0	3
MTTN111N	Machine Tool Processes and Theory I	3	9	7
ENGL101N	College Composition	4	0	4
FYE101N	First Year Experience	1	0	1
MATH110N	Algebra and Trigonometry - OR -	4	0	4
MATH105N	Technical Mathematics	4	0	4
				19
 <b>SPRING SEMESTER</b>				
MTTN122N	Machine Tool Processes and Theory II	3	9	7
CAD131N	Technical Drawing	2	3	3
MTTN123N	Principles of CNC	2	3	3
General Education Core Requirement: English/Communications		3	0	3
General Education Core Requirement: Science		4	0	4
				20
 <b>SECOND YEAR - FALL SEMESTER</b>				
MTTN231N	Adv Machine Tool Processes and Theory I	3	9	7
MTTN223N	Computer Aided Manufacturing	2	3	3
General Education Core Requirement: Science		3	0	3
General Education Core Requirement: Behavioral Social Science		3	0	3
				16
 <b>SPRING SEMESTER</b>				
MTTN232N	Advanced Machine Tool Processes and Theory II: A Capstone Experience	3	9	7
MTTN201N	Lean and Green Manufacturing Methods	3	0	3
General Education Core Requirement: History/Political Science		3	0	3
General Education Core Requirement: Humanities/Fine Arts OR Global Awareness		3	0	3
				16
 <b>Total 71 Credits</b>				

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.

## **Machine Tool Technology CNC Programming Certificate (Day/Evening Program)**

		CL	LAB	CR
MTTN101N	Manufacturing Processes	3	0	3
MTTN105N	Technical Communications	4	0	4
MTTN111N	Machine Tool Processes and Theory I	3	9	7
MATH110N	Algebra and Trigonometry OR			
MATH105N	Technical Math	4	0	4
MTTN122N	Machine Tool Processes and Theory II	3	9	7
CAD131N	Technical Drawing	2	3	3
MTTN123N	Principles of CNC	2	3	3
MTTN231N	Advanced MTP and Theory I	3	9	7
MTTN223N	Computer Aided MFR	2	3	3
MTTN232N	Adv. MTP and Theory II	3	9	7

**Total 48 Credits**

## **Sign Language Studies Certificate (Evening Program)**

This program is designed to prepare individuals for jobs providing support services to the hearing impaired. Emphasis will be on using American Sign Language (ASL). To be accepted into the program, applicants must meet the requirements for admission listed in this catalog.

## SIGN LANGUAGE CERTIFICATE

		CL	LAB	CR
SOCI101N	Introduction to Sociology			
<b>-OR-</b>				
PSYC101N	Introduction to Psychology	3	0	3
ENGL101N	College Composition	4	0	4
ASL101N	Deaf Culture	3	0	3
ASL120N	Sign Language I	3	0	3
ASL121N	Sign Language II	3	0	3
ASL201N	Deaf and Hearing Cultural Interactions	3	0	3
ASL220N	Sign Language III	3	0	3
ASL221N	Sign Language IV	3	0	3
<b>Total 25 Credits</b>				

## Associate in Science in Software Development

The Software Development Curriculum provides a strong foundation for students interested in transferring to a bachelor's degree in either software development, 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++
- Data Structures such as stacks, queues, and linked lists
- Object oriented programming
- Windows programming using VB.net
- Systems Analysis including Data Flow & Use Case/Class design
- Database design and management
- Overview of basic networking

Technical Standards: Please refer to Technical Standards Section 6 for details regarding this program.

## SOFTWARE DEVELOPMENT

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
ENGL101N	College Composition	4	0	4
CSCI106N	Introduction to Software and Web Development	3	0	3
CSCI102N	Website Development I	2	2	3
CSCI161N	Introduction to Programming	2	2	3
MATH110N	Algebra and Trigonometry	4	0	4

**SPRING SEMESTER**

CSCI175N	Intermediate Programming: Using C++	2	2	3
CSCI140N	Essentials of Systems Analysis	2	2	3
CSCI116N	Networking Basics	2	2	3
MATH170N	Discrete Mathematics	4	0	4
CSCI103N	Website Development II	2	2	3
General Education Core Requirement: English/Communications		3	0	3
				19

**SECOND YEAR - FALL SEMESTER**

XXXXxxxN	Elective in Major*	2	2	3
CSCI207N	Database Design and Management	2	2	3
CSCI230N	Advanced Programming: Using C++	2	2	3
General Education Core Requirement: Science		4	0	4
General Education Core Requirement: History/Political Science		3	0	3
				16

**SPRING SEMESTER**

CSCI278N	Data Structures: Using C++	2	2	3
XXXXxxxN	Elective in Major*	2	2	3
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: Humanities/Fine Arts OR Global Awareness		3	0	3
CSCI290N	Computer Science Internship	1	8	3
OR				
CSCI285N	Senior Software Development Lab: A Capstone Experience	2	2	3
				15

**Total 67 Credits**

\*Includes CSCI, MATH, BCPT

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. Identify the benefits of quality, timeliness and continuous improvement in regards to software development
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 software 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 software programs that reflect the application of up-to-date tools and techniques of the discipline.

## **Associate in Science in Speech-Language Pathology Assistant**

Communication is one of the most critical elements of human existence. The Associate in Science Degree program for Speech-Language Pathology Assistants prepares students to work with individuals who have communication disorders under the supervision of an ASHA-certified, state-licensed speech-language pathologist. Graduates from this program are eligible for certification through the NH Office of Licensed Allied Health Professionals.

The role of the speech-language pathologist has expanded beyond service provision to include administrative, managerial, and supervisory responsibilities. The appropriate use of speech-language pathology assistants is one means to meet the demands and to extend service delivery to persons with communication disorders in a cost-efficient fashion. Job opportunities for speech-language pathology assistants (SLPAs) are growing with the increased demand for speech-language pathologists. Most current positions in New Hampshire are within school districts, although the opportunity for employment in healthcare settings is growing.

The Speech-Language Pathology Assistant Program at NCC has been designed following the American Speech-Hearing-Language Association's Guidelines for the Training, Use, and Supervision of Speech-Language Pathology Assistants.

Students are advised that public schools, nursing homes and rehabilitation facilities require a criminal background check before allowing students to participate in learning experiences at their locations. Students are responsible for any fees that may be incurred in meeting this requirement.

The College must ensure that students in the program do not put themselves or anyone else in jeopardy during classroom observations, participation in fieldwork activities, or Service Learning experiences. Therefore, students must demonstrate sufficient emotional and physical ability to respond quickly and appropriately to unexpected events. In addition, speech-language pathology assistant students need to have excellent communication skills (verbal and nonverbal), empathy, tolerance, patience and creativity. Furthermore, students are 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/clients, their families, agency staff, faculty, and classmates.

Attendance at classes and clinical experiences is expected.

Applicants to the program must meet the general requirements for admission to the College as well.

The mission of the Speech-Language Pathology Assistant Program is:

- To help students be productive and contributing members of society.
- To prepare post-secondary students to ethically and competently assist in the practice of speech-language pathology under the direction and supervision of a state-licensed, ASHA-certified Speech-Language Pathologist.
- To provide a base in scientific and cultural foundations of a liberal education.
- To promote lifelong learning through the acquisition of values, skills, and attitudes beneficial to both themselves and others.

An interview with the Speech-Language Pathology Program Coordinator is required for admission into the program. Applicants to the program must meet the general requirements for admission to the College as well. Students must maintain a C or above in all Speech-Language Pathology Assistant courses in order to enroll in SPLN291N/SPLN292N Practicum or SPLN290N Capstone Seminar.

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

Upon the completion of the degree in Speech-Language Pathology Assistant, graduates will be able to:

1. Communicate effectively and professionally, both orally and in writing, with children or adults and their families, as well as colleagues, supervisors, and other professionals, while always directing inquiries for clinical information to the supervising speech-language pathologist.



2. Demonstrate comprehension of and skill utilizing a variety of research methods and scientific inquiry in order to evaluate information critically.
3. Apply the logic of mathematical reasoning and demonstrate proficiency in computational methods and mathematical concepts and applications.
4. Apply critical thinking skills to solve problems, to evaluate arguments and chains of reasoning, and to interpret information.
5. Demonstrate the ability to use contemporary information technology to gather information resources for personal and professional obligations.
6. Demonstrate an understanding of and reasoning ability about contemporary ethical issues and values.
7. Describe developmental patterns of the acquisition of sounds, words, grammatical and syntactical forms, semantics, the receptive and expressive use of language and pragmatic skills.
8. Demonstrate understanding of the basic etiology and symptomology of communication disorders, including developmental delays, voice, language, articulation, phonology, fluency, neurological impairment and hearing impairment.
9. Identify various language and cultural diversities and demonstrate awareness and understanding of student/patient/client needs and cultural values.
10. Describe the general principles of therapeutic intervention and identify the scope, the roles, and major issues of therapy in a variety of settings, age/grade levels, types of treatment, and supervision models used as related to speech and language therapy.
11. Follow documented individual education plans or protocols (IEPs, IFSPs) developed by the supervising speech-language pathologist as well as plan and implement therapy for specific, common problems under the direct supervision of a speech-language pathologist.
12. Document student/patient/client performance (e.g., tallying data for the speech-language pathologist to use; preparing charts; records, and graphs) and report this information to the supervising speech-language pathologist.
13. Write clear and concise reports of treatment sessions.
14. Exhibit compliance with regulations, reimbursement requirements, and the speech-language pathology assistant's job responsibilities.

## Speech-Language Pathology Assistant (Evening Program)

<b>FIRST YEAR – FALL SEMESTER</b>		CL	LAB	CR
ENGL101N	College Composition	4	0	4
BCPT101N	Computer Technology and Applications	2	2	3
SPLN111N	Speech and Language Development (1st half-semester)	3	0	3
SPLN114N*	Survey of Communication Disorders (2nd half-semester)	3	0	3
General Education Core Requirement: Quantitative Literacy		4	0	4
				17
<b>SPRING SEMESTER</b>				
PSYC101N	Introduction to Psychology	3	0	3
PSYC201N	Human Growth and Development	3	0	3
SPLN112N	Anatomy and Physiology of Speech and Hearing Mechanism (1st half-semester)	3	0	3
SPLN121N*	Language Disorders (2nd half-semester)	3	0	3
General Education Core: English/Communications		3	0	3

**SUMMER SEMESTER**

SPLN115N	Phonetics (1st half-semester)	3	0	3
SPLN123N*	Articulation and Phonological Disorders (2nd half-semester)	3	0	3
General Education: Open Elective		3	0	3
				9

**SECOND YEAR – FALL SEMESTER**

PSYC206N*	Learning and Behavior	3	0	3
SPLN220N*	Advanced Communication Disorders (1st half-semester)	3	0	3
SPLN221N*	Clinical Procedures in Speech- Language Pathology (2nd half-semester)	3	0	3
General Education Core Requirement: History/Political Science		3	0	3
General Education Core Requirement: Humanities/Fine Arts OR Global Awareness		3	0	3
				15

**SPRING SEMESTER**

SPLN290N*	Capstone Seminar in Communication Disorders	2	0	2
SPLN291N*	Speech-Language Pathology Assistant Practicum I (1st half-semester)	0	3	1
SPLN292N*	Speech-Language Pathology Assistant Practicum II (2nd half-semester)	0	6	2
General Education: Open Elective		3	0	3
General Education Core Requirement: Science (must have a lab)		3	2	4
				12

**Total 68 Credits**

\* Please check course descriptions for prerequisites for these courses.

\*\* MATH106N suggested.

## Associate in Science in Web Application Development

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++, PHP, and SQL
- Systems Analysis including data flow and use case/class design
- Database Design

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 5 for details regarding this program.

## WEB APPLICATION DEVELOPMENT

<b>FIRST YEAR - FALL SEMESTER</b>		CL	LAB	CR
ENGL101N	College Composition	4	0	4
CSCI106N	Introduction to Software and Web Development	2	3	3
CSCI102N	Website Development I	2	2	3
CSCI161N	Introduction to Programming	2	2	3
MATH110N	Algebra and Trigonometry	4	0	4
				17
<b>SPRING SEMESTER</b>				
CSCI175N	Intermediate Programming: Using C++	2	2	3
CSCI140N	Essentials of Systems Analysis	2	2	3
CSCI116N	Networking Basics	2	2	3
MATH170N	Discrete Mathematics	4	0	4
CSCI103N	Website Development II	2	2	3
ARTS120N	Introduction to Graphic Design Theory	2	2	3
				19
<b>SECOND YEAR - FALL SEMESTER</b>				
CSCI201N	Client-Side Scripting Using JavaScript	2	2	3
CSCI203N	Introduction to UNIX	2	2	3
CSCI207N	Database Design and Management	2	2	3
General Education Core Requirement: English/Communications		2	2	3
General Education Core Requirement: Science		3	2	4
				16
<b>SPRING SEMESTER</b>				
CSCI202N	Java Programming	2	2	3

CSCI206N	Server-Side Scripting Using PHP	2	2	3
General Education Core Requirement: Behavioral Social Science		3	0	3
General Education Core Requirement: History/Political Science		3	0	3
CSCI290N	Computer Science Internship	1	8	3
OR				
CSCI284N	Senior Website Development Lab: A Capstone Experience	2	2	3
				15

**Total 67 Credits**

At the completion of the degree in Website 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.

## Technical Standards

**Section 1: Advanced Machine Tool 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
- 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 pounds
- 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: Educator Preparation**

Character Expectations: The health and safety of children, adolescents and other learners is of paramount concern to the Educator Preparation Program. Applicants for teaching positions in public schools in New Hampshire should be aware that background checks through the New Hampshire Department of Safety must be completed by potential employees prior to employment. Depending upon the nature of their experience, applicants who have had difficulty with the law may not be employable or even eligible for field experience. Applicants are advised that such matters may be discussed during an admission interview so that future goals to be an educator will not be compromised.

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 public or private school setting as teachers and/or paraeducators. Applicants who think they may not be able to meet one or more of the technical standards should contact program faculty members to discuss individual cases. Department faculty will give serious consideration to all academically qualified candidates providing that the technical standards can be met with reasonable accommodations.

Students in the Educator Preparation program must have sufficient abilities to perform the following:

- Physical and sensory motor abilities (mobility/vision/hearing, etc. including with accommodations) to ensure a safe environment, and to respond quickly in the event of emergency;
- Oral communication skills in English to express and exchange information and ideas, as well as to interpret important instructions to children, adolescents, colleagues, and parents;
- Reading and writing skills to:
  - read college level textbooks;
  - accurately record students' daily progress and milestones as well as a variety of reports; and
- Cognitive abilities that facilitate organization, integration of materials and information;
  - For students preparing for roles as professional educators, the ability to interpret and evaluate information/data;
- Ability to work in a variety of situations, including:
  - working well with others;
  - working with frequent interruptions;
  - responding appropriately to unexpected situations;
  - coping with extreme variations in workload and stress levels.

Students should be aware that all New Hampshire colleges and universities offering Educator Preparation Programs leading to teacher certification require that students have passed the Praxis Core of Academic Skills for Educators and have earned a minimum of a 2.5 GPA, with several colleges/universities requiring a higher GPA.

### **Section 6: 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 7: Computer Science**

- 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 8: 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 9: Liberal Arts/General Studies/Business**

- Read and comprehend textbooks and materials at the 11th grade level
- Communicate and assimilate information either in spoken or printed format or through the use of adaptive equipment
- Engage in active listening
- Gather, analyze, and draw conclusions from data using deductive and inductive reasoning
- Exercise effective time management skills
- Follow written instructions with minimal supervision, meet deadlines, and work in a project based environment
- See, hear, and speak well enough to understand information and to be understood by others with reasonable accommodations.

### **Section 10: Massage Therapy**

- Technical standards have been established to inform the student of minimum standards needed to satisfactorily function in the program and ultimately in the massage profession. Applicants who feel they may not be able to meet one or more of the technical standards listed below should contact the program director for clarification. A personal meeting with the massage therapy program director is required as part of the program's acceptance process.
- The CCSNH system must ensure that clients in clinical internship settings are not placed at risk by students during any learning experience. Therefore, students in service learning and clinical internships must demonstrate emotional stability that characterizes the responsibilities associated with client care. The student is expected to have the emotional intelligence required to exercise sound judgment, accept direction and guidance from a mentor or faculty member, and be able to establish rapport with clients, faculty, staff, classmates and other colleagues.
- All students must be in good physical and mental health to meet program objectives. Attendance at all classes are required and clinical internship hours are mandated by NH Dept. of Health and Human Services. Technical standards for the massage therapy department follow:
- Sufficient emotional maturity to work in a classroom setting where massage techniques are introduced, practiced, and exchanged between male and female students;
- Sufficient verbal skills and maturity to communicate professionally during class, internship sessions and to collaborate knowledgeably with other healthcare professionals;
- Ability to write effectively and communicate clearly in English for client SOAP notes, projects, papers, research abstracts, etc.;
- Sufficient speech and language ability to express, comprehend, and exchange information and ideas in English verbally, non-verbally, and in writing, and to interact clearly and logically with clients, faculty, mentors and classmates;
- Ability to assess with sufficient tactile ability the delivery of the five strokes of massage and range of motion through pressure, positioning , vibration, percussion and movement;
- Sufficient emotional maturity to exhibit empathy and compassion, to maintain professional relationships in classroom and clinical settings, and to integrate direction, instruction, and criticism into behavior;
- Sufficient physical strength, endurance, and motor coordination to perform the following activities: participation in long classroom hours and service learning events; fine and gross motor skills to perform massage techniques; ability to lift up to fifty pounds; stamina to complete a 60 minute massage session; and ability to perform CPR during internship;
- Ability to implement, practice and fully incorporate into applicant's behavior the standards of practice and ethics as outlined by AMTA (American Massage Therapy Association) and ABMP (Associated Bodyworkers and Massage Professionals);
- A criminal background check may be requested at any time and is the responsibility of the student. Applicants who have felonies or misdemeanors may not be eligible for national exam testing boards or state licensure. Applicants need to discuss these matters during the personal interview with the program coordinator.

### **Section 11: 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 12: Speech-Language Pathology Assistant

- Students in the Speech-Language Pathology Assistant 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
- Frequent lifting, moving and transferring children, especially infants and toddlers
- Sufficient hearing acuity to determine slight differences between spoken English sounds
- 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 an 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 treatment activities and progress
- Ability to accurately produce the sounds of spoken English
- Ability to respond to a client’s personal needs in a manner that safeguards the health and safety of the student, client and staff
- Ability to maintain proper boundaries in both the school and home environments.

# Course Descriptions

## ACCOUNTING

ACCT101N      Financial Accounting I      4 Credits

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.

ACCT102N      Financial Accounting II      4 Credits

This course is a continuation of ACCT101N. Current and long-term 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. Prerequisite: ACCT101N. Placement score equivalent to MATH099N.

ACCT201N      Intermediate Accounting I      4 Credits

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. Prerequisite: ACCT102N.

ACCT202N      Intermediate Accounting II      4 Credits

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. Prerequisite: ACCT201N.

ACCT206N      Cost Accounting      4 Credits

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. Prerequisite: ACCT102N.

ACCT210N      Managerial Accounting      3 Credits

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. Prerequisites: MATH099N, ACCT102N.



ACCT214N      Accounting Information Systems: Accounting Program Capstone Course      3 Credits

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.  
Prerequisites: ACCT201N, ACCT206N.

ACCT290N      Accounting Internship      3 Credits

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.  
Prerequisite: Completion of all catalog-listed courses for the first three semesters in a business student's respective program of study.

## ANTHROPOLOGY AND SOCIOLOGY

ANTH108N      Introduction to Archaeology      3 Credits

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. **This course fulfills a General Education Core Requirement: Behavioral Science.**

ANTH110N      Cultural Anthropology      3 Credits

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. **This course fulfills a General Education Core Requirement: Behavioral Social Science.**

ANTH260N      Special Topics in Anthropology      3 Credits

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. Prerequisites: ENGL101N or ENGL110N, and SOCI101N or ANTH110N.

SOCI101N      introduction to Sociology      3 Credits

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. **This course fulfills a General Education Core Requirement: Behavioral Social Science.**

SOCI111N      Introduction to Social Work      3 Credits

A general survey course that will provide an introduction to social work, the history, knowledge and skill sets needed in the profession. The course will focus on the fundamental principles of social work to engage in research-informed practice, to apply knowledge of human behavior and the social environment, to advocate for the social and economic well-being of diverse client populations and to provide ethical social work principles in all practice.

SOCI201N      Contemporary Social Problems      3 Credits

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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: Behavioral Social Science.**

SOCI205N      The Changing Family      3 Credits

The focus of this course is to help students recognize and understand the dynamic nature of marriages, families and intimate relationships. This course will enable students to recognize, confront and dispel prominent myths about these relationships and to help students see the interactive relationships of race, class and gender. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: Behavioral Social Science.**

SOCI215N      Sociology of Technology      3 Credits

This course views the phenomenon of technology through a sociological lens. Students will consider how the social and historical context has contributed to the development of technology over time, and how social and global change is influenced by changes in technology. The course emphasizes and analyzes the ways that societies and individuals shape, and are shaped by, new technologies. A wide variety of technologies, from hands-on machines to the internet and new media, will be considered, and students will be encouraged to consider the impact of technology on their own lives, choices, and relationships. Prerequisites: ENGL101N or ENGL110N.

SOCI228N      Social Inequalities: Theory and Practice      3 Credits

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. Prerequisites: PSYC101N, ANTH110N, or SOCI101N or permission of program coordinator or department chair.

SOCI250N      Society's Approaches to Health Care Systems      3 Credits

Today's health care providers must not only be competent in the skills required by their role in health care delivery; they must also understand and function adaptively in the complex system(s) within which they work. A large portion of health-related decisions are made not by the patient and/or care provider, but by legislators, insurers, institutions, and others who lack the information available from those delivering direct and indirect health care. Care providers need a background in public policy and the U.S. health care system in order to understand how it has evolved, how it affects health care delivery, and how to influence its future course. Prerequisite: ENGL101N or ENGL110N.

SOCI260N      Special Topics in Sociology      3 Credits

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 sociology courses at Nashua Community College. A course description will be made available prior to the start of registration. Prerequisites: ENGL101N or ENGL110N, and SOCI101N or ANTH110N.

## **AUTOMOTIVE TECHNOLOGY**

AUTO106N      Internal Combustion Engine      3 Credits

This course examines the basic principles of automotive engines, their operating systems, and related physical properties. This basic engine theory is the foundation for many of the more advanced automotive subjects. The lab element of this course exposes the students to the construction methods, precision measurements, and tolerances related to engine design.

AUTO113N      Automotive Electricity and Wiring      3 Credits

This course will cover the theory of automotive electrical systems and the diagnosis and troubleshooting of these systems. Wiring procedures, reading wiring diagrams, and repair techniques for electrical harnesses and components will be covered.

AUTO114N Automotive Suspension and Steering 4 Credits

An introduction to automotive suspension systems, front-end alignment and wheel balance. The course includes the repair of suspension systems and the development of skills in wheel alignment, wheel balancing, and SRS system service. Prerequisites: AUTO121N.

AUTO115N Advanced Automotive Electricity and Electronics 3 Credits

The course includes operating principles and troubleshooting of various systems, including charging systems, body computers, multiplexing, keyless entry, etc. On-board diagnostics related to these systems will be covered. Prerequisite: AUTO113N.

AUTO121N Automotive Service and Maintenance 4 Credits

The study and development of skills in automotive maintenance and preventive maintenance procedures such as engine lubrication, exhaust systems, automatic and manual transmission service, cooling systems, front and rear differential service, tire rotation and balance, and state motor vehicle inspection procedures, engine drive belt and timing belt service, accessory installation and automotive welding fundamentals. **A student must earn a 'C' or better to achieve a passing grade in this course.** This course contains a service learning opportunity.

AUTO122N Automotive Brake Systems 4 Credits

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 and the machining of brake drums and rotors. Prerequisites: AUTO106N, AUTO113N, AUTO121N.

AUTO210N Engine Performance I 3 Credits

The principles of automotive ignition systems from distributor-controlled through electronic and computer-controlled systems are covered. Emphasis is placed on on-board diagnostic systems and the use of portable test equipment. The theory and operation of computer control of other vehicle functions is also discussed. Prerequisites: AUTO106N, AUTO113N, AUTO115N, AUTO121N.

AUTO215N Engine Performance II 3 Credits

A study of automotive fuel injection, computerized engine management and emission control systems beginning with the fundamentals of engine fuel requirements progressing to OBD-II multi-port injection systems. An emphasis on diagnosis and testing of the various systems using scan tools, lab scopes and on-board testing systems are covered. Prerequisites: AUTO210N.

AUTO221N Automotive Heating and Air Conditioning 3 Credits

The theory and operation of automotive heating, ventilation and air conditioning systems will be covered including safety, maintenance, adjustment, diagnosis and repair. Major areas of study will include automotive ventilation systems, heating, systems, heating and air conditioning theory, R12 and R134 air conditioning systems, automatic climate control systems, air conditioning component repair and replacement procedures, refrigerant safety, recovery, recycling and recharge, R12 and R134 retrofit, manual and automatic heating, ventilation and air conditioning controls and add-on air conditioning installation. Prerequisites: AUTO121N, AUTO113N; Corequisite: PHYS101N.

AUTO226N Automotive Power Trains 4 Credits

The study of principles employed in the transference of engine power through transmission to final drive units on both front and rear wheel drive cars. It includes the maintenance and repair of clutches, manual transmissions, drive shaft assemblies and differentials. Prerequisites: AUTO106N, AUTO121N.

AUTO227N Automatic Transmissions 4 Credits

The theory of operation and overhaul of automatic transmissions. The course includes the diagnosis, disassembly and repair, adjustment and reassembly of automatic transmission units. Prerequisites: AUTO106N, AUTO113N, AUTO121N.

AUTO228N Automotive Engine Repair: A Capstone Course 4 Credits

This course is a study of the practical application of skills learned throughout the student's studies to a cumulative capstone project. The students will use previously learned skills to remove, diagnose, rebuild and reassemble a complete automotive engine. The final

project will encompass all previously learned skills and apply them to demonstrate a complete knowledge of proper shop procedures and operations. This course involves a capstone exercise. Prerequisites: PHYS101N; Corequisites: AUTO215N, AUTO221N.

## **AVIATION TECHNOLOGY**

AVTN101N      Maintenance Forms and Records      3 Credits

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.

AVTN102N      Airframe Structures I      4 Credits

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.

AVTN103N      Airframe Structures II      5 Credits

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. Prerequisites: AVTN102N, AVTN108N.

AVTN104N      Materials and Processes      3 Credits

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.

AVTN105N      Aircraft Systems      4 Credits

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.

AVTN106N      Aviation Electronics      3 Credits

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.

AVTN107N      Digital Logic      3 Credits

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. Prerequisite: AVTN106N.

AVTN108N      Aviation Drafting and Blueprint Reading      3 Credits

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.

AVTN202N      Airframe Electrical Systems      3 Credits

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. Prerequisite: AVTN106N.

AVTN203N      Hydraulics and Pneumatics      5 Credits

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.

AVTN204N      Assembly and Rigging      4 Credits

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. Prerequisites: AVTN101N, AVTN203N.

AVTN206N      Reciprocating Engines I      5 Credits

This course is a study of construction, operation and timing mechanisms associated with aircraft reciprocating power-plants. Disassembly, cleaning, measuring, inspecting and reassembly of a powerplant in accordance with appropriate FAA and manufacturers' regulations and practices will be covered. Additionally, engine oil systems and oil system maintenance practices will be studied. Prerequisites: AVTN104N, AVTN203N.

AVTN207N      Reciprocating Engines II      5 Credits

More advanced areas of internal combustion engines are presented including inspections, troubleshooting techniques, servicing and repairing opposed aircraft engines. Powerplant conformity and airworthiness inspections will also be accomplished. Prerequisite: AVTN206N.

AVTN208N      Engine Systems      3 Credits

Lubrication, induction, cooling and exhaust systems, identifying and selecting lubricants are covered. Inspecting, checking, servicing, troubleshooting and repairing engine, lubrication, induction, cooling and exhaust systems, fire detection and extinguishing systems are presented. Corequisite: AVTN206N.

AVTN209N      Aircraft Propellers      3 Credits

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.

AVTN210N      Turbine Engine and Systems      4 Credits

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. Prerequisite: AVTN208N.

AVTN211N      Carburetion and Fuel Systems      3 Credits

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.

AVTN212N      Engine Electrical Systems      4 Credits

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. Prerequisites: AVTN202N, AVTN206N.

## BUSINESS

BUS101N Introduction to Business 3 Credits

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.

BUS104N Principles of Marketing 3 Credits

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.

BUS110N Principles of Management 3 Credits

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.

BUS175N Management of Non-Profit Organizations 3 Credits

This course is an introduction to the principles and practices of non-profit, human service organizations. The course will include an examination of the structure of non-profits, management techniques, leadership essentials, ethics, financial management, budgets, fundraising, grant-writing and community needs assessment. Prerequisites: ENGL101N, MATH103N or higher, BCPT101N.

BUS201N Human Resources Management 3 Credits

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. Prerequisite: BUS110N.

BUS202N Labor Relations Management 3 Credits

The overall objective of this course is to introduce the student to labor union relationships in both private and public sectors of business. A historical approach will show how unions evolved and continue to evolve in the contemporary global business environment. Topics of discussion include establishing a union, negotiating a collective bargaining agreement, dispute resolution, and contract enforcement. Prerequisite: BUS201N or Permission of the Instructor.

BUS204N Small Business Management: A Capstone Course 3 Credits

This is the Management concentration 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. Prerequisites: ACCT101N, BUS110N.

BUS206N Consumer Behavior 3 Credits

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 studying the merchandising effect on consumers. Prerequisite: BUS104N.

BUS207N Sales 3 Credits

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.

BUS208N Retailing 3 Credits

This course is a study of the ways consumer education, communication, technology, lifestyle patterns, and economic considerations impacts retailing. The various forms of retailing are explored, while emphasis is placed on the emerging trends in retailing and their implications for management/ownership of a retail enterprise.

BUS210N Marketing Strategies A Capstone Course 3 Credits

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.

Prerequisite: BUS104N, BUS215N.

BUS213N Principles of Advertising 3 Credits

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.

BUS215N Integrated Marketing Communication 3 Credits

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 and 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. Prerequisite: BUS104N.

BUS218N Dynamics of Organizational Behavior 3 Credits

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.

BUS230N Introduction to Management of Information Systems 3 Credits

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.

BUS240N Business Law 3 Credits

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.

BUS290N Management/Small Business Entrepreneurship Internship 3 Credits

An internship program in the Department of Business and Technology 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. Prerequisite: Completion of all catalog-listed courses for the first three semesters in a business student's respective program of study.

BUS294N Marketing Internship 3 Credits

An internship program in the Department of Business and Technology 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. Prerequisite: Completion of all catalog-listed courses for the first three semesters in a business student's respective program of study.

## BUSINESS COMPUTERS

BCPT101N      Computer Technology and Applications      3 Credits

Computer technology concepts, terminology, course management software and hardware are emphasized. The student will apply word processing skills and applications for academic and career success. The windows operating platform will be used.

BCPT119N      Software Applications      3 Credits

Students are instructed in intermediate applications of end-user productivity software, including office suites.\* Emphasis is on data sharing and integration, desktop information management, as well as interacting in each application with the Internet. \*Any major Integrated Software Suite may be implemented in this course to meet the needs of the learner or business environment.

Prerequisite: BCPT101N.

BCPT204N      Word Processing: WORD      3 Credits

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. (This course helps prepare students to take the Microsoft Expert Level Certification Exam). Prerequisite: BCPT101N.

BCPT208N      Spreadsheet: EXCEL      3 Credits

This course provides students with knowledge of EXCEL, a spreadsheet program for managing and presenting data in the Microsoft Windows environment. EXCEL offers spreadsheets, charting, drawing, scenario, data maps, and macros. (This course helps prepare students to take the Microsoft Expert Level Certification Exam). Prerequisite: BCPT101N.

BCPT213N      Database Management: ACCESS      3 Credits

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. (This course helps prepare students to take the Microsoft Expert Level Certification Exam.) Prerequisite: BCPT101N or CSCI101N for Computer Networking majors.

BCPT216N      Desktop Publishing      3 Credits

InDesign desktop publishing software is used to create and publish computer-generated digital publications. Students learn to produce advertisements, newsletters, brochures and business forms. Emphasis is placed on the understanding and application of graphic design principles to create and produce high quality digital publications. Prerequisite: BCPT101N.

## COLLISION REPAIR TECHNOLOGY

CRTN101N      Basic Collision Repair      4 Credits

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. Shop safety will be stressed and applied. MIG and gas welding theory and technique will be covered as well. **A minimum grade of 'C' is required for progression in Collision Repair Courses.**

CRTN105N      Basic Automotive Refinishing      4 Credits

The theory and development of skills required to properly prepare an automobile for refinishing. Topics include the selection of abrasives and other refinishing materials. The proper use and safety of painting equipment such as compressed air systems, respirators, spray guns, paint booths, and drying systems will be covered. Detailing of automotive interiors and exteriors will be discussed and practiced. Laws, regulations and safety regarding the handling of paint materials will be emphasized. Prerequisite: CRTN101N.



CRTN201N      Advanced Collision Repair      4 Credits

The refinement of skills required to repair auto body panels plus the proper procedures in sectioning bodies, replacing bolted and welded panels, and glass replacement will be covered. Other topics will include the proper repair of non-steel body panels. Prerequisite: CRTN105N.

CRTN210N      Structural Analysis and Repair      4 Credits

This course covers the construction of conventional and unitized frames used in automobiles. The principles of measurement and alignment of both frames and suspensions will be studied. Students will learn about the different types of measuring equipment and have hands-on training using our Chief 3D measuring system, Chief Velocity computerized measuring system, and Chief E-Z Liner frame machine. Skills and safety using frame straightening equipment will be emphasized. Prerequisite: AUTO114N, CRTN105N.

CRTN225N      Advanced Automotive Refinishing      5 Credits

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 problems. 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. Prerequisite: CRTN201N.

CRTN230N      Collision Estimating and Repair: A Capstone Experience      4 Credits

This course will cover the theory and skills of analyzing and estimating costs to replace and repair collision damages. Topics will include analysis of damage, customer relations, insurance policies, shop operations, liability, estimating systems and economics of repairs. Practice in writing damage estimates will be performed. This course contains a capstone experience. Prerequisite: Successful completion of all catalog-listed courses in first three semesters or permission of Program Coordinator. Corequisites: AUTO221N, CRTN225N.

CRTN235N      Collision Mechanical and Electrical Systems      3 Credits

The study and development of skills in automobile undercarriage repairs such as brake service, CV shaft and driveline service, headlamp aiming, air bag diagnosis and repair, charging and starting systems, and fuel and ignition systems. This course is intended to teach the Collision Repair Student the basic knowledge and skills of the automotive systems as related to collision damages as described in the NATEF certification task list. Prerequisite: AUTO114N, CRTN105N; Corequisite: AUTO113N.

## COMMUNICATIONS

COMM101N      Introduction to Media Studies      3 Credits

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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

COMM102N      Principles of Communication      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

COMM115N      Introduction to Media Writing      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

COMM120N Introduction to Public Relations 3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

COMM125N Introduction to Broadcasting 3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

COMM130N Blog Writing 3 Credits

Applying principles used in business and industry, 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. Prerequisite: ENGL101N or ENGL110N

COMM204N Screenwriting 3 Credits

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: the tenets of the conventional Hollywood narrative structure; the sophisticated nature of storytelling through description; the language of scriptwriting; writing scripts that connect to audiences; characterization and arc; and peer evaluation. Prerequisite: ENGL101N or ENGL110N with a grade of 'C' or better.

COMM206N Social Media 3 Credits

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. Prerequisite: COMM101N.

COMM285N Communications Internship: A Capstone Experience 3 Credits

This course prepares students for an advanced study of communications at the bachelor degree level and will serve as the capstone experience for Communications concentration students enrolled in the Liberal Arts program. The course is designed to help students synthesize the learning and skills acquired in their concentration 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. Prerequisites: Completion of 45 credits of coursework applicable to the Liberal Arts-Communications concentration. Minimum grade of 'B-' in ENGL101N or ENGL110N, COMM101N and COMM115N must be achieved to register for COMM285N.

## COMPLEMENTARY HEALTH AND WELLNESS

CHWN101N Foundations of Health and Wellness 3 Credits

This survey course familiarizes the student with the broad and varied methods and techniques currently recognized in the field of Alternative Health and Wellness. Most frequently used options for treatment of self and others will be explored at some depth. Emphasized will be both Eastern and Western modalities. Further, this course assists the student in choosing one or more areas of focus within the overall program.

CHWN102N Somatic Theory 3 Credits

This survey course will detail the development, through various models and concepts, of somatic theory in the areas of bodywork, psychology and human growth and development. Of major emphasis will be the work of Wilhelm Reich and his follower, Alexander Lowen (Bioenergetics). Also noted will be such psychology leaders as Abraham Maslow (Self-Actualization); Moshe Feldenkrais (Awareness through Movement); Ida Rolf; and Dr. Candice Pert. The course will encourage individual conceptualization about the "mind-body" connection and its relationship to complementary health and wellness.

CHWN103N Ethics, Business and Marketing 3 Credits

This course will in general familiarize the student of the Complementary Health and Wellness program with the ethics and business of practicing techniques within that spectrum. Emphasis will be on defining scope of practice and noting obvious and subtle “flags” of ethical and boundary problems in that practice. Special attention will also be given to the marketing of skills learned within the certificate program.

CHWN105N Guided Meditation and Imagery 2 Credits

In this course the student will become familiar with a broad and varied range of techniques for guiding a person in meditative thought and image. Students will gain a thorough understanding of theories of and practice with these modalities: from traditional hypnosis to NLP and Ericksonian Technique. Metaphor and indirect structure will be emphasized, as well as analogy and arch-types. Breath and physical relaxation are also included topics. Prerequisite: PSYC101N.

CHWN110N Introduction to Homeopathy 2 Credits

This exploratory course shall familiarize the student with an overview of the science and art of Homeopathy –“like curing like”- as it is applied in holistic self care and family first aid. Understand the foundation of Homeopathy and its healing philosophy as infinitesimal amounts of natural substances are identified as remedies to common ailments.

CHWN115N Introduction to Herbology 3 Credits

This survey course will familiarize the student with the properties and the usage of herbs from around the world. At least 12 herbs will be studied in depth, with the students developing monographs of the herbs studied in class. At the conclusion of this course the student will have developed a Materia Medica and will be able to create herbal products for their own use.

CHWN120N Introduction to Reiki Healing 2 Credits

Reiki is “universal energy” that can be channeled through an individual for specific, positive and healing purposes. Reiki is currently recognized as a viable alternative or complementary modality in most hospitals throughout the United States. This course familiarizes the student with the traditional Usui method of Reiki and its varied techniques, traditions and beliefs. Student will learn traditional hand positions and participate in actual hands-on practice. Corequisite: CHWN101N.

CHWN125N Yoga, Breath and Movement 2 Credits

This survey course introduces the student to yogic philosophy, breath work and “slow” body movements to help rebalance body, mind and spirit. Through “movement with intent”, the student will learn how to release and transform physical/emotional tension brought about from our modern life stressors.

## COMPUTER AIDED DRAFTING

CAD111N CADD I 5 Credits

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.

CAD112N CADD II 5 Credits

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. Prerequisite: CAD111N or Permission of the Instructor.

CAD131N Technical Drawing 3 Credits

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.



**course, students who are relatively new to working with computers should consider taking CSCI101N, CSCI106N, or BCPT101N as a prerequisite or corequisite.**

CSCI140N      Essentials of System Analysis and Design      3 Credits

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. Prerequisite: CSCI161N.

CSCI161N      Introduction to Programming      3 Credits

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. Prerequisite: ACCUPLACER score recommendation of MATH110N or satisfactory completion of MATH099N.

CSCI175N      Intermediate Programming Using C++      3 Credits

This course is the second course in the software development sequence. It continues the idea of using programming and its constructs to solve problems. The student's understanding of variables, arrays, if, if else, loops, and functions will be reinforced, while introducing the student to the object oriented C++ programming language. Additionally the student will be introduced to pointers and structures, and selected preprocessor directives as well as bit manipulations. Prerequisites: CSCI161N or ELET121N or MATH215N.

CSCI201N      Client-Side Scripting Using JavaScript      3 Credits

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. Prerequisite: CSCI103N, CSCI161N.

CSCI202N      Java Programming      3 Credits

The students will reinforce their understanding of basic programming concepts such as variables, loops, conditions, arithmetic operations, functions, parameters and arrays while learning the Java programming language and the Java SDK. The key concepts of the object-oriented programming such as classes, objects, inheritance, and encapsulation are also addressed as well as object oriented problem conceptualization and class definition. Additionally graphical user interface (GUI) and event driven programming concepts are reinforced. Prerequisite: CSCI161N.

CSCI203N      Introduction to UNIX      3 Credits

The student will be able to perform ordinary tasks in the UNIX operating system. This would include user file and directory management, use of shell/template, use of an editor, executing commands and managing processes. The student will also learn to customize the work environment, use UNIX utilities and learn simple scripting. (Although there is no prerequisite for this course, students who are new to working with computers should consider taking CSCI101N either before or along with this course.)

CSCI204N      Administering Windows Servers      3 Credits

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. Prerequisite: CSCI116N.

CSCI206N      Server-Side Scripting Using PHP      3 Credits

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/XHTML pages that access information on the server. Students learn to design and develop applications for use in an intranet/internet environment. Prerequisite: CSCI103N, CSCI161N.

CSCI207N      Database Design and Management      3 Credits

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. Prior knowledge of a programming language as approved by the Program Coordinator is required.

CSCI208N      Perl Programming      3 Credits

Students will learn Perl while continuing to develop their proficiency in problem solving by developing a series of programs and a comprehensive final project. Simple scalar and more complex data types such as arrays, lists and hashes will be examined. Constructs including if/unless, for, while, foreach, user defined functions, file handles, and regular expressions will be studied. Prerequisites: Prior programming experience in C, C++, or Java.

CSCI209N      UNIX System Administration Using Linux      3 Credits

This course will teach the students how to set up and operate Linux based system as a server for a network of computers. The course will start with set up of a local system including booting and shutting down the system. The student will know how to create user accounts on the system, install software on the system and set up the two most popular user interfaces GNOME and KDE. Students will learn how to set up basic Internet services: DNS, FTP, Web Server (Apache), SMTP Mail, POP mail, DHCP, and Secure Shell (SSH). Special attention will be given to setting up and working with Apache Web server. The student will be exposed to some of the Intranet issues: NFS (Network File Server), NIS (Network Information Services), Samba (Windows Connectivity), printing. Finally some more advanced Networking topics will be explored. The TCP/IP will be examined from the system administrator's point of view and from the point of view of setting up firewalls. Prerequisite: CSCI203N.

CSCI210N      Advanced Windows Servers      3 Credits

This course is a continuation of CSCI204N, 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 DHCP, 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. Prerequisite: CSCI204N.

CSCI216N      Routing and Switching Essentials      4 Credits

This course is the second in our series that covers the skills required for Cisco's CCENT and CCNA certifications. It describes the architecture, components, and operations of routers and switches in a small network. Students learn how to configure a router and a switch for basic functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with RIPv1, RIPng, single-area OSPF, virtual LANs, and inter-VLAN routing in both IPv4 and IPv6 networks. Prerequisite: CSCI116N.

CSCI217N      Scaling Networks      3 Credits

This course is the third in our series to prepare students for CCENT and CCNA certification. It describes the architecture, components, and operations of routers and switches in a larger and more complex network. Students learn how to configure routers and switches for advanced functionality. By the end of this course, students will be able to configure and troubleshoot routers and switches and resolve common issues with OSPF, EIGRP, and STP in both IPv4 and IPv6 networks. Prerequisite: CSCI216N.

CSCI218N      Connecting Networks      3 Credits

This course is the fourth course in our series to prepare students for CCENT and CCNA certification. It discusses the WAN technologies and network services required by converged applications in a complex network. The course enables students to understand the selection criteria of network devices and WAN technologies to meet network requirements. Students learn how to

configure and troubleshoot network devices and resolve common issues with data link protocols. Students will also develop the knowledge and skills needed to implement IPsec and virtual private network (VPN) operations in a complex network.

Prerequisite: CSCI217N.

CSCI230N      Advanced Programming Using: C++      3 Credits

This is the third course in the software development sequence. 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.

Prerequisite: CSCI175N.

CSCI250N      CCNA Security      3 Credits

CCNA Security equips students with the knowledge and skills needed to prepare for entry-level security specialist careers. This course is a hands-on, career-oriented e-learning solution that emphasizes practical experience. CCNA Security is a blended curriculum with both online and classroom learning. CCNA Security aims to develop an in-depth understanding of network security principles as well as the tools and configurations available. This course prepares students for the CCNA Security certification exam. The following tools are covered: Protocol sniffers/analyzers; TCP/IP and common desktop utilities; Cisco IOS Software; Cisco VPN client; Packet Tracer (PT); Web-based resources. Prerequisites: CSCI217N or CCNA certification or equivalent experience.

CSCI278N      Data Structures Using C++      3 Credits

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. Prerequisite: CSCI230N.

CSCI284N      Senior Website Development Lab: A Capstone Experience      3 Credits

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. Corequisite: CSCI206N.

CSCI285N      Senior Software Development Lab: A Capstone Experience      3 Credits

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. Prerequisite or Corequisite: CSCI278N.

CSCI286N      Networking Capstone Project      3 Credits

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. Prerequisites/Corequisites: CSCI217N, CSCI210N

CSCI290N      Computer Science Internship      3 Credits

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.

Prerequisite: 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 3 Credits

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.

CRMJ102N Criminology 3 Credits

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. Corequisite: SOCI101N.

CRMJ121N Criminal Investigation 3 Credits

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. Prerequisite: CRMJ101N.

CRMJ122N Law Enforcement Organizations 3 Credits

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. Prerequisite: CRMJ101N.

CRMJ220N Juvenile Justice 3 Credits

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. Prerequisite: CRMJ102N.

CRMJ240N Criminal Law and Prosecution 3 Credits

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. Prerequisite: CRMJ101N.

CRMJ260N Criminal Procedure 3 Credits

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. Prerequisite: CRMJ240N.

CRMJ265N Corrections 3 Credits

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. Prerequisite: CRMJ122N.



CRMJ280N Criminal Justice Internship 3 Credits

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. Prerequisite: Completion of 45 credits of coursework applicable to the Criminal Justice Associate Degree Program.

CRMJ285N Criminal Justice Senior Project 3 Credits

In this course, through on-going and individualized contact with the supervising instructor, the student develops a topic pre-approved 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. Prerequisite: Completion of 45 credits of coursework applicable to the Criminal Justice Associate Degree Program.

## CULINARY ARTS

CULA102N Principles of Culinary Art 3 Credits

Principles of Culinary Arts will focus on the fundamental knowledge, terminology, and identification of food products, as well as accurate ordering of food products. Students will increase their knowledge of food products by identification, smell, feel, and taste. Proper cooking techniques for food products will be studied. Acquiring the skills of identification, accurate ordering, and cooking techniques will increase the student's fundamental knowledge of culinary arts.

CULA105N Food Safety and Sanitation 3 Credits

This training and assessment program delivers consistent food safety and sanitation training to future culinarians and culminates in an exam where the student has the opportunity to become Serve-Safe Certified, by the National Restaurant Association. If a student fails the national exam they would be responsible to retake the exam at their own expense before enrolling in the Fall semester.

CULA110N Basic Food Preparation 3 Credits

In this course, students will learn the basic fundamentals of food preparation. Topics will include knife skills, cooking methods, thickening agents, soups, stocks and sauces. The students will also become familiar with salads, salad dressings, and marinades. Safety practices in the food service industry, including proper techniques for equipment and tools, will continue to be emphasized as well as professionalism in all aspects of the food service industry.

CULA112N American Regional Cuisine 3 Credits

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. Prerequisite: CULA110N.

CULA120N Fundamentals of Baking 3 Credits

This course introduces students to the fundamental elements of baking 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 apply their knowledge in the production of various baked products. Prerequisite: CULA105N.

CULA130N Menu Development 3 Credits

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 be involved in critiquing and creating menus from the perspective of concept, clarity, cost, price, and efficiency. Prerequisite: CULA110N.

CULA140N Nutritional Cuisine 3 Credits

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. Prerequisite: CULA110N.

CULA210N      Intermediate Food Preparation      3 Credits

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. Ala Carte and buffet setups will be utilized as presentation methods. Prerequisite: CULA110N.

CULA212N      International Cuisine      4 Credits

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 day and will be scrutinized to produce authentic food that reflects ethnic tradition and food production methods of each global region. Prerequisite: CULA210N.

CULA215N      Garde Manger      3 Credits

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; patés and terrines; Sausages; canapés; and garnishing, carving, and decorating. Prerequisite: CULA210N

CULA220N      Food Service Purchasing and Cost Controls      2 Credits

This course provides an introduction 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 responsible for proper storage techniques and rotations of products as well as to participate in the receiving operation of the kitchen. Prerequisite: CULA130N.

CULA235N      Dining Room Service      3 Credits

This course examines the detailed operation of a restaurant dining room. Topics include types of table service, dining room organization and table settings, staffing, responsibilities of dining room personnel, and customer sales and service. Prerequisite: CULA220N.

CULA290N      Culinary Internship      3 Credits

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. Prerequisite: Completion of all catalog-listed courses for the first three semesters in the Culinary Arts Program and approval of the Program Coordinator.

## **ECONOMICS**

ECON201N      Microeconomics      3 Credits

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. Prerequisites: Math placement test or MATH099N.

ECON202N      Macroeconomics      3 Credits

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. Prerequisites: Math Placement Test or MATH099N.

## EDUCATION

ECE101N      Foundations of Early Childhood Education      3 Credits

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.

ECE102N      Growth and Development of the Young Child      3 Credits

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 and offers the student a Service Learning option experience.

ECE103N      Safe, Healthy and Nutritional Programs for Early Childhood Education      3 Credits

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.

ECE104N      Curriculum for Early Childhood Care and Education      3 Credits

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. Prerequisites: ECE101N, ECE102N.

ECE105N      Children with Special Needs and Their Families      3 Credits

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 and offers a service learning option. Prerequisites: ECE101N, ECE102N.

ECE190N      Practicum I      3 Credits

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. This course is a capstone course for the Certificate student. The

course addresses all five of the NAEYC Standards for Early Childhood Professional Preparation. Prerequisites: ECE101N, ECE102N, ECE104N, ECE105N.

ECE200N            Developmentally Appropriate Programs for Infants and Toddlers            3 Credits

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. Prerequisites: ECE101N, ECE102N.

ECE201N            Organization and Management in Early Childhood Education            3 Credits

This course provides a survey of the organization and management of early childhood programs and child care centers. Topic covered will include planning, managing and evaluating programs and facilities for children. The topics of marketing, record keeping, budgeting, funding, licensing, accreditation and professional standards, hiring, motivating/evaluating staff and family involvement will be included. Emphasis will be placed on ethical guidelines, professional standards, the role of the early childhood program in the community and the sensitivity of cultural and family diversity. This course requires a minimum of 4 hours of fieldwork. Prerequisites: ECE101N, ECE102N, ECE103N, ECE104N.

ECE203N            Emerging Literacy in Early Childhood Education            3 Credits

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. Prerequisites: ECE101N, ECE102N, ECE104N.

ECE204N            Behavior Guidance and Classroom Management in Early Childhood Education            3 Credits

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. Prerequisites: ECE101N, ECE102N, ECE104N.

ECE215N            Creativity and the Young Child            3 Credits

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. Prerequisites: ECE 101N, ECE102N, ECE104N.

ECE230N            The Early Childhood Profession and Professional Portfolio            1 Credit

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. Corequisite: This course must be taken in conjunction with ECE190N for the Certificate student or ECE290N for the Degree student. A final presentation of the completed portfolio is required.

ECE290N            Early Childhood Education: Capstone Course            3 Credits



will ensure that each child has the opportunity to learn and grow as individuals and within a diverse group. The interrelationships between student to student; adult to student; and adult to adult will be explored. Topics will include creating safe and constructive learning environments, social and emotional learning of students at a variety of ages, Professional Learning Communities/Network, diversity, as well as bullying, harassment, and sexual abuse and neglect in children. Students must complete classroom observations/field experiences. Students are expected to take the Praxis Core of Academic Skills tests (or equivalent) prior to graduation. This may be offered as day or evening classes; and as 100% classroom, 100% online or a hybrid course.

**EDU295N** Curriculum, Instruction and Assessment in the Elementary Classroom 3 Credits

In this elective course, students as future teachers will develop effective teaching skills necessary for constantly reviewing their professional practice, building their own knowledge and dispositions to assure that students are able to grow and achieve to the highest levels possible. Topics include: national and state laws, rules and regulations that govern professional practice; educational philosophies and implementation of effective curricula related to them; instructional strategies; assessment models; honoring and supporting diversity; and focusing on one's personal traits as an effective teacher. Students will be expected to add to their portfolio demonstrating competencies as an effective teacher; selection of and reflection on artifacts and evidence of learning; and demonstrations of the self in regard to readiness to continue one's education. Students must create a unit of instruction, which they will share as part of classroom observations/field experiences in an elementary classroom. Students are expected to take the Praxis Core of Academic Skills tests (or equivalent) prior to graduation. This may be offered as day or evening classes; and as 100% classroom, 100% online or a hybrid course.

**EDU296N** Curriculum, Instruction and Assessment in the Secondary Classroom 3 Credits

This elective course will review the history of secondary schools and look at reform efforts to improve education for adolescents today, including the changes that stem from increasing diversity, maintaining safety, and trying to prepare students for college/career readiness and an uncertain future that will span well into the twenty-first century. Students will learn to apply content from NH Curriculum Frameworks and the Common Core Standards to their curricula; develop course syllabi; differentiate instructional lessons; select effective strategies, including the use of instructional technology, to enhance student learning; and select assessment tools and analyze assessment data for appropriate purposes and for reporting results. Current trends in secondary education, laws (NCLB, NH laws, etc.) and working with PLC's and the community-at-large will be discussed both as they affect students' understanding of the teaching profession (ethics, work environment etc.) and for the impact on curriculum, instruction and assessment. Student learning outcomes will be discussed. Students will create unit plans that they will share in classroom observations/field experiences in a secondary classroom. Students are expected to take the Praxis Core of Academic Skills tests (or equivalent) prior to graduation. This may be offered as day or evening classes; and as 100% classroom, 100% online or a hybrid course.

## **ELECTRONIC ENGINEERING TECHNOLOGY**

**ELET110N** Introduction to Object Oriented Programming with Java 3 Credits

In this course students will be introduced to fundamentals of programming and logical problem solving using object oriented methods and Java 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. After introduction of fundamentals of programming, an object oriented approach will be presented and developed. Elements of event driven programming and Graphical User Interface development will be introduced as well as some Web Oriented programming will be introduced. This course is for EET students only. Prerequisite: Accuplacer score equivalent to placement in MATH099N.

**ELET115N** Object Oriented Programming with C++ 3 Credits

This course is a continuation of the introductory course. Students will continue their general knowledge of programming and object oriented development. Classes will be discussed as a way to create user defined data types. Code reuse through inheritance and polymorphism will be explored in depth. Other topics will include operator overloading, templates, exception handling and I/O streams. There will be emphasis on Standard Template Library. Students will learn about pointers, bit manipulations and other topics specific to systems programming. The difference in C and C++ will be pointed out as C is a wholly inclusive subset of C++. This course is for EET students only. Prerequisite: ELET110N.

**ELET121N** Digital Circuits I 3 Credits

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. Prerequisite or Corequisite: MATH110N.

ELET122N      Digital Circuits II      3 Credits

This course investigates the digital implementation of the basic elements of a digital computer, counters, and registers. A study of computer memory, ALU units, and miscellaneous circuits used for input-output, timing and data transmission is included. Prerequisite: ELETN121N; Corequisite: MATH120N.

ELETN131N      Circuit Analysis I      4 Credits

Theory and laboratory work on DC current, voltage, resistance, Ohm's law, energy, power, series-parallel circuits, network theorems and networks. Introduction to AC current, voltage and power. Prerequisite or Corequisite: MATH110N.

ELET132N      Circuit Analysis II      4 Credits

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. Prerequisite: ELET131N; Corequisite: MATH120N.

ELET141N      Electronics I      4 Credits

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. Prerequisites: ELET131N. Corequisite: MATH120N.

ELET142N      Analog Circuits I      3 Credits

An introduction to semiconductor diodes, rectifying circuits, bipolar transistor and its biasing circuits, DC and AC equivalent circuits. This course is offered in the evening only. Corequisite: ELET132N.

ELET170N      Fundamentals of Operating Systems      3 Credits

This course is a basic introduction to how computers operate. CPU, memory and disk concepts will be discussed. The layering of software on top of the operating system and hardware will be discussed. Students will learn how to use computers in both a scripting command line environment and through a GUI. Differences will be outlined. The concepts will be explained using Linux Operating System. Students will start with basic user account and login concept and will progress to system installation and set up. File system structure and security will be discussed. From there students will move to explore shell scripting and other scripting tools provided by the Linux environment. Compiled programs will be demonstrated via C++ and application examples. Foundations for future learning of client server architecture will be presented.

ELET221N      Advanced Digital Circuits      4 Credits

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. Prerequisites: MATH120N, ELET121N.

ELET241N      Electronics II      4 Credits

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 non-ideal 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. Prerequisites: ELET141N, ELET132N, MATH120N or permission of the EET Program Coordinator.

ELETN243N      Analog Circuits II      3 Credits

A continuing study of transistors, load line analysis, small and large signal amplifier circuits, bias, stability and equivalent circuit models from device parameters. This course is offered in the evening only. Prerequisite: ELET142N.

ELET245N      Communication Theory      3 Credits

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. Prerequisite: ELET246N.

ELET246N      OP Amps and Linear Integrated Circuits      3 Credits

This course provides an in depth study of the analysis and application of operational amplifiers. Topics include differential amplifiers, frequency response, A/D and D/A circuits, active filters, troubleshooting of lab test circuits and analysis using computer simulation. This course is offered in the evening only. Prerequisite: ELET243N.

ELET250N      Microcontrollers      4 Credits

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. Prerequisites: CSCI175N, ELET141N.

ELET274N      EETN Capstone Project      1 Credit

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, troubleshot and demonstrated by the end of the semester. This course is offered in the evening only. Prerequisites: ELET132N, ELET250N.

## ELECTRONICS

ELMT101N      Electronics      3 Credits

An introduction to electricity and electronic components. Primary emphasis is placed on analysis and understanding of resistive circuits. Theorems basic to the analysis of electrical networks are introduced in this course. Circuit analysis is extended to alternating current circuits. Time constants, phase relationships and resonance are taught. Solid state devices are introduced. Prerequisite or Corequisite: MATH099N.

ELMT203N      Applied Mechanics I      3 Credits

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. Corequisite: PHYS130N or PHYS101N.

ELMT204N      Hydraulics and Pneumatics      2 Credits

The dynamics of liquids and gases encountered in traditional manufacturing, industrial automation, and vehicular applications. Prerequisite: ELMT203N.

ELMT210N      Applied Mechanics II      2 Credits

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. Prerequisite: ELMT203N.

## ENGLISH

ENGL090N      Writing Lab      1 Credit



ENGL090N is a writing lab designed to introduce the basic principles of writing by providing an overview of grammar and usage in a self-paced environment. This course includes writing experience with attention to the basic mechanical and structural elements of the writing process. Students will focus on writing paragraph and multi-paragraph essays. The grade options for this course will be Pass/No Pass or CS. Prerequisite: Appropriate Accuplacer score. Corequisite: FYE100N

ENGL099N      Foundations of College English      3 Credits

A preparatory course designed to strengthen and develop writing skills to prepare students for ENGL101N and beyond. Emphasis will be on the short essay format using different rhetorical modes. The course will focus on thinking skills and expression of ideas within an organized form using proper grammar and sentence skills. A minimum passing grade of 'C' is required. Credits do not count toward degree requirements. Prerequisite: Appropriate Accuplacer score or Mastery of ENGL090N.

ENGL101N      College Composition      4 Credits

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 composition and the application of these principles in writing essays and documented 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. Prerequisite: Accuplacer score or mastery of ENGL099N.

ENGL102N      Writing About Literature      3 Credits

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. (Formerly College Composition II.) Prerequisite: ENGL101N, ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL103N      Professional Writing and Presentations      3 Credits

The course is designed to prepare the student to use the principles of and 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, memos, and reports, and in oral communications such as oral presentations, group conferences, and interviewing, according to professional standards. Visual presentation software such as PowerPoint will also be taught. **For students taking the online version of ENGL103N, you must have a webcam and microphone, phone camera with internet connection, or video camera for the required oral presentation portion of the course.** Prerequisite: ENGL101N or ENGL110N. BCPT101N is strongly recommended. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL105N      Introduction to Literature      3 Credits

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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL109N      Oral Communication      3 Credits

Oral Communication 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 oral communication activities, some written assignments are also required. In addition, students will use visual software, such as PowerPoint, in some presentations. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL122N      Technical Writing      3 Credits

Applying principles used in business and industry, students will analyze technical documents and write a variety of technical assignments including memos, instructions, feasibility reports, and proposals. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL206N      Writing Short Stories      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

ENGL215N      Literature by American Women      3 Credits

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, and ethnicity, motherhood, women and body, women and aging, 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, Katherine Anne Porter, Maya Angelou, Sandra Cisneros, Joyce Carol Oates, Elizabeth Bishop, Willa Cather, Sylvia Plath, Alice Walker, Carson McCullers, Tillie Olsen, 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. Prerequisite: ENGL101N or ENGL110N; recommended: ENGL102N.

ENGL220N      Honors Contemporary Dramatic Literature      3 Credits

This course presents drama as a literary form, focusing on American plays from the twentieth and twenty-first centuries, covering the modern and contemporary eras. The plays will be read as literary texts and not as the basis for live performance. Drama elements, including style, theme, dialogue and character, will be the basis for discussion and analysis of the plays through historical, political, social and cultural implications. Playwrights are at the discretion of the instructor. Prerequisite: ENGL101N or ENGL110N.

ENGL230N      British Literature I      3 Credits

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, Chaucer, Sir Thomas More, William Shakespeare, Donne, Jonson, Milton, Dryden, Swift, Pope and others may be selected for study. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL231N      British Literature II      3 Credits

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 Blake, Burns, Byron, the Brownings, Dickens, the Brontes, Eliot, Wilde, Shaw, Hardy, Conrad, Forster, Woolf, Joyce, Orwell, Thomas, Hughes, Heaney and others may be selected for study. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL235N      Poetry Workshop      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

ENGL240N      American Literature I      3 Credits

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. The course covers 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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL241N      American Literature II      3 Credits

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 US literature. The course covers 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, Eugene O'Neill, F. Scott Fitzgerald, Langston Hughes, Allen Ginsburg, Sylvia Plath, Amy Tan, Toni Morrison and others may be selected for study. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: English / Communications.**

ENGL250N Honors Advanced Creative Writing 3 Credits

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. Prerequisites: A grade of 'B' or higher in ENGL110N or ENGL101N.

ENGL285N Topics in English Studies Seminar 3 Credits

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 for English concentration students enrolled in the Liberal Arts program with a focus on writing or literature. 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. Prerequisites: For English concentration majors: Completion of 45 credits of coursework applicable to Liberal Arts-English concentration. Minimum grade of 'B-' in ENGL101N, ENGL110N, ENGL102N for the English concentration.

## ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

ESOL074N Grammar for Writing IV 4 Credits

This course is for non-native speakers of English. This intermediate course is 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. Prerequisites: Permission of the Department Chair/Program Coordinator.

ESOL075N Grammar for Writing V 4 Credits

This course is for non-native speakers of English. This is an intermediate/advanced 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. Prerequisites: ESOL074N or permission of the Department Chair/Program Coordinator.

ESOL076N Grammar for Writing VI 4 Credits

This course is for non-native speakers of English. This is an 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. Prerequisites: ESOL075N or permission of the Department Chair/Program Coordinator.

ESOL082N      Conversation for Authentic Communication      3 Credits

This course is for non-native speakers of English. The main focus is conversation practice for authentic purposes such as communicating in the college classroom and other campus settings; communicating in the community; and communicating to facilitate peer relationships with native speakers. Class activities include pair and group discussions, campus and community interactions, complemented by vocabulary study. Credits do not count toward degree requirements.

ESOL083N      ESL Speaking, Listening and Pronunciation      4 Credits

This course is for non-native speakers of English. The main focuses are 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.

ESOL084N      Academic Writing for English Language Learners I      4 Credits

This course is designed to provide the student with practice in reading and writing skills. Students will develop reading and writing skills and build a more extensive English vocabulary. Grammar will be taught in context with all language skills. Emphasis is placed upon problematic grammatical and mechanical structures for the ESL student. Class activities and assignments will include journaling, reading and writing activities, and discussions. Credits do not count toward degree requirements.

ESOL085N      Listening, Speaking, and Pronunciation II      4 Credits

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.  
Prerequisite: ESOL083N.

ESOL086N      Academic Writing for English Language Learners II      4 Credits

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 system. Emphasis is placed upon independent and critical thinking skills and problem solving. Grammar and mechanics are addressed in context. Activities will include journal writing, authentic readings and college lectures, and peer conferencing. Credits do not count toward degree requirements.

ESOL088N      Academic Writing for English Language Learners III      4 Credits

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.

ESOL096N      Academic Writing for English Language Learners IV      4 Credits

This course is for students who speak English as a second language. This preparatory course emphasizes grammar and usage, vocabulary, sentence structure, and essay development. Reading selections will strengthen comprehension skills. The course includes a special emphasis on problematic written and oral skills for non-native speakers of English. Credits do not count toward degree requirements.

ESOL098N      Academic Writing for English Language Learners V      4 Credits

This course is for non-native speakers of English. This is an advanced course designed to give students ample practice in writing academic essays. The course will be focused on a variety of writing tasks building on prior knowledge of essays. Students will benefit from reading, vocabulary and grammar exercises that support improved writing and language skills, as well as information synthesis. Credits do not count toward degree requirements.

## **FINE ARTS**

ARTS101N      Introduction to Drawing      3 Credits

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.

ARTS111N      Photography and Digital Imaging I      3 Credits

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 adjustable apertures and shutter speeds.

**This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

ARTS112N      Photography and Digital Imaging II      3 Credits

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. Prerequisite: ARTS111N or permission of the instructor.

ARTS120N      Graphic Design Theory      3 Credits

This 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 as a designing tool, emphasis on both 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.

**This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

ARTS140N      Welding and Metal Craft      4 Credits

Cutting, shaping and welding metal for art and automotive applications is the focus of this course. Oxy-acetylene, MIG and TIG welding will be introduced for the construction of objects fabricated from sheet metal, stock steel, and salvage materials. The methods for shaping sheet metal will include: hammer forming with shot bag, wood form, or steel dolly. Stretching and shrinking methods using mechanical devices and tuck and hammer techniques will also be demonstrated. Instruction of hand and power cutting tools will be included. Examples of some potential projects are: art sculptures, automotive body parts for restoration or customizing, motorcycle seats and fenders, and metal working tools. Students will be required to possess leather gloves, hearing protection, safety glasses, and welding goggles.

ARTS200N      Drawing II: Developing a Personal Approach to Drawing      3 Credits

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. Prerequisite: ARTS101N (minimum grade of B) or Permission of Instructor and student portfolio.

## GEOGRAPHY

GEON110N      World Regional Geography      3 Credits

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. **This course fulfills a General Education Core Requirement: Global Awareness.**

This course examines important global themes and controversial issues in the context of human/environmental 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. **This course fulfills a General Education Core Requirement: Global Awareness.**

## HISTORY

HIST101N Western Civilization From Ancient Times to 1700 3 Credits

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. **This course fulfills a General Education Core Requirement: History / Political Science.**

HIST102N Western Civilization From 1600 to the Present 3 Credits

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**

HIST110N Ancient Civilizations of the World 3 Credits

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. **This course fulfills a General Education Core Requirement: History / Political Science.**

HIST140N U.S. History from the Colonial Era to Reconstruction 3 Credits

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. **This course fulfills a General Education Core Requirement: History / Political Science.**

HIST141N U.S. History Since Reconstruction 3 Credits

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. **This course fulfills a General Education Core Requirement History/Political Science**

HIST210N      The Making of England: 1215 - 1707      3 Credits

This course will trace the development of limited monarchy in England so students will have a better understanding of the political traditions that influenced the creation of the U.S. Constitution. Topics explored will include the Magna Carta, the evolution of Parliament in the Middle Ages, the Wars of the Roses, Tudor England, the Stuarts and their struggles with Parliament, the English Civil War, Cromwell and the Commonwealth, the Restoration, the Glorious Revolution, the English Bill of Rights, and the Act of Union. While economic and social trends will be considered, this course will focus primarily on political developments. Prerequisite: ENGL101N or ENGL110N.

HIST215N      New Hampshire History      3 Credits

This course examines New Hampshire history from the pre-historic 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. Prerequisite: ENGL101N or ENGL110N.

HIST232N      History of Modern Asia      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

HIST241N      American Constitutional History      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

HIST246N      Modern America      3 Credits

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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: History / Political Science.**

HIST260N      History of Multiculturalism      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

HIST265N      Latin American History From Independence to the Present      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

HIST280N      Special Topics in History      3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

HIST285N Introduction to Historical Research Methods 3 Credits

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. Prerequisite: ENGL101N or ENGL110N and one history course with a grade of ‘C’ or better.

## HONDA AUTOMOTIVE TECHNOLOGY

HATN113N Honda Electricity and Wiring 4 Credits

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, and proper multi meter usage. 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 NATEF certification as well as Electrical Fundamentals section of the Honda Curriculum.

HATN114N Honda Steering & Suspension 4 Credits

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 and steering system diagnosis and repair. Prerequisites: HATN121N.

HATN121N Honda Service and Maintenance 4 Credits

This course is designed to introduce students to basic Honda automotive dealership repair. The course is centered around the topics outlined in both the NATEF 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.

HATN122N Honda Brakes and Stability Systems 4 Credits

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. Prerequisites: HATN113N, HATN121N.

HATN190N Honda Dealer Internship I: Capstone Course 2 Credits

The Internship Course supplements the PACT Program by requiring the students complete 128 mentored hours working in a dealership service department and ultimately serves as a Capstone experience.

HATN191N Honda Dealer Internship III: Capstone Course 2 Credits

The Internship Course supplements the PACT Program by requiring the students complete 128 mentored hours working in a dealership service department and ultimately serves as a Capstone experience.

HATN192N Honda Dealer Internship IV: Capstone Course 2 Credits

The Internship Course supplements the PACT Program by requiring the students complete 128 mentored hours working in a dealership service department and ultimately serves as a Capstone experience.

HATN195N Honda Dealership Internship II: Capstone Course 6 Credits



The Internship Course supplements the PACT Program by requiring the students complete 384 mentored hours working in a dealership service department and ultimately serves as a Capstone experience. The students become eligible for an internship after successfully completing the first semester course-work with a 2.0 or better GPA. The internship requirement may be met part-time over three semesters or full-time during the summer when no classes are scheduled. The work experience for a student at the dealership should be divided over the eight ASE skill areas. While there will be some areas a student has had previous instruction, there will also be areas where the internship will be their introduction to a subject. It is not the dealership's responsibility to bring a student to a specific level of competency, but to offer the opportunity for development in the skill areas under professional working conditions and document accordingly. A representative from the college will visit the internship site to monitor the student's progress. This course is required only if a student is not earning credit in HATN190N, HATN191N, HATN192N.

Prerequisites: HATN121N, HATN113N.

HATN205N      Honda Advanced Electrical and Electronic Systems      4 Credits

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 include, charging systems, starting systems, computer controlled systems, electric motor circuits, computer communication systems, restraint systems and hybrid systems. In addition, students will be required to complete all Advanced Electrical self-study modules, all Restraint self-study modules as well as Honda designated skill module for successful completion of this course. Prerequisite: HATN113N.

HATN210N      Honda Engine Performance I      4 Credits

The basic principles of engine computer management systems that control engine performance, emissions and economy will be covered. The ignition, fuel, valve timing, throttle and modulated displacement systems will be covered. 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. Prerequisites: HATN113N, HATN121N, HATN205N.

HATN221N      Honda Heating and Air Conditioning Systems      4 Credits

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. Prerequisites: HATN121N, HATN113N; Corequisite: PHYS101N

HATN226N      Honda Transmissions and Drivelines      4 Credits

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 NATEF 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. Prerequisites: HATN114N, HATN121N.

HATN228N      Honda Engine Repair      4 Credits

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 NATEF certification and Honda modules in the Engine Repair section. Prerequisites: HATN205N, HATN210N; corequisite: PHYS101N.

## HONORS

ANTH263N      Honors Introduction to Chinese Culture and Society      3 Credits

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. Prerequisite or corequisite:

ENGL110N or ENGL101N and permission of the Honors Program Coordinator or Admissions into the Honors Program. **This course fulfills a General Education Core Requirement: Global Awareness.**

CHEM135N Honors The Environment in Chemical Perspective 4 Credits

The course introduces students to the study of major environmental problems and issues facing society today with an emphasis on the study of chemical contaminants in the environment. The course will include topics such as an introduction to the Earth's crust, the ecosystem, environmental pollution, chemical contaminants in the environment and their ecological and health effects, control of chemical environmental contaminants, chemical contaminant quantification, predicting the toxicity of chemical contaminants in the environment (using concepts such as chemical reactions, the stoichiometry of their equations, their rates, and equilibrium), and green chemistry. Prerequisites: Minimum grade of 'B-' in CHEM110N or CHEM130N and MATH099N or Accuplacer Score of 80 or better in Algebra. Prerequisite or corequisite: ENGL110N or ENGL101N. **This course fulfills a General Education Core Requirement: Science.**

ENGL110N Honors Expository Writing 4 Credits

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. 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.**

ENGL220N Honors Contemporary Dramatic Literature 3 Credits

This course presents drama as a literary form, focusing on American plays from the twentieth and twenty-first centuries, covering the modern and contemporary eras. The plays will be read as literary texts and not as the basis for live performance. Drama elements, including style, theme, dialogue and character, will be the basis for discussion and analysis of the plays through historical, political, social and cultural implications. Playwrights are at the discretion of the instructor. Prerequisite: ENGL101N or ENGL110N.

ENGL250N Honors Advanced Creative Writing 3 Credits

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. Prerequisites: A grade of 'B' or higher in ENGL110N or ENGL101N.

ENGL255N Honors Humor in Literature and Other Media 3 Credits

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'Conner, Neil Simon, Edward Albee, Bill Cosby, Dick Gregory, Jon Stewart, and Tina Fey. Prerequisites: A grade of 'B-' or higher in ENGL110N or ENGL101N and permission of the Honors Program Coordinator. **This course is equivalent to ENGL102N and fulfills a General Education Core Requirement: English / Communications.**

HIST262N Honors Movies and Social History of USA 3 Credits

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.

Prerequisite: Admission into the Honors Program or Permission of the Coordinator of the Honors Program; ENGL110N or ENGL101N with a grade of 'B-' or higher. **This course fulfills a General Education Core Requirement: History / Political Science.**

HONN290N Honors Capstone Experience 3 Credits

This course challenges the students to design a scholarly research project that incorporates an area or areas of study from previous coursework or a current issue into an enlightening 'conversation' on new insights, probable applications, synthesis of various theories, or evaluation of previous claims. The student will devise a research strategy that involves meetings with content expert in the field of study as well as writing sessions with the Honors Program Coordinator and identification of plausible publications for submission. The final product will be a publishable document as well as formal public presentation of the student's scholarship. The specific nature of the student project will be determined by the student and a designated mentor (including the Honors Program advisor, Capstone instructor, content expert).

MATH214N Honors Calculus I 4 Credits

Students will have an opportunity to explore calculus from a historical perspective with emphasis on discovery and in solving problems. In addition to performing the mathematical calculations involved in the study of calculus, students will read on the history of calculus and a variety of topics including limits, differentiation, related rates, definite and indefinite integrals, area and volume. Not only will students learn the various operational steps of this mathematical study, but they will be challenged with researching the areas of application for calculus. prerequisite: Placement Test or MATH120N AND Acceptance in Honors Program. **This course fulfills a General Education Core Requirement: Quantitative Literacy.**

PHIL130N Honors Ancient Greek Philosophy 3 Credits

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? Prerequisite or corequisite: ENGL110N or ENGL101N and permission of the Honors Program Coordinator or Admissions into the Honors Program. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

## HOSPITALITY AND RESTAURANT MANAGEMENT

HOS101N Introduction to Hospitality 3 Credits

This survey of the hospitality industry covers the history, contemporary practices, future of the industry, restaurant/food service operations, hotel management, managing in the service industry, operations management (including housekeeping), and the management of personnel.

HOS110N Front Office Operations/Revenue Management 3 Credits

This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and settlement of payment. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front operations and to human resources management. Front

office procedures and management are placed within the context of the overall operation of a hotel. Special emphasis is placed on guest-employee relations. In addition, attention is paid to the management of revenue. Particular emphasis is placed on setting rates, managing seasonal rates, and determining average daily rates. Prerequisite: HOS101N.

HOS201N      Hospitality Sales and Marketing      3 Credits

This course will focus on practical sales and marketing techniques for the hospitality industry. The course will cover a marketing plan and advertising campaign for a hotel, including identifying target markets, prospecting for sales leads, and using sales techniques. Prerequisites: HOS101N, BUS104N.

HOS210N      Principles of Food and Beverage Management      3 Credits

This course is designed to provide students with a basic understanding of food and beverage management. Topics include the origins of the food service industry, a focus on menu management, production and service, and design finances and automation. Students will prepare for "safe-service" certification as part of the course. Prerequisite: HOS101N.

HOS211N      Bar and Beverage Management      3 Credits

This course builds upon skills acquired in Principles of Food and Beverage Management. In addition to experience in food and beverage service, the course emphasizes beverage management and operational controls. Topics include service, procurement, storage, control of wines, fermented beverages, and distilled beverages. Upon completion of the course, students should be able to demonstrate knowledge of the beverages consumed in a hospitality operation. TIPS (Training for Intervention ProcedureS) alcohol training certification will be offered as part of the course. Prerequisite: HOS210N.

HOS290N      Hospitality and Restaurant Management Internship      3 Credits

This internship is a College-supervised introduction to hospitality work experience at a participating industry property for a full semester. A journal and written assignments are required components of the internship experience. Prerequisite: A cumulative GPA of 3.0 in major courses, an overall GPA of 2.0 in General Education courses, completion of all catalog-listed courses for the first three semesters in the Hospitality and Restaurant Management Program and approval of the Program Coordinator.

## HUMAN SERVICES

HSV111N      Introduction to Human Services      3 Credits

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. Corequisite: ENGL101N, PSYC206N, PSYC101N.

HSV123N      Supportive Communication Skills      3 Credits

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. Prerequisites: HSV111N, PSYC206N.

HSV190N      Fieldwork I      3 Credits

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. Students will not be able to do all three field placements at the same agency. Pre-approval of fieldwork site by Dept Chair before placement. Students are expected to have field work placement before class begins. Prerequisite: BCPT101N. Prerequisites or corequisites: HSV123N, General Education Core Requirement: Behavioral Social Science.

HSV225N      Family Supports      3 Credits

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. Prerequisites: PSYC212N; Corequisite: PSYC222N.

HSV290N                      Fieldwork II    3 Credits

Pre-approval of fieldwork site by department chairperson before placement. (A GPA of 2.0 is recommended.)The student will work in an approved clinical setting under the supervision of an approved professional. Students will be expected to assume practical responsibilities appropriate to their placement sites, and to attend scheduled meetings of fieldwork participants. Prerequisites: HSV190N, ENGL101N; Prerequisites or Corequisites: MATH103N, PSYC240N, PSYC212N. Students are expected to have field work placement before class begins. Students will not be able to do all three field placements at the same agency.

HSV291N                      Capstone Experience (Fieldwork)    3 Credits

Pre-approval of fieldwork site by department chairperson 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. Regular 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. Prerequisite: HSV190N; Corequisites: HSV225N, PSYC222N.

## HUMANITIES

HUMA101N                      Introduction to the Humanities    3 Credits

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. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

HUMA102N                      Art Appreciation    3 Credits

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. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

HUMA103N                      Music Appreciation    3 Credits

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 historic 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. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

HUMA104N                      Jazz and Its Roots    3 Credits

For most of the twentieth century, jazz was not only one of the most important cultural developments in America but was also deeply involved in important political, intellectual and social developments. This course will focus on the development of jazz, its roots and its impact on society. Students will learn both to appreciate "America's art form" and to recognize how jazz reflected and shaped important developments in modern American history. This course fulfills a General Education Core Requirement: Humanities / Fine Arts.

HUMA107N                      World Religion    3 Credits

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, scriptures and devotional literature..

Prerequisite: ENGL101N, ENGL110N **General Education Core Requirement: Global Awareness.**

HUMA110N Critical Thinking Skills 3 Credits

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. Prerequisite: 'C' or better in ENGL099N or Accuplacer placement score equivalent to ENGL101N. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

HUMA120N Introduction to Theatre 3 Credits

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. Prerequisite: ENGL101N or ENGL110N.

HUMA130N Music Composition 3 Credits

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. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

HUMA140N American Cinema 3 Credits

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.

HUMA145N American Popular Culture 3 Credits

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. Prerequisite: ENGL101N, ENGL110N

HUMA220N Classic Myths in Western Civilization 3 Credits

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'. Prerequisite: 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      3 Credits

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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

HUMA235N      Law and Ethics for Health Care Providers      3 Credits

The provision of health care at all levels is governed by principles of law and ethics to protect the rights of patients, care providers, and health care institutions. A fundamental understanding of the principles of law and ethics is necessary to deliver safe, ethical, and compassionate care in today's complex health care system. Beginning with terminology and theory pertaining to law and ethics, students will identify and discuss dilemmas encountered in patient care. They will also propose strategies for resolving dilemmas legally and ethically. Prerequisite: ENGL101N or ENGL110N.

PHIL109N      Introduction to Philosophy      3 Credits

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. Prerequisite: 'C' or better in ENGL099N or Accuplacer placement score equivalent to ENGL101N. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

PHIL130N      Honors Ancient Greek Philosophy      3 Credits

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? Prerequisite or corequisite: ENGL110N or ENGL101N and permission of the Honors Program Coordinator or Admissions into the Honors Program. **This course fulfills a General Education Core Requirement: Humanities / Fine Arts.**

## LEARNING EXPERIENCE

FYE100N      Pathways to College Success      2 Credits

Pathways to College Success, is a two-credit course that enables students to develop the attitudes and skills necessary to reach their academic goals and succeed in the college environment. Emphasis in this course will be on assisting first-year students in making a

successful transition to college. Prerequisites: Accuplacer score equivalent to placement into two or more developmental courses or RDGN095N, ENGL098N, or MATH099N.

FYE101N	First Year Experience	1 Credit
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First Year Experience is a one-credit course that enables students to develop the attitudes and skills necessary to reach their academic goals and succeed in the college environment. Emphasis will be placed on exploring what it takes to become a successful community college student by developing the requisite skills to enhance performance while building strong connections to Nashua Community College. (Formerly known as Freshman Seminar and College Success Strategies).

## LIBERAL ARTS

LIBA102N	Liberal Arts Seminar	2 Credits
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This is a two-credit course that introduces students to the study of the liberal arts. In addition to exploring career options and developing a transfer pathway to a four-year college or university, students will learn about the value of a liberal arts education -- "those skills and habits of mind that allow one to approach complex problems from a variety of perspectives." This course is a requirement for all students in the liberal arts program who have not selected a concentration as well as all students in the history/political science concentration. While this course will certainly benefit anyone seeking information about selecting a major, transfer and career planning, or the strengthening of essential academic skills, you must take this course if you plan to earn an A.A. in Liberal Arts degree (with no concentration or with a history/political science concentration).

## MASSAGE THERAPY

Students must be matriculated in the Massage Therapy program to enroll in these courses. Enrollment is available on a space available basis to non-matriculated Massage Therapy students from other Massage schools or to licensed massage therapists.

MASS101N	Swedish Massage I	3 Credits
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This course introduces the student to the history and theory of massage and will begin the study of the science and art of massage therapy. Course consists of lecture, demonstration and hands-on treatment. Students will be treating each other under the supervision of a licensed massage therapy instructor. This course is devoted to mastering the five basic Swedish strokes: effleurage, petrissage, friction, tapotement and vibration. Corerequisite: MASS102N.

MASS102N	Anatomy and Physiology for Massage and Bodywork	4 Credits
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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 massage therapy and bodywork student. A series of laboratory experiences are included to provide practical support for concepts presented in lecture.

MASS105N	Spa Techniques	2 Credits
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This course familiarizes the therapist in general with the various technique offerings of spas, including massage. The most frequently used options will be highlighted including wraps, scrubs, aromatherapy massage, and facials. Prerequisites: MASS101N, MASS102N.

MASS111N	Musculo-Skeletal Studies	2 Credits
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This course will concentrate on the muscular and skeletal systems of the body, emphasizing identification, anatomical location and physiological function. How each unit studied--muscle and/or bone--relates to the entire human structure will be considered. Prerequisite: MASS102N.

MASS119N	Massage Business Practices	3 Credits
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Course is lecture and open forum discussion of business laws and practices as it pertains to the licensed massage therapist. Topics included will be employment versus self-employment, business laws, accounting methods, tax-reporting, insurance billing and office filing and procedures and business start-up.

MASS121N      Swedish Massage II      3 Credits

This course continues and completes Swedish or basic massage. Range of motion will be studied as well as more advanced use of the basic strokes on the four quadrants of the body. Prerequisites: MASS101N, MASS102N.

MASS124N      Acupressure      3 Credits

This course teaches the student Oriental concepts of the 12 organ meridians and the application of finger pressure for the overall health of the individual. Prerequisites: MASS101N, MASS102N.

MASS126N      Massage Therapy Rules & Ethics      1 Credit

Course is lecture and experiential, focuses upon the specific ethics of the profession of massage as exemplified in various codes of ethics of major massage organizations.. Course will also cover NH Rules governing massage therapy and therapists.

MASS131N      Pathology      3 Credits

Students will learn to treat pathological conditions of the musculoskeletal system, joints, movement, and anomalous conditions that limit movement as well as the more recognized pathological conditions of each anatomical system. Communicable diseases are considered, and hygiene included, along with indications and contraindications of massage. Prerequisites: MASS101N, MASS102N.

MASS132N      Sports Massage      2 Credits

This course teaches massage techniques that meet the biophysical needs of the athlete. Specific injury treatment with massage is covered, as well as pre- and post-event massage and muscular/joint maintenance between activities. Prerequisites: MASS101N, MASS102N.

MASS134N      Self Care and Stress Management Techniques      2 Credits

This class is designed to teach professionals specific stress reduction and self care techniques through the use of meditation, visualization, yoga, self massage, breathing techniques and nutrition. Students will develop skills to incorporate into their practice and self healing process.

MASS135N      Deep Tissue Massage      2 Credits

This course introduces the massage student to deeper strokes that include, but are not limited to trigger point, myofascial release and cross-fiber friction. Neuromuscular technique (NMT) will be covered particularly. Prerequisites: MASS102N, MASS121N.

MASS136N      Shiatsu      2 Credits

This is an introductory course in oriental acupressure theory and practice. The course covers the twelve organ meridian, the two governing meridians and terminology specific to Chinese acupressure and Shiatsu. Prerequisites: MASS101N, MASS102N.

MASS137N      Pre/Post Natal Massage      2 Credits

Special considerations need to be taken when working with pregnant women. Contraindications during each trimester, pressure points and proper positioning will be emphasized. Infant massage will also be included. Prerequisites: MASS101N, MASS102N.

MASS139N      Reflexology      2 Credits

Reflexology is the practice of zone therapy and how reflex points on the feet correlate to various parts of the body. Prerequisites: MASS101N, MASS102N.

MASS141N      Oriental Theory and Concepts      3 Credits

This course teaches the student basic concepts of Eastern/Asian healing, including the 12 organ meridians, the 5-Elements Theory and forms of chi and how they relate to treatments and overall health of the individual.

MASS143N Chair Massage 2 Credits

Course is lecture and experiential, and focuses upon specific techniques used in this popular modality of massage therapy. Students will learn all necessary preparations, procedures, and strokes for completing a chair massage- from intake of client to marketing this service to organizations, companies, and the public. Prerequisites: MASS101N, MASS102N.

MASS145N Aromatherapy 2 Credits

Use of essential oils for medical and massage purposes. Student will learn to customize aromas for specific purposes.

MASS147N Elder Massage 2 Credits

The class is designed to teach massage therapists a variety of skills and techniques. These will enable the professional to better work with older people in various settings such as nursing and retirement homes as well as with more active seniors. Prerequisites: MASS101N, MASS102N.

MASS148N Somatic Massage 2 Credits

Massage made famous during the 60's and 70's in the US at such noted centers as the Esalen Institute in California, Kripalu Institute in MA and Omega Institute in NY. Somatic massage emphasizes slow, full-body strokes with metaphysical and holistic (physical, psychological and emotional) approaches to the experience of bodywork. Prerequisites: MASS102N, MASS121N.

MASS149N Russian Massage 2 Credits

Principles of Russian Massage. Hand positions and strokes for specific purposes. Student will learn a full body treatment using methods seldom seen in the U.S. Prerequisites: MASS102N, MASS121N.

MASS153N Myofascial Release and Trigger Point Therapy 2 Credits

In myofascial release, the concept of fascial structure within the body will be focused upon. The student will learn major strokes of this technique on various muscle groups. Trigger Point emphasizes specific points on congested muscles for relief of pain and overtonification. Prerequisites: MASS101N, MASS102N.

MASS212N Kinesiology 3 Credits

This course is designed to give the student a basic understanding of normal human body movement as related to skeletal, articular and muscular systems. Anatomical palpations, human gait analysis, and biomechanical principles are also included. Prerequisite: MASS102N.

MASS233N Clinical Evaluation and Treatment 3 Credits

This is a hands-on class emphasizing assessment and corrective techniques. The student will learn evaluation of presenting conditions and have an understanding of causal factors that contribute to musculoskeletal deviations. Integration of all treatment modalities studied and all skills acquired will be coupled with the appropriate application. Medical history taking, SOAP note taking, focusing on specific problems and their treatment will be addressed. Prerequisites: MASS102N, MASS121N.

MASS290N Clinical Internship Capstone 3 Credits

A total of 125 hours of hands-on experience is required by the State of NH in approved programs for massage therapy. NCC offers a unique concept allowing the student the flexibility of completing these hours from second semester onward at their own pace and according to their own scheduling of appointments. However, such independent work must be fully documented and under the regular supervision of a licensed massage therapist. Arrangements for such supervision are left with the student and must also be fully documented. Prerequisite: Completion of all catalog-listed courses for the first two semesters in the massage program of study and approval of the internship coordinator.

## MATHEMATICS

MATH090N      Mathematics Lab      1 Credit

This mathematics lab is designed to provide students the opportunity to become proficient in arithmetical computation and pre-algebra skills within a computer-based lab setting. The course starts out with the arithmetic of whole numbers and then progresses to fractions, decimals, percents, word problems, and finally introductory algebra. The course is individualized to meet students' specific learning needs. Credits do not count toward degree or program requirements. The grade options for this course will be Pass/No Pass or CS. Prerequisite: Appropriate Accuplacer score. Corequisite: FYE100N

MATH099N      Algebra I      3 Credits

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. Prerequisite: Appropriate Accuplacer score or Mastery of MATH090N.

MATH099LN      Algebra I Lab      1 Credit

This course will strengthen and develop algebra knowledge and skills in preparation for college-level math. Algebra I Lab is designed for students who have previously taken MATH099N and received a 'CS' grade. This course does not take the place of MATH099N and may not be taken as a substitute for MATH099N. The areas covered in this lab will focus on algebra topics that range 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. This course does not count towards degree requirements. The minimum passing grade for this course is a 'C'. Students are eligible for the course only if they have previously taken MATH099N and received a 'CS' grade or with permission of instructor.

MATH103N      Topics in Applied College Mathematics      3 Credits

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. Fulfills mathematics requirement for Automotive Technology, Collision Repair Technology, Early Childhood Education, General Studies, Honda Automotive Technology, Holistic Massage, Culinary Arts and Hospitality Restaurant students and Human Service students only. Prerequisite: Placement test or MATH099N.

MATH105N      Technical Mathematics      4 Credits

This course is designed for students pursuing degrees in technical trades. Topics covered will include: Quadratic Equations, calculation of areas and volumes; Pythagorean's Theorem, fundamentals of geometry, introduction to statistics, right triangle trigonometry, Law of Sines and Law of Cosines. This course fulfills the mathematics requirement for Advanced Machine Tool Technology only. Prerequisite: Placement test or 'C' or better in MATH099N.

MATH106N      Statistics I      4 Credits

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. A Texas Instrument TI83+ or TI84 graphing calculator is required. Prerequisite: Placement Exam score or MATH099N. **This course fulfills a General Education Core Requirement: Quantitative Literacy.**

MATH108N      Contemporary Mathematics      3 Credits

This course introduces students to recent advances in mathematics and their application to the social sciences. It focuses on the understanding and application of mathematics in applied situations and includes a number of topics in which mathematical ideas are used to solve modern problems such as: voting systems, weighted voting systems, Fairness, Euler and Hamiltonian Circuits, networks, scheduling problems, and population growth. Prerequisite: Placement Test or MATH099N or Permission of Instructor.

MATH110N Algebra and Trigonometry 4 Credits

This course starts with algebra topics, which include linear, quadratic, and radical equations. Trigonometry topics include trigonometric functions, their graphs, identities, inverse trigonometric functions, laws of Sines and Cosines, trigonometric identities, and vectors are all studied in detail. Applications to problem solving are emphasized. Prerequisite: Placement Test or MATH099N or Permission of Instructor. **This course fulfills a General Education Core Requirement: Quantitative Literacy.**

MATH115N Finite Mathematics 4 Credits

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. Prerequisite: Placement Test or MATH099N or permission of instructor. **This course fulfills a General Education Core Requirement: Quantitative Literacy.**

MATH120N PreCalculus 4 Credits

This course is intended to prepare students for the study of calculus. Students will investigate the properties of exponential, logarithmic, polynomial, rational and trigonometric functions. Other topics include complex numbers, polar coordinates, conics, vectors, sequences and series, DeMoivre's Theorem and Euler's Theorem. A selection of topics from the following list will 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. Prerequisite: Placement Test or MATH110N or permission of instructor. **This course fulfills a General Education Core Requirement: Quantitative Literacy.**

MATH170N Discrete Mathematics 4 Credits

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. Prerequisites: MATH110N or MATH115N.

MATH206N Statistics II 4 Credits

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. A Texas Instruments TI-83 or TI-84 graphing calculator is required. Prerequisite: MATH106N. **This course fulfills a General Education Core Requirement: Quantitative Literacy.**

MATH210N. Calculus I 4 Credits

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. Prerequisite: Placement Test or MATH120N or Permission of instructor.

MATH211N Calculus II 4 Credits

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. Prerequisite: MATH210N

MATH212N Calculus III 4 Credits

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.  
Prerequisite or Corequisite: MATH211N.

MATH215N      Linear Algebra      4 Credits

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. Prerequisite: MATH210N.

MATH220N      Differential Equations      4 Credits

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. Prerequisite: MATH211N.

MATH285N Individual Project in Mathematics: A Capstone Experience      4 Credits

This course serves as the capstone experience for Mathematics Concentration students enrolled in the Liberal Arts program. The course is designed to help students synthesize the learning and skills acquired in their Mathematics Concentration and prepare them for baccalaureate work. In consultation with the supervising faculty member, the student or small group of students will design and complete a project that integrates the student learning outcomes for the Liberal Arts Mathematics Concentration Degree. Prerequisite: Completion of 45 credits of coursework applicable to the Liberal Arts Mathematics Concentration Degree. Minimum grade of 'C' in MATH210N and MATH211N.

## MECHANICAL DESIGN TECHNOLOGY

MDTN110N      Automation Programming      3 Credits

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 complement classroom instruction. Prerequisite: CAD111N.

MDTN285N      Mechanical Design Capstone      4 Credits

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.

## NURSING

NURS120N      Fundamental Nursing Skills      4 Credits

This is a four-credit, twelve hour per week simulation lab/clinical course that prepares the student to deliver safe nursing care across the lifespan under the supervision of a Registered Nurse. The student will practice skills for basic assessment, management of basic universal human needs in health and illness, documentation, healthcare informatics, and medication administration. Upon completion of the course the student is eligible to seek NH licensure as a nursing assistant. The LPN student may earn credit for this course by satisfactorily completing a challenge exam of specific nursing skills. Prerequisites: PSYC101N, BIOL130N. Corequisites: NURS130N, BIOL131N, PSYC201N.

NURS130N      Concepts for Nursing Practice      3 Credits

This is a three hour/week theory course that introduces the student to major concepts required as a foundation for further studies in nursing and also serves as a bridge course for the LPN student to pursue studies preparing for RN licensure. Content includes introduction to nursing; the program's conceptual framework; health field concepts; levels of prevention; systems-based practice; critical thinking; communication; nursing process; health assessment; patient/family education; multicultural practice; meeting basic human

needs across the lifespan; nutrition and hydration; concepts of medication administration; and contemporary contexts for professional nursing. LPNs may earn credit for NURS130N by scoring a minimum of Level 1 on the ATI Fundamentals of Nursing exam.

Prerequisites: BIOL130N, PSYC101N. Corequisites: NURS120N, PSYC201N, BIOL131N.

NURS140N      Nursing Care I: Concepts and Skills      8 Credits

This course introduces the student to the care of patients with chronic health conditions across the lifespan. Care of patient with selected alterations in health including cardiac, respiratory, endocrine, integumentary, musculoskeletal, and neurological/mental health conditions will be studied. Care of patients with chronic pain, anxiety, addictions, acute crisis, the frail elderly, and end of life care will be covered. Selected health alterations are explored in light of the program's conceptual framework, pathophysiology, pharmacology, and interdisciplinary interventions. Concepts and skills introduced in NURS120N and NURS130N will be applied and further developed throughout the semester. Clinical experience(s) will occur in a combination of inpatient and outpatient, sub-acute and rehabilitative, psychiatric, community/group, home, and clinical simulation settings. Prerequisites: NURS120N, NURS130N, PSYC201N, BIOL131N  
Corequisite: NURS230N.

NURS220N      Nursing Care II: Concepts and Skills      10 Credits

This course applies previous learning in nursing, life sciences, and social sciences and the nursing process to the care of patients across the lifespan with acute health alterations in gastrointestinal, hepatobiliary, fluid and electrolyte function, acid-base balance, renal, respiratory, hematologic, cardiac, oncologic, and immune health. A systematic approach to each unit will include levels of prevention, pathophysiology, lifestyle alterations, environmental impact and modification, interdisciplinary care plans, and legal and ethical implications inherent in delivering patient care. Prerequisites: NURS140N, NURS230N.

NURS230N      Pharmacology for Nursing Practice      3 Credits

NURS230N, Pharmacology for Nursing Practice is a hybrid course that presents information related to the nurse's role in the pharmacological treatment of health alterations. Foundational principles of drug action, pathophysiology, and a systemic review of common drugs in clinical use will be studied. Safe administration of medication across the life span, assessment of its effectiveness, patient and family education, and ethical and legal issues related to the nurse's role in pharmacotherapeutics is emphasized. Prerequisites: NURS120N, NURS130N, Corequisite: NURS140N.

NURS240N      Management of Nursing Care Across the Lifespan      9 Credits

NURS240N, Management of Nursing Care Across the Lifespan is a hybrid capstone course that requires students to apply all previous learning to the care of patients/families across the lifespan, the child-bearing family, and groups of people 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. Prerequisite: NURS220N.

## PARALEGAL STUDIES

PLGL101N      Basic Legal Studies      3 Credits

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. Prerequisite or Corequisite: ENGL101N or ENGL110N.

PLGL102N      Legal Research and Writing      3 Credits

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. Prerequisite: ENGL101N or ENGL110N, PLGL102N.

PLGL210N      Litigation and Trial Preparation      3 Credits

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. Prerequisite: PLGL101N; Prerequisite or Corequisite: PLGL102N, PLGL230N.

PLGL220N      Real Estate Law      3 Credits

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. Prerequisite: PLGL101N; Prerequisite or Corequisite: PLGL102N.

PLGL230N      Contracts and Business Organizations      3 Credits

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. Prerequisite: PLGL101N; Prerequisite or Corequisite: PLGL102N.

PLGL240N      Probate, Estates, and Trusts      3 Credits

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. Prerequisite: PLGL101N; Prerequisite or Corequisite: PLGL102N, PLGL220N.

PLGL250N      Family Law      3 Credits

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. Prerequisite: PLGL101N; Prerequisite or Corequisite: PLGL102N.

PLGL260N      Criminal Law      3 Credits

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. Prerequisites: PLGL101N; Prerequisite or corequisite: PLGL102N.

PLGL280N      Paralegal Capstone Experience      3 Credits

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. Prerequisites: For students in the Degree Program, completion of all catalog-listed courses for the first three semesters.

PLGL290N Paralegal Internship and Seminar 3 Credits

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. 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.

## POLITICAL SCIENCE

POLS101N Introduction to Political Science 3 Credits

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. **This course fulfills a General Education Core Requirement: History / Political Science.**

POLS102N American Government and Politics 3 Credits

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. **This course fulfills a General Education Core Requirement: History / Political Science.**

POLS205N Civic Engagement Project 2 Credits

This course introduces students to a strategy for shaping public policy at the local or state level. The approach is "hands-on." After reviewing the operations of government and discussing the role of public policy, students are asked to apply their knowledge and develop solutions for "real-life" problems using the Project Citizen model. Prerequisites: POLS101N or POLS102N or POLS210N or HIST241N and ENGL101N or ENGL110N.

POLS210N State and Local Government 3 Credits

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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: History / Political Science.**

POLS220N American Politics and Mass Media 3 Credits

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. Prerequisites: ENGL101N or ENGL110N.

## PRECISION MANUFACTURING

MTTN101N Manufacturing Processes 3 Credits



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.

MTTN105N      Technical Communications      4 Credits

This course is designed to provide students entering the precision manufacturing work environment with the various communication skills that are required in the workplace, including written, oral and presentation skills. Topics include writing technical reports, presenting oral reports, collaborating with others, and practicing ethics in the workplace. In addition, the course will explore job acquisition skills in the form of cover letters, resume writing and interviewing skills. After successfully completing this course, students will be able to communicate clearly and effectively in multiple forms within a technical workplace environment.

MTTN111N      Machine Tool Processes and Theory I      7 Credits

This course introduces the student to the fundamentals of basic machining, the machines covered include: the engine lathe, drill press, vertical mill, cutoff saw 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.**

MTTN118N      Machining Technology      3 Credits

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.

MTTN122N      Machine Tool Processes and Theory II      7 Credits

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.** Prerequisite: MTTN111N, A grade of 'C' or better is required in MTTN111N.

MTTN123N      Principles of CNC      3 Credits

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. Prerequisites: MTTN111N or permission of instructor.

MTTN133N      CNC Programming and Operation      3 Credits

This course incorporates the basic principles of manual programming for both CNC lathes and milling machines. Emphasis is placed on the designing and writing of programs using G and M codes. The setup and operation of CNC lathes and mills will be taught using a hands on approach to the manufacturing of multiple parts. Prerequisites: MTTN123N.

MTTN201N.      Lean and Green Manufacturing Methods      3 Credits

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 work flows 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. Prerequisites: MTTN101N or permission of Program Coordinator/Department Chair.

MTTN223N      Computer Aided Manufacturing (CAM)      3 Credits

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. Prerequisites: CAD131N, MTTN123N or permission of instructor.

MTTN231N      Advanced Machine Tool Processes and Theory I      7 Credits

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.** Prerequisites: MTTN122N. Corequisite: MTTN123N.

MTTN232N      Advanced Machine Tool Processes and Theory II: A Capstone Experience      7 Credits

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. Prerequisites: MTTN123N, a grade of 'C' or better in MTTN231N.

## PSYCHOLOGY

PSYC101N      Introduction to Psychology      3 Credits

Psychology is the scientific study of thoughts, emotions and behavior. This is a survey course that will examine the broad bases of psychology (biology, cognition, personality, development, cross-cultural and clinical) from a Biopsychosocial (integrated) perspective. Students will leave with an understanding of the scientific method as well as fundamental research skills and an appreciation for their application across courses in the behavioral sciences. Additionally, students will develop critical thinking skills that will enhance their own perspectives about what drives human behavior. **This course fulfills a General Education Core Requirement: Behavioral Social Science.**

PSYC130N      Human Relations      3 Credits

This course will allow students to explore intrapersonal (within self) and interpersonal (between self and others) aspects of human relationships. Students will be introduced to basic psychological concepts and understand their connection to interpersonal relations. They will understand the role that human factors play in their personal and professional lives. They will be exposed to strategies for effective communication, stress reduction, team membership, leadership development and healthy relationships in both the home and workplace. **This course fulfills a General Education Core Requirement: Behavioral Social Science.**

PSYC201N      Human Growth and Development      3 Credits

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. Prerequisite: ENGL101N or ENGL110N. **This course fulfills a General Education Core Requirement: Behavioral Social Science.**

PSYC202N      Personality Psychology      3 Credits

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. Prerequisite: PSYC101N

PSYC205N      Child Psychology      3 Credits

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. Prerequisite: PSYC101N.

PSYC206N      Learning and Behavior      3 Credits

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 and 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. Corequisite: PSYC101N.

PSYC207N      Social Psychology      3 Credits

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. Prerequisite: PSYC101N.

PSYC210N      Abnormal Psychology      3 Credits

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. Prerequisite: PSYC101N.

PSYC212N      Individual Counseling: Theory and Practice      3 Credits

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. Prerequisite: PSYC101N.

PSYC220N      Research Methods      3 Credits

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. Prerequisites: MATH106N, PSYC101N.

PSYC222N      Group Dynamics and Counseling      3 Credits

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 allowing students to increase their awareness of their group roles and increase their leadership and group problem solving abilities. Prerequisite: PSYC212N.

PSYC240N      Alcohol and Drugs      3 Credits

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. Prerequisite: PSYC101N or Permission of the Instructor.

PSYC280N      Community Psychology: A Capstone Experience      3 Credits

This course will allow students to view psychology from a social justice lens where the goal is to empower members of the community. It will investigate the role of social issues, social systems and trace the historical development of a community focus that seeks to prevent (rather than treat) psychological issues. This course will build upon the skills gained in earlier psychology courses and integrate an action based research methodology into classroom experience by exploring the role that psychological research can provide in understanding social problems from both the perspective of a researcher and participant. Finally, this course will include a service learning component. This course will serve as the capstone experience for psychology students enrolled in the liberal arts program. Pre-approval of placement site by Dept Chair. Students are expected to have a placement before class begins. Prerequisites: PSYC220N and SOCI228N or permission of the department chair.

PSYC290N      Psychology Internship: A Capstone Experience      3 Credits

This capstone course is intended to provide the student with an internship as a means for enhancing learning and unifying the knowledge and experience acquired as a liberal arts student with a concentration in psychology. 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. Internship 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 Dept Chair before placement. Students are expected to have field work placement before class begins. Prerequisite: Completion of 45 credits of coursework applicable to the Liberal Arts Psychology Concentration.

## READING

RDNG090N      Reading Lab      1 Credit

This lab is designed to assist students with their reading comprehension in a lab setting using the ReadingPlus\* program. ReadingPlus is a web-based reading intervention system that uses technology to provide silent reading practice for students. The goal of the lab is to increase comprehension, rate, and fluency through ongoing structured practice. Students will receive direct instruction one hour per week from the instructor and complete two lab sessions independently. Specific lab hours will be available and students will be able to access the program outside designated lab hours. Individual progress will be communicated to the student on a regular basis. At the end of the semester the student will retake the Accuplacer test with the goal of raising their initial score. Prerequisites: Appropriate Accuplacer Score.

RDNG095N      Reading Strategies      3 Credits

Reading Strategies is a preparatory course designed to develop the comprehension skills, thinking skills and vocabulary skills necessary to become a more confident, independent and efficient reader. A minimum passing grade of 'C' is required. Credits do not count toward degree requirements. Prerequisite: Appropriate Accuplacer score. Corequisite: FYE100N

RDNG096N      Reading for College Success      3 Credits

This course builds on reading strategies that will allow students to meet the demands of college-level textbooks. Students will develop effective reading and study strategies in or learn from expository material. General vocabulary development as well as content-related vocabulary is emphasized. A minimum passing grade of 'C' is required. Credits do not count toward degree requirements. Prerequisite: Appropriate Accuplacer score or Mastery of RDNG095N.

## SCIENCES

BIOL101N      Germs 101      4 Credits

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. **This course fulfills a General Education Core Requirement: Science.**

BIOL105N      Biology in Focus I      4 Credits

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, 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. **This course fulfills a General Education Core Requirement: Science. (Except research Biology Concentration students).**

BIOL106N      Biology in Focus II      4 Credits

A continuation of Biology in Focus I, scientific study of living things: 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 provides students the opportunity to develop critical thinking utilizing current ecological topics. Prerequisite: BIOL105N. This course is equivalent to a college-paced Advanced Placement Biology course.

BIOL107N      Principles of Biology I      4 Credits

Introduces topics in more depth than BIOL105N, faster pace, higher expectation of application through project-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. Prerequisites: Successful completion (C or higher) of college preparatory Biology and Chemistry within the past five years or be able to pass a biology entrance exam with a 'C-' or better. **This course fulfills a General Education Core Requirement: Science.**

BIOL108N      Principles of Biology II      4 Credits

Introduces topics in more depth than BIOL106N, faster pace, higher expectation of application through project-based learning environment to implement new methodology and critical thinking in and out of the laboratory. This Biology II 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. Prerequisite: BIOL105N or BIOL107N with a 'C' or better.

BIOL111N      Basic Human Anatomy and Physiology      4 Credits

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.

BIOL115N      Nutrition      3 Credits

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. **This Course fulfills a General Education Core Requirement: Science.**

BIOL130N      Anatomy and Physiology I      4 Credits

Serves as the first semester of a one-year course that focuses on the organization of the human body and the complementarity of structure and functions from chemistry of life, cell and tissues, to several organ systems including integumentary, skeletal, muscular



student for isolation and identification as partial requirement of the course. This course fulfills Biology major requirements.

Prerequisites: ENGL101N or ENGL110N, CHEM110N or CHEM130N, and BIOL105N or BIOL107N in the past 5 years or approval of Program Coordinator.

BIOL220N Ecology 4 Credits

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 at 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. Prerequisites: BIOL107N and BIOL108N.

BIOL230N Genetics 4 Credits

Chemical structure of genetic material, Mendelism, gene recombination, and chromosome mapping. Mutation, gene expression and regulation, 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. Prerequisites: ENGL101N/110N, CHEM110N/131N and BIOL105N/107N in the past 5 years or approval of coordinator.

BIOL260N Scientific Inquiry and Techniques 2 Credits

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). Prerequisites: BIOL107N and CHEM131N; corequisite: BIOL215N.

BIOL270N Advanced Topics in Biology 3 or 4 Credits

Advanced Topics in Biology will rotate through different upper-level science courses per semester, with may include but not limited to endocrinology, biochemistry, molecular biology, or cellular biology. 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. Prerequisites: BIOL108N or BIOL230N and CHEM130N.

BIOL280N Science Capstone Experience 3 Credits

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. Prerequisite: BIOL260N.

CHEM110N Introduction to Chemistry 4 Credits

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, gas laws, acid-base and reduction/oxidation reactions, chemical equilibrium, thermodynamics, and an introduction to organic and biochemistry. This course does not fulfill the requirements of CHEM130N & CHEM131N or Organic Chemistry I & II. **This course fulfills a General Education Core Requirement: Science.**

CHEM130N      General Chemistry I      4 Credits

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. Prerequisite: Satisfactory completion of MATH099N or Accuplacer score recommendation of a Group E elective (or higher)

CHEM131N      General Chemistry II      4 Credits

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. Prerequisite: CHEM130N with a 'C' or better; corequisite: MATH120N.

ENVS101N      Environmental Science      4 Credits

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. **This course fulfills a General Education Core Requirement: Science.**

ENVS105N      Earth Science      4 Credits

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. **This course fulfills a General Education Core Requirement: Science.**

PHYS101N      Physical Science I      4 Credits

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. Prerequisite: MATH099N or Placement Test. **This course fulfills a General Education Core Requirement: Science.**

PHYS102N      Physical Science II      4 Credits

The first half of the course is an overview of chemistry, with an emphasis on the impact of chemistry on everyday life. The second half of the course applies the principles of physics and chemistry to earth science and astronomy. Topics include elements, chemical bonding, chemical reactions, the Earth's interior, the atmosphere, the ocean, the solar system and stars. Conceptual understanding is emphasized over mathematical manipulation. Prerequisites: MATH099N, PHYS101N or Permission of Instructor.

PHYS115N      Astronomy      4 Credits

This course offers an introduction to astronomy. The course offers a broad introduction to the solar system, stars, and stellar evolution, galaxies, and cosmology. **This course fulfills a General Education Core Requirement: Science.**

PHYS116N      Meteorology      4 Credits

This course provides an introduction to the science of meteorology. Students will learn about the relationships between weather and the Earth's atmosphere. Topics covered include atmospheric pressure, stability of the atmosphere, fronts, atmospheric circulation, storms and forecasting. Real time data will be used to prepare weather maps and forecasts.

PHYS130N      Physics I      4 Credits



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, oscillations, and waves and sound. Prerequisites: MATH110N (A grade of 'C' or better is recommended). **This course fulfills a General Education Core Requirement: Science.**

PHYS131N      Physics II      4 Credits

A continuation of the study of physics at the non-calculus level. Topics include wave and geometrical optics, electricity and magnetism, atoms, nuclei and modern physics. Prerequisite: PHYS130N.

PHYS230N      Calculus-Based Physics I      4 Credits

A study of classical physics using calculus. Topics include linear and projectile motion, forces, momentum, energy, gravitation and oscillations. Prerequisite or corequisite: MATH210N.

PHYS231N      Calculus-Based Physics II      4 Credits

A study of classical physics using calculus. Topics include fluids, thermodynamics, electricity and magnetism. Prerequisite: PHYS230N.

## SIGN LANGUAGE

ASL101N      Deaf Culture      3 Credits

This course will focus on the socio cultural view of the American Deaf Community today. We will explore the two prevailing perspectives, pathology (disability) and socio-cultural (culture, language, more, folklore), as we discuss contemporary American Deaf Culture. Finally, students will consider the role of history in the development of deaf culture. It is strongly recommended that students in the Sign Language Certificate program complete the companion course, ASL120N, in the same semester as Deaf Culture.

ASL120N      Sign Language I      3 Credits

This course will assist the student in developing basic conversational skills in American Sign Language (ASL). Included in the course will be a study of basic grammatical structures, nonverbal grammatical signals, sign vocabulary, and conversation regulators. Cultural aspects of the Deaf Community will also be discussed. Emphasis will be placed on using American Sign Language (ASL) in one-to-one or small group conversations. **This course fulfills a General Education Core Requirement: Global Awareness.**

ASL121N      Sign Language II      3 Credits

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. Prerequisite: ASL120N.

ASL201N      Deaf and Hearing Cultural Interactions      3 Credits

This is an advanced course on Deaf Culture and the Deaf Community as embedded in American Culture and Communities. In the prior course, Sociology of Deaf Culture, students learned of the prevailing two perspectives on American Deaf Culture and the American Deaf Community: Pathological (disability) and Socio-Cultural (language, folklore, mores). In this advanced course we will continue to examine the Deaf view (social and cultural perspective), and will add information and discussion on the hearing view (often pathological). From these views we will study and discuss deaf and hearing cultural dynamics and the effects of these dynamics upon interactions between Deaf and hearing individuals and groups. Students will be provided with articles and excerpts, from both Deaf and hearing sources. In class we will use multimedia, panel discussions, and presentations by visitors to spark discussion and provide broader exposure to issues facing both communities. Our predominant focus will be current issues, but we will examine some history, to better understand attitudes and reactions of today. Prerequisites: ASL101N, or permission of Department Chair or Program Director

ASL220N      Sign Language III      3 Credits

This course will continue with skills development, direct interaction activities and sign vocabulary building. It will cover the use of sign language in the Deaf Community, comprehension and expression of visual/manual language, grammatical structure and sign production. Prerequisite: ASL121N.

ASL221N Sign Language IV 3 Credits

This course will assist the student in developing the background and skills necessary to participate in one-to-one or small group conversations. Class activities focus on developing expressive and receptive conversational skills through the use of drill, videotapes, discussion of idioms and colloquial usage and opportunities to participate in signed conversation with deaf people and other signers. Also included in the class will be vocabulary development, rules of social interaction, the process of conversation, and discussion of deaf/hearing interactions. Prerequisite: ASL220N.

## **SPEECH-LANGUAGE PATHOLOGY ASSISTANT**

SPLN111N Speech and Language Development 3 Credits

The information presented in this course concerns the language development of children throughout the course of their development. Beginning with a review of child and language development theories, the course will follow the way a child acquires the sounds, meanings, and grammar/syntax of their native language as well as the ways a child learns to use language to communicate with others. There will be a focus not only on early language development but also on the higher order language constructs that are typically seen in children in their later school years. Social and pragmatic skill development will also be discussed. There will also be discussions regarding language diversity and the importance of literacy to language learning.

SPLN112N Anatomy and Physiology of the Speech and Hearing Mechanism 3 Credits

This course provides a basic introduction to anatomy and physiology of the mechanisms involved in speech production and hearing. Functional aspects of the five interactive components of speech (respiration, phonation, articulation, audition and the nervous system) are discussed.

SPLN114N Survey of Communication Disorders 3 Credits

This course introduces the student to the profession of Speech-Language Pathology while focusing on the role of the Speech-Language Pathology Assistant. Basic concepts and terminology central to the recognition and management of various communication disorders are presented. Disorders of language, articulation, voice, fluency, and hearing are discussed. Relevant assistive technology will be introduced. Prerequisite: Minimum grade of 'C' in SPLN111N.

SPLN115N Phonetics 3 Credits

Students will learn how the speech sounds of American English are produced, described and classified. Theories of phonological analysis will be presented, including distinctive features and phonological processes as well as intonation patterns and dialect variations. In addition, students will learn the sound-symbol correlations of the International Phonetic Alphabet and apply this knowledge to the transcription of normal and disordered speech.

SPLN121N Language Disorders 3 Credits

This course addresses deficits in the content, form, and use of the native language that result in ineffective communication. Etiology and evaluation of disorders in listening comprehension and oral expression are presented, and clinical/technical skills are emphasized. Prerequisites: Minimum Grade of 'C' in SPLN111N, SPLN114N.

SPLN123N Articulation and Phonological Disorders 3 Credits

Instruction will include normal articulation and phonological development, etiologies, assessment, and treatment of articulation and phonological disorders. Theory and clinical skills will be emphasized. Prerequisites: Minimum Grade of 'C' in SPLN111N, SPLN114N, SPLN112N, SPLN115N.

SPLN220N Advanced Communication Disorders 3 Credits

This course will cover basic information on the following disorders found in children and adults, and may include and not be limited to: developmental and neurogenic dysfluency, voice, cleft palate, acquired motor speech, developmental motor speech; acquired disorders of language, alternative and augmentative communication, swallowing, and hearing. This course includes an optional service learning opportunity. A minimum grade of 'C' is required in each of the following Prerequisites: SPLN121N, SPLN123N.

SPLN221N Clinical Procedures in Speech-Language Pathology 3 Credits

This course emphasizes how to provide direct therapy incorporating principles of learning theory and behavioral modification. The students will be trained in observing and recording speech and language behaviors, in tracking and reporting progress, and developing and implementing treatment activities based on treatment plans developed by speech and language pathologists. Prerequisites: Minimum grade of 'C' in SPLN220N.

SPLN290N Seminar in Speech-Language Pathology: Capstone Course 2 Credits

This seminar provides a guided student exchange on trends, roles, and issues found in the discipline of communication disorders related to practicum/fieldwork experiences. Prerequisites: Minimum grade of 'C' in SPLN221N; Corequisite: SPLN291N, SPLN292N

SPLN 291N Speech-Language Pathology Assistant Practicum I 1 Credit

The student will work in an approved setting under the supervision of an ASHA-certified Speech and Language Pathologist. This practicum course will provide thirty-three hours of direct client contact, giving students comprehensive experience in the application of knowledge and therapeutic intervention skills acquired in previous coursework. Periodic conferences between the site supervisor and the practicum coordinator are scheduled to monitor and evaluate student progress. Fifteen hours of educational/observational activities will also be credited as part of the fieldwork experience. Prerequisites: Minimum grade of 'C' in all Speech-Language Pathology Assistant coursework, PSYC206N, and approval of the Practicum Coordinator. Prerequisite or corequisite: SPLN290N.

SPLN 292N Speech-Language Pathology Assistant Practicum II 2 Credit

The student will work in an approved setting under the supervision of an ASHA-certified Speech and Language Pathologist. The practicum course will provide sixty-six hours of direct client contact, giving students comprehensive experience in the application of knowledge and therapeutic intervention skills acquired in previous coursework. Periodic conferences between the site supervisor and the practicum coordinator are scheduled to monitor and evaluate student progress. Twenty-nine hours of educational/observational activities will also be credited as part of the fieldwork experience. Prerequisites: Minimum grade of 'C' in all Speech-Language Pathology Assistant coursework, PSYC206N, and approval of the Practicum Coordinator. Prerequisite or corequisite: SPLN290N.

## WORLD LANGUAGES

FREN101N French I 3 Credits

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. **This course fulfills a General Education Core Requirement: Global Awareness.**

FREN102N French II 3 Credits

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. Prerequisite: FREN101N.

GERM101N German I 3 Credits

German I is the first of two semesters of elementary German, which will acquaint the student with the basic vocabulary and structures of the German language. At the end of the course the student will be able to understand, speak, read, and write basic German sentences, using all sentence forms, including questions as well as commands. In addition to grammatical structure and use, the course will introduce the student to some of the culture, history, and geography of German-speaking countries. **This course fulfills a General Education Core Requirement: Global Awareness.**

GERM102N German II 3 Credits



# STATE OF NEW HAMPSHIRE

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# **2015– 2016 STUDENT CALENDAR**

## **FALL SEMESTER**

August 17

Tuition Due for Fall 2015 Semester



August 31	<b>Fall Semester Begins</b>
September 7	Labor Day Holiday
September 8	Last Day to Add Full Semester Classes (except online) without Instructor Permission Last Day to Withdraw with a Full Refund from First-half Semester Courses (8/31- 10/24/2015)
September 14	Last Day to Drop a Class with Full Refund for Semester-Length Courses
September 18	Last Day to Resolve "I" Grades from Summer Term
October 1	Open House 4-6pm
October 2	Last Day to Withdraw with a Grade of "W" from First-half Semester Courses (8/31- 10/24/2015)
October 5	Last Day to Withdraw with a Full Refund from Late Start (12 –Week) Classes (9/28 – 12/21/2015)
October 16	Last Day to Withdraw with a Grade of "WP/WF" from First-half Semester Courses (8/31- 10/24/2015)
October 26	<b>Second-Half 8 Week Semester Term Begins (10/26 – 12/21/2015)</b>
October 27	Symposium – No Day Classes
November 2	Last Day to Withdraw with a Full Refund from Second-half Semester Courses (10/26 – 12/21/2015)
November 5	Open House 5-7pm
November 6	Last Day to Withdraw with Grade of "W" (60% point)
November 11	Veterans' Day – No Classes
November 17	Last Day to Withdraw with a Grade of "W" from Late Start (12 – Week) Classes (9/28 – 12/21/2015)
November 26-27	Thanksgiving Holiday – No Classes
November 30	Last Day to Withdraw with a Grade of "W" from Second-half Semester Courses (10/26 – 12/21/2015)
December 11	Last Day to Withdraw with a Grade of "WP/WF" (Full Semester Courses) Last Day to Withdraw with a Grade of "WP/WF" from Late Start (12 – Week) Classes (9/28 – 12/21/2015) Last Day to Withdraw with a Grade of "WP/WF" from Second-half Semester Courses (10/26 – 12/21/2015)
December 15-19	Finals
December 21	Last Day of Fall Semester

## **SPRING SEMESTER**

January 5	Tuition Due for Spring 2016 Semester
January 18	Civil Rights/Martin Luther King Holiday
January 19	<b>Spring Semester Begins</b>
January 25	Last Day to Add Full Semester Classes (except online) without Instructor Permission Last Day to Drop with Full Refund from First-half Semester Courses (1/19 –3/12/2016)
February 1	Last Day to Drop a Class With Full Refund for Semester-Length Courses
February 5	Last Day to Resolve "I" Grades From Fall Semester
February 15	Presidents' Day Holiday – No Classes

February 19	Last Day to Withdraw with Grade of “W” from First-half Semester Courses (1/19 –3/12/2016)
March 4	Last Day to Withdraw with Grade of “WP/WF” from First-half Semester Courses (1/19 –3/12/2016)
March 14-19	Spring Break – No Classes
March 21	<b>Second-Half 8 Week Semester Term Begins (3/21 – 5/9/2016)</b>
March 28	Last Day to Drop with Full Refund from Second-half Semester Courses (3/21 – 5/9/2016)
March 29	Last Day to Withdraw With Grade of “W” (60% point)
April 19	Last Day to Withdraw with Grade of “W” from Second-half Semester Courses (3/21 – 5/9/2016)
April 29	Last Day to Withdraw with a Grade of “WP/WF” (Full Semester Courses)
	Last Day to Withdraw with a Grade of “WP/WF” from Second-half Semester Courses (3/21 – 5/9/2016)
May 3-6	Finals
May 9	Last Day of Spring Semester
May 21	Commencement Ceremony

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.

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Nashua Community College is a smoke-free campus. This catalog is current as of September 11, 2015

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