

Nashua Community College

Course Catalog 2011 - 2012

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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.

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

Nashua Community College is a smoke-free campus.

This catalog is current as of July 1, 2011



President's Message

As a fresh academic year unfolds, together we will begin writing the next chapter of NCC. One of the rewards of higher education is that every year we can reflect on the progress we have made and the possibilities that lie before us.

This past year we expanded our campus with the addition of Judd Gregg Hall—named after the former U.S. Senator for his dedication to increasing access to higher education for all NH citizens. The hall houses the science, humanities and health programs of study and boasts a state of the art auditorium where the Nashua Chamber Orchestra now calls “home.”

In the upcoming year, the College looks forward to a two million dollar expansion of its Automotive Building to accommodate the increased demand of students entering into the field of Automotive Technology and Auto Collision Repair Technology. The facility will incorporate the latest green technology and equipment into the laboratory spaces and classrooms and moves our campus to a more supportive environment for a 21st century education.

Our facility expansion and upgrades make NCC the hub of activity for the Greater Nashua Region, as well a venue for regional and national conferences. This academic year NCC will launch the Center for Teaching and Learning Excellence, a professional development program for educators throughout the region. This will provide an affordable and accessible option for professionals seeking CEUs to maintain licensure and/or advance their careers.

We continue to invest in NCC's shining gems—the students. We are committed to providing a healthy environment for our students and promoting a culture of responsibility. NCC offers students the opportunity to participate in varied intramural and intercollegiate athletic programs, as well as a state of the art exercise room and indoor running track. In 2011, the student body collectively logged in 12,000 hours of community service earning distinction to the President's Higher Education Community Service Honor Roll.

We also enriched the student learning experience by enhancing the student advising experience, especially for new students and those students seeking transfer to a four year college or university.

NCC is a special and unique place, with a dedicated faculty and staff committed to student success. My door is always open, so please stop in introduce yourself and help yourself to a gumdrop!

Remember the rest of the story is still unwritten!

A handwritten signature in cursive script that reads "Lucille Jordan".

Lucille A. Jordan
President

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 achieve this vision, the College selected ten strategic goals as the framework for its strategic plan:

- Accessibility and Affordability
- Preparation for Transfer
- Services and Citizenship
- Governance
- Financial Management
- Programs of Instruction
- Development of Partnerships
- Workforce Development
- Student Development
- Technology

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 life-long 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 non-verbal 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.

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

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 is also being planned. 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.

Campus Setting

The four buildings contain twenty-eight general classrooms, twenty-four 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 • E-mail: 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)

Computer Engineering Technology - Accreditation by the Technology Accreditation Commission (TAC) of ABET, Inc. 11 Market Place, Suite 1050, Baltimore, Md. 21202, Telephone (410) 347-7700. www.abet.org

Electronic Engineering Technology - Accreditation by the Technology Accreditation Commission (TAC) of ABET, Inc. 11 Market Place, Suite 1050, Baltimore, Md. 21202, Telephone (410) 347-7700. www.abet.org

Electronic Engineering Technology – Nashua Community College's Associate in Science Degree program has been successfully reaffirmed as 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 Full Approval of the New Hampshire Board of Nursing and Initial Accreditation from the National League for Nursing Accrediting Commission, Inc. (NLNAC), 3343 Peachtree Road NE, Suite 500, Atlanta, Georgia 30326, www.nlnac.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 Academic Support Center, 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 or Jon Mason Nashua Community College (603) 882-6923 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**; 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 Procedures

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

Procedures

An application for admission may be found in this catalog or obtained from the Admissions Office at the College, our website www.nashuacc.edu or from your high school guidance office. The application should be mailed to Admissions Office, Nashua Community College, 505 Amherst Street, Nashua, NH 03063 or submitted online.

Once applications are received, the applicant will be informed of any additional information or procedures necessary for acceptance to the College. These procedures may include a personal interview, letters of reference, and pre-admission assessment. 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. Present evidence of graduation from an approved high school (transcript with date of graduation or high school diploma) or possess a General Equivalency Diploma or its satisfactory equivalent. Nursing applicants will need proof of completion of English, Algebra, Biology, and Chemistry courses.
2. File an official Nashua Community College application form, a non-refundable \$20 application fee, and attend an information session with a College representative, if required. 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 fee.
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.
5. Participate in Accuplacer Course Placement Assessment when required. There is a \$15 fee to take this test. Students with documented disabilities needing accommodations for Accuplacer Assessment must notify the Admissions Office prior to the testing date. There is a \$20 fee to retake the test.
6. Every degree student must demonstrate basic arithmetic and algebra skills before enrolling in college-level math and other courses (e.g., science). To earn an associate degree, students will be required to complete successfully 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.
7. Apprise the College of eligibility for Veterans Administration and other sources of financial assistance.

Home-Schooled Students

Nashua Community College encourages applications from students who are home-schooled. 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 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 and/or portfolio of work accomplished.
3. GED or other testing, if applicable.

Residency Status

Any student who has, on his/her first admission to the Community College System of NH, been classified as out-of-state for tuition purposes, may apply to the College 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.

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.

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 score of 500 or better (173 or better on the computer-based test); inquiries regarding the test should be addressed to TOEFL, Education Testing Service; Box 899; Princeton, NJ 08540. 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.

Expenses for 2011-2012

Students will pay tuition on a per credit basis:

Resident	\$210.00 per credit
New England Regional Student Program	\$315.00 per credit
Non-Resident & International Students	\$478.00 per credit

Tuition is capped at 18 credits for student in Automotive Technology, Collision Repair Technology, Honda Automotive Technology, and Aviation.

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	
Degree Recipients	\$100.00
Certificate Recipients	\$50.00
Diploma Replacement Fee	\$20.00
Academic Instruction Fee (per lab credit)*	\$60.00
Accuplacer Placement Test Fee	\$15.00
Accuplacer Placement Test Retake Fee	\$20.00

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
SCIN215 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 cost of textbooks and supplies can average \$750 per year or more.

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.

E-bills (Online Billing Format)

Nashua Community College has adopted a new online billing format. Students will no longer receive bills in the mail; all billing statements will be viewable in the Student Information System (SIS). Students will receive a monthly 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"

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.

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.

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 understand by registering for courses at NCC, I am financially obligated for ALL costs related to the registered course(s). Upon a drop or withdrawal, I understand 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 understand that I will be responsible for the costs of the outside collection agency, any legal fees, and any bounced check fees under RSA 6:11, 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-nonrefundable 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 (14) 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/financial-aid/general-info-aid/209>.

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

The College is well aware of the financial burden of meeting college costs. The Financial Aid Office at the College encourages students to apply for assistance. Assistance is available in the form of scholarships, grants, work study, and loans. Federal, state, and private scholarship funds are often limited. Applicants with the greatest financial need receive first consideration for assistance. Detailed information regarding financial aid can be found at <http://www.ccsnh.edu/links.html> or <http://www.studentaid.ed.gov>.

All students are encouraged to apply for federal student aid. The first step in applying for financial aid is to complete the Free Application for Federal Student Aid (FAFSA). The FAFSA can be filed electronically at <http://www.fafsa.ed.gov>. To have your application sent to the College, please add our school code. The school code for Nashua Community College is 009236. Please allow 1-2 weeks for your application to be sent to the College. Upon receipt of your FAFSA, the Financial Aid Office will contact you if additional information is required.

The following is required of an applicant each academic year for him/her to be awarded financial aid:

1. Completion of the financial aid application process;
2. Admission to an associate degree or a certificate program that is financial aid eligible;
3. Be a United States citizen or eligible non-citizen;
4. Be registered with the Selective Service if male between the ages of 18 and 25;
5. Not owe a refund on a grant or be in default on any federal student loan;
6. Not have borrowed in excess of the annual or aggregate federal loan limits;
7. Demonstrate financial need as determined by federal and/or state guidelines;
8. Enrollment in a minimum of six (6) credits per semester. The Pell Grant may be awarded to students with extremely low expected family contribution (EFC) who are enrolled in three (3) credits per semester;
9. Maintain Satisfactory Academic Progress (SAP) according to the guidelines as listed out in this Catalog; and
10. Reapply every academic year.

Federal & State Grants **Federal Pell Grant**

The Federal Pell Grant is a federally funded program that assists students who demonstrate financial need with the actual costs of attending college. A Pell Grant is considered “gift money” that does not have to be repaid. To qualify for a Pell Grant, you must be an undergraduate student who does not already have a bachelor degree. Awards are granted on a sliding scale ranging from \$277 to \$5,550 and are based on the expected family contribution (EFC) determined by the information on your FAFSA.

Federal Supplemental Educational Opportunity Grant (FSEOG)

FSEOG is a federal grant made available to students who demonstrate exceptional financial need. The FSEOG is considered “gift money” that does not have to be repaid. To qualify for FSEOG, you must have Pell Grant eligibility, however, all students who receive the Pell Grant will not receive FSEOG.

Massachusetts, Vermont, and Maine State Grants

The Massachusetts State Grant, the Vermont State Grant, and the Maine State Grant programs provide grants for their respective residents attending a college in his/her state or another state. Students must demonstrate financial need. Massachusetts and Maine residents must submit the FAFSA by May 1 of each year to be considered.

Federal Work Study Program

Federal Work Study Program

Federal work study opportunities exist both on and off the NCC campus. Hourly wages 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.

Loan Programs

Federal Perkins Loan Program

The Federal Perkins Loan program provides low interest subsidized loans to students who demonstrate financial need. This loan program has a five (5) percent interest rate and repayment does not begin until nine (9) months after graduation, withdrawal, or when enrollment drops below six (6) credits.

Federal Direct Stafford Loan Program

Requirements: A student 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 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>.

Direct Subsidized Stafford Loans

These 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.

Unsubsidized Stafford Loans

These 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.

Annual Stafford 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.

The average loan debt for NCC graduates is \$6,123.

Aggregate Stafford Loan Limits

There are aggregate Stafford 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.

Federal Parent Loan for Undergraduate Students (PLUS)

Parent Loans for Undergraduate Students (PLUS) are loans made to parents of dependent undergraduate students. Parents may borrow up to the student's cost of attendance less the anticipated financial aid. Parents can apply at <https://studentloans.gov>. Additional information is available through the Financial Aid Office or at www.studentaid.ed.gov.

Alternative Loans for Parents and Students

These loans are offered by various lenders to assist parents and students meet educational expenses. Such funds may assist families that do not qualify for or need additional forms of financial aid. Information is available at <http://www.ccsnh.edu/links.html> under Alternative Loan Lender selection.

Assistance for Single Parents or Displaced Homemakers

Are you a single parent or displaced homemaker? Financial support is available to help you with the costs of attending the College such as tuition/fees, books, and supplies. In addition, special support services include individual academic and personal counseling, support groups, assistance with community agencies, and tutoring. Contact Elise Fortin at (603) 578-8900 ext1648.

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 Post Secondary Education Commission by calling (603) 271-2695. Applications are available at <http://www.nh.gov/postsecondary/financial/index.html>.

Early Childhood Education Tuition Assistance

The Community College System of New Hampshire (CCSNH), in partnership with the Division for Children, Youth, and Families (DHHS), 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.

NH residents are eligible for full awards, while out of state students are only eligible for partial awards. These funds are not intended for employees of private or public school systems. For information on this scholarship, visit <http://www.ccsnh.edu>, select Financial Aid and then Early Childhood Ed.

Early Childhood Education Tuition Assistance FCESS

In order to be eligible for an ECE Tuition Assistance FCESS award you must be either a parent or legal guardian of a child currently enrolled in a NH Family Centered Early Supports and Services Program or an employee (full or part time) of a NH Family Centered Early Supports and Services Agency (FCESS). For information on this scholarship, visit <http://www.ccsnh.edu>, select Financial Aid and then FCESS.

Direct Connect

This program provides funds to cover the costs of tuition, fees, and books for students completing course work leading to certificate or degree completion in the field of human services. This is not a need based program. Approved applicants may receive up to a maximum total of \$2,500 per academic year. For information on this Human Services tuition assistance program, visit <http://www.ccsnh.edu>, select Financial Aid and then Direct Connect.

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>, select Financial Aid and then Human Services.

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 2011, FAFSA filed, and the financial aid process completed. Application is available at <http://www.ccsnh.edu/foundation/scholarships.html>.

NASA/PSNH 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 at <http://www.ccsnh.edu/foundation/scholarships.html>.

New Hampshire Student Service Leadership Corps

The NH Student Service Leadership Corps at Nashua Community College offers opportunities for students to make substantial contributions to serve his/her community and college through service and leadership. For completing 300 hours of service per academic year, the Corps member will earn an educational voucher and small stipend. For program application and information about the NH Student Leadership Corps, please call the Service Learning Coordinator at (603) 578-8909.

New Hampshire Transfer Connections Scholarship

The top (up to) five NHTC applicants to KSC, PSU, UNH, and GSC and the top applicant at UNHM will each be designated a "NH Transfer Connections Scholar" and will be awarded a \$1,000 merit scholarship to be renewed annually for a maximum of three years provided the student attains a minimum cumulative grade point average of 3.0 by the end of the first year of baccalaureate study and retains 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.

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.

Return of Title IV Funds for Financial Aid Recipients

Financial aid recipients who withdraw from all classes or stop attending classes prior to completing more than the 60% point in a semester may be required to repay all or a portion of the financial aid they received for that semester. Recipients may also be required to pay back, to the College, all or a portion of tuition charges.

Title IV funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded. When a student ceases attendance, the student may no longer be eligible for the full amount of Title IV funds that the student was originally scheduled to receive.

If a student ceases attendance prior to completing more than 60% of the semester, 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, 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 is 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 received and the point in which the student ceases attendance from the College.

The amount of assistance that is earned is determined on a prorated basis. For example, if the student completed 30% of the semester, they would earn 30% of the assistance they were originally scheduled to receive. Once the student completes more than 60% of the semester, all the assistance they were scheduled to receive for that period is earned.

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. For example, if a first-time, first-year undergraduate student has not completed the first 30 days of a program before they withdraw, they will not receive any Direct Loan funds that they would have received had they remained enrolled past the 30th day.

If the student receives excess Title IV program funds that must be returned, 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 funds, or
2. The entire amount of excess funds.

The College must return this amount even if it didn't keep this amount of the students Title IV program funds.

If the College is not required to return all of the excess funds, the student must return the remaining amount. Any loan funds that the student must return, the student (or student's parent for a PLUS Loan) repays in accordance with the terms of the promissory note. That is, the student makes scheduled payments to the holder of the loan over a period of time.

Any amount of unearned grant funds that the student must return is called an overpayment. The maximum amount of a grant overpayment that must be repaid is half of the grant funds that the student received or was scheduled to receive. Students 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 withdrawing 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 for any Title IV program funds that the school was required to return.

The College will restore funds to the appropriate aid programs as prescribed by law and regulations 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
7. Other Title IV Aid Programs
8. Other Federal sources of aid
9. State/Private/College aid

Additional information is available through the Financial Aid Office.

Satisfactory Academic Progress (SAP)

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 Standard	
Cumulative GPA Component	Must have earned the <i>minimum published CGPA</i> at the published intervals.
Quantitative Standard	
Completion Rate Component	Must complete at least <u>2/3</u> (66.666%) <i>of the credits attempted</i> .
Maximum Timeframe Component	Financial aid recipients 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 NCC and applies to the student's academic program is considered when reviewing a student's academic record for satisfactory academic progress. However, there are some exceptions. Please refer to the table below for a breakdown of how each type of course or credit is treated in the review.

	Cumulative GPA Component	Completion Rate Component	Maximum Timeframe Component
Regular courses in program of study	Y	Y	Y
Repeat Courses	Y	Y	N
Transfer Credits	N	Y	Y
Consortium Credits	N	Y	Y
Developmental/Remedial/ESL	Y	Y	Y
Incompletes	Y	Y	Y
Audit Courses	N	N	N
Credit by Examination	N	N	Y

Qualitative Standard

Cumulative GPA (CGPA) Component

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

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

Quantitative Standard

Completion Rate Component

A student must successfully complete more than two-thirds (66.66%) of the total credits he/she attempts through his/her academic career at the College. All attempted credits resulting in either an academic grade or administrative transcript notation will be included in the quantitative calculation.

For example, a student who has enrolled in 36 credits throughout his/her academic career at the College must pass more than 24 credits in order to be making satisfactory academic progress.

Maximum Timeframe Component

A student may receive student federal aid for any attempted credits towards his/her program of study as long as those credits do not exceed 150% of the published length of the student's program of study.

For example, a student enrolled in an eligible 24 credit certificate program can receive financial aid for up to 36 credits attempted. Likewise, a student enrolled in a program of study that requires 64 credits to earn the degree can receive student federal aid for a maximum of 96 credits attempted.

If a student changes curriculum programs or graduates and requests a second degree, a degree audit will be completed and evaluated to determine what portion of the requirements for that curriculum has been satisfied. Students who seek a dual degree may appeal for an extension of the maximum time frame provision of this policy. Appeals 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 during which the student did not receive FSA funds will be included in the review. Additionally, periods for which the student was granted academic amnesty are 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 FSA funds will be included in the review. Additionally, periods for which the student was granted academic amnesty will be included in the review.

Satisfactory Academic Progress Review Process (SAP):

Question	Answer
When is my academic progress reviewed?	At the end of each semester
Are there Probationary Periods?	Yes, referred to as Warning Period
Is there an Appeal Process?	Yes
Can you regain Financial Aid eligibility once you lose it?	Yes

The qualitative and quantitative components of the SAP policy will be reviewed at the end of each semester within the regular academic year of the student's program of study. Students who meet SAP standards will be coded as making satisfactory academic progress and will retain eligibility for Student Federal Aid for the following semester. **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 Student Federal Aid for that upcoming semester.

Students Placed on SAP Warning

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 Student Federal Aid for the next semester. If the student is still unable to meet the standards for SAP, he/she will no longer be eligible to receive FSA funds at the institution until such time that he/she is able to meet the standards of SAP.

Repeat Courses

Financial Aid will cover a repeated course only when it is repeated to replace an unacceptable grade as determined by a specific course and/or major. 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 timeframe 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 timeframe and completion rate components.

Consortium Credits

All courses taken at an institution other than your 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/ESL Courses

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 financial 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 GPA component and completion rate components.

Appeal Process

A student who becomes ineligible for federal student aid as a result of not meeting satisfactory academic standards may appeal for a review of that determination. A student who believes he/she has extenuating circumstances that affected his or her ability to progress satisfactorily should appeal in writing within 15 days of the date of the letter indicating a loss of financial aid eligibility. The appeal should be addressed to Financial Aid Appeals and be submitted to the Financial Aid Office. A successful appeal may preserve the student's eligibility for federal student aid in the following semester.

Change of Program

A student who changes his/her academic program may request an appeal in that determination if s/he has changed programs while enrolled at his/her current college. If this appeal is taken up then only those courses applicable to the new program will be evaluated for the Completion Rate and CGPA components. However, all courses attempted will be evaluated for the Maximum Timeframe component. If under these circumstances the student is making satisfactory academic progress, the student will regain eligibility for student aid. If under these circumstances the student is not making satisfactory academic progress, the student will not regain eligibility for student aid at this time.

For further information about the Financial Aid Satisfactory Academic Progress policy, please contact the Financial Aid Office.

Veterans' 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

Office hours: Mon through Thursday 9 to 4:30; closed Friday

VA Information: website: www.gibill.va.gov

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.gibill.va.gov.

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.

Additional Associate Degrees

Students must earn a minimum of 15 additional credits at the College for each additional associate degree.

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.

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
A	4.00
A-	3.70
B+	3.30
B	3.00
B-	2.70
C+	2.30
C	2.00
C-	1.70
D+	1.30
D	1.00
D-	0.70
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).

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."

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.

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 system 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. The first two copies are free. A fee of \$3.00 will be charged for each additional copy. A faxed copy will cost an additional \$5.00 per transcript. Copies sent to other Colleges within the Community College System are free.

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.

New Hampshire Transfer Connections Program

The NH Transfer Connections Program is designed to prepare students for successful transfer from Nashua Community College to Franklin Pierce University, Granite State College, Keene State College, Plymouth State University, Southern New Hampshire University, or the University of New Hampshire. Students participating in this program will benefit from an easy transfer process with no additional application or fee. Visit www.nhtransfer.org for more information or contact the NCC Advising Center or Admissions office.

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. 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. NCC charges an administrative fee of \$15 per exam. For further information and to schedule an appointment, contact the Academic Advising Center at (603) 882-6923 ext 1474.

Passing scores for CLEP are 50 and above. Successful completion of a CLEP exam is treated as a transfer credit. Students may not receive CLEP credits for a course they have attempted and failed. 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.

Experiential Learning

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 a degree/certificate program. To prepare for this option, students will develop a portfolio to be assessed by appropriate college personnel. A student must be matriculated at one of the CCSNH colleges to be eligible to apply for experiential credit. Not all programs provide the experiential credit option; students should consult with their respective colleges for eligible programs and the process used for application.

Students may be awarded a maximum of 24 credits for experiential learning.

Students will be assessed a fee based on 50% of the current tuition rate on the total credits awarded (e.g. for 12 credits awarded: $0.50 \times \text{current tuition rate} \times 12 \text{ credits}$).

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 (\$100 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:

1. Degree students must earn 16 credits, of which 8 credits must be in advanced courses in the student’s major.
2. 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.

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 37%. It is important to note that 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 2010 and continued into Spring 2011 was 72%.



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.

Housing

For students who need help locating housing, assistance is available through the Student Services Office. There are no residence halls at the College.

Student Services maintains a virtual housing information site. Please contact Student Services at (603) 882-6923 x1461 for further information.

Nashua Transit System

NCC students may ride the city bus free of charge with a valid NCC ID.

Wellness Center

Nashua Community College offers students the opportunity to enjoy a variety of organized sports as well as to maintain a healthy lifestyle during their time on campus. The Wellness Center houses a full-sized gymnasium, fitness center, indoor track, and locker rooms.

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 Student Services Office. The bookstore number is (603) 880-7083.

Food Services

The College cafeteria offers a variety of hot and cold snack and lunch options. Hours of operation are posted in the Wellness Center. Additionally, vending machines are available for beverages and snacks.

Insurance

A specially designed optional student accident and medical insurance plan, with family coverage for married students, is offered at a reasonable cost.

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. Information on the Virtual Job Fair can be obtained at the Student Services Office.

Academic Support Center

The Academic Support Center 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 99 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. The Center sponsors poetry and short story writing contests twice a year and publishes the *Windows* literary magazine showcasing student's written work and artistic talents.

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. There are a variety of multi-level classes to improve English for social and academic purposes. Courses to choose from include *conversation, pronunciation, grammar, vocabulary, and writing*. Contact Professor Elizabeth Berry at (603) 578-8900 ext 1678.

Academic Advising Center

The Academic Advising Center, located in Room 99, assists students with the registration process, course and program changes, transfer options, and other related college practices. The specific programs served, hours, and contact information are posted outside Room 99. Students can find the name of their assigned advisor on the Student Information System located on the College's website www.nashuacc.edu under "eServices."

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.

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 as well as work rooms and offices.

Division of Continuing Education

The Division of Continuing Education reflects Nashua Community College's mission of valuing lifelong learning and striving to accommodate the needs of all students. By serving students bound by time and responsibility constraints, the Division of Continuing Education meets the needs of more and more students in the community.

Courses offered in the Division of Continuing Education are identical in quality and content to courses offered in the Day Division and are taught by highly qualified and dedicated academics and professionals.

Division of Continuing Education courses are scheduled in various formats to provide students with flexible options and the opportunity to complete their programs of study by attending only on evenings and weekends. Course schedules include

- A variety of 100% online courses
- Hybrid courses that combine classroom instruction with online instruction
- Traditional 16-week courses available on weeknight evenings and weekends
- 8-week courses and intensive courses available on evenings and weekends.

A listing of courses is available each semester in the College's Course Schedule. For additional information, contact the Division of Continuing Education at (603) 578-8900 ext. 1518..



General Education Requirements

Mission of General Education

Nashua Community College is dedicated to the principle that the most comprehensive education possible be offered to its students. Central to this philosophy is the belief that all students granted the associate degree should be required to study outside of their major fields to broaden their perspective of the world around them. It is our intent to engage students in the various disciplines in such a way that graduates will desire to learn throughout their lives.

General Education at NCC is directly related to the objectives of the College's Mission Statement. As noted in the statement, "... each individual should be given a continuing opportunity for the development of skills and knowledge and an increasing awareness of his or her role in society." In addition, "The College believes it is important that the individual establish value as a person – in the eyes of that individual and in the eyes of the community. The value increases through an educational program geared to the continuous development of the human potential."

Philosophy of General Education

General Education is characterized by a broad core of humanistic knowledge that develops the educated person. It demands the ability to read critically, write comprehensively, reason analytically, and utilize mathematical and scientific competencies at a college level.

General Education creates knowledge of self and a general understanding of the human condition, promotes respect for differences among people, imparts a sense of shared and unique cultural heritage, questions our capacity to function as responsible and ethical members of a complex society, and fosters a sense of intellectual curiosity.

Goals of the General Education Core

The College takes seriously its obligation to graduate individuals who understand their responsibilities as citizens, as family members, as friends, and as employees. Additionally, the College strives to instill a firm belief in its graduates for the need for continuous development and lifelong learning.

Through its General Education core requirements, the College expects its graduates to have developed:

- English language skills so they can communicate clearly, both orally and in writing, and can critically evaluate what they hear and read
- The ability to use technology to access information
- An appreciation and understanding of the scientific method, and the relationship between the sciences and other human activities
- An appreciation and understanding of the methods of inquiry used in the social and behavioral sciences, and of the ways people act and have acted in response to the conditions in their societies
- An appreciation for the logic of mathematical reasoning and the capacity to perform mathematical skills
- Aesthetic sensitivity and skills as well as an ability to make informed value judgments
- An appreciation and understanding of economics, history, and government
- An emphasis on lifelong learning.

General Education Graduation Requirement

Group A: English – 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 ENGN101 is required for all students. Any one of the other courses listed below will satisfy the requirements for this group.

		Credits
CMNN101	Introduction to Mass Communications	3
CMNN102	Principles of Communications	3
CMNN110	Introduction to Journalism	3
CMNN115	Introduction to Media Writing	3
CMNN120	Introduction to Public Relations	3
CMNN201	News Writing	3
CMNN204	Screenwriting	3
ENGN102	Writing about Literature	3
ENGN103	Professional Writing and Presentations	3
ENGN105	Introduction to Literature	3
ENGN109	Oral Communication	3
ENGN122	Technical Writing	3
ENGN206	Writing Short Stories	3
ENGN215	Literature by American Women	3
ENGN220	Contemporary Dramatic Literature	3
ENGN230	British Literature I	3
ENGN231	British Literature II	3
ENGN235	Poetry Workshop	3
ENGN240	American Literature I	3
ENGN241	American Literature II	3
ENGN285	Individual Project in English: A Capstone Experience	3
RDGN107	Critical Reading	3

Group B: Science - 3 credits minimum

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.

		Credits
SCIN101	Biology I	4
SCIN102	Biology II	4
SCIN111	Basic Human Anatomy and Physiology	4
SCIN115	Astronomy	4
SCIN116	Meteorology	4
SCIN117	Environmental Science	4
SCIN120	Nutrition (no lab)	3
SCIN130	Physics I	4
SCIN131	Physics II	4
SCIN134	Stereo Physics	4
SCIN141	Introduction to Chemistry	4
SCIN142	General Chemistry I	4
SCIN143	General Chemistry II	4
SCIN150	Physical Science I	4
SCIN151	Physical Science II	4
SCIN160	Genetics	4
SCIN201	Anatomy and Physiology I	4
SCIN202	Anatomy and Physiology II	4
SCIN205	Basic Pathophysiology (no lab)	3
SCIN215	Microbiology	4
SCIN220	Ecology	4
SCIN231	Calculus-Based Physics I	4
SCIN232	Calculus-Based Physics II	4
SCIN242	Organic Chemistry	4

Group C: Social Sciences (Behavioral) – 3 credits minimum

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.

		Credits
PJSN101	Introduction to Peace and Social Justice Studies	3
PJSN105	Foundations of Conflict Resolution	3
PJSN108	Theories of Conflict and Conflict Resolution	3
PSYN101	Introduction to Psychology	3
PSYN110	Reality Television, Video Games, Social Media and You	3
PSYN130	Human Relations	3
PSYN201	Human Growth and Development	3
PSYN202	Personality Psychology	3
PSYN204	Human Sexuality	3
PSYN205	Child Psychology	3
PSYN207	Social Psychology	3
PSYN210	Abnormal Psychology	3
PSYN211	Issues in the Psychology of Grief and Loss	3
PSYN220	Research Methods	3
PSYN240	Alcohol and Drugs	3
PSYN280	Community Psychology: A Capstone Experience	3
SOCN101	Introduction to Sociology	3
SOCN108	Introduction to Archaeology	3
SOCN110	Cultural Anthropology	3
SOCN115	Sociology of Technology	3
SOCN201	Contemporary Social Problems	3
SOCN205	The Changing Family	3
SOCN206	Sociology of Deaf Culture	3
SOCN228	Class, Status and Power	3
SOCN250	Crime and Society	3

Group D: Social Sciences (Non-Behavioral) – 3 credits minimum

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.

		Credits
ECON201	Microeconomics	3
ECON202	Macroeconomics	3
GEON110	World Regional Geography	3
GEON130	Human Geography	3
HISN101	Western Civilization from Ancient Times through the 17th Century	3
HISN102	Western Civilization since the French Revolution	3
HISN110	Ancient Civilizations of the World	3
HISN140	U.S. History from the Colonial Era to Reconstruction	3
HISN141	U.S. History Since Reconstruction	3
HISN210	The Making of England: 1215-1707	3
HISN215	New Hampshire History	3
HISN232	History of Modern Asia	3
HISN241	American Constitutional History	3
HISN243	A Twentieth Century Social History of the United States through Film	3
HISN246	Modern American	3
HISN260	History of Multiculturalism	3
HISN265	Latin American History: From Independence to the Present	3
HISN285	Making History: A Capstone Experience	3
POLN101	Introduction to Political Science	3
POLN102	American Government and Politics	3
POLN205	Civic Engagement Project	2
POLN210	State and Local Government	3
POLN220	American Politics and Mass Media	3

Group E: Mathematics – 3 credits minimum

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

		Credits
MTHN106	Elementary Statistics	4
MTHN108	Contemporary Mathematics	3
MTHN110	Algebra and Trigonometry	4
MTHN115	Finite Mathematics	4
MTHN120	Precalculus	4
MTHN170	Discrete Mathematics	3
MTHN206	Statistics for Business and Behavioral Sciences	4
MTHN210	Calculus I	4
MTHN211	Calculus II	4
MTHN212	Calculus III	4
MTHN215	Linear Algebra	4
MTHN216	Math Language, Logic, and Proof	4
MTHN217	Probability and Statistics	4
MTHN220	Elementary Differential Equations	4
MTHN285	Individual Project in Mathematics: A Capstone Experience	4

Group F: The Humanities – 3 credits minimum

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

		Credits
FARN101	Introduction to Drawing	3
FARN111	Photography and Digital Imaging I	3
FARN112	Photography and Digital Imaging II	3
FARN120	Graphic Design Theory	3
FARN200	Drawing II: Developing a Personal Approach to Drawing	3
HUMN101	Introduction to the Humanities	3
HUMN102	Art Appreciation	3
HUMN103	Music Appreciation	3
HUMN104	Jazz and Its Roots	3
HUMN107	World Religion	3
HUMN109	Introduction to Philosophy	3
HUMN110	Critical Thinking Skills	3
HUMN120	Introduction to Theatre	3
HUMN130	Music Composition	3
HUMN140	American Cinema	3
HUMN220	Classical Myths in Western Civilization	3
HUMN230	Ethics in the Workplace	3
HUMN260	Counterculture in the USA, 1956-1976	3

Group G: World Languages – 3 credits minimum

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

		Credits
LNGN101	French I	3
LNGN102	French II	3
LNGN105	Spanish I	3
LNGN106	Spanish II	3
LNGN205	Spanish III	3
LNGN206	Spanish IV	3
LNGN109	Italian I	3
LNGN110	Italian II	3
LNGN113	Basic German	6
LNGN114	German I	3
LNGN115	German II	3
LNGN214	German III	3
LNGN120	Sign Language I	3
LNGN121	Sign Language II	3
LNGN220	Sign Language III	3
LNGN221	Sign Language 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 Groups A – G as noted above.

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.



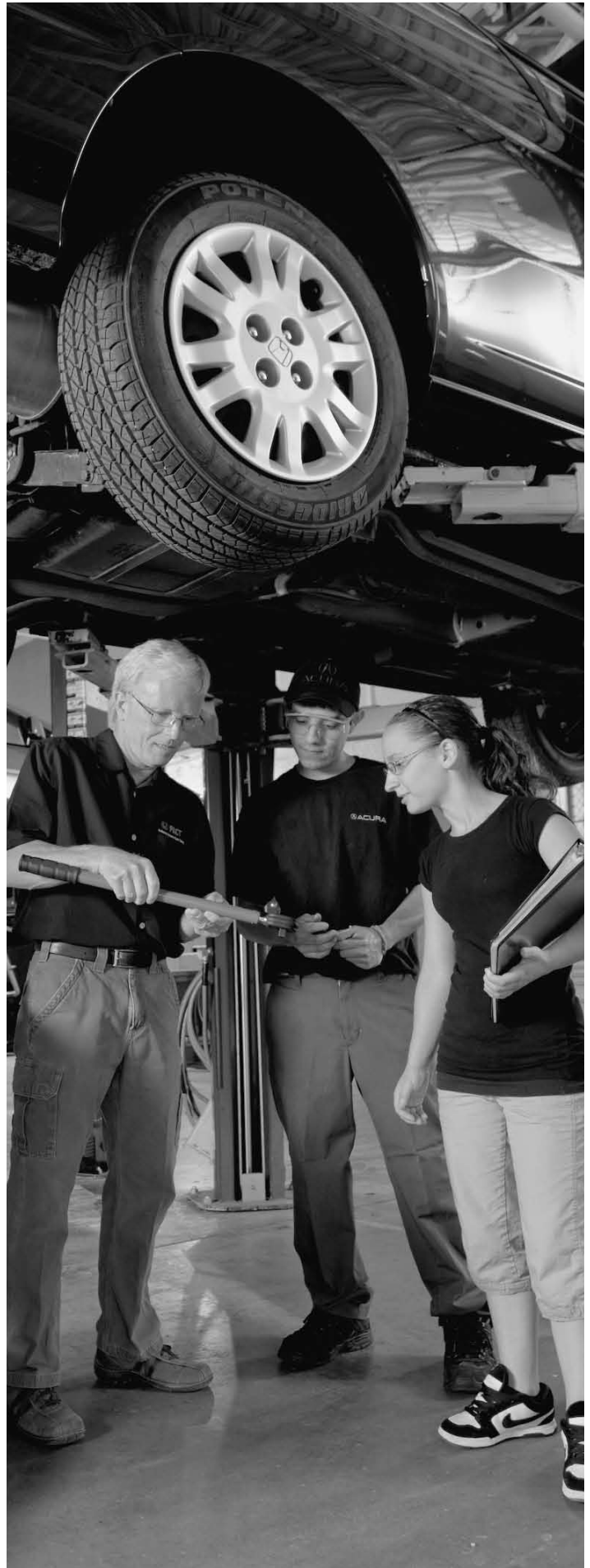
Automotive Department General Education Policies

(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 Associates 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: ENGN 099, MTHN 097, RDGN 096.
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

A non-degree program open to qualified students in all majors

Enrolling in most Honors courses at NCC does not require application to the Honors Program. Please see your advisor or the Honors Program Coordinator for more information about taking Honors courses.

Note: New students who qualify for Honors courses but who elect to enroll in the first semester may still be considered for Honors coursework at a later time. The same applies to admission to the full Honors Program.

Students who wish to participate in the full Honors Program must submit a completed application to the Admissions Office. Honors courses completed successfully prior to acceptance into the Honors Program will count toward the total honors credits needed to graduate with the honors Program designation, and grades earned in such courses will be factored into the honors Program GPA and grade maintenance standards outlined below.

CRITERIA FOR ADMISSION The Honors Program is open to all new and continuing NCC students whether part-time or full-time. The Honors Program has established the following general criteria for admission:

1. Be a high school graduate or GED recipient AND
 - Have earned the following minimum SAT scores: English score of 550 and Writing score of 8 OR
 - Have earned the following minimum Accuplacer scores: Reading 95; Writing 6; Sentence Skills 95

OR

2. Be a current NCC student, have earned at least 12 credits of college-level work with at least 6 credits in General Education courses, and have earned a minimum cumulative GPA of 3.30 OR
3. Be a transfer student from another college/university, have earned a minimum cumulative GPA of 3.30, and have transferred at least 12 credits of college-level work with at least 6 credits in General Education courses OR
4. Be a 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, the student must complete the following requirements:

- Complete an application form available from the Admissions Office or from the Honors Program Coordinator
- Provide two letters of reference from faculty members, academic counselors, or others who are qualified to comment on the applicant's abilities and potential to succeed in the NCC Honor Program
- Write an essay explaining why he or she should be accepted into the Honors Program. The essay form is included in the Honors Program application materials.

- **MAINTAINING HONORS PROGRAM STATUS** To remain in the Honors Program, students must maintain an overall cumulative GPA of 3.20.
- Students are allowed one semester of Honors probation.
- During the semester of Honors probation, students must raise their overall GPA to a minimum of 3.20.
- Students not meeting the overall minimum 3.20 GPA at the end of the probationary semester may be withdrawn from the Honors Program.

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, including
 - At least one Honors Learning Community
 - Honors Senior Seminar
 - Honors Capstone Experience
- Achieved
 - A minimum grade of B- in each Honors course AND
 - A minimum cumulative GPA of 3.20 in the degree program AND
 - A minimum cumulative GPA of 3.20 in Honors coursework.

ACADEMIC YEAR 2011-2012

FALL SEMESTER

		CL	LAB	CR
HONN100	Honors Freshman Seminar	1	0	1
HONN110	Honors Expository Writing	4	0	4
	Honors Learning Community	6	1	7
HONN201	Honors Senior Seminar	1	0	1
HONN260	Topics in Honors Seminar	3/4	0	3/4

SPRING SEMESTER

HONN260	Topics in Honors Seminar TBA	3/4	0	3/4
HONN290	Honors Capstone Experience	1	0	1

ASSOCIATE IN SCIENCE IN ADVANCED MACHINE TOOL TECHNOLOGY

(Day/Evening Program)

At the heart of our mechanized world is the Advanced Machine Tool 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.

Machine Tool 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.

Upon the completion of the degree in **Advanced Machine Tool Technology**, the graduate will be able to:

1. Analyze and interpret drawings using ANSI Y 14.5M (2009) standards of Geometric Dimensioning and Tolerancing (GDT).
2. Accurately measure parts using precision measuring tools to maintain quality control of machined parts.
3. Explain casting, forging, welding, molding, heat treatment, powdered metal, and stamping manufacturing methods.
4. Set-up and operate surface grinders, manual millers and manual lathes to produce parts to specifications.
5. Identify and explain positioning systems, program formats and machine axes used on CNC machines.
6. Set-up and operate CNC lathes and CNC millers necessary to produce parts to specification.
7. Write programs and machine parts through the use of CAD-CAM software.
8. Manually write basic CNC programs using G and M codes.
9. Set up and operate: a cylindrical grinder and a ram type electrical discharge machine (EDM).
10. Calculate stock requirements and specify and order materials and tools.
11. Conduct oneself appropriately in a job interview.
12. Manage a project involving machining, assembly and timely completion.
13. Work cooperatively on a team project.
14. Interpret Material Safety Data Sheets (MSDS) used in machining fluids and materials.
15. Apply safety procedures appropriate to running a modern machine shop.
16. Explain Statistical Process Control (SPS) and apply it appropriately.
17. Design work holding fixtures and vise jaws to machine parts.
18. Heat-treat tool steels and alloy steels to a specified Rockwell hardness.
19. Appropriately identify and use collets, chucks and work-holding devices.
20. Identify and use appropriate cutting tool materials for a given application.
21. Solve practical trigonometric problems related to the geometry of parts.
22. Communicate effectively about machining problems and issues involved in the production of parts.
23. Utilize principles of physics related to machines and machining.

ADVANCED MACHINE TOOL TECHNOLOGY

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
MTTN101	Manufacturing Processes	3	0	3
MTTN111	Machine Tool Processes and Theory I	3	9	7
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
MTHN110	Algebra and Trigonometry	4	0	<u>4</u>
				19

SPRING SEMESTER

MTTN122	Machine Tool Processes and Theory II	3	9	7
CADN131	Technical Drawing	2	3	3
MTTN123	Principles of CNC	2	3	3
General Education: Group A Elective		3	0	3
General Education: Group B Elective		4	0	<u>4</u>
				20

SECOND YEAR - FALL SEMESTER

MTTN231	Adv Machine Tool Processes and Theory I	3	9	7
MTTN223	Computer Aided Manufacturing	2	3	3
General Education: Group B Elective		3	0	3
General Education: Group C Elective		3	0	<u>3</u>
				16

SPRING SEMESTER

MTTN232	Advanced Machine Tool Processes and Theory II: A Capstone Experience	3	9	7
MTTN201	Lean and Green Manufacturing Methods	3	0	3
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				16

Total 71 Credits

COMPUTER NUMERICAL CONTROL PROGRAMMING CERTIFICATE

(Day/Evening Program)

This program is designed to prepare a student with the basic skills necessary to begin a career in the NC or CNC operations area. Courses in this program can be transferred into the Associate in Science Degree in Advanced Machine Tool Technology.

	CL	LAB	CR
BCPN101 Computer Technology and Applications	2	2	3
MTTN101 Manufacturing Processes	3	0	3
CADN131 Technical Drawing	2	3	3
MTTN111 Machine Tool Processes and Theory I	3	9	6
MTTN122 Machine Tool Processes and Theory II	3	9	6
MTTN123 Principles of CNC	2	3	3
MTTN133 CNC Programming and Operation	2	2	3
MTTN223 Computer Aided Manufacturing	2	3	3
General Education: Group B Elective	4	0	4
General Education: Group E Elective*	4	0	4

Total 38 Credits

*MTHN106, 110, 115 or 120 is recommended

MACHINE TOOL TECHNOLOGY CNC PROGRAMMING CERTIFICATE

(Day/Evening Program)

Proposed for Fall 2012

	CL	LAB	CR
MTTN101 Manufacturing Processes	3	0	3
MTTN111 Machine tool Processes I	3	9	7
MTHN110 Algebra and Trigonometry	4	0	4
MTTN122 Machine Tool Processes II	3	9	7
CADN131 Technical Drawing	2	3	3
MTTN123 Principles of CNC	2	3	3
MTTN231 Advanced MTP and Theory I	3	9	7
MTTN223 Computer Aided MFR	2	3	3
General Education: Group B Elective	4	0	4
MTTN232 Adv. MTP and Theory II	3	9	7

Total 48 Credits



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 course work 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 Section 2 for details regarding this program.

AUTOMOTIVE TECHNOLOGY FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
AUTN106	Internal Combustion Engine	2	3	3
AUTN113	Automotive Electricity and Wiring	2	3	3
AUTN121	Automotive Service and Maintenance**	2	4	4
MTHN099	Algebra I*	3	0	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
				15

SPRING SEMESTER

AUTN114	Automotive Suspension and Steering	2	4	4
AUTN115	Advanced Automotive Electricity/Electronics	2	3	3
AUTN122	Automotive Brake Systems	2	4	4
BCPN101	Computer Technology and Applications	2	2	3
General Education: Group A Elective		3	0	3
MTHN103	Topics in Applied College Mathematics OR	3	0	3
General Education: Group E Elective		4	0	4
				20/21

SECOND YEAR - FALL SEMESTER

AUTN210	Engine Performance I	2	3	3
AUTN226	Automotive Power Trains	2	4	4
AUTN227	Automatic Transmissions	2	4	4
SCIN150	Physical Science I	3	2	4
General Education: Group D Elective		3	0	3
				18

SPRING SEMESTER

AUTN215	Engine Performance II	2	3	3
AUTN221	Automotive Heating and Air Conditioning	2	3	3
AUTN228	Automotive Engine Repair: A Capstone Experience	2	6	4
General Education: Group C Elective		3	0	3
General Education: Group F or G Elective		3	0	3
				16

Total 70/71 Credits

**This course may be waived by Accuplacer test score or by Math Department placement exam.*

***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 IN AVIATION TECHNOLOGY

**(Airframe and Powerplant) FAA Certificate Number NSUT025K
(Day Program)**

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 emphases 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 manufacturers' 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 Section 3 for details regarding this program.

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

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

AVIATION TECHNOLOGY FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
AVTN101	Maintenance Forms and Records	2	3	3
AVTN102	Airframe Structures I	2	6	4
AVTN108	Aviation Drafting and Blueprint Reading	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
LEXN101	First Year Experience	1	0	1
General Education: Group E Elective		4	0	4
				22

SPRING SEMESTER

AVTN103	Airframe Structures II	3	6	5
AVTN104	Materials and Processes	2	3	3
AVTN106	Aviation Electronics	2	2	3
PSYN130	Human Relations	3	0	3
General Education: Group A Elective		3	0	3
				17

SUMMER SEMESTER

(9 WEEKS)

AVTN105	Aircraft Systems	3	3	4
AVTN202	Airframe Electrical Systems	2	4	3
AVTN203	Hydraulics and Pneumatics	3	5	5
				12

SECOND YEAR - FALL SEMESTER

AVTN107	Digital Logic	2	2	3
AVTN204	Assembly and Rigging	2	6	4
AVTN206	Reciprocating Engines I*	3	6	5
AVTN208	Engine Systems*	2	3	3
AVTN209	Aircraft Propellers*	2	3	3
SCIN150	Physical Science I	3	2	4
				22

SPRING SEMESTER

AVTN207	Reciprocating Engines II*	3	6	5
AVTN210	Turbine Engines and Systems*	3	3	4
AVTN211	Carburetion and Fuel Systems*	2	3	3
AVTN212	Engine Electrical Systems*	2	6	4
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	3
				22

Total 95 Credits

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

ASSOCIATE IN SCIENCE IN BUSINESS ADMINISTRATION ACCOUNTING CONCENTRATION (Day/Evening Program)

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 Section 7 for details regarding this program.

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.
2. Identify and differentiate between alternative forms of business organizations, including how to journalize and report business transactions unique to each.
3. Demonstrate an understanding of accounting terminology, theory, and practice through the applications of Generally Accepted Accounting Principles and other authoritative technical bulletins, practice aids, and announcements.
4. Prepare, understand, 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 users.
5. Identify and account for specific regulations that differentiate FASB Financial Statement Reporting from IRS Tax Reporting.
6. Differentiate between Financial Accounting and Managerial Accounting.
7. Create, analyze, monitor, and control both static and dynamic budgets.
8. Explain the uses of Cost Accounting, its relationship to Financial Accounting, the concept of Standard Costs including variance analysis, and the types of cost systems used by business.
9. Apply fundamental accounting principles in a computerized environment using automated accounting software.
10. Demonstrate effective writing and communication skills through research of current accounting topics, and incorporate basic math skills to interpret and analyze both quantitative and qualitative data found in Financial Statements and other reporting summaries.
11. Demonstrate the ability to reason soundly and think critically as evidenced through successful completion of increasingly complex levels of accounting study and all other degree requirements.

BUSINESS ADMINISTRATION: ACCOUNTING

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ACCN101	Financial Accounting I	4	1	4
BUSN101	Introduction to Business	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				15

SPRING SEMESTER

ACCN102	Financial Accounting II	4	0	4
BUSN110	Principles of Management	3	0	3
BCPN208	Spreadsheet: EXCEL	2	2	3
General Education: Group A Elective		3	0	3
General Education: Group E Elective*		4	0	<u>4</u>
				17

SECOND YEAR - FALL SEMESTER

ECON201	Microeconomics	3	0	3
ACCN201	Intermediate Accounting	4	0	4
ACCN206	Cost Accounting	4	0	4
General Education: Group C Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				17

SPRING SEMESTER

BUSN240	Business Law	3	0	3
ACCN202	Intermediate Accounting II	4	0	4
ACCN214	Accounting Information Systems	3	0	3
ACCN290	Accounting Internship	1	8	3
OR				
XXXX	Open Elective**	3	0	3
General Education: Group B Elective		4	0	<u>4</u>
				17

Total 66 Credits

*MTHN 106, 110 or 115 is recommended.

**Consult with advisor.

ASSOCIATE IN SCIENCE IN BUSINESS ADMINISTRATION MANAGEMENT CONCENTRATION (Day/Evening Program)

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 Section 7 for details regarding this program.

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

1. Use management skills and practices needed in today's competitive business environment to solve problems.
2. Understand the complexities of managing people and information to meet organizational objectives.
3. Use knowledge of labor law and federal and state rules and policies to effectively manage the workforce.
4. Utilize management theories in developing programs to motivate staff.
5. Apply financial management skills to meet organizational objectives, compete effectively, and organize data efficiently.
6. Use software systems along with management information systems to provide reports to senior level staff and to communicate to customers and staff effectively.
7. Develop clear and meaningful presentations and reports to communicate short and long-range objectives.
8. Use research and analysis skills to understand business problems and to develop clear problem-solving strategies.

BUSINESS ADMINISTRATION: MANAGEMENT

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ACCN101	Financial Accounting I	4	1	4
BUSN101	Introduction to Business	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				15

SPRING SEMESTER

ACCN102	Financial Accounting II	4	0	4
BUSN110	Principles of Management	3	0	3
General Education: Group B Elective		4	0	4
General Education: Group C Elective		3	0	3
General Education: Group E Elective*		4	0	<u>4</u>
				18

SECOND YEAR - FALL SEMESTER

ECON201	Microeconomics	3	0	3
BUSN230	Introduction to MIS	3	0	3
ACCN210	Managerial Accounting	3	0	3
BCPN119	Software Applications	2	2	3
ENGN109	Oral Communication	3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				18

SPRING SEMESTER

ECON202	Macroeconomics	3	0	3
BUSN240	Business Law	3	0	3
BUSN204	Small Business Management	3	0	3
BUSN201	Human Resources Management	3	0	3
BUSN290	Management/Small Business Entrepreneurship Internship	1	8	3
OR				
XXXX	Open Elective**	3	0	<u>3</u>
				15

Total 66 Credits

*MTHN106 or 110 is recommended

**Consult with advisor

ASSOCIATE IN SCIENCE IN BUSINESS ADMINISTRATION MARKETING CONCENTRATION (Day/Evening Program)

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 7 for details regarding this program.

BUSINESS ADMINISTRATION: MARKETING

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ACCN101	Financial Accounting I	4	1	4
BUSN101	Introduction to Business	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				15

SPRING SEMESTER

BUSN104	Principles of Marketing	3	0	3
MTHN106	Elementary Statistics	4	0	4
BUSN213	Principles of Advertising	3	0	3
CPTN102	Website Development I	2	2	3
General Education: Group B Elective		4	0	<u>4</u>
				17

SECOND YEAR - FALL SEMESTER

ECON201	Microeconomics	3	0	3
BUSN207	Sales	3	0	3
BCPN216	Desktop Publishing	2	2	3
BCPN119	Software Applications	2	2	3
ENGN109	Oral Communication	3	0	3
BUSN215	Integrated Marketing Communications	3	0	<u>3</u>
				18

SPRING SEMESTER

BUSN240	Business Law	3	0	3
BUSN210	Marketing Strategies: A Capstone Experience	3	0	3
SOCN101	Introduction to Sociology	3	0	3
BUSN294	Marketing Internship	1	8	3
OR				
XXXX	Open Elective*	3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				15

Total 65 Credits

*Consult with advisor

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

1. Apply principles of marketing management to problem-solving activities within corporate and small business settings.
2. Research, analyze, develop, and execute a marketing plan.
3. Apply sales, promotion, merchandising, and selling techniques learned in the classroom to real-life scenarios.
4. Understand how integrated promotional efforts affect relationship opportunities in business and how they can provide a cost-effective means of marketing.
5. Utilize case analysis through team efforts to problem-solve business problems and to provide effective written and verbal support of one's ideas.
6. Use objective reasoning skills to understand business problems, to work on solutions, and to present facts and figures in a group setting.
7. Use time and reasoning to develop effective marketing strategies to be competitive and to aggressively promote a product line or service.
8. Understand ratio analysis, statistical modeling, and quantitative research methods used in creating scenarios that will help a business price products and services, compete effectively, and develop marketing campaigns.

ASSOCIATE IN SCIENCE IN BUSINESS ADMINISTRATION SMALL BUSINESS ENTREPRENEURSHIP CONCENTRATION (Day/Evening Program)

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 7 for details regarding this program.

BUSINESS ADMINISTRATION: SMALL BUSINESS ENTREPRENEURSHIP FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ACCN101	Financial Accounting I	4	1	4
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
General Education: Group C Elective		3	0	<u>3</u>
				15

SPRING SEMESTER

BUSN110	Principles of Management	3	0	3
ACCN102	Financial Accounting II	4	0	4
BUSN104	Principles of Marketing	3	0	3
General Education: Group A Elective		3	0	3
General Education: Group E Elective*		4	0	<u>4</u>
				17

SECOND YEAR - FALL SEMESTER

BUSN207	Sales	3	0	3
BCPN216	Desktop Publishing	2	2	3
BUSN213	Principles of Advertising	3	0	3
BCPN119	Software Applications	2	2	3
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				18

SPRING SEMESTER

BUSN201	Human Resources Management	3	0	3
CPTN102	Website Development I	2	2	3
BUSN204	Small Business Management: A Capstone Experience	3	0	3
BUSN290	Management/Small Business Entrepreneurship Internship	1	8	3
OR				
XXXX	Open Elective**	3	0	3
General Education: Group B Elective		4	0	<u>4</u>
				16

Total 66 Credits

*MTHN106, 110 or 115 is recommended

**Consult with advisor

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

1. Demonstrate the capability and initiative to identify an entrepreneurial opportunity, assess and evaluate risk, and plan for and manage a small business venture.
2. Demonstrate the leadership and entrepreneurial competencies required to conceptualize, plan, finance, resource, manage, and grow a small business.
3. Use research and analysis skills to develop a comprehensive business plan for promoting individual strategies when starting a new venture and requesting additional funds for growth.
4. Determine market feasibility for a new venture and for projected business expansions.
5. Develop operational plans for short term, midrange, and long term goals.
6. Demonstrate an understanding of the importance of cash flow analysis using pro-forma financial statements and accepted accounting practices.
7. Develop sales strategies utilizing knowledge of marketing and public relations.
8. Apply management competencies and skills as learned in first year courses to help assess management strengths and weaknesses of an owner/operator.

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
ACCN101	Financial Accounting I	4	1	4
BCPN101	Computer Technology and Applications	2	2	3
ACCN102	Financial Accounting II	4	0	4
BCPN208	Spreadsheets: Excel	2	2	3

Total 14 Credits

ACCOUNTING CERTIFICATE II

(Prerequisite: Completion of Accounting Certificate I)

Spring Semester		CL	LAB	CR
ACCN201	Intermediate Accounting I	4	0	4
ACCN214	Accounting Information Systems	3	0	3
ACCN202	Intermediate Accounting II	4	0	4
ACCN206	Cost Accounting	4	0	4

Total 15 Credits

ACCOUNTING CERTIFICATE III

		CL	LAB	CR
ACCN101	Financial Accounting I	4	1	4
ACCN102	Financial Accounting II	4	0	4
BUSN110	Principles of Management	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
BCPN208	Spreadsheets: Excel	2	2	3
ACCN201	Intermediate Accounting I	4	0	4
ACCN202	Intermediate Accounting II	4	0	4
ACCN206	Cost Accounting	4	0	4
General Education: Group E Elective*		4	0	4

Total 33 Credits

*MTHN 106 or 115 is recommended.

COMPUTER INFORMATION SYSTEMS CERTIFICATE

		CL	LAB	CR
BCPN101	Computer Technology and Applications	2	2	3
BCPN204	Word Processing: Word	2	2	3
BCPN208	Spreadsheets: Excel	2	2	3
BCPN213	Database Mngmt: Access	2	2	3
BCPN216	Desktop Publishing	2	2	3
CPTN102	Website Development I	2	2	3

Total 18 Credits

HUMAN RESOURCES MANAGEMENT CERTIFICATE

(Day/Evening Program)

		CL	LAB	CR
BUSN110	Principles of Management	3	0	3
BUSN240	Business Law	3	0	3
BUSN202	Labor Relations Management	3	0	3
BUSN201	Human Resource Management	3	0	3

Total 12 Credits

MARKETING CERTIFICATE

		CL	LAB	CR
BUSN104	Principles of Marketing	3	0	3
BUSN213	Principles of Advertising	3	0	3
BUSN210	Marketing Strategies	3	0	3
BUSN207	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
ACCN101	Financial Accounting I	4	1	4
BUSN104	Principles of Marketing	3	0	3
BUSN110	Principles of Management	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
CPTN102	Website Development I	2	2	3
BUSN201	Human Resources Management	3	0	3
BUSN204	Small Business Management	3	0	3

Total 22 Credits

SPREADSHEET CERTIFICATE

		CL	LAB	CR
BCPN101	Computer Technology and Applications	2	2	3
ACCN101	Financial Accounting I	4	1	4
BCPN119	Software Applications	2	2	3
BCPN208	Spreadsheets: Excel	2	2	3
General Education: Group E Elective*		4	0	4

Total 17 Credits

*MTHN 106 or 115 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 FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
AUTN121	Automotive Service and Maintenance**	2	4	4
CRTN101	Basic Collision Repair**	2	6	4
MTHN099	Algebra I*	3	0	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				13

SPRING SEMESTER

AUTN114	Automotive Suspension and Steering	2	4	4
CRTN105	Basic Auto Body Refinishing	2	6	4
BCPN101	Computer Technology and Applications	2	2	3
General Education: Group A Elective		3	0	3
MTHN103	Topics in Applied College Mathematics	3	0	3
OR				
General Education: Group E Elective		4	0	<u>4</u>
				17/18

SECOND YEAR - FALL SEMESTER

AUTN113	Automotive Electricity and Wiring	2	3	3
CRTN201	Advanced Collision Repair	2	4	4
CRTN210	Structural Analysis & Repair	2	4	4
SCIN150	Physical Science I	3	2	4
CRTN235	Collision Mechanical and Electrical Systems	2	3	3
General Education: Group D Elective		3	0	<u>3</u>
				21

SPRING SEMESTER

AUTN221	Automotive Heating and Air Conditioning	2	3	3
CRTN225	Advanced Automotive Refinishing	2	8	5
CRTN230	Collision Estimating & Repair: A Capstone Experience	2	6	4
General Education: Group C Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				18

Total 69/70 Credits

*This course may be waived by Accuplacer test scores or by Math Department placement exam.

**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 ENGINEERING TECHNOLOGY

(Day/Evening Program)*

The Computer Engineering Technology program combines the study of analog and digital circuitry, microprocessors and computer hardware with training in machine and assembly language as well as high level languages and operating systems. Training in computer hardware and software prepares students for the dramatically growing job market in computer technology.

Upon completion of the program students will be able to apply basic problem solving and engineering skills in support of the engineers who are designing and developing computer systems and installations. Students have an option to obtain jobs as engineering technicians or continue their studies at a bachelor level.

An agreement with UNH-Manchester, effective January 2011, will allow NCC students the option of DUAL ADMISSION into NCC and UNH-Manchester. Students at NCC will earn an associate degree in either computer engineering technology or electronic engineering technology and continue their coursework at UNH-Manchester to earn a Bachelor of Science degree in electrical engineering technology in either the electrical or computer engineering technology track.

In addition to general admission requirements Computer engineering technology applicants should be aware of the following criteria:

- Completion of High School Algebra I is required
- Other high school courses such as algebra II, physics, electronics and computer programming are recommended
- Basic skills in written English are required

Accepted students will be required to possess or purchase about \$50 in minor accessories.

*Accredited by the Technology Accreditation Commission (TAC) of ABET, Inc., 11 Market Place, Suite 1050, Baltimore, MD 21202-4012. Telephone (410) 347-7700.

Technical Standards: Please refer to Technical Standards Section 4 for details regarding this program.

Upon the completion of the degree in **Computer Engineering Technology**, graduates will have:

1. Master of the knowledge, techniques, skills, and modern tools of their discipline.
2. Apply current knowledge and adapt to emerging applications of mathematics, science, engineering, and technology.
3. Conduct, analyze, and interpret experiments and apply experimental results to improve processes.
4. Ability to apply creativity in the design of systems, components, or processes appropriate to program objectives.
5. Ability to function effectively on teams.
6. Ability to identify, analyze, and solve technical problems.
7. Ability to communicate effectively.
8. Recognition of the need for and an ability to engage in lifelong learning.
9. Ability to understand professional, ethical, and social responsibilities.
10. Respect for diversity and a knowledge of contemporary professional, societal, and global issues.
11. Commitment to quality, timeliness, and continuous improvement.

The educational objectives of the Computer Engineering Technology Associate Degree Program are to provide students with:

1. A broad understanding of fundamental engineering knowledge and technical skills
2. A depth of knowledge in the areas of computer-related hardware, software, digital electronics, networking technology, and mathematics/physics applications.
3. The skills needed to achieve competitively compensated entry-level positions or admissions into programs of advanced study.
4. A desire to develop professionally and personally through a commitment to life-long learning.

COMPUTER ENGINEERING TECHNOLOGY

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
EETN121	Digital Circuits I	2	2	3
EETN131	Circuit Analysis I	3	3	4
ENGN101	College Composition	4	0	4
MTHN110	Algebra and Trigonometry	4	0	4
EETN110	Intro. to Object Oriented Programming Using Java	2	2	3
LEXN101	First Year Experience	1	0	<u>1</u>
				19

SPRING SEMESTER

EETN122	Digital Circuits II	2	3	3
EETN132	Circuit Analysis II	3	3	4
EETN115	Advanced Object Oriented Programming Using C++	2	2	3
EETN170	Fundamentals of Operating Systems	2	2	3
MTHN120	Precalculus	4	0	<u>4</u>
				17

SECOND YEAR - FALL SEMESTER

EETN251	Micro-Processors	2	3	3
EETN270	Operating System Administration I	2	2	3
EETN210	Problem Solving & Algorithms	2	2	3
SCIN130	Physics I	3	2	4
CPTN205	Networking Basics	2	2	<u>3</u>
				16

SPRING SEMESTER

*General Education: Group A Elective		3	0	3
EETN271	Operating System Administration II	2	2	3
EETN288	A Capstone Experience	0	3	1
PSYN130	Human Relations			
OR				
General Education: Group C Elective		3	0	3
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				16

Total 68 Credits

*Group A Elective must be one of the following: ENGN103, ENGN109, ENGN122.

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 5 for details regarding this program.

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.
2. Identify major telecommunications media types, including coaxial cable, UTP and fiber optic cable.
3. Design a small or medium sized computer network including media types, end devices and interconnecting devices.
4. Design basic wide area networks and work with a number of WAN encapsulations.
5. Perform basic configuration on routers and Ethernet switches.
6. Perform basic tasks expected of a Network Administrator, including management of user accounts, shared resources and network security.
7. Work in a UNIX environment and successfully create and manage files.
8. Create a database, query a database, and output reports from a database in a database program.
9. Write a sample program in at least one programming language.
10. Effectively use the Internet for learning and tech support.
11. Have a basic understanding of TCP/IP.

COMPUTER NETWORKING

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
CPTN101	PC Assembly/Operating Systems	2	3	3
CPTN104	Introduction to Telecommunications	2	2	3
CPTN161	Introduction to Programming Using Visual BASIC	2	2	3
LEXN101	First Year Experience	1	0	1
General Education: Group D Elective		3	0	<u>3</u>
				17

SPRING SEMESTER

CPTN205	Networking Basics	2	2	3
General Education: Group A Elective		3	0	3
General Education: Group B Elective*		4	0	4
General Education: Group E Elective* *		4	0	4
Elective in Major***		3	0	<u>3</u>
				17

SECOND YEAR - FALL SEMESTER

		CL	LAB	CR
CPTN203	Introduction to UNIX	2	2	3
CPTN204	Administering Windows Servers	2	2	3
CPTN215	Routing Fundamentals	2	2	3
CPTN207	Database Design and Management OR	2	2	3
BCPN213	Database Management: ACCESS	2	2	3
General Education: Group C Elective		3	0	<u>3</u>
				15

SPRING SEMESTER

CPTN210	Advanced Windows Servers	2	2	3
CPTN225	Intermediate Networking	3	3	4
CPTN290	Computer Science Internship OR	1	8	3
CPTN286	Networking Capstone Project	3	0	3
General Education: Group F or G Elective		3	0	3
Elective in the Major***		3	0	<u>3</u>
				16

Total 65 Credits

* SCIN 134 or SCIN 150 recommended

**MTHN 106, 110, or 115 required

***Electives in Major: CPTN, EETN, BCPN, BUSN230

COMPUTER SCIENCE CERTIFICATES

COMPUTER NETWORKING CERTIFICATE (Day/Evening Program)

This certificate is designed to present a package of skills that would enable someone to perform basic entry-level work in the IT field. It begins with setting up and maintaining the computers and software needed by end users. Those skills are extended by learning to provide resources through Windows and Linux servers. The three networking courses deal with designing, implementing, and supporting the underlying communications between the end users and the servers. All the skills for Cisco CCNA certification are included.

		CL	LAB	CR
CPTN101	PC Assembly/Operating Systems	2	3	3
CPTN205	Networking Basics	2	2	3
CPTN215	Routing Fundamentals	2	2	3
CPTN225	Intermediate Networking	3	3	4
CPTN105	Internet Server Management	2	2	3
CPTN203	Introduction to UNIX	2	2	3
CPTN204	Administering Windows Servers	2	2	3

Total 22 Credits

INTERNET DEVELOPER CERTIFICATE (Day/Evening Program)

The Internet Developer Certificate program is designed for students or 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
CPTN102	Website Development I	2	2	3
CPTN103	Website Development II	2	2	3
FARN120	Introduction to Graphic Design Theory	2	2	3
CPTN201	Client-Side Scripting Using JavaScript	2	2	3
CPTN206	Server-Side Scripting Using PHP	2	2	3
CPTN207	Database Design and Management	2	2	3

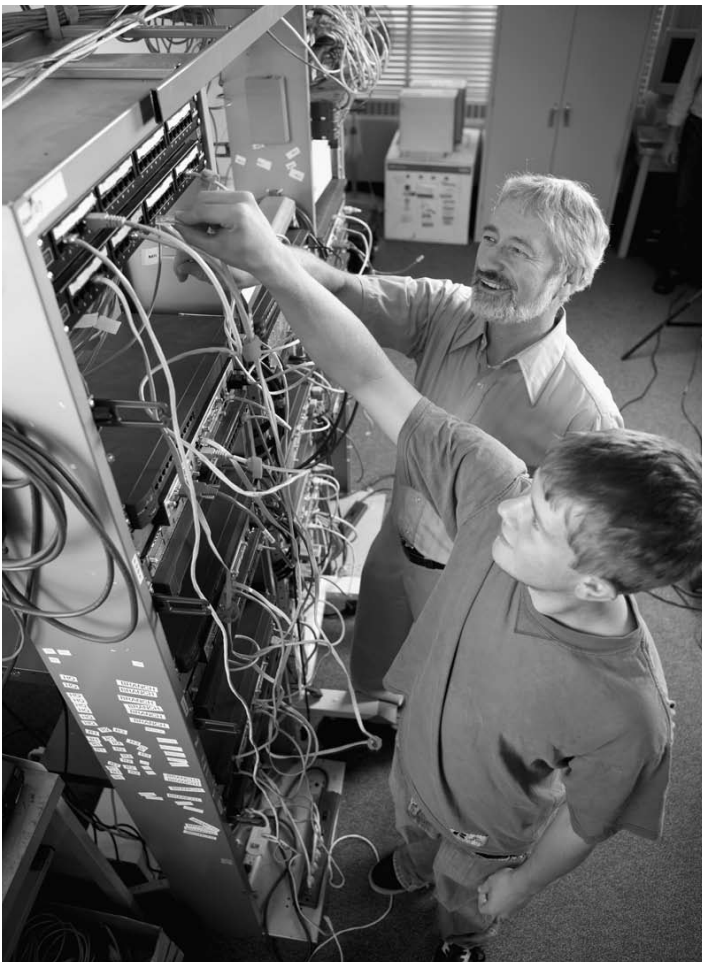
Total 18 Credits

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
CPTN101	PC Assembly & Operating Systems	2	3	3
CPTN102	Website Development I	2	2	3
CPTN103	Website Development II	2	2	3
CPTN161	Introduction to Programming Using Visual Basic	2	2	3
CPTN175	Intermediate Programming Using C++	2	2	3
CPTN202	Java Programming	2	2	3
CPTN203	Introduction to UNIX	2	2	3
CPTN206	Server-Side Scripting Using PHP	2	2	3

Total 24 Credits



ASSOCIATE IN SCIENCE IN CULINARY ARTS

(Day Program)

Proposed for Fall 2012

The mission of the proposed 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 FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
CULN101	Introduction to Gastronomy	1	0	1
CULN105	Food Safety and Sanitation	2	2	3
CULN110	Basic Food Preparation	1	4	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
General Education: Group E Elective		3/4	0	<u>3/4</u>
				15/16

FIRST YEAR – SPRING SEMESTER

BCPN101	Computer Technology and Applications	2	2	3
CULN112	American Regional Cuisine	1	4	3
CULN120	Fundamentals of Baking	1	4	3
CULN130	Menu Development	2	2	3
CULN140	Nutritional Cuisine	3	0	<u>3</u>
				15

SECOND YEAR – FALL SEMESTER

CULN210	Intermediate Food Preparation	1	4	3
CULN220	Food Service Purchasing and Cost Controls	2	0	2
General Education: Group F Elective		3	0	3
General Education: Group D Elective		3	0	3
PSYN130	Human Relations	3	0	3
SCIN120	Nutrition	3	0	<u>3</u>
				17

SECOND YEAR – SPRING SEMESTER

CULN212	International Cuisine	1	6	4
CULN215	Garde Manger	1	4	3
CULN235	Dining Room Service	1	4	3
General Education: Group A Elective		3	0	3
General Education: Group A – G Elective		3	0	<u>3</u>
				16

SECOND YEAR – SUMMER SEMESTER

CULN 290	Culinary Internship	1	8	3
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Total 66 Credits

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. Respect the importance of diversity in the broadest sense related to food, culture and people
7. Demonstrate a commitment to 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 finger-printing 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 practica 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.

EARLY CHILDHOOD EDUCATION cont.

EARLY CHILDHOOD EDUCATION FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
EDUN101	Foundations of Early Childhood Education	3	0	3
EDUN102	Growth and Development of the Young Child	3	0	3
BCPN101	Computer Technology and Applications	3	0	3
LEXN101	First Year Experience	1	0	1
General Education: Group E Elective*				3/4
				<u>17/18</u>

SPRING SEMESTER

EDUN103	Safe Healthy ECE Programs	3	0	3
EDUN104	Curriculum for Early Childhood Care and Education	3	0	3
EDUN105	Children with Special Needs and Their Families	3	0	3
PSYN101	Introduction to Psychology	3	0	3
General Education: Group B Elective				4
				<u>16</u>

SECOND YEAR - FALL SEMESTER

EDUN190	Early Childhood Education Practicum I	1	8	3
EDUN200	Programs for Infants and Toddlers	3	0	3
EDUN204	Behavior Guidance and Classroom Management	3	0	3
EDUN215	Creativity and the Young Child	3	0	3
General Education: Group A Elective				3
General Education: Group F or G Elective				3
				<u>18</u>

SPRING SEMESTER

EDUN203	Emerging Literacy in Early Childhood Education	3	0	3
EDUN290	Early Childhood Education Capstone Course	1	8	3
EDUN230	The ECE Profession and the ECE Portfolio	1	0	1
General Education: Group D Elective*				3
General Education: Group F or G Elective*				3
EDUN201	Organization and Management in Early Childhood Education*	3	0	3
OR				
General Education: Group C Elective				3
				<u>16</u>

Total 67/68 Credits

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

*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.



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

1. Use their knowledge and understanding of the young child's development, individual and exceptional needs, and culture 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 characteristics and needs of families and their communities as they establish and maintain positive, collaborative, supportive relationships with the families of young children in relationship to the child's development and learning.
3. Understand and mindfully 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. Establish and maintain positive and supportive relationships with young children in an environment that has been designed to be a physically, cognitively, emotionally and psychologically respectful, safe and healthy learning environment for all young children.
5. Conduct themselves in a mindful, ethical, and professional manner as they reflect on and implement their practices, articulate a philosophy, advocate for and present a rationale for their actions, interactions and decisions involving young children, parents, other professionals and self.
6. Demonstrate college level proficiency in the skills of written and verbal communication and technological literacy that support the effective use and application of the knowledge, skills and dispositions required in the degree program.
7. Demonstrate an understanding and knowledge of foundational concepts in the general education areas including science, mathematics, literature and the behavioral and social sciences in relationship to the development of the educated self and enrich early childhood programs for young children.
8. Demonstrate a commitment to and an awareness of the need for life long professional growth, learning, community involvement and advocacy in regards to current early childhood research, practices and issues.

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
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
EDUN101	Foundations of Early Childhood Education	3	0	3
EDUN102	Growth and Development of the Young Child	3	0	3
EDUN103	Safe and Healthy Programs in Early Childhood Education	3	0	3
EDUN104	Curriculum for Early Childhood Care and Education	3	0	3
EDUN190	Early Childhood Education Practicum I	1	8	3
EDUN230	The ECE Profession and Professional Portfolio	1	0	1
EDUN200	Dev. App. Programs for Infants and Toddlers*	3	0	3
	OR			
EDUN105	Children with Special Needs and their Families*	3	0	3
	OR			
EDUN204	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 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 students will become familiar with the areas of electronics, including circuit analysis, analog and digital integrated circuits, discrete semiconductor devices, electronic communications and linear operational circuits. This hardware oriented program provides students with knowledge of currently established design and laboratory techniques.

The U.S. Department of Labor's Bureau of Labor 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 is required.
- Other high school courses such as Algebra II, physics, electronics, and computer programming are recommended.
- Basic written 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
2. A depth of knowledge in the areas of computer-related hardware, software, digital electronics, networking technology, and mathematics/physics applications.
3. The skills needed to achieve competitively compensated entry-level positions or admissions into programs of advanced study.
4. A desire to develop professionally and personally through a commitment to life-long learning.

Technical Standards: Please refer to Technical Standards Section 4 for details regarding this program.

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

1. Utilize computer skills to develop, operate, interface and maintain electronic equipment safely and within industrial settings.
2. Utilize electrical/electronic skills to develop, operate, analyze, interface and maintain electronic circuits and systems safely and competently within the industrial setting.
3. Incorporate principles and theories from math, physics and the humanities when working on technical problems.
4. Utilize intellectual, interpersonal and psychomotor competence when working in a laboratory with co-workers.
5. Demonstrate legal and moral judgment when involved in the design, repair and evaluation of electronic equipment for clients.
6. Show positive work ethics, good work habits, integrity, knowledge and communication skills.
7. Reveal emotional balance, motivation, insight, job and human relationship skills.
8. Exercise a desire to continue professional development and lifelong learning.
9. Find employment in the field of study

ELECTRONIC ENGINEERING TECHNOLOGY

FIRST YEAR - FALL SEMESTER

	CL	LAB	CR
EETN121 Digital Circuits I	2	2	3
EETN131 Circuit Analysis I	3	3	4
ENGN101 College Composition	4	0	4
MTHN110 Algebra and Trigonometry	4	0	4
EETN110 Introduction to Object Oriented Programming Using Java	2	2	3
LEXN101 First Year Experience	1	0	<u>1</u>
			19

SPRING SEMESTER

EETN122 Digital Circuits II	2	3	3
EETN132 Circuit Analysis II	3	3	4
EETN115 Object Oriented Programming with C++	2	2	3
* EETN142 Analog Circuits I (<i>evening only</i>)	2	2	3
EETN170 Fundamentals of Operating Systems	2	2	3
MTHN120 Precalculus	4	0	<u>4</u>
			20

SUMMER SEMESTER

* EETN243 Analog Circuits II (<i>evening only</i>)	2	2	3
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SECOND YEAR - FALL SEMESTER

EETN251 Micro-Processors	2	3	3
* EETN246 Op. Amps. and Linear Integrated Circuits (<i>evening only</i>)	2	3	3
CPTN205 Networking Basics	2	2	3
SCIN130 Physics I	3	2	4
PSYN130 Human Relations			
OR			
General Education: Group C Elective	3	0	<u>3</u>
			16

SPRING SEMESTER

* EETN245 Communication Theory (<i>evening only</i>)	2	2	3
* EETN274 EETN Capstone Project (<i>evening only</i>)	0	3	1
**General Education: Group A Elective	3	0	3
General Education: Group D Elective	3	0	3
General Education: Group F or G Elective	3	0	<u>3</u>
			13

Total 68 Credits

* Please note: EETN142, EETN243, EETN245, EETN246 and EETN274 are **offered only in the evening**.

**Group A Elective must be one of the following: ENGN103, ENGN109, ENGN122,.

An agreement with UNH-Manchester, effective January 2011, will allow NCC students the option of DUAL ADMISSION into NCC and UNH-Manchester. Students at NCC will earn an associate degree in either computer engineering technology or electronic engineering technology and continue their coursework at UNH-Manchester to earn a Bachelor of Science degree in electrical engineering technology in either the electrical or computer engineering technology track.

***Accredited by the Technology Accreditation Commission (TAC) of ABET, Inc., 11 Market Place, Suite 1050, Baltimore, MD 21202-4012. Telephone (410) 347-7700.

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. To earn prior learning assessment credit, students may register for GSTN101 Assessment of Prior Learning to assist them in preparing a comprehensive portfolio which will be evaluated by the General Studies Program Coordinator and appropriate faculty. Please note that a maximum of 24 credits may be earned through prior learning assessment credit.

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

GRADUATION REQUIREMENTS

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

	CREDITS
Specialty and Support courses	32
General Education as follows:	26
Group A: Written Composition/Oral Communication	7
Group B: The Scientific World	3
Group C: Social Sciences (Behavioral)	3
Group D: Social Sciences (Non-Behavioral)	3
Group E: Mathematical Reasoning	4
Group F: The Humanities OR	
Group G: World Languages	3
Minimum of an additional 3 credits from Groups A - G.	3
Open Elective	3
GSTN296 General Studies: A Capstone Experience	3
GSTN101 Assessment of Prior Learning [if student chooses to develop a portfolio]	1

Please note: 8 credits of course work in the program must be completed at the "200" level

RESIDENCY REQUIREMENTS

At least 16 semester credits must be taken at Nashua Community College not including prior learning assessment credit awarded.

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 life-long learning.
2. Find, interpret and evaluate information from a variety of sources and apply that knowledge through reasoned judgment and positive action.
3. Express oneself clearly and cogently, through written and oral communication.
4. Employ both quantitative and qualitative reasoning to describe and solve problems.
5. Demonstrate an understanding of complex issues and systems that affect how we live and manage our daily lives in the workplace and at home.
6. Apply logical, critical, ethical, and creative processes and information to identify problems, evaluate alternative solutions, and make decisions.
7. Integrate and apply the fundamental principles of scientific inquiry, social sciences, and arts and humanities.

ASSOCIATE IN SCIENCE IN GENERAL STUDIES HEALTH CONCENTRATION (Day/Evening Program)

The Health Concentration within the General Studies Program has been designed for several groups of students:

- Students who have a desire to work in the health care industry, but who have not yet chosen a specific health field.
- Students who view their local community college as a convenient, less expensive way to begin a four-year degree program.

With careful planning, students will be able to earn credits that will fit their intended health major field of study. Matriculated students will work with a faculty advisor to design a program of study that will meet their individual needs.

Because of potentially heavy demand for health programs, students are advised that acceptance into the Associate in Science in General Studies Degree does not guarantee acceptance in or give preferential treatment to an applicant to a specific health program at a later date.

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

GENERAL STUDIES

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
PSYN101	Introduction to Psychology	3	0	3
PSYN201	Human Growth & Development	3	0	3
SCIN201	Anatomy and Physiology I**	3	3	4
LEXN101	First Year Experience	1	0	1
				15

FIRST YEAR - SPRING SEMESTER

SCIN202	Anatomy and Physiology II	3	3	4
General Education: Group A Elective		3	0	3
General Education: Group E Elective*		4	0	4
General Education: Group F or G Elective		3	0	3
				14

FIRST YEAR - SUMMER SEMESTER

SCIN215	Microbiology	3	3	4
General Education		3	0	3
(as appropriate to student's career plans)				7

*MTHN106 is recommended.

**Anatomy and Physiology I has a prerequisite of high school biology and chemistry with a grade of C or better. Please see course description. In order to be considered for the nursing program, a grade of B- or better must be earned in Anatomy and Physiology I and Psychology I.

SECOND YEAR

Students who do not enter a health field will be able to earn an Associate in Science in General Studies Degree with a Health Concentration by completing the following requirements:

Specialty and Support courses	21 credits
General Education: Group D Elective	3 credits
Open Elective	3 credits
GSTN296 General Studies: A Capstone Experience	3 credits



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.

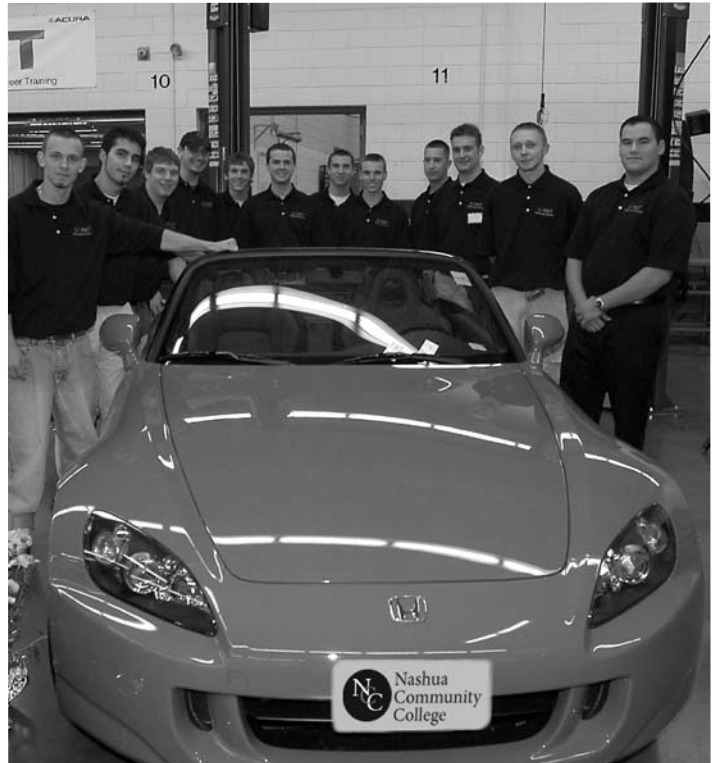
Graduates of the PACT program will have received more than 50% of the required training to become a Honda/Acura Master Technician in addition to being prepared for ASE Master certification. This is a significant head start into a career with job security and high income potential.

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 drivers 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.



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. Complete the training modules of the PACT Core Curriculum.
9. Demonstrate effective interpersonal skills.
10. Perform reading skills at a college level.

HONDA AUTOMOTIVE TECHNOLOGY cont.

ASSOCIATE IN SCIENCE IN HONDA AUTOMOTIVE TECHNOLOGY

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
HATN106	Honda Engines and Measurements	2	3	3
HATN121	Honda Service and Maintenance*	2	4	4
HATN113	Honda Electricity and Wiring	2	3	3
ENGN101	College Composition	4	0	4
MTHN099	Algebra I**	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
LEXN101	First Year Experience	1	0	<u>1</u>
				18

SPRING SEMESTER

HATN114	Honda Suspension and Steering	2	4	4
HATN115	Honda Advanced Electrical and Electronic Systems	2	3	3
HATN122	Honda Brakes and Stability Systems	2	4	4
HATN190	Honda Dealer Internship: A Capstone Experience I***	0	8	2
General Education: Group A Elective		3	0	3
MTHN103	Topics in Applied College Mathematics OR	3	0	3
General Education: Group E Elective		4	0	<u>4</u>
				17/20

SUMMER SEMESTER

HATN195	Honda Dealer Internship: Capstone Experience II****	0	24	6
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SECOND YEAR - FALL SEMESTER

HATN210	Honda Engine Performance I	2	3	3
HATN226	Honda Manual Drive Lines	2	3	3
HATN227	Honda Automatic Transmissions	2	3	3
HATN191	Honda Dealer Internship: A Capstone Experience III***	0	8	2
SCIN150	Physical Science I	3	2	4
General Education: Group D Elective		3	0	<u>3</u>
				16/18

SPRING SEMESTER

HATN215	Honda Engine Performance II	2	3	3
HATN228	Honda Engine Repair	2	4	4
HATN221	Honda Heating and AC Systems	2	3	3
HATN192	Honda Dealer Internship: A Capstone Experience IV***	0	8	2
General Education: Group C Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				16/18

Total 74 Credits

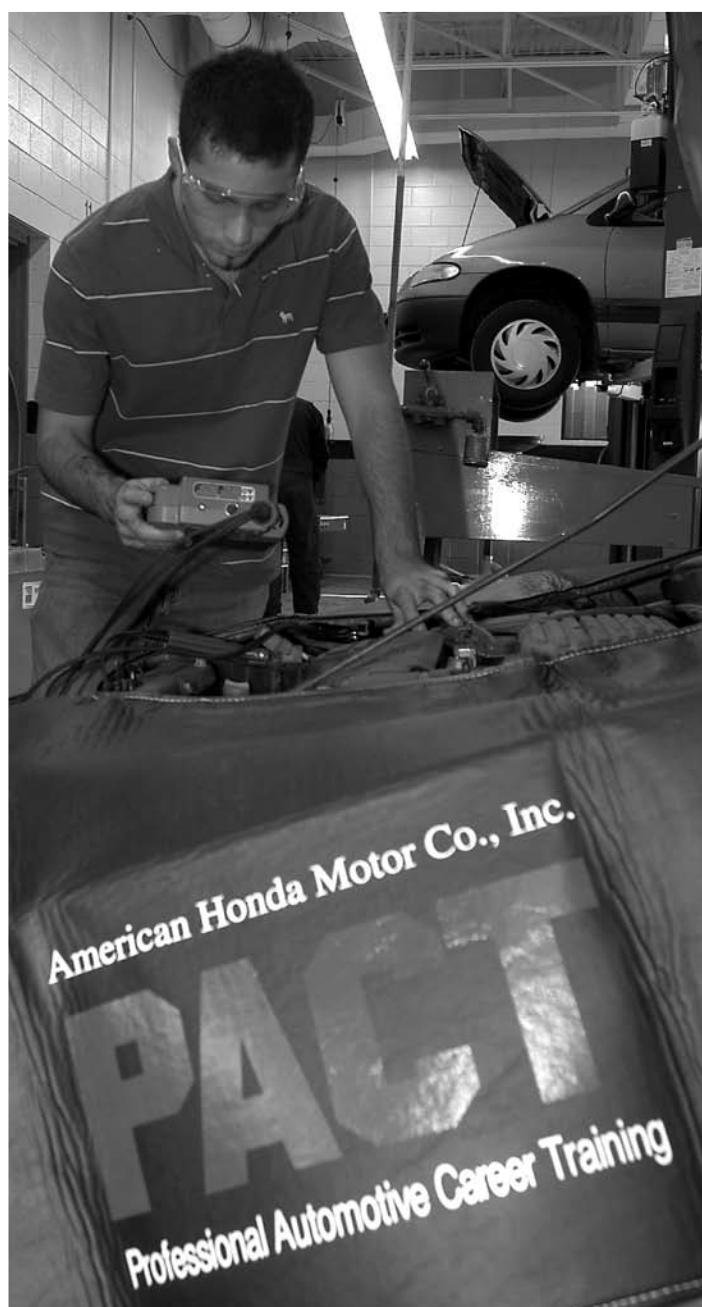
* A student must earn a "C" or better in order to progress in this program.

**This course may be waived by Accuplacer test score or by Math Department placement exam.

***A minimum of six internship credit hours must be earned in order to graduate.

****Required if not earning credits in HATN190, 191, 192 credits based on a 15 week semester.

To qualify for a Honda Dealership placement, a student must successfully complete all program course work leading to each of the internship courses.



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.

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

HOSPITALITY AND RESTAURANT MANAGEMENT

FIRST YEAR – FALL SEMESTER

		CL	LAB	CR
ACCN101	Financial Accounting I	4	1	4
BCPN101	Computer Technology and Applications	2	2	3
HSPN101	Introduction to Hospitality	3	0	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				15

SPRING SEMESTER

BUSN104	Principles of Marketing	3	0	3
BUSN110	Principles of Management	3	0	3
HSPN110	Front Office Operations/Revenue Management	3	0	3
General Education: Group B Elective		3	2	4
General Education: Group C Elective		3	0	3
XXXXxxx	Open Elective	3	0	<u>3</u>
				19

SECOND YEAR – FALL SEMESTER

ENGN109	Oral Communication	3	0	3
HSPN201	Hospitality Sales and Marketing	3	0	3
HSPN210	Principles of Food and Beverage Management	3	0	3
MTHN115	Finite Mathematics (recommended) OR			
General Education: Group E Elective		4	0	4
General Education: Group F or G Elective		3	0	<u>3</u>
				16

SPRING SEMESTER

BUSN240	Business Law	3	0	3
ECON201	Microeconomics OR			
General Education: Group D Elective		3	0	3
HSPN211	Bar and Beverage Management	3	0	3
HSPN290	Hospitality and Restaurant Management Internship	1	8	3
General Education: Group A - G Elective		3	0	<u>3</u>
				15

Total 65 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. Discuss 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

(Day/Evening Program)

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 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 \$40,000 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 College, 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 6 for details regarding this program.

HUMAN SERVICES cont.

HUMAN SERVICES

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
BCPN101	Computer Technology and Applications	2	2	3
PSYN101	Introduction to Psychology	3	0	3
HSVN111	Introduction to Human Services	3	0	3
HSVN205	Supporting Students/Others with Challenging Behavior	3	0	3
LEXN101	First Year Experience	1	0	1
				<u>17</u>

SPRING SEMESTER

HSVN123	Supportive Communication Skills	3	0	3
HSVN125	Individual Assessment and Planning	3	0	3
HSVN126	Issues in Developmental Disabilities and Mental Health	3	0	3
HSVN190	Fieldwork I	1	8	3
MTHN103	Topics in Applied College Mathematics			
OR				
General Education: Group E Elective		3/4	0	<u>3/4</u>
				<u>15/16</u>

SECOND YEAR - FALL SEMESTER

ENGN102	Writing About Literature			
OR				
ENGN103	Professional Writing and Presentations	3	0	3
HSVN212	Individual Counseling: Theory and Practice	3	0	3
PSYN240	Alcohol and Drugs	3	0	3
HSVN290	Fieldwork II OR Open Elective	1	8	3
General Education: Group B Elective (lab recommended)		3	0/2	3/4
General Education: Group F or G Elective*		3	0	<u>3</u>
				<u>18/19</u>

SPRING SEMESTER

HSVN225	Family Supports	3	0	3
HSVN220	Group Dynamics and Counseling	3	0	3
HISN260	History of Multiculturalism	3	0	3
HSVN291	Capstone Experience	1	8	3
XXXX	Open Elective**	3	0	<u>3</u>
				<u>15</u>

Total 65/66/67 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.

**BUSN175 recommended.

Suggested open electives may include Management of Non-Profit Agencies, Abnormal Psychology and Research Methods. 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.

HUMAN SERVICES CERTIFICATE (DAY/EVENING PROGRAM)

		CL	LAB	CR
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
BCPN101	Computer Technology and Applications	2	2	3
HSVN205	Supporting Students/Others with Challenging Behavior	3	0	3
PSYN101	Introduction to Psychology	3	0	3
HSVN111	Introduction to Human Services	3	0	3
HSVN123	Supportive Communication Skills	3	0	3
HSVN125	Individual Assessment and Planning*	3	0	3
HSVN190	Fieldwork I	1	8	3

Total 26 Credits

*Please check course description for prerequisites for this course.

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.

ASSOCIATE IN ARTS IN LIBERAL ARTS

(Day/Evening Program)

The mission of the Associate in Arts in Liberal Arts Degree Program is to encourage students to develop an understanding of self and to enrich their knowledge and skills to enjoy life in a changing global environment. 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. To graduate, students must successfully complete the College's requirements for all associate degree programs and a minimum of 64 credits of coursework in the distribution areas described below.

The Liberal Arts Program is representative of the first two years in a four-year baccalaureate degree program. 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.

In addition to the transfer function of the Liberal Arts Program, the liberal arts have a practical application by providing specific skills and abilities needed by students to be effective in their professional lives and in their communities: 1) the ability to communicate effectively orally and in writing; 2) the ability to think critically; 3) the ability to analyze, apply, and synthesize ideas; 4) the ability to use technology as an information resource; 5) the ability to research and solve problems; and 6) the ability to work effectively as a member of a team.

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

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

1. Communicate clearly, both orally and in writing, and evaluate critically what they hear and read.
2. Demonstrate comprehension and skill with research methods and scientific inquiry.
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.

LIBERAL ARTS FIRST YEAR – FALL SEMESTER

	CL	LAB	CR
BCPN101 Computer Technology and Applications	2	2	3
ENGN101 College Composition	4	0	4
LEXN101 First Year Experience	1	0	1
General Education: Group C Elective	3	0	3
General Education: Group E Elective*	4	0	4
			15

SPRING SEMESTER

ENGN xxx Literature Elective**	3	0	3
LIBN101 Liberal Arts and Career Preparation	1	0	1
General Education: Group D Elective	3	0	3
General Education: Group E Elective*	3/4	0	3/4
General Education: Group F or G Elective	3	0	3
XXXX Open Elective	3/4	0	3/4
			16/18

SECOND YEAR – FALL SEMESTER

General Education: Group B Elective	3	2	4
General Education: Group C or D Elective	3	0	3
General Education: Group F or G Elective	3	0	3
General Education: Group A – F Elective	3	0	3
XXXX xxx Open Elective	3/4	0	3/4
			16/17

SPRING SEMESTER

General Education: Group B Elective	3	2	4
General Education: Group F or G Elective	3	0	3
LIBN296 Liberal Arts Project: A Capstone Experience	3	0	3
General Education: Group A – F Elective	3/4	0	3/4
General Education: Group A – F Elective	3/4	0	3/4
XXXX Open Elective (as needed)	3/4	0	3/4
			19/22

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.

* MTHN103 does not meet this requirement

**Choices are ENGN105, ENGN215, ENGN230, ENGN231, ENGN240, ENGN241

ASSOCIATE IN ARTS IN LIBERAL ARTS

ENGLISH CONCENTRATION

(Day and Evening Program)

The mission of the Liberal Arts Degree Program with an English Concentration is to provide the first two years of preparation for students desiring to complete a bachelor degree that requires a strong background in English or communications.

Communications and English courses at Nashua Community College prepare students to explore various styles of writing, critically analyze literature genres, and investigate types of media in the communications field.

The English Concentration provides an appropriate foundation for students who wish to transfer to four-year colleges and universities to continue their education in communications, English, literature, writing, or related areas. Students planning to transfer into an English program at a four-year institution are encouraged to contact that institution's transfer admissions office to review that institution's curriculum requirements.

Students who choose this Concentration have the opportunity to plan their courses in one of the follow focus areas:

- Communications
- Literature
- Writing

All students in the Concentration are required to complete the following courses:

- ENGN101 College Composition (*minimum of B- required (note: transfer or and Running Start credit requires a minimum grade of B-; comparable CLEP score is 55-58)*)
- ENGN102 Writing About Literature
- ENGN105 Introduction to Literature
- Two semesters of sequential literature courses (ENGN240/241 or ENGN230/231)
- The capstone course specific to their area of focus (ENGN285). Students planning to complete the Communications Capstone course are also required to complete CMNN101 and CMNN115. The capstone course affords students the opportunity to further explore an area of interest that relates to their intended career choices.

Students planning to transfer into an English program at a four-year institution are encouraged to contact that institution's transfer admissions office to review that institution's curriculum requirements.

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

LIBERAL ARTS ENGLISH CONCENTRATION FIRST YEAR – FALL SEMESTER

		CL	LAB	CR
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
General Education: Group C Elective		3	0	3
General Education: Group E Elective*		4	0	4
LEXN101	First Year Experience	1	0	1
				15

SPRING SEMESTER

ENGN102	Writing About Literature	3	0	3
General Education: Group D Elective		3	0	3
General Education: Group E Elective*		3/4	0	3/4
General Education: Group F or G Elective		3	0	3
ENGN xxx	English Elective	3	0	3
				15/16

SECOND YEAR – FALL SEMESTER

General Education: Group B Elective		3	2	4
General Education: Group C or D Elective		3	0	3
General Education: Group F or G Elective		3	0	3
ENGN230	British Literature	3	0	3
OR				
ENGN240	American Literature	3	0	3
ENGN xxx	English Elective**	3	0	3
XXXX	Open Elective	3	0	3
				19

SPRING SEMESTER

General Education: Group B Elective		3	2	4
General Education: Group F or G Elective		3	0	3
ENGN231	British Literature II	3	0	3
OR				
ENGN241	American Literature	3	0	3
ENGN xxx	English Elective**	3	0	3
ENGN285	Individual Project in English and Communications:			
	A Capstone Experience	3	0	3
				16

Total 66 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.

* MTHN103 does not meet this requirement

**Suggested Electives for Four-year Degree Focus

Communications	Literature	Writing
CMNN101	ENGN105	ENGN102
CMNN109	ENGN215	ENGN103
CMNN115	ENGN230	ENGN122
CMNN120	ENGN231	ENGN206
CMNN204	ENGN240	ENGN235
	ENGN241	

ASSOCIATE IN ARTS IN LIBERAL ARTS

HISTORY CONCENTRATION

(Day/Evening Program)

The study of history is essential because it equips students with the historical perspective and the analytic skills needed to assess the complex issues facing today's society. All history courses at Nashua Community College are designed to accomplish three goals:

1. To provide students with knowledge of the past so they will have an historical context for making informed decisions about contemporary issues.
2. To cultivate essential analytical and communication skills.
3. To demonstrate the relevance of history in the lives of today's students.

For those students who intend to continue their study of history at a four-year college or university, the Liberal Arts (transfer degree) with a concentration in History offers the first two years of a bachelor of arts degree with a major in history.

The Liberal Arts Degree with a Concentration in History may be especially appropriate for students who plan to pursue careers in the fields of education, government, historic preservation, public history, or law.

An academic advisor will work with each student to design a specific program of courses that best meets the needs of the student. 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.

PLEASE NOTE:

Students should understand the history requirement expected by the four-year college to which they plan to transfer. For example, some institutions require two semesters of US history and two semesters of Western Civilization while other may be more flexible.

Students should be clear as to the world language requirement expected by the four-year college to which they plan to transfer. Some institutions require intermediate level - two years of study - in one world language.

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.

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

LIBERAL ARTS HISTORY CONCENTRATION FIRST YEAR – FALL SEMESTER

		CL	LAB	CR
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
HISN101	Western Civilization from Ancient Times through the 17 th Century	3	0	3
MTHN106	Elementary Statistics	4	0	4
	General Education: Group G Elective	3	0	3
LEXN 101	First Year Experience	1	0	1
				18

SPRING SEMESTER

ENGN xxx	English Elective** (English Electives List)	3	0	3
HISN102	Western Civilization Since the French Revolution	3	0	3
GEON110	World Regional Geography OR			
GEON130	Human Geography	3	0	3
	General Education: Group E Elective*	3/4	0	3/4
	General Education: Group F or G Elective	3	0	3
				15/16

SECOND YEAR – FALL SEMESTER

ECON201	Microeconomics OR			
ECON202	Macroeconomics	3	0	3
POLN101	Introduction to Political Science OR			
POLN102	American Government & Politics	3	0	3
HISN140	United States History from the Colonial Era to Reconstruction OR			
HISNxxx	History Elective	3	0	3
	General Education: Group B Elective	3	2	4
	General Education: Group F or G Elective	3	0	3
				16

SPRING SEMESTER

HISN141	United States History Since Reconstruction OR			
HISNxxx	History Elective	3	0	3
HISN285	Making History: A Capstone Experience***	3	0	3
	General Education: Group C Elective	3	0	3
	General Education: Group B Elective	3	2	4
XXXX	Open Elective	3	0	3
				16

Minimum 66 Credits

* MTHN103 does not meet this requirement

** Recommended courses include ENGN102, ENGN105, ENGN109. Refer to English Elective List under Liberal Arts: English Concentration.

*** This course will be an introduction to historical writing and research methods. The summative assessment will require students to apply the historical method of inquiry to a topic of their choosing. They will then be asked to share their findings in a formal research paper.

ASSOCIATE IN ARTS IN LIBERAL ARTS

MATHEMATICS CONCENTRATION

(Day 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.

Calculus-based Physics I and Calculus-based Physics II are recommended as laboratory science courses to meet General Education requirements at Nashua Community College.

Students enrolled in the Mathematics Concentration will be expected to purchase Computer Algebra Software (currently the College uses Mathematica) for use in courses above Calculus II. The cost of this software is approximately \$150 and requires a Windows or Mac based pc.

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

LIBERAL ARTS MATHEMATICS CONCENTRATION

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
MTHN210	Calculus I	4	0	4
ENGN101	College Composition	4	0	4
BCPN101	Computer Technology and Applications	2	2	3
LEXN101	First Year Experience	1	0	1
General Education: Group B Elective*		3	2	<u>4</u>
				16

SPRING SEMESTER

MTHN211	Calculus II	4	0	4
MTHN215	Linear Algebra	4	0	4
General Education: Group A Elective		3	0	3
General Education: Group B Elective*		3	2	<u>4</u>
				15

SECOND YEAR - FALL SEMESTER

MTHN212	Calculus III - Multivariate Calculus	4	0	4
MTHN220	Elementary Differential Equations	4	0	4
General Elective: Group C Elective		3	0	3
General Education: Group F Elective**		3	0	3
General Education: Group F or G Elective***		3	0	<u>3</u>
				17

SPRING SEMESTER

MTHN285	Individual Project in Mathematics: A Capstone Experience	4	0	4
General Education: Group D Elective		3	0	3
General Education: Group C or D Elective		3	0	3
General Education: Group F or G Elective***		3	0	3
XXXX	Open Elective	3	0	<u>3</u>
				16

Total 64 Credits

*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.



ASSOCIATE IN ARTS IN LIBERAL ARTS PEACE & SOCIAL JUSTICE STUDIES CONCENTRATION

Nashua Community College's Peace & Social Justice Studies Concentration within the Liberal Arts degree program prepares graduates to function as community advocates to help ensure a society in which equity and peace building are embraced and preserved. Practical, real world solutions will be explored throughout the program and will be applied in a required internship in the community.

The Peace & Social Justice Studies Concentration has three major aims:

1. To prepare community members and program graduates to relate interdisciplinary theories and practices of peace and justice to their own lives and to real-world problem-solving.
2. To recognize the potential of conflict as an opportunity for possible constructive outcomes, and to develop alternative strategies to everyday violence through education, research, and action.
3. To encourage academic exploration in the growing field of Peace & Social Justice Studies throughout the nation and the world.

PLEASE NOTE:

Students should be clear as to the world language requirement expected by the four-year college to which they plan to transfer. Some institutions require intermediate level - two years of study - in one world language.

Students should be clear as to the science requirement expected by the four-year college to which they plan to transfer. Many institutions require at least one semester of a laboratory science course. Liberal arts students must have eight credits of science to graduate.

While ENGN105, Introduction to Literature, is the recommended second English course in the program, the academic advisor may approve a substitution if the substitution will satisfy the requirements of the four-year college to which the student wishes to transfer.

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

Upon the completion of the degree in **Liberal Arts with a concentration in Peace and Social Justice Studies**, graduates will be able to:

1. Explore in an interdisciplinary manner the obstacles, conditions, and paths to achieve peace in a variety of settings.
2. Apply critical thinking, analytical, and creative skills in the resolution of situations of conflict.
3. Apply intellectual and experiential inquiry to the fundamental concerns about violence in our society.
4. Demonstrate entry-level skills for conflict resolution and mediation in community settings.

LIBERAL ARTS PEACE & SOCIAL JUSTICE STUDIES CONCENTRATION FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
PJSN101	Introduction to Peace & Social Justice Studies	3	0	3
	General Education: Group E Elective*	4	0	4
	General Education: Group F or G Elective	3	0	3
LEXN101	First Year Experience	1	0	1
				18

SPRING SEMESTER

ENGN105	Introduction to Literature OR			
ENGNxxx	English Elective	3	0	3
PSYN101	Introduction to Psychology OR			
SOCN101	Introduction to Sociology	3	0	3
PJSN105	Foundations of Conflict Resolution	3	0	3
	General Education: Group E Elective*	3/4	0	3/4
	General Education: Group F or G Elective	3	0	3
				15/16

SECOND YEAR - FALL SEMESTER

PJSN108	Theories of Conflict and Conflict Resolution (no pre-requisite)	3	0	3
PJSN201	Group Facilitation Theory and Practice	3	0	3
	General Education: Group B Elective	3	2	4
	General Education: Group D Elective	3	0	3
	General Education: Group F or G Elective	3	0	3
				16

SPRING SEMESTER

PJSNxxx	Peace and Justice Social Studies Elective**	3	0	3
PJSN210	Theory and Practice of Mediation	3	0	3
PJSN290	Peace and Justice Internship: A Capstone Experience	1	8	3
	General Education: Group B Elective	3	2	4
	General Education: Group C or D Elective	3	0	3
				16

Total 66 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.

*MTHN103 does not meet this requirement

**Recommendation: PJSN140 Peace Education, Leadership and Sustainability. This course takes place in Costa Rica. Please refer to course description for information about additional costs for this course.

ASSOCIATE IN ARTS IN LIBERAL ARTS

PSYCHOLOGY CONCENTRATION

(Day/Evening Program)

The university parallel Concentration in Psychology is 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. The curriculum includes general education and other selected courses typically required in a bachelor's degree program in psychology.

Psychology is the wide-ranging scientific study and exploration of behavior and mental processes. Critical thinking skills are emphasized and developed. Psychology courses are an excellent complement to any profession or course of training that involves human interaction.

Students should be aware that careers in the field of professional psychology typically require a master's degree or a doctoral degree, depending upon the career path selected.

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



Liberal Arts Psychology Concentration

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
BCPN101	Computer Technology and Applications	2	2	3
PSYN101	Introduction to Psychology	3	0	3
MTHN106	Elementary Statistics	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				15

SPRING SEMESTER

PSYN201	Human Growth and Development	3	0	3
PSYN220	Research Methods	3	0	3
HUMN101	Introduction to Humanities	3	0	3
General Education: Group A Elective		3	0	3
General Education: Group F or G Elective		3	0	3
XXXX	Open Elective	3	0	<u>3</u>
				18

SECOND YEAR - FALL SEMESTER

PSYN210	Abnormal Psychology	3	0	3
SCIN101	Biology I	3	1	4
PSYNxxx	Psychology Elective	3	0	3
SOCN228	Class, Status, and Power	3	0	3
General Education: Group E Elective*		4	0	<u>4</u>
				17

SPRING SEMESTER

PSYN280	Community Psychology: A Capstone Experience	3	0	3
PSYN207	Social Psychology	3	0	3
General Education: Group B Elective (must have a lab)		3	2	4
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				16

Total 66 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.

* MTHN103 does not meet this requirement

ASSOCIATE IN ARTS IN LIBERAL ARTS

SCIENCE CONCENTRATION

(Day/Evening Program)
Proposed for Fall 2012

The Associate in Arts Degree with a Concentration in Science offers students the opportunity to explore an array of science courses which span the fields of biology, chemistry, mathematics, physical science, and physics. Students receive a strong foundation in the scientific method and the physical world.

The Science Concentration prepares students for transfer to four-year colleges and to pursue further study in the fields of biology, chemistry, physical science, physics, health careers, laboratory work, scientific research, teaching, or pharmaceuticals.

Because requirements vary at four-year colleges and universities, students should work closely with their academic advisors to make sure they enroll in courses appropriate for the institutions to which they plan to transfer.

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

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

SCIN101 Biology I

Two physical science courses of the same series: SCIN142 General Chemistry I/SCIN143 General Chemistry II, or SCIN131 Physics I/SCIN132 Physics II, or SCIN231 Calculus-Based Physics I/SCIN232 Calculus-Based Physics II.

SCIN215 Microbiology

SCIN280 Scientific Inquiry and Techniques

SCIN285 Science Capstone Experience

* Two college level MTHNxxx courses

RECOMMENDED:

SCINxxx Science Electives

SCIN102 Biology II

SCIN160 Genetics

SCIN201 Anatomy and Physiology I/ SCIN202 Anatomy and Physiology II

SCIN220 Ecology

MTHNxxx Math Electives

MTHN210 Calculus I/MTHN211 Calculus II

HUMNXXX Humanities Electives

HUMN109 Introduction to Philosophy

HUMN110 Critical Thinking Skills

HUMN130 Music Composition

LNGNxxx 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

Liberal Arts Science Concentration

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
SCIN101	Biology I	3	3	4
SCIN142	General Chemistry I OR			
SCIN131	Physics II OR			
SCIN231	Calculus-Based Physics I	3	3	4
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
General Education: Group E Elective*		4	0	<u>4</u>
				17

SPRING SEMESTER

SCIN102	Biology II OR			
SCINxxx	Science Elective	3	3	4
SCIN143	General Chemistry II OR			
SCIN132	Physics II OR			
SCIN232	Calculus-Based Physics II	3	3	4
General Education: Group E Elective*		4	0	4
General Education: Group F or G Elective		3	0	<u>3</u>
				15

SECOND YEAR - FALL SEMESTER

SCIN215	Microbiology OR			
SCINxxx	Science Elective	3	3	4
PSYN101	Introduction to Psychology	3	0	3
SCIN280	Scientific Inquiry and Techniques	1	2	2
General Education: Group A Elective		3	0	3
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				18

SPRING SEMESTER

SCIN285	Science Capstone Experience	2	2	3
SCIN2xx	Science Elective	3	3	4
General Education: Group C or D Elective		3	0	3
General Education: Group F or G Elective		3	0	3
General Education: Open Elective		3	0	<u>3</u>
				16

Total 66 Credits

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 National Certification Examination for Massage and Bodywork (NCETMB) required for licensure as a Massage Therapist by the third semester, if the student wishes.

To take any MSTN 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 Math (Group E) or English (Group A) can be taken. However, students can enroll in all other classes before taking the Accuplacer.

National exams and the State of NH 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 20% for massage therapy through 2018.

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 as compared to other health professionals.
2. Demonstrate knowledge of the human body systems as understood by Western and Asian/Eastern sciences.
3. Understand and show knowledge of anatomy (structure and/or location), physiology (function), pathology (disease) and kinesiology (movement).
4. Explain and apply Asian concepts, principles and approaches to the body including Traditional Chinese Medicine, meridian systems and Five Element theory.
5. Understand and apply therapeutic massage and bodywork assessment methods.
6. Construct and implement a massage session plan for each client using theory (physiological, emotional/psychological, energetic), methods, tools and techniques (strokes) of therapeutic massage therapy.
7. Show understanding of professional standards, ethics, boundary setting, business and legal practices in massage.
8. Demonstrate the ability to use computer information technology to gather resource information, organize business bookkeeping records and help maintain client notes and documentation.
9. Use effective interpersonal skills to model listening, nurturing, genuine concern and empathy critical to touch therapy.
10. Demonstrate proficiency in client interviewing, record keeping and oral communication.

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 NCETMB 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 7 for details regarding this program.

HOLISTIC MASSAGE THERAPY FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
MSTN101	Swedish Massage I	2	3	3
SCIN111	Basic Anatomy and Physiology	3	2	4
General Education: Group D Elective		3	0	<u>3</u>
				15

SPRING SEMESTER

MSTN111	Musculo-Skeletal Study	1	2	2
MSTN121	Swedish Massage II	2	3	3
MSTN131	Pathology	3	0	3
MSTN141	Oriental Theory and Concepts	3	0	3
MSTNxxx	Massage/Wellness Elective	2	0	2
General Education: Group C Elective		3	0	<u>3</u>
				16

SECOND YEAR - FALL SEMESTER

SCIN112	Kinesiology	2	3	3
MSTN126	Massage Therapy Rules & Ethics	1	0	1
MSTN133	Clinical Evaluation and Treatment	2	3	3
MSTN135	Deep Tissue Massage	1	2	2
MSTN119	Massage Business Practices	3	0	3
MSTNxxx	Massage/Wellness Electives (2 or 3 courses)			<u>6</u>
				18

SPRING SEMESTER

CHWN101	Foundations of Health and Wellness	3	0	3
General Education: Group A Elective		3	0	3
MTHN103	Topics in Applied College Mathematics OR			
General Education: Group E Elective		3	0	3/4
General Education: Group A - G Elective		3	0	3
General Education: Group F or G Elective		3	0	3
MSTN190	Clinical Internship: A Capstone Experience	0	9	<u>3</u>
				18/19

Total 67/68 Credits

MASSAGE THERAPY CERTIFICATE

(Evening Program)*

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 National Certification Examination for Massage and Bodywork (NCETMB) required for licensure as a State of New Hampshire Massage Therapist. Students may complete the program in one year (three semesters) or longer depending on the needs of the student. Flexible scheduling allows full time workers to build their course load as needed each term.

Students must be matriculated in the Massage Therapy Certificate program at NCC to register for any MSTN 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 20% for massage therapy through 2018.

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 courses are offered during the day.



MASSAGE THERAPY CERTIFICATE

FIRST SEMESTER

		CL	LAB	CR
SCIN111	Basic Human Anatomy and Physiology	3	2	4
MSTN101	Swedish Massage I*	2	3	3
MSTN119	Massage Business Practices	3	0	3
MSTNXXX	Elective **			<u>2/3</u>
				12/13

SECOND SEMESTER

MSTN111	Musculo-Skeletal Study	1	2	2
MSTN121	Swedish Massage II	2	3	3
MSTN131	Pathology	3	0	3
MSTN141	Oriental Theory and Concepts	3	0	3
MSTNXXX	Elective **			<u>2/3</u>
				13/14

THIRD SEMESTER

SCIN112	Kinesiology	2	3	3
MSTN126	Massage Rules and Ethics	1	0	1
MSTN133	Clinical Evaluation and Treatment	2	3	3
MSTN135	Deep Tissue Massage	1	2	2
MSTN190	Clinical Internship: A Capstone Experience	0	9	3
MSTNXXX	Elective **			<u>2/3</u>
				14/15

Minimum of 35 Credits

MASSAGE ELECTIVES (CHOOSE TWO):

		CL	LAB	CR
CHWN101	Foundations of Health and Wellness	3	0	3
CHWN105	Guided Meditation and Imagery*	2	0	2
CHWN110	Introduction to Homeopathy	2	0	2
CHWN115	Introduction to Herbology	3	0	3
CHWN120	Introduction to Reiki Healing	2	0	2
CHWN125	Yoga, Breath and Movement	2	0	2
MSTN105	Spa Techniques*	2	0	2
MSTN124	Acupressure*	3	0	3
MSTN132	Sports Massage*	2	0	2
MSTN134	Self-Care and Stress Management	2	0	2
MSTN136	Shiatsu*	2	0	2
MSTN137	Pre/Post Natal Massage*	2	0	2
MSTN139	Reflexology*	2	0	2
MSTN143	Chair Massage*	2	0	2
MSTN145	Aromatherapy	2	0	2
MSTN147	Elder Massage*	2	0	2
MSTN148	Somatic Massage*	2	0	2
MSTN149	Russian Massage*	2	0	2
MSTN153	Trigger Point Therapy and Myofascial Release*	2	0	2
SCIN120	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

(Day/Evening Program)

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 9 for details regarding this program.

MECHANICAL DESIGN TECHNOLOGY FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
CADN111	CADD I	3	4	5
MTTN101	Manufacturing Processes	3	0	3
ENGN101	College Composition	4	0	4
MTHN110	Algebra and Trigonometry	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				17

SPRING SEMESTER

CADN112	CADD II	3	4	5
MTTN118	Machining Technology	2	3	4
MDTN110	Automation Programming	3	1	3
SCIN130	Physics I			
	OR			
SCIN150	Physical Science	3	2	<u>4</u>
				16

SECOND YEAR - FALL SEMESTER

CADN215	CADD III (Pro E)	3	6	5
EMTN101	Electronics	2	2	3
EMTN203	Applied Mechanics I	3	1	3
General Education: Group A Elective		3	0	3
General Education: Group D Elective		3	0	<u>3</u>
				17

SPRING SEMESTER

MDTN285	Design Capstone Project	3	2	4
EMTN204	Fluid Power Design	2	1	2
EMTN210	Applied Mechanics II	2	1	2
MTTN201	Lean and Green Manufacturing Methods	3	0	3
General Education: Group C Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				17

Total 67 Credits

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 drafting standards.
3. Create 3D CAD models of parts and assemblies that meet design requirements.
4. Use 3D CAD models for strength analysis, animation, motion analysis, machining, and rapid prototyping.
5. Specify and evaluate manufacturing processes and materials used for product development.
6. Produce complete drawing packages.
7. Design and manufacture an industrial product.
8. Develop the organizational skills required to meet design and production deadlines.

ASSOCIATE IN SCIENCE IN NURSING

(Day Program)

The Department of Nursing offers the opportunity to earn an Associate of Science Degree in Nursing, in preparation for the licensing exam (NCLEX-RN) to become a Registered Nurse. The program has Full Approval of the New Hampshire Board of Nursing and Initial Accreditation from the National League for Nursing Accrediting Commission, Inc. (NLNAC), 3343 Peachtree Road NE, Suite 500, Atlanta, Georgia 30326, www.nlnac.org.

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

Applicants seeking admission to the Associate in Science in Nursing Program 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) of the Assessment Technologies Institute (see www.atitesting.com for information about preparing for the test) relative to the applicant pool, as measured by a minimum score of fiftieth percentile overall and in the sub-categories of the 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 reference from the director of the nursing program at the previous school.
- Submit all application materials by December 31 of the year preceding desired entry to the program. Incomplete applications will not be considered.
- Applicants meeting the above requirements will be ranked according to TEAS scores and previous college grades, and will be invited for an interview. Sufficient interviews will be conducted to fill class openings and a waiting list with the best qualified applicants.

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).

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), and in previous coursework.
- Demonstrate relatively balanced strengths in Reading, Math, Science, and English on the TEAS V.
- Have a history of academic and/or work success.
- Submit a satisfactory background check when directed by a letter of conditional acceptance to the nursing program.
- Have basic experience in health-related employment.

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, Nursing, and Psychology credits must 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 seven credits in nursing.
- Other college courses may be evaluated for transferability.
- The LPN may earn 4 credits applicable to NURN130 by taking the ATI Fundamentals of Nursing exam and scoring a minimum of Level 2 and the ATI Nutrition exam with a score of Level 1. Satisfactory performance on a simulated patient care experience in the nursing laboratory may earn 3 credits applicable to NURN120.
- Graduates of practical nursing programs who meet criteria for admission to the Associate of Science in Nursing Program 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

NURSING cont.

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. 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 behavior.
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 fifty 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.

Upon Acceptance

It is understood that acceptance is conditional upon submission of satisfactory evidence in the form of the following documents no later than two weeks prior to beginning the first class.

- Evidence of current health status (physical exam form).
- A transcript demonstrating the completion of SCIN201 Anatomy and Physiology and PSYN101 Introduction to Psychology, with minimum grades of B- must be submitted to the Admissions Office.
- Immunity or immunization against measles, mumps, rubella (MMR), varicella, and hepatitis B.
- 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.
- A fee for nursing liability insurance will be assessed in the second semester tuition bill.
- Applicants with latex allergies are advised to seek professional medical consultation.
- Additional requirements include uniform, stethoscope, watch with a second hand, textbooks, a tote 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.
- The Background Check, which may include drug screening, is due within thirty days of receipt of conditional acceptance. Instructions will be provided.

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, 21 South Fruit Street, Suite 16, 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 attendance at clinical agencies. 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, Introduction to Psychology, Human Growth and Development, 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.

NURSING cont.

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, Rivier College, St. Joseph College of Maine, and the University of New Hampshire. Students planning to continue their education toward the Bachelor's or Masters 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.



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

1. Plan and deliver safe individualized care to patients by integrating the nursing process and pertinent nursing knowledge, principles of teaching / learning, and preferences of patients or legal designees across the lifespan, diversity of culture, and the levels of prevention.
2. Practice collaboratively on the multi-professional health care team using principles of leadership across the disciplines and throughout the health care system to influence and facilitate conflict resolution and the establishment and achievement of shared goals.
3. Support a culture of continuous quality improvement by using data to monitor outcomes; identifying and reporting actual or potential problems; collaborating with the multi-professional team throughout the health care system; and developing evidence-based strategies for optimal practice.
4. Use health care system resources and technology, including information technology, time, policies and procedures, materials, and equipment, to coordinate and deliver individual and / or population-focused care that is effective and efficient.
5. Communicate clearly in goal-oriented, culturally-sensitive, caring, concise, and timely ways using written, verbal, non-verbal, and electronic modalities.
6. Demonstrate accountability for professional practice using legal, ethical, and regulatory guidelines and participate in activities that contribute to life-long learning.



NURSING cont.

NURSING Two Year Curriculum Plan

Prerequisite

for NURN120 and NURN130:

		CL	LAB	CR
SCIN201	Anatomy & Physiology I	3	3	4
PSYN101	Intro to Psychology	3	0	3
				<u>7</u>

FIRST YEAR - FALL SEMESTER

ENGN101	College Composition I	4	0	4
SCIN202	Anatomy & Physiology II	3	3	4
PSYN201	Human Growth and Development	3	0	3
NURN120	Fundamental Nursing Skills**	0	10	3
NURN130	Concepts for Nursing Practice**	4	0	4
				<u>18</u>

SPRING SEMESTER

NURN140	Nursing Care I: Concepts and Skills	4	15	9
NURN230	Pharmacology for Nursing Practice	3	0	3
SCIN215	Microbiology	3	3	4
General Education: Group E Elective (MTHN106 preferred)		4	0	4
				<u>20</u>

SECOND YEAR - FALL SEMESTER

NURN220	Nursing Care II: Concepts and Skills	4	18	10
General Education: Group A Elective		3	0	3
				<u>13</u>

SPRING SEMESTER

NURN240	Management of Nursing Care Across the Lifespan	4	18	10
General Education: Group F or G Elective		3	0	3
				<u>13</u>

Total 71 Credits

**LPNs may challenge by exam

NURSING Three Year Curriculum Plan

FIRST YEAR - FALL SEMESTER

SCIN201	Anatomy & Physiology I	3	3	4
ENGN101	College Composition I	4	0	4
General Education: Group E Elective*		4	0	4
				<u>12</u>

SPRING SEMESTER

SCIN202	Anatomy & Physiology II	3	3	4
PSYN101	Introduction to Psychology	3	0	3
General Education: Group A Elective		3	0	3
General Education: Group F or G Elective		3	0	3
				<u>13</u>

SUMMER

SCIN215	Microbiology	3	3	4
				<u>4</u>

SECOND YEAR - FALL SEMESTER

PSYN201	Human Growth and Development	3	0	3
NURN120	Fundamental Nursing Skills	0	10	3
NURN130	Concepts for Nursing Practice	4	0	4
				<u>10</u>

SPRING SEMESTER

NURN140	Nursing Care I: Concepts and Skills	4	15	9
NURN230	Pharmacology for Nursing Practice	3	0	3
				<u>12</u>

THIRD YEAR - FALL SEMESTER

NURN220	Nursing Care II: Concepts and Skills	4	18	10
				<u>10</u>

SPRING SEMESTER

NURN240	Management of Nursing Care Across the Lifespan	4	18	10
				<u>10</u>

Total 71 Credits

*MTHN106 suggested



ASSOCIATE IN SCIENCE IN PARALEGAL STUDIES

(Evening Program)

The Paralegal Studies Program provides students with the 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.

Nashua Community College is an accredited Institutional Member of the American Association for Paralegal Education (www.aafpe.org) and a Sustaining Member of the Paralegal Association of New Hampshire (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.

The NCC Paralegal Club is made up of students interested in the paralegal profession, regardless of their program of study; and it meets bi-weekly over lunch during the academic year.

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

Upon the completion of the degree in **Paralegal Studies**, graduates will::

1. Possess the knowledge, skills, values and attitudes necessary to work effectively, competently, ethically and successfully as a paralegal/legal assistant in a law office/firm, corporation/business entity, government agency, or the public sector.
2. Understand their role as paralegals and how law is practiced in the various settings in which paralegals work, as well as the ethical duties and responsibilities of lawyers and paralegals for ethical conduct, ethical decision making, competence, and professionalism in the delivery of legal services.
3. Be adequately educated in the fundamental and necessary principles of law in each of the specialty law courses, in the ethical rules and professional responsibility governing attorneys; as well as in the practical knowledge necessary for paralegals to work successfully in the field under the supervision of an attorney.
4. Have been provided a well-rounded education which includes communication, quantitative, and analytical skills in addition to the knowledge of the law and legal field.
5. Possess the basic and necessary organizational skills and time management skills as they are applied in the legal profession, including filing, organizing, and categorizing documents and client files, calendaring, billing, prioritizing work, and using checklists for work done and to be done.
6. Be prepared to engage in proper legal analysis and legal reasoning; then apply same to effective and thorough legal research using traditional and technology based research tools; and then to be able to effectively communicate the results of same in professional oral presentations and written legal work product.
7. Be prepared to draft legal documents, forms, and follow legal procedures.
8. Have a working understanding of the purposes and functions of state and federal governments and court systems, and civil litigation and criminal procedures from inception of a case, through trial, judgment, and appeal.
9. Be prepared to perform proper and thorough investigation and interviewing of clients and witnesses in legal matters and cases they are assigned as paralegals.
10. Possess effective written and oral communication skills necessary in dealing with other persons and entities with whom the paralegal will have contact in the legal profession work environment.
11. Have an understanding of the alternatives to litigation and court proceedings (ADR) including mediation, and all forms of voluntary, mandatory, binding and non-binding arbitration.
12. Possess computer skills and demonstrate a working knowledge of integrated software applications, and be aware of technology utilized in the legal field, including the use of computers, databases, and software for word processing, office systems, case management, case/trial presentations, and legal research.
13. Understand and apply basic bookkeeping and accounting terminology and methods.
14. Be trained in the job search process, from job research, through resume and cover letter preparation, interview preparation and skills, and interview follow-up.
15. Understand and have an appreciation of different cultures, backgrounds, and traditions among different groups of people, and inculcate values of, respect for, and a real sensitivity to persons of backgrounds other than their own.

*Paralegals may not provide legal services directly to the public except as permitted by law.

PARALEGAL STUDIES cont.

PARALEGAL STUDIES

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ACCN101	Financial Accounting I	4	1	4
PLSN101	Basic Legal Studies	3	0	3
BCPN101	Computer Technology and Applications	2	2	3
ENGN101	College Composition	4	0	4
LEXN101	First Year Experience	1	0	1
				<u>15</u>

SPRING SEMESTER

ENGN103	Professional Writing and Presentations	3	0	3
PLSN102	Legal Research and Writing	3	0	3
PSYN130	Human Relations	3	0	3
PLSN230	Contracts and Business Organizations	3	0	3
General Education: Group E Elective*		4	0	4
				<u>16</u>

SECOND YEAR - FALL SEMESTER

ENGN109	Oral Communication	3	0	3
PLSN210	Litigation & Trial Preparation	3	0	3
PLSN220	Real Estate Law	3	0	3
HISN241	American Constitutional History	3	0	3
BCPN119	Software Applications	2	2	3
General Education: Group F or G Elective		3	0	3
				<u>18</u>

SPRING SEMESTER

PLSN240	Probate, Estates and Trusts	3	0	3
PLSN250	Family Law	3	0	3
PLSN260	Criminal Law	3	0	3
PLSN290	Paralegal Internship and Seminar	1	8	3
	OR			
PLSN280	Paralegal Capstone	3	0	3
General Education: Group B Elective		3	0	3
				<u>15</u>

Total 64 Credits

*MTHN106, 110, or 115 are recommended

PARALEGAL CERTIFICATE

(Evening Program)

		CL	LAB	CR
ENGN101	College Composition	4	0	4
PLSN101	Basic Legal Studies	3	0	3
PLSN102	Legal Research & Writing	3	0	3
PLSN230	Contracts and Business Organizations	3	0	3
PLSN220	Real Estate Law	3	0	3
PLSN210	Litigation & Trial Preparation	3	0	3
PLSN240	Probate, Estates and Trusts	3	0	3
PLSN250	Family Law	3	0	3
PLSN260	Criminal Law	3	0	3

Total 28 Credits



ASSOCIATE IN SCIENCE IN SOFTWARE DEVELOPMENT

(Day/Evening Program)

The Software Development curriculum provides a strong foundation for students interested in pursuing a bachelor degree in either software development, computer science, or other computer related fields.

The curriculum has been strongly influenced by the Association of Computing Machinery's (ACM) guidelines for associate degrees in software. The curriculum combines theoretical and applied courses to teach the design and programming skills a software developer needs. Students completing this curriculum will have knowledge of the following competencies:

- Programming languages 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
- Ability to think critically
- Ability to solve problems
- Ability to effectively work as a member of a team

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

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

1. Effectively use the Internet for research to complete written assignments and for technical support to resolve issues encountered during laboratory exercises.
2. Effectively comprehend and present in written and oral form concepts learned throughout the program of study.
3. Demonstrate the ability to apply the software development life cycle during an actual team project by developing project plans, data flow or UML process modeling documents, project schedules and test plans.
4. Demonstrate the ability to follow a systematic progression of software development and refinement when designing and developing the software for the project.
5. Develop one or more software programs in a 3 GL language to satisfy the project needs.
6. Describe and draw Entity-Relationship diagrams.
7. Use SQL commands to implement database schemas, implement referential integrity and manipulate the data stored in the tables.
8. Utilize the principles of abstraction and data hiding when developing objects.
9. Demonstrate understanding of basic data structures such as stacks, queues, linked lists and sorting algorithms.

SOFTWARE DEVELOPMENT FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
CPTN101	PC Assembly/Operating Systems	2	3	3
CPTN102	Website Development I	2	2	3
CPTN161	Introduction to Programming: Using Visual Basic	2	2	3
LEXN101	First Year Experience	1	0	1
MTHN110	Algebra and Trigonometry	4	0	<u>4</u>
				18

SPRING SEMESTER

CPTN140	Essentials of Systems Analysis	2	2	3
CPTN175	Intermediate Programming: Using C++	2	2	3
CPTN205	Networking Basics	2	2	3
MTHN170	Discrete Mathematics	3	0	3
CPTN103	Website Development II	2	2	3
General Education: Group A Elective		3	0	<u>3</u>
				18

SECOND YEAR - FALL SEMESTER

CPTN207	Database Design and Management	2	2	3
CPTN230	Advanced Programming: Using C++	2	2	3
General Education: Group B Elective		4	0	4
General Education: Group D Elective		3	0	3
Elective in Major*		2	2	<u>3</u>
				16

SPRING SEMESTER

CPTN278	Data Structures: Using C++	2	2	3
CPTN290	Computer Science Internship	1	8	3
OR				
CPTN285	Senior Software Development Lab: A Capstone Experience	2	2	3
General Education: Group C Elective		3	0	3
General Education: Group F or G Elective		3	0	3
Elective in Major*		2	2	<u>3</u>
				15

Total 67 Credits

*Includes CPTN, MTHN, BCPN

ASSOCIATE IN SCIENCE IN SPEECH–LANGUAGE PATHOLOGY ASSISTANT (Evening Program)

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 Professions.

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 health care 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 non-verbal), 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.

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.

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

- 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 help students be productive and contributing members of society.
- To promote life-long learning through the acquisition of values, skills, and attitudes beneficial to both themselves and others.

Applicants to the program must meet the general requirements for admission to the College and maintain a C or above in all Speech-Language Pathology Assistant courses in order to enroll in SLPN293 Fieldwork or SLPN290 Seminar.

Technical Standards: Please refer to Technical Standards Section 10 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 with students/patients/clients 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. Describe developmental patterns of the acquisition of sounds, words, grammatical and syntactical forms, semantics, the receptive and expressive use of language and pragmatic skills.
3. Demonstrate understanding of the basic etiology and symptomatology of communication disorders, including developmental delays, voice, language, articulation, phonology, fluency, neurological impairment and hearing impairment.
4. Identify various language diversities and demonstrate awareness of student/patient/client needs and cultural values.
5. 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.
6. 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.
7. 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. Write clear and concise reports of treatment sessions.
8. Exhibit compliance with regulations, reimbursement requirements, and the speech-language pathology assistant's job responsibilities.

SPEECH–LANGUAGE PATHOLOGY ASSISTANT cont.

SPEECH LANGUAGE PATHOLOGY ASSISTANT (Evening Program)

FIRST YEAR – FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
BCPN101	Computer Technology and Applications	2	2	3
SLPN111	Speech and Language Development (1st half-semester)	3	0	3
SLPN114*	Survey of Communication Disorders (2nd half-semester)	3	0	3
LEXN101	First Year Experience	1	0	1
General Education: Group B Elective		4	0	<u>4</u>
				18

SPRING SEMESTER

PSYN101	Introduction to Psychology	3	0	3
EDUN 205*	Support Techniques for Challenging Behavior	3	0	3
SLPN112	Anatomy and Physiology of Speech and Hearing Mechanism (1st half-semester)	3	0	3
SLPN121*	Language Disorders (2nd half-semester)	3	0	3
General Education: Group A Elective		3	0	<u>3</u>
				15

SUMMER SEMESTER

SLPN115	Phonetics (1st half-semester)	3	0	3
SLPN123*	Disorders of Articulation (2nd half-semester)	3	0	3
SLPN210*	Communication Aspects of Autism Spectrum Disorders OR Open Elective	3	0	<u>3</u>
				9

SECOND YEAR – FALL SEMESTER

PSYN201	Human Growth and Development	3	0	3
SLPN220*	Advanced Communication Disorders (1st half-semester)	3	0	3
SLPN221*	Clinical Procedures in Speech-Language Pathology (2nd half-semester)	3	0	3
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	<u>3</u>
				15

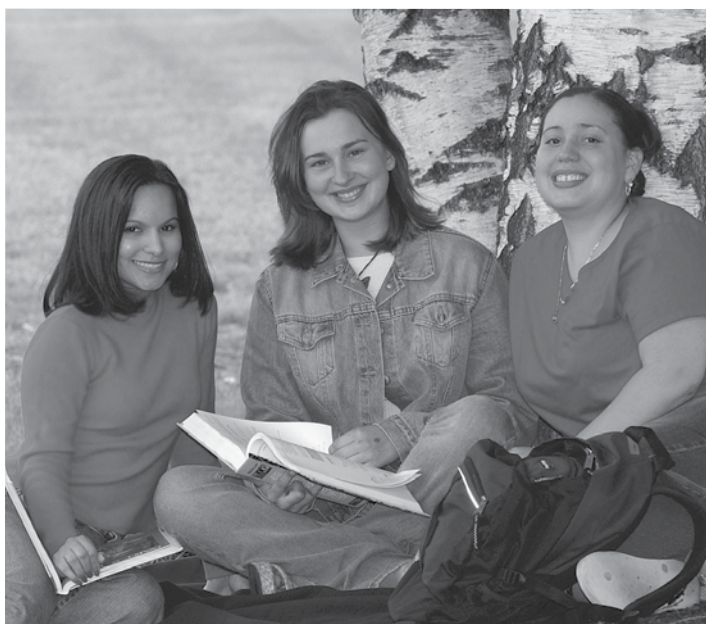
SPRING SEMESTER

SLPN290*	Capstone Seminar in Communication Disorders	2	0	2
SLPN293**	Practicum III	0	9	3
General Education Elective		3	0	3
General Education: Group E Elective		4	0	<u>4</u>
				12

Total 69 Credits

* Please check course descriptions for prerequisites for these courses.

**SLPN291 and SLPN292 may be substituted for SLPN293 with permission of the Program Director.



ASSOCIATE IN ARTS IN TEACHER EDUCATION

(Day/Evening Program)

The Associate in Arts Degree in Teacher Education offered by Nashua Community College is designed to transfer to Teacher Education Programs at four-year colleges and universities.

The Teacher Education program at NCC has been designed using the NH Department of Education Professional Preparation Programs model and an interdisciplinary curriculum approach. The degree requirements include three categories: 1) general education; 2) education; and 3) a major concentration within the Liberal Arts.

The General Education component is a coherent and substantive balance in English and literature, science, mathematics, social science and humanities/fine arts/world language. The Education courses are identified and designed to transfer to most four-year colleges as well as provide the student with a beginning introduction to and understanding of the teaching profession. The Liberal Arts concentration will provide an in-depth study in a particular area based on the students' chosen teaching field.

The Teacher Education program includes academic study and experiences to meet both Associate in Arts Degree requirements and the first two years of Bachelor Degree requirements in Teacher Education. Students should be aware that most four year colleges require the successful completion of the Praxis I examination as a condition of admission to their programs as well as a minimum grade point average, which is usually 2.5 or better. The student works closely with an academic advisor to design a choice and sequence of courses that best meets the specific requirements of their chosen teaching fields and transfer institution.

Future teachers are encouraged to gain practical experiences with children in public school settings. In addition to completing the required observations and classroom experiences in the Education courses, it is recommended that students participate in the Service Learning opportunities that are offered in some of the General Education courses.

Students are advised that public schools require those participating in a public school setting be free of criminal convictions as required by the NH Department of Education. The student may incur fees in meeting this requirement. The College must ensure that students in the program do not put themselves or children in jeopardy during classroom observations, participation or Service Learning experiences. Students must demonstrate sufficient emotional and physical ability to respond quickly and appropriately to unexpected child and classroom related events.

Technical Standards: Please refer to Technical Standards Section 11 for details regarding this program.



Upon the completion of the degree in **Teacher Education**, 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 public education in contemporary society.
2. Articulate a beginning philosophy of education that incorporates an understanding of relevant theories and models of education.
3. Demonstrate a comprehensive knowledge and appreciation of the general education areas of literature, science, mathematics, social sciences, and humanities/fine arts/world language.
4. Demonstrate college level proficiency in written and oral communication, and analytical, mathematical, and scientific reasoning that support the effective use and application of the knowledge, skills, and dispositions required in the program and needed for transfer to a four-year degree institution.
5. Demonstrate knowledge of self and a general understanding of the human condition that promotes an appreciation for diversity, historical context, exceptionalities, and aesthetic sensitivity.
6. 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.

TEACHER EDUCATION cont.

TEACHER EDUCATION CONCENTRATION

FIRST YEAR – FALL SEMESTER

		CL	LAB	CR
EDUN 130	Foundations of Education	3	0	3
ENGN101	College Composition	4	0	4
PSYN101	Introduction to Psychology	3	0	3
BCPN 101	Computer Technology and Applications	2	2	3
General Education: Group F or G Elective		3	0	3
LEXN 101	First Year Experience	1	0	<u>1</u>
				17

SPRING SEMESTER

EDUN 132	Introduction to Exceptionalities	3	0	3
POLN 102	American Government and Politics	3	0	3
OR				
SOCN 110	Cultural Anthropology	3	0	3
General Education: Group A Elective				
(ENGN 105 Intro. To Lit. Recommended)		3	0	3
General Education: Group E Elective		4	0	4
General Education: Group F or G Elective		3	0	<u>3</u>
				16

SECOND YEAR – FALL SEMESTER

EDUN140	Conflict Resolution in Education	3	0	3
PSYN 201	Human Growth and Development	3	0	3
General Education: Group B Elective *		3	2	4
General Education: Group E Elective		4	0	4
XXXX	Open Elective **	3	0	<u>3</u>
				17

SPRING SEMESTER

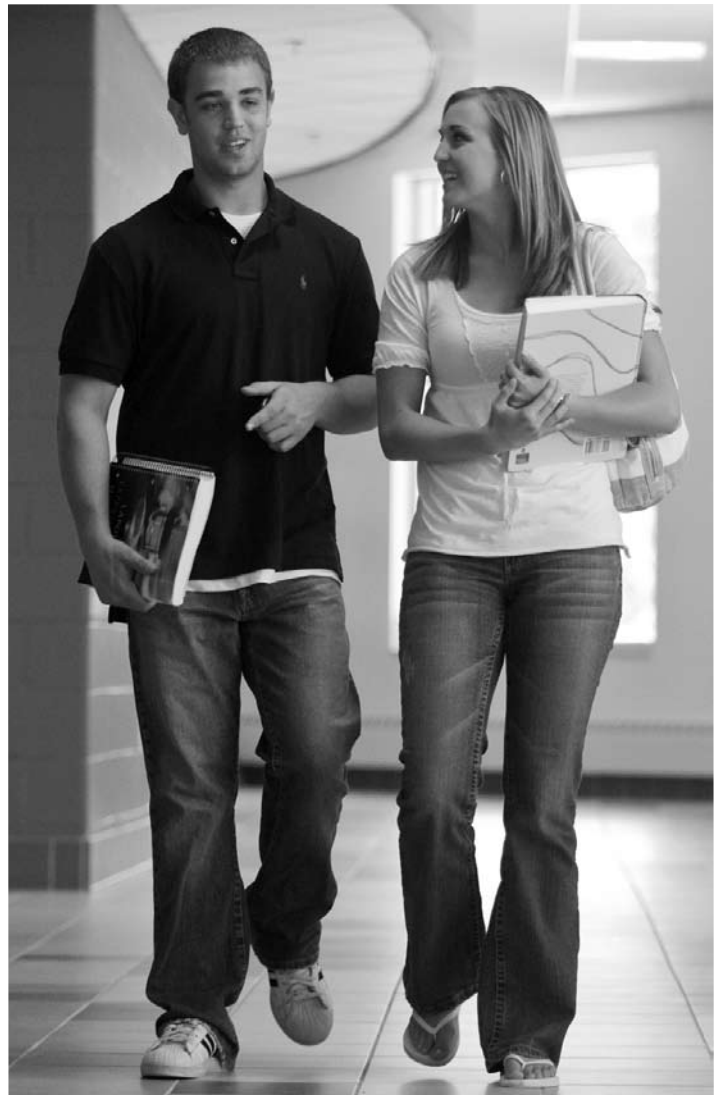
EDUN295	Teacher Education: A Capstone Experience	1	0	1
General Education: Groups A-F		3	0	3
General Education: Group B Elective *		3	2	4
General Education: Group D Elective		3	0	3
General Education: Group F or G Elective		3	0	3
XXXX	Open Elective **	3	0	<u>3</u>
				17

Total 67 Credits

Students are advised to contact transfer institutions in order to make appropriate elective course selections. Please check with an academic advisor prior to registering.

* Sciences with a laboratory component must be elected. In some transfer programs, sequential science courses may be required. Other transfer programs require courses be taken from a variety of science disciplines.

** Students will select concentration courses as recommended by their academic advisor and transfer institutions to prepare the student for a major focus after transfer.



ASSOCIATE IN SCIENCE IN WEB APPLICATION DEVELOPMENT

(Day/Evening Program)

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
- XHTML/CSS
- 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.

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

1. Effectively use the Internet for research to complete written assignments and for technical support to resolve issues encountered during laboratory exercises.
2. Effectively comprehend and present in written and oral form concepts learned throughout the program of study.
3. Demonstrate the ability to apply the software development life cycle during an actual team project by developing project plans, data flow or UML process modeling documents, project schedules and test plans.
4. Work in the UNIX environment and successfully create and manage files.
5. Demonstrate the ability to create static or dynamic web pages in accordance with the web site's purpose utilizing graphic design concepts.
6. Demonstrate the ability to follow a systematic progression of software development and refinement when designing and development the software for the project.
7. Describe and draw Entity-Relationship diagrams.
8. Use SQL commands to implement database schemas, implement referential integrity and manipulate the data stored in the tables.
9. Understand the client/server model and the differences between this environment and the traditional environment when developing software.
10. Demonstrate the ability to develop server-side scripts that access and maintain data stored in either a flat file or a database.

WEBSITE DEVELOPMENT

FIRST YEAR - FALL SEMESTER

		CL	LAB	CR
ENGN101	College Composition	4	0	4
CPTN101	PC Assembly/Operating Systems	2	3	3
CPTN102	Website Development I	2	2	3
CPTN161	Introduction to Programming Using Visual Basic	2	2	3
MTHN110	Algebra and Trigonometry	4	0	4
LEXN101	First Year Experience	1	0	<u>1</u>
				18

SPRING SEMESTER

CPTN103	Website Development II	2	2	3
CPTN140	Essentials of Systems Analysis and Design	2	2	3
CPTN175	Intermediate Programming: Using C++	2	2	3
CPTN205	Networking Basics	2	2	3
MTHN170	Discrete Mathematics	3	0	3
FARN120	Introduction to Graphic Design Theory	2	2	<u>3</u>
				18

SECOND YEAR - FALL SEMESTER

CPTN201	Client-Side Scripting Using JavaScript	2	2	3
CPTN203	Introduction to UNIX	2	2	3
CPTN207	Database Design and Management	2	2	3
General Education: Group A Elective		3	0	3
General Education: Group B Elective		3	2	<u>4</u>
				16

SPRING SEMESTER

CPTN202	Java Programming	2	2	3
CPTN206	Server-Side Scripting Using PHP	2	2	3
CPTN290	Computer Science Internship OR	1	8	3
CPTN284	Senior Website Development Lab: A Capstone Experience	2	2	3
General Education: Group C Elective		3	0	3
General Education: Group D Elective		3	0	<u>3</u>
				15

Total 67 Credits

CERTIFICATES

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
SOCN101	Introduction to Sociology			
	OR			
PSYN101	Introduction to Psychology	3	0	3
ENGN101	College Composition	4	0	4
LNGN120	Sign Language I	3	0	3
SOCN206	Sociology of Deaf Culture	3	0	3
LNGN121	Sign Language II	3	0	3
LNGN220	Sign Language III	3	0	3
LNGN221	Sign Language IV	3	0	3
SNLN201	Deaf and Hearing Cultural Interactions	3	0	3

Total 25 Credits



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 drivers 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: Computer and 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
- Manually be able to lift up to 50 lbs
- Transport equipment and materials as necessary
- Position and maneuver in confined spaces
- Work at varying heights
- Must be able to differentiate colors
- 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
- Work for long periods amidst electrical equipment, dust and heat, and variations in lighting.

Section 5: 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 6: 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 7: 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
- Ability to 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 8: 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 applicants 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 9: 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 10: 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, colleges, 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.

Section 11: Teacher Education

Character Expectations: The health and safety of children, adolescents and other learners is of paramount concern to the Education program. Applicants for teaching positions in public and private schools in New Hampshire should be aware that background checks through the New Hampshire Department of Safety must be completed by potential employers prior to employment. Applicants, who have been in difficulty with the law, depending upon the nature of their experience, 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 a teacher 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 and/or private school classroom as teachers. 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 Education program must have sufficient strength, stamina and motor coordination to perform the following:

- Sufficient hearing and visual acuity to ensure a safe environment and ability to respond quickly in the event of emergency;
- Sufficient verbal ability to express and exchange information and ideas as well as to interpret important instructions to children, adolescents, colleagues, and parents;
- Sufficient writing skills to accurately record students' daily progress and milestones as well as a variety of reports;
- Ability to work with frequent interruptions, to respond appropriately to unexpected situations, and to cope with extreme variations in workload and stress levels.

Internship Considerations

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.

Course Descriptions

ACCOUNTING

ACCN101 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.

ACCN102 Financial Accounting II 4 Credits

This course is a continuation of ACCN101. Current and long-term assets are studied along with liabilities and owners' 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: ACCN101. Placement score equivalent to MTHN099.

ACCN201 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: ACCN102

ACCN202 Intermediate Accounting II 4 Credits

This course is a continuation of ACCN201. 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: ACCN201

ACCN204 Introduction to Finance 3 Credits

This course is designed to acquaint the student with the manner in which the financial system functions and with the techniques used to reach financial decisions. Major topics to be studied include financial markets, financial performance, securities valuation, capital budgeting, and asset management. A conceptual understanding of the financial decision-making process is developed. Prerequisites: ACCN102, math elective

ACCN206 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: ACCN102

ACCN208 Investments 3 Credits

The successful completion of this course will provide the student with a working knowledge of various investment alternatives including but not limited to stocks, bonds, mutual funds, options, and real estate. Investing is focused on long term issues. What should we invest our resources in, when should we make the investment, and why is the investment a sound idea are concepts which will be explored in the course. Prerequisites: ACCN101, math elective

ACCN210 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, perfor-

mance evaluation, and capital investment analysis. Prerequisites: MTHN099, ACCN102

ACCN214 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: ACCN201, ACCN206

ACCN290 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.

MEDICAL CODING

AHLN102 Medical Terminology 3 Credits

The study of medical terminology including word components, definitions, spelling, pronunciation, and the use of medical references and resources for research and practice.

AHLN117 Medical Coding I 3 Credits

This course is designed to prepare a student to enter the medical coding field in hospitals, physicians offices, and insurance companies. It will cover the foundations of data collection, nomenclature, classification systems and the fundamentals of coding procedures. Instruction will include lecture, demonstration, and hands-on practice. Prerequisites: SCIN111, SCIN205, BCPN101, AHLN102

AHLN119 Advanced Medical Coding and Applications 5 Credits

This course will make use of the knowledge and skills presented in Medical Coding I. Using this background, it will cover Current Procedural Terminology (CPT) coding, diagnostic coding (ICD-9-CM) systems, and the applications of medical coding practices and procedures using current computer software required for entry level positions. Instruction will include lecture and hands-on practice in the computer lab. Prerequisite: Completion of all courses listed in the Medical Coding Certificate profile

AUTOMOTIVE

AUTN106 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.

AUTN113 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.

AUTN114 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: AUTN121

AUTN115 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: AUTN113

AUTN121 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.

AUTN122 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: AUTN106, AUTN113, AUTN121

AUTN210 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: AUTN106, AUTN113, AUTN115, AUTN121

AUTN215 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: AUTN106, AUTN113, AUTN115, AUTN121, AUTN210

AUTN221 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: AUTN121, AUTN113; Corequisite: SCIN150

AUTN226 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: AUTN106, AUTN121

AUTN227 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: AUTN106, AUTN113, AUTN121

AUTN228 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: AUTN106, AUTN115, AUTN121, AUTN215, SCIN150

AVIATION TECHNOLOGY**AVTN101 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.

AVTN102 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.

AVTN103 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 non-structural applications and welding are covered. In addition the following materials and their repair procedures will be covered: honeycomb, fiberglass, plastic and laminated surfaces. Prerequisites: AVTN102, AVTN108

AVTN104 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 non-destructive tests and interpretation of the results. Ground operation and servicing as well as corrosion control will be presented.

AVTN105 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.

AVTN106 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.

AVTN107 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: AVTN106

AVTN108 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.

AVTN202 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 manufacturers' 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: AVTN106

AVTN203 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.

AVTN204 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: AVTN101, AVTN203

AVTN206 Reciprocating Engines I 5 Credits

This course is a study of construction, operation and timing mechanisms associated with aircraft reciprocating powerplants. 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: AVTN104, AVTN203

AVTN207 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: AVTN206

AVTN208 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: AVTN206

AVTN209 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.

AVTN210 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: AVTN208

AVTN211 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.

AVTN212 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: AVTN202, AVTN206

BUSINESS COMPUTERS**BCPN101 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.

BCPN119 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: BCPN101

BCPN204 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: BCPN101

BCPN208 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: BCPN101

BCPN213 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: BCPN101 or CPTN101 for Computer Science majors

BCPN216 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: BCPN101

BCPN225 Advanced Software Applications 3 Credits

This course covers advanced applications of end-user productivity software, including office suites. It emphasizes the use of combinations of application software tools to design solutions for moderately complex problems. Hands-on activities provide problem-solving experience with the use of an office suite and the Internet. Developing a portfolio of completed projects will be encouraged. Prerequisite: BCPN119

BUSINESS**BUSN101 Introduction to Business 3 Credits**

An introductory course designed to explain the functions of business while exploring current trends and learning about business career opportunities. Topical discussions include the economics of business, our multicultural society and its implications for business, global business and social responsibility and business ethics. Included is a study of business structures such as the forms of business organizations and entrepreneurship.

BUSN104 Principles of Marketing 3 Credits

Emphasis on product, price, promotion, and distribution as well as planning, research and organization of the marketing function. Students will examine marketing of consumer and industrial products in public and private institutions.

BUSN110 Principles of Management 3 Credits

A survey course designed to expose the student to the nature of the organizational environment and the major activities performed by its managers. Consideration is given to planning, organizing, directing, and controlling, thus making it possible to use the techniques of management in a systematic way. Case studies are used to exemplify the principles of management.

BUSN175 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: ENGN101, MTHN103 or higher, BCPN101

BUSN201 Human Resources Management 3 Credits

The purpose of this course is to familiarize the student with the scope and content of the personnel function. Through case analyses and lectures, this course studies the relationship between operating and personnel managers in employment planning, staff recruitment and selection, management training and development, performance appraisal and compensation, and the promotion of equal employment opportunity. Prerequisite: BUSN110

BUSN202 Labor Relations Management 3 Credits

The overall objective of this course is to introduce the student to labor and industrial relations both in the private and public sectors. We will review the history of unions which is important in understanding the development, structure and functions of organized labor. The course will also familiarize the student with the collective bargaining process, negotiations, dispute settlement, grievance, and arbitration procedures. No Labor Relations would be complete without studying the future of unions in the United States and being able to make comparisons of industrial relation systems in other countries in the world economy.

Important specific topics of discussion will include employee representation; the collective bargaining process; strikes, boycotts, and lockouts; mediation, arbitration and alternate forms of dispute resolution; and the administration of the collective bargaining agreement. Prerequisite: BUSN201 or Permission of the Instructor

BUSN204 Small Business Management: A Capstone Course 3 Credits

The use of accounting, management, marketing principles in launching a new venture and managing an ongoing business. Topics covered include business plan development, computer applications, human resources, purchasing, marketing, taxation, risk management and control procedures. Requires students to develop a comprehensive business plan for a new venture of their choosing which is presented as an oral and written proposal. Prerequisites: ACCN101, BUSN110 and permission of Department Chair or Program Coordinator

BUSN206 Consumer Behavior 3 Credits

A study of how the field of marketing influences the actions of consumers and also how markets influence the retailing process. This course provides the student with an understanding of what makes the consumer tick. It also highlights the importance of the study of the merchandising affect on the consumer decision making process. Prerequisite: BUSN104.

BUSN207 Sales**3 Credits**

Discusses the planning, direction, organization, and control of the personal selling effort. Emphasis is placed on the relationships between sales activities and other marketing functions.

BUSN208 Retailing**3 Credits**

A study of the ways education, communications, technology, life-style patterns, and economic considerations impact retailing. Emphasis on the emerging trends in retailing enterprise and their implications for retail management.

**BUSN210 Marketing Strategies
A Capstone Course****3 Credits**

This course integrates other marketing courses, emphasizing the development and application of creative analytical problem solving techniques to a wide range of marketing problems. Prerequisite: BUSN104

BUSN213 Principles of Advertising**3 Credits**

An introduction to the field of advertising covering the procedures of creating and using advertisements. It also focuses on the marketing manager's role in designing the firm's advertising program.

**BUSN215 Integrated Marketing
Communication****3 Credits**

An overview of marketing communications methods such as advertising, public relations, personal selling, sales promotion and their usefulness for direct marketing campaigns. Relationship selling is emphasized. The student will then learn how to develop these methods into an integrated marketing communications plan. The objective is to create an effective professional marketing plan that works for both the individual and the organization. This course assumes some basic knowledge of marketing communication and promotion theory and practice on the part of students but does not require any specific work experience. Prerequisite: BUSN104

**BUSN218 Dynamics of Organizational
Behavior****3 Credits**

A focus on performance within a work setting. The student will examine the way individuals and groups, as well as organizations themselves, create outputs, such as products and services. It also highlights the importance of international similarities, differences and applications of behavioral thinking and practice. The course provides managers with theories and research in the field of organizational behavior to deal with problems involving people.

**BUSN230 Introduction to Management of
Information Systems****3 Credits**

This course is designed to provide a description 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 subsystem, scheduling, production, inventory, sales, purchasing, planning, finance, accounting, and personnel. The student will become familiar with information requirements of an organization and the interaction of systems hardware, software, and data management.

BUSN240 Business Law**3 Credits**

An introduction to the origin of law and the federal and state court systems. A thorough study of the law of contracts, property, bailment and agency. The case approach will be emphasized.

**BUSN290 Management/Small Business
Entrepreneurship Internship****3 Credits**

An internship program in the Business Department 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.

BUSN294 Marketing Internship**3 Credits**

An internship program in the Business Department 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.

COMPUTER AIDED DRAFTING**CADN105 CNC for Artists****3 Credits**

This course is designed to introduce students to CNC (Computer Numerical Control) software in more of an artistic approach. Students will learn sign making, wood carving and kinetic sculptor designs utilizing the CNC router.

CADN111 CADD I**5 Credits**

CADD I is the study of graphical communication. The drafting fundamentals studied in this course will include 3D Solid Modeling, blue print reading, measurement, geometric construction, orthographic projection, section views, dimensioning, threads and fasteners. CAM (Computer Aided Manufacturing) software will be introduced. All work is performed using current CAD software (Solidworks) on personal computers.

CADN112 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. 3 axis CAM (Computer Aided Manufacturing) software will be introduced. This course offers a service learning component. Prerequisite: CADN111 or Permission of the Instructor

CADN131 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. Prerequisite or Corequisite: BCPN101

CADN215 CADD III**5 Credits**

CADD III will continue advanced 3D graphic communications using Pro Engineer (Pro-E) solid modeling software. Students will learn advanced 3D solid design, tolerancing, detail and assembly drawings, mass properties and advanced manufacturing techniques. Communications between different CAD programs will be introduced. CAM software will be explored further. Students will create photo realistic renderings and animations. Prerequisites: CADN112, MTTN118, or Permission of the Instructor

CADN216 CADD IV**5 Credits**

This course is designed as a final project approach to CADD. Students will be allowed to create larger, more complex, time consuming drawing and design packages, similar to industry requirements. Students will design a 3D assembly and fabricate their parts utilizing CNC equipment. This course contains a Service Learning option. Prerequisite: CADN215

COMPLEMENTARY HEALTH AND WELLNESS

CHWN101 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.

CHWN102 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.

CHWN103 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.

CHWN105 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: PSYN101

CHWN110 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 wholistic 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.

CHWN115 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.

CHWN120 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: CHWN101

CHWN125 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.

COMMUNICATIONS

CMNN101 Introduction to Mass Communication**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: ENGN101

CMNN102 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 non-verbal communication, message, channel, medium) and then applying those processes to various communication contexts including interpersonal, intrapersonal, small group, public, organizational, and mass communication. Prerequisite: ENGN101

CMNN110 Introduction to Journalism**3 Credits**

In this introductory journalism course, students will learn the basics of journalistic research, writing, news gathering, and reporting using Internet, human, and print sources and by drafting, critiquing, revising, and preparing stories for publication. Prerequisites: ENGN101

CMNN115 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, new media, and public relations. Topics covered in this class include: hard news; feature writing; AP style; crafting effective leads; editing; organizational media; interviewing techniques; publishing on Web 2.0; identifying and targeting audiences; public service announcements; press releases; and communications ethics and theory. Prerequisite: ENGN101

CMNN120 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 non-profit 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: ENGN101.

CMNN201 News Writing 3 Credits

An introduction to news writing for print journalism, this course examines principles of composition and style, reporter integrity and responsibility, news values, and news writing strategies. Basic techniques in news gathering and writing will be studied with an emphasis on accuracy, conciseness and organization. Throughout the course, students apply these skills to writing news stories for newspapers and magazines. Prerequisite: ENGN101, CMNN101

CMNN204 Screenwriting 3 Credits

Students will learn and apply the techniques and principles of scripting narratives for visual media and will examine the writing process from idea conception to completed work. Topics covered include: the tenets of the Classic Hollywood narrative structure; the sophisticated nature of storytelling through description; the language of script writing; writing scripts that connect to audiences; characterization and arc; peer evaluation. Prerequisite: ENGN101 with a grade of "C" or better

COMPUTER SCIENCE

CPTN101 PC Assembly and Operating Systems 3 Credits

This course is designed to teach the student Personal Computer architecture, the operation and interrelation of its internal components and peripheral devices, its memory organization, the Basic I/O (BIOS) system, and current Windows Operating Systems. The content of this course is intended to reflect the objectives of the industry recognized A+ Certification. This course offers an optional service learning component.

CPTN102 Website Development I 3 Credits

This is the first course in the website development sequence. The student is introduced to fundamental concepts needed to design and build a website. Topics introduced include purpose definition, audience definition, content planning, structure design, elementary page design, and typography/color considerations. Students are required to develop and present a final project using a web authoring tool and concepts learned in the course.

CPTN103 Website Development II 3 Credits

This course is the second course in the website development sequence. The web page and website design principles will be reinforced while the student studies the syntax and semantics of XHTML and CSS tags. Students will explore World Wide Web concepts such as client/server, and search engine optimization. Students are required to develop and present a final hand coded project. The course also contains an optional service learning component or assignment. Prerequisite: CPTN102

CPTN104 Introduction to Telecommunications 3 Credits

Introduction to Telecommunications prepares a student to understand, design, implement, and maintain a modern communications system. Current systems are focusing on the convergence of voice, data, and video all transmitted across a common network structure. This course introduces the various media that are used in the transmission process. It includes, but is not limited to: Twisted

Pair Cable, Coaxial Cable, Fiber Optic Cable, and Wireless technologies. It offers an introduction to both analog and digital signaling and the use of the Internet Protocol to integrate the various types of content. Students learn about the equipment to which the cabling connects and the roles of the key players who own that equipment and cabling. Students will be expected to learn to communicate their technical knowledge to both technical and non-technical audiences.

CPTN105 Internet Server Management 3 Credits

The student will learn how to set up and maintain internet servers on the Microsoft platform. The course will include setup and configuration of web, ftp, email, and SSL servers. The student will also learn to set up user accounts, utilize NTFS security, monitor network transmissions, manage DNS, and utilize log files.

CPTN140 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. Prerequisites: CPTN101, CPTN161

CPTN161 Introduction to Programming Using Visual Basic 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, link 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 structures. Students also learn simple data structures such as arrays. Students also learn 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 in the Visual BASIC environment.

Graphics are incorporated into the course to enhance the class content and enrich the content in a visual manner. Prerequisite: ACCUPLACER score recommendation of MHTN110 or satisfactory completion of MTHN099.

CPTN175 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: CPTN161

CPTN201 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 con-

structs, 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: CPTN103, CPTN161

CPTN202 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: CPTN161

CPTN203 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. Prerequisite: BCPN101 or CPTN101 or Permission of Instructor

CPTN204 Administering Windows Servers 3 Credits

This course covers the skills and knowledge to install, configure, administer and support the primary services in the Microsoft Windows Server operating system. The course begins by examining basic system administration procedures and continues with the creating and management of Windows Server user, group, and computer accounts, the sharing of system resources and the installation and maintenance of system hardware. Prerequisite: CPTN101 or BCPN101

CPTN205 Networking Basics 3 Credits

This course introduces the basic concepts and principles that underlie computer networking using the Open Systems Interconnection (OSI) model and the TCP/IP protocol suite. It presents an overview of networking terminology, examines different networking topologies and architectures, discusses the physical components of computer networks and reviews the principles of network connectivity. It also examines the implementation through design and installation of simple Ethernet networks. Prerequisite: CPTN101 or EETN170

CPTN206 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: CPTN103, CPTN161

CPTN207 Database Design and Management 3 Credits

This course is an introduction to database design & 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. Prerequisites:

CPTN101, CPTN161, or prior knowledge of a programming language as approved by Program Director.

CPTN208 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.

CPTN209 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: CPTN203

CPTN210 Advanced Windows Servers 3 Credits

This course is a continuation of CPTN204, Administering Windows Servers. The course covers the skills and knowledge necessary to configure, manage and troubleshoot a Microsoft Windows Server network infrastructure, including such protocols as DHCP, DNS and IPSec. The student will also utilize a number of monitoring tools provided by the operating system. Prerequisite: CPTN204

CPTN215 Routing Fundamentals 3 Credits

This course is a continuation of Networking Basics, with increased focus on the installation and configuration of local and wide area networks. Topics include physically connecting LANs and WANs to Cisco routers, implementing static and dynamic routing using the Cisco IOS and troubleshooting routing problems. Prerequisite: CPTN205

CPTN225 Intermediate Networking 4 Credits

This course is a continuation of Routing Fundamentals. The major components are Ethernet switching, an introduction to wireless networking, network security, and wide area network services. Specific topics include Spanning Tree Protocol, Virtual LANs basic wireless configuration and security, access control lists, Point to Point Protocol, and Frame Relay. Prerequisite: CPTN215

CPTN230 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 every day problems. Prerequisite: CPTN 175

CPTN250 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: CPTN225 or CCNA certification or equivalent experience.

CPTN278 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: CPTN230

CPTN284 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: CPTN206

CPTN285 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: CPTN278

CPTN286 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. Pre-requisites/ Corequisites: CPTN225, CPTN210

CPTN290 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.

COLLISION REPAIR TECHNOLOGY

CRTN101 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.

CRTN105 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: CRTN101

CRTN201 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: CRTN101, CRTN105

CRTN210 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: AUTN114, AUTN121, CRTN101, CRTN105

CRTN225 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: CRTN101, CRTN105, CRTN201

**CRTN230 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: AUTN221, CRTN225

**CRTN235 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: AUTN114, AUTN121, CRTN101, CRTN105; Corequisite: AUTN113

CULINARY

CULN101 Introduction to Gastronomy 1 Credit

This course is an introduction to the social, historical, and cultural forces that have affected or will affect the culinary, hospitality, and baking and pastry professions. Topics include the contemporary challenges facing food professionals in the twenty-first century. In addition, the Brigade System will be explored as will a discussion of "What is a Professional Chef."

CULN105 Food Safety and Sanitation 3 Credits

This aspect of the Culinary Arts Program delivers consistent food safety and sanitation training to culinarians and culminates in an exam where the student has the opportunity to take an examination to become Serve-Safe Certified.

CULN110 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 composed and plated salads, dressings and marinades and Garde Manger. Safety practices in the food service industry including proper operation techniques for equipment and tools will continue to be emphasized as well as professionalism in all aspects of the food service industry. Co-requisite: CULN105

CULN112 American Regional Cuisine 3 Credits

This course will present culinary principals 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: CULN110

CULN120 Fundamentals of Baking 3 Credits

This course introduces students to the fundamental elements of baking science, ingredients, weights and measures, formula con-

version, 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: CULN105

CULN130 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: CULN110

CULN140 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: CULN110

CULN210 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: CULN110

CULN212 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: CULN210

CULN215 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: CULN210

**CULN220 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: CULN130

CULN235 Dining Room Service 3 Credits

This course examines the detailed operation of a restaurant dining room. Topics include types of table service, dining room organiza-

tion and table settings, staffing, responsibilities of dining room personnel, and customer sales and service. Prerequisite: CULN220

CULN290 Culinary 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. The internship requires 120 hours of work by the end of the semester in which the internship is offered. Prerequisite: Completion of all catalog-listed courses for the first three semesters in the Culinary Arts Program and approval of the Program Coordinator

ECONOMICS

ECON201 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 mathematic and graphing skills will illustrate various economic principles and relationships. Prerequisites: Math placement test or MTHN099

ECON202 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 mathematic and graphing skills will illustrate various economic principles and relationships. Prerequisites: Math Placement Test or MTHN099

EDUCATION

EDUN099 Exploring Careers in the Human Service and Teaching Professions 2 Credits

This course will provide an overview of the human service and education fields. It introduces the student to the populations served, occupations and basic concepts of the human service and teaching professions, as well as the roles and functions necessary for success in the fields. The student will gain an understanding of the types of agencies, programs and institutions where professionals are employed. This course requires four hours of field work and supports the development of reading, writing, and speaking skills. This course is to be taken in conjunction with a developmental English or Reading course when required, before enrolling in HSVN111 or EDUN130 or EDUN101. A minimum grade of C is required. Credits do not count toward degree requirements. Corequisite: One or more of the following: ENGN098, ENGN099, RDGN096, RDGN096

EDUN101 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.

EDUN102 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.

EDUN103 Safe and Healthy 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.

EDUN104 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: EDUN101, EDUN102

EDUN105 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: EDUN101, EDUN102

EDUN130 Foundations of Education 3 Credits

This course examines the philosophical, historical, legal and social/cultural aspects of education in the United States. It explores how

schools and classrooms function organizationally and academically. Teacher preparation, selecting teaching as a profession, teacher certification and effective teaching will be explored. Students will formulate a beginning philosophy of education. Twenty hours of observation and participation in a public school setting are required. This course offers the student a service learning experience.

EDUN132 Introduction to Exceptionalities 3 Credits

This course examines the psychological, physiological, social and educational characteristics of children who demonstrate an exceptionality and who are in need of special education services. This course will provide an overview of the most common exceptionalities, standard interventions, and social and educational trends connected to these exceptionalities. An emphasis will be on observation, screening, assessment, supports and services necessary for effective functioning in the home, school and community. Students will explore the historical foundations of special education, as well as current trends, federal laws that regulate special education, and the basic values and philosophies that underlie the supports provided for the student. This course offers the student a service learning experience.

EDUN140 Conflict Resolution in Education 3 Credits

This course introduces students to the broad field of conflict resolution (including social and emotional learning, anti-bullying programs, peer mediation, negotiation processes, expressive arts and conflict resolution education, restorative justice programs, and bias awareness programs). The course provides students with examples of programs, gives them an opportunity to interact with experts in the field through a ten hour Service Learning experience, and encourages them to reflect on how they can support and utilize these programs with youth pre K-16.

Because of the focus on CRE in teacher education, this course is designed to help student teachers plan how they will infuse conflict resolution education and social and emotional learning into their classrooms and schools. The information in this course is also valuable for those working directly and indirectly with youth, or in pre K-16 settings.

EDUN190 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: EDUN101, EDUN102, EDUN104, EDUN105

EDUN200 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 care givers 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: EDUN101, EDUN102

EDUN201 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 field work. Prerequisites: EDUN101, EDUN102, EDUN103, EDUN104

EDUN203 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 field work. Prerequisites: EDUN101, EDUN102, EDUN104

EDUN204 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: EDUN 101, EDUN 102, EDUN 104

EDUN215 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 field work in an approved early childhood setting. Prerequisites: EDUN 101, EDUN 102, EDUN 104

EDUN230 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 EDUN 190 for the Certificate student or EDUN 290 for the Degree student. A final presentation of the completed portfolio is required.

EDUN290 Early Childhood Education: Capstone Course 3 Credits

This capstone course is an opportunity to apply and integrate the skills, theories and knowledge base the student has acquired in the course work in the Early Childhood Associate Degree. The student will participate in an approved, field based, licensed early childhood setting under the supervision of an experienced and degreed level early childhood teacher.

This practicum experience includes observation, development and implementation of developmentally appropriate learning experiences and environments, classroom management, and working with parents and a teaching team. The student will complete a minimum of 130 hours on-site and attend a weekly, 1 hour seminar. Students will culminate this experience with the development and presentation of a professional portfolio and a major project. This capstone experience addresses all five of the NAEYC Standards for Early Childhood Professional Preparation. Prerequisite: A grade of C or better in EDUN190; Corequisite or Prerequisite: EDUN203

EDUN295 Teacher Education Capstone Seminar 1 Credit

This course reviews the preparation for and process of transferring to a Teacher Education Bachelor of Science degree program. Topics covered include the assembling of a portfolio that demonstrates the students competencies in courses taken, selection of and reflection on artifacts and evidence of learning, demonstrations of the self in regard to readiness to continue one's education, and preparation for and taking of the Praxis Examination. Presentation of a portfolio and completion of the Praxis Examination is required.

Prerequisite: A minimum of 50 credits in the Associate in Arts in Teacher Education Concentration degree must be successfully completed prior to taking this course

ELECTRONIC ENGINEERING TECHNOLOGY

EETN110 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 CENT and EET students only. Prerequisite: Accuplacer score equivalent to placement in MTHN099.

EETN115 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 CENT and EET students only. Prerequisite: EETN110

EETN121 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: MTHN110

EETN122 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: EETN121; Corequisite: MTHN120

EETN131 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: MTHN110

EETN132 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: EETN131; Corequisite: MTHN120

EETN142 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: EETN132

EETN170 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.

EETN202 Data Communications 3 Credits

This course studies how information is transferred either between peripheral equipment and computer or between computers. Both serial and parallel techniques are studied. Emphasis is placed on modems, modulation, electrical interfaces, codes and half- and full-duplex operations. Prerequisite: CPTN205

EETN210 Problem Solving and Algorithms 3 Credits

This course is a third course in the sequence of four courses leading to proficiency in problem solving and programming skills. It builds further knowledge of C++ and Java. Students will explore methods of solving problems efficiently. They will study algorithms applicable to computer problem solving such as stacks, queues, linked lists and graphs. A strong emphasis will be placed on problem solving skills. C++ is the primary language with Java used to demonstrate additional concepts. This course is for CENT and EET students only. Prerequisite: EETN115

EETN243 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: EETN142

EETN245 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: EETN246

EETN246 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: EETN243

EETN251 Microprocessors 3 Credits

A continuation of materials from Digital Circuits II. Memories, PLDs UARTs and the building of a digital microprocessor will be covered. Prerequisite: EETN122

EETN270 Operating System Administration I 3 Credits

This course will teach the student how to set up and administer a multiuser computer system. Students will start by installing a new system and setting up accounts on the system. Software installation and maintenance will be discussed. Students will examine operating system kernel and learn how to rebuild Linux kernel. After students learn about installation and security of a single system, they will move to a client server environment. They will install multiple servers and explore their configuration and access in a networked environment. The three specific servers that students will set up will be web server like Apache, mail server like sendmail, qmail or postfix and secure connection communications server like SSH and its components. Appropriate protocols will be discussed: HTTP,

SMTP, POP/IMAP, SSH, FTP. Hardware and software aspects of the client server will be discussed. Prerequisite: EETN170

EETN271 Operating System Administration II 3 Credits

This course continues with a complete secure system set up with emphasis on the client server architecture. This course will study how the information is transferred between peripherals and computer of two computers. Security is discussed with every topic. Students will continue adding modules to the Web server including a MySQL database server. They will also continue setting up other servers that make a complete networked system. SAMBA server will provide interoperability with Windows operating systems. DNS and BIND will explore tracking Domain names and addresses. NFS will provide file sharing with other systems. Finally, setting up a firewall using iptables will be demonstrated. Both hardware layer including features of the signal and the application layer will be discussed and analyzed. Prerequisite: EETN270

EETN274 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: EETN132, EETN243, EETN251, EETN246

EETN288 A Capstone Experience 1 Credit

This course will give students an opportunity to select and design projects provided by students, projects researched by the team, assigned by the Engineering Technology Department or by other departments on campus. Students forming teams will synthesize their understanding and skills from previous courses, incorporating all of their academic tools and cooperative skills, in designing a project that will demonstrate in a practical way their ability to integrate theory and research into this capstone project. Each team is responsible for the production, presentation and defense of a project paper which relates to the capstone experience. Prerequisites: EETN132, EETN210, EETN251; Corequisite: EETN271

ELECTRONICS

EMTN101 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: MTHN099

EMTN203 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: SCIN130 or SCIN150

EMTN204 Hydraulics and Pneumatics 2 Credits

The dynamics of liquids and gases encountered in traditional manufacturing, industrial automation, and vehicular applications. Prerequisite: EMTN203

EMTN210 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: EMTN203

ENGLISH

ENGN098 Introduction to English I 4 Credits

A preparatory course designed to develop writing skills. Emphasis is on grammar and usage, proper mechanics, topic sentence and paragraph development as well as thesis short essay development. Minimum passing grade of C is required. Credits do not count toward degree requirements. Prerequisite: Appropriate Accuplacer score; Co-requisites: BCPN101 is strongly recommended

ENGN098R Introduction to College English and Reading 5 Credits

A preparatory course designed to develop writing and reading skills. Emphasis will be on vocabulary mastery, grammar usage, paragraph development, reading comprehension and thinking skills necessary for success in college-level classes. Students must receive a minimum passing grade of C. A grade of CS will be given to students who do not satisfactorily meet course requirements within one semester. Credits do not count toward degree requirements. Prerequisites: Accuplacer Score; Corequisite: LEXN101

ENGN099 Introduction to English II 3 Credits

A preparatory course designed to develop writing skills, building upon the student's knowledge of grammar, sentence mechanics and paragraph development, and focusing on the short essay form. Minimum passing grade of C is required. Credits do not count toward degree requirements. Prerequisites: Mastery of ENGN098 or appropriate Accuplacer score; Corequisite: LEXN101

ENGN101 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 ENGN099

ENGN102 Writing About Literature 3 Credits

Building upon skills learned in College Composition (ENGN101), 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: ENGN101

ENGN103 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. Skills taught in BCPN101 are strongly recommended prior to enrollment. Prerequisite: ENGN101

ENGN105 Introduction to Literature 3 Credits

This course studies societal issues and events in the twentieth century, which are portrayed through a selection of modern literature.

Works vary accordingly at the discretion of the instructor and may include fiction and non-fiction pieces. Prerequisite: ENGN101

ENGN109 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 practice and 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, visual software, such as PowerPoint, will also be taught. Prerequisite: ENGN101

ENGN122 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: ENGN101

ENGN206 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: ENGN101, (This course was formerly EN206 and ENN206 Creative Writing)

ENGN215 Literature by American women 3 Credits

Using 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 written 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, Tillies 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: ENGN101; recommended: ENGN102

ENGN220 Contemporary Dramatic Literature 3 Credits

In this course, students will get an overview of the world of contemporary theatre literature through the study of plays of the "modern" or "contemporary" era.

Each week a different play will be chosen to be read (at home and then by web links in excerpts—out loud using Lincoln Center and TCG play archives on line), analyzed in a weekly journal and in a class discussion chat room, and put into historical context through lectures, videos and computer websites. Every four weeks an in depth, longer research paper will be presented to the class in a PowerPoint format through the digital drop box on a play from the era we've been studying that is not on the reading list for all students. Mid-term and final exams will be given at appropriate times in the course. The period covered will be 1840 to 2005. Prerequisite: ENGN101

ENGN230 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: ENGN101

ENGN231 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: ENGN101

ENGN235 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 with one another's poems, with the emphasis on sharing work and offering constructive criticism, students will learn what does and does not work in their own poems. This course meets the requirements for the second course in English. Prerequisite: ENGN101

ENGN240 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: ENGN101

ENGN241 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: ENGN101

ENGN285 Individual Project in English and Communications: A Capstone Experience 3 Credits

This course prepares students for an advanced study of English at the bachelor degree level and will serve as the capstone experience for English concentration students enrolled in the Liberal Arts program with a focus on writing, literature or communications. The course is designed to help students synthesize the learning and skills acquired in their English concentration and prepare them for baccalaureate work. As summative assessment, students will apply their skills 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, English education or communications. Prerequisites: Completion of 45 credits of coursework applicable to Liberal Arts-English concentration. Minimum of B- in ENGN101 and ENGN102 for the English focus; or ENGN101, ENGN102, CMNN101 and CMNN115 for the communications focus.

ENGLISH FOR SPEAKERS OF OTHER LANGUAGES

ESLN074 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

ESLN075 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: ESLN074 or permission of the Department Chair/Program Coordinator

ESLN076 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: ESLN075 or permission of the Department Chair/Program Coordinator

ESLN082 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.*

ESLN083 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.*

ESLN084 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.*

ESLN086 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.*

ESLN088 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.*

ESLN096 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, capitalization, punctuation, pronunciation, sentence structure, and paragraph development. Reading selections will strengthen comprehension skills. The course covers similar content to ENGN098 but includes a special emphasis on problematic written and oral skill for the ESL student. Individual assistance will be available in the Department of Instructional Services. *Credits do not count toward degree requirements.*

ESLN098 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

FARN101 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.

FARN111 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 (digital or film) with adjustable apertures and shutter speeds.

FARN112 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 film or digital camera with adjustable apertures and shutter speeds is required. Prerequisite: FARN111 (formerly HUMN105) or Permission of the Instructor

FARN120 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.

FARN200 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: FARN101 (minimum grade of B) or Permission of Instructor and student portfolio.

GENERAL STUDIES

GSTN101 Assessment of Prior Learning 1 Credit

This one-credit course is designed for students entering the General Studies program. Its purpose is to explain the program in detail and, through classroom activities, each student will prepare personal and career inventories and goal statements, articulate work and life experiences, prepare a portfolio as documentation, and plan the degree program.

GSTN296 General Studies Project: A Capstone Experience 3 Credits

The General Studies Project course is a capstone course in the General Studies Degree program that provides students with the opportunity to integrate critical and analytical skills to evaluate diverse ideas, information, and research. The student-designed project will emphasize the relationships of knowledge and information from the following discipline groups: mathematics/science, social science and behavioral science, English and the humanities, and technology and research. The project may take the form of an extended research paper, a creative project, or even a project to improve the community.

In consultation with the supervising faculty member, the student or a small group of students will design and complete a project that integrates the student learning outcomes for the General Studies Degree program. Particular attention will be paid to Critical Thinking (including Scientific Methodology, Numeracy Applications, and Information Literacy), Written Communication, and Oral Communication skills. Prerequisites: Completion of 45 credits of course work applicable to the General Studies Associate Degree Program.

GEOGRAPHY

GEON110 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.

GEON130 Human Geography 3 Credits

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.

HONDA AUTOMOTIVE TECHNOLOGY

HATN106 Honda Engines and Measurements 3 Credits

This course examines the basic principles of Honda engines and the various operating systems within their designs. This course will present both practical and theoretical discussions on engineering designs and principles of physics to enable a student to understand more advanced theories to be studied in the Honda Program. The course will also have a lab component that will train students in the use of precision measuring instruments and proper engine disassembly procedures.

HATN113 Honda Electricity and Wiring 3 Credits

Basic electrical theory and Honda automotive electrical systems will be studied to provide students with fundamentals necessary to diagnose, troubleshoot and repair Honda electrical systems. Systems to be covered include circuit types, wiring diagrams, wiring circuit requirements, electrical harness diagnosis and repair. This course will include chassis electrical components such as: lighting systems, motors, locks, instruments/gauges, sound systems and sensors.

HATN114 Honda Suspension & Steering 4 Credits

Honda automotive suspension, steering systems and wheel alignment procedures will be studied. This course will include the development of knowledge to understand 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: HATN106, HATN121

HATN115 Honda Advanced Electrical and Electronic Systems 3 Credits

This course will cover the operating principles of advanced electrical and electronic systems found in Honda vehicles. It will include the theory of operation, diagnosis and repair of charging and starting systems, climate control electrical systems, body electrical memory accessories, body computer controlled system, data collection and the diagnostic test equipment related to their service and repair. Prerequisite: HATN113

HATN121 Honda Service and Maintenance 4 Credits

The study and development of skills in Honda underbody maintenance and preventive maintenance procedures will be emphasized. These procedures include engine lubrication systems, exhaust systems, automatic and manual transmission service, cooling systems, front and rear differential service, tire rotation and balance, body panel and door glass assignment, interior trim service, wind noise and water leak repair, dealer new vehicle and NH state motor vehicle inspection procedures, engine drive belt and timing belt service, accessory installation and the use of specialty tools required to perform these service operations. This course offers automotive repair to the public and a Service Learning opportunity for students. A "C" or better grade is required for progression.

HATN122 Honda Brakes and Stability Systems 4 Credits

The study of Honda automobile hydraulic and parking brake principles of operation, diagnosis and repair will be covered. The course will include the hydraulic system, calipers, rotor, wheel sensors, antilock computerized brake functions and vehicle stability system. Prerequisites: HATN106, HATN113, HATN121

HATN190 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.

HATN191 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.

**HATN192 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.

**HATN195 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 HATN190, HATN191, HATN192. Prerequisites: HATN106, HATN121, HATN113

HATN210 Honda Engine Performance I 3 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: HATN106, HATN113, HATN115, HATN121

HATN215 Honda Engine Performance II 3 Credits

This course is an advanced in-depth study of the engine computer management system and the various engine emission and fuel evaporation systems required to meet Federal emission and economy standards. The course will include an in-depth study and use of test equipment and scan tool operations necessary to diagnose and repair engine performance malfunctions related to the ignition, fuel and emission controls. Prerequisites: HATN106, HATN113, HATN115, HATN121, HATN210

**HATN221 Honda Heating and
Air Conditioning Systems 3 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: HATN121, HATN113; Corequisite: SCIN150

HATN226 Honda Manual Drive Line 3 Credits

A study will be made of the principles employed in the transfer of engine power through a manually shifted transmission and final drive unit on front, rear, two, four and all-wheel drive vehicles. All internal components of transmissions and drive axles will be studied through the disassembly and reassembly of each unit to gain an

understanding of their operation and diagnosis of malfunctions. The course will also include clutch system service and repair as well as data sensor operation. Prerequisites: HATN106, HATN121

HATN227 Honda Automatic Transmissions 3 Credits

The theory of operation, diagnosis and service procedures of automatic and constant variable speed transmissions will be covered. Unit malfunction diagnosis, in vehicle service procedures will be emphasized as well as disassembly and reassembly to gain a better understanding of the internal components of the transmission. Prerequisites: HATN106, HATN113, HATN121

HATN228 Honda Engine Repair 4 Credits

A detailed study of Honda multi-cylinder engine and components and of chassis engine repair procedures will be covered. Diagnosis, testing and inspection of failed components and their replacement will be emphasized. Prerequisites: HATN106, HATN113, HATN115, HATN121, HATN210; Corequisites: HATN215, SCIN150

HISTORY

**HISN101 Western Civilization from Ancient
Times Through the 17th Century 3 Credits**

This course provides a basic survey and introduction to the heritage of Western people from ancient to early-modern times. Particular attention is given to the ancient civilizations of Egypt, Greece and Rome. Medieval civilization is explored with a focus on the institutions it bequeathed to the modern world. Throughout the course, important individuals are considered such as Alexander the Great, Caesar, Charlemagne, Michelangelo and Elizabeth I.

**HISN102 Western Civilization Since the
French Revolution 3 Credits**

This course will provide students with an overview of European history from early modern times to the atomic age. Particular attention will be given to the French Revolution, the rise of the industrial era, the growth of nationalism, imperialism, the Russian Revolution, and the World Wars. Personalities such as those of Napoleon, Hitler and Stalin are studied. The course also introduces the student to the historical method.

HISN110 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.

**HISN140 U.S. History from the Colonial
Era to Reconstruction 3 Credits**

This course covers the political, social, economic, and cultural development of the United States with emphasis on the colonial roots of American democracy, the Constitutional Convention, the growth of sectionalism, the Civil War and Reconstruction.

HISN141 U.S. History Since Reconstruction 3 Credits

This course covers the political, social, economic, and cultural development of the United States with emphasis on Reconstruction, the Industrial Revolution, the First World War, the Depression, World War II, and the post World War II era.

**HISN210 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: ENGN101

HISN215 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: ENGN101

HISN232 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: ENGN101

HISN241 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: ENGN101

HISN246 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.

HISN260 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.

**HISN265 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: ENGN101

**HISN285 Making History:
A Capstone Experience**

3 Credits

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," learning to locate and critically assess historical sources, applying the method of historical inquiry, 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 interpretations and findings in a research paper. This course prepares students to continue on to an advanced study of history at the bachelor degree level and serves as the capstone experience for history concentration students enrolled in the liberal arts program. Please Note: Non-history concentrators may opt to substitute this course for the Liberal Arts Project: Capstone (LIBN 296) with the permissions of both the chairpersons of the Liberal Arts and the Social Sciences Departments. Prerequisites: ENGN101, HISN101, HISN102, or with permission of the instructor.

Honors

HONN101 Honors Freshman Seminar

1 Credit

This course is designed for incoming Honors Program students. (Qualifying students who have not yet enrolled in the Honors Program are also eligible.) The objectives of the course are twofold: First, the course will orient students to the College and its resources. Second, the course will encourage students to view their early experiences at the College as a series of steps in a lifelong process of intellectual, social, and personal growth. Students will be encouraged to look for interconnections among their courses and to develop habits that will support academic success.

The course will be organized around a common book that the class will read over the course of the semester. This book will address a contemporary idea or paradigm and will provide a springboard for discussions about academics, the nature of knowledge, and the life of the mind.

The course employs a seminar format that incorporates critical reading, critical writing, class discussion, and guest presentations. Consistent with Honors Program expectations, the course will place heavy emphasis on student engagement with course materials and in class discussions.

This course satisfies the College's First-Year Experience requirement. Prerequisites: Permission of the Honors Program Coordinator or Admission into the Honors Program.

HONN110 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.

This course satisfies the College's composition requirement toward the associate degree. Prerequisites: Permission of the Honors Program Coordinator or Admission into the Honors Program.

HONN130 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?

This course can be used to satisfy a Group F General Education requirement. Prerequisites: A grade of B- or higher in ENGN101 or HONN110 and permission of the Honors Program Coordinator.

HONN201 Honors Senior Seminar 1 Credit

The purpose of this course is to provide a forum for Honors Program students to identify, engage in, reflect upon, and discuss activities that will enhance their opportunities for the next step in their higher education or career paths, such as transfer to a competitive college or university program, an internship, or a career position. The course introduces students to tools and information sources that will help them evaluate their options and develop a meaningful post-graduation plan. This is a hybrid course that includes some on-campus class meetings. During alternate weeks, students will work independently on approved activities, meet with the instructor as required, and use the NCC Blackboard system for required weekly communication and submission of work. Attendance will also be required at specific on- and off-campus events based on student needs and interests.

This course is required for graduation with the Honors Program designation. Students are encouraged to enroll in fall semester of the second year of study at NCC. Prerequisites: Admission to and membership in good standing in the NCC Honors Program; B- or higher in either ENGN101 or HONN130. **This course is required for graduation with the Honors Program designation. Students are encouraged to enroll in the fall semester of the second year of study at NCC.**

HONN260 Topics in Honors Seminar 3 or 4 Credits

While the topics may vary from semester to semester, this course emphasizes critical analysis and refinement of writing skills for Honors Program students and others interested in pursuing advanced study. The emphasis in Special Topics courses is to provide opportunities for student-initiated learning for topics that are not routinely provided in existing courses in the curriculum. Depending upon the expertise and interest of the instructor, participants will be challenged to consider topics such as the environment, contemporary math and science, justice, faith, equality, aging in America, etc. Students and faculty will engage in multifaceted, seminar-style discussions about a range of perspectives about the topic at hand. Most Special Topics courses will satisfy a General Education requirement. Students should consult with their academic advisors to determine how a Special Topics Honors course will satisfy their degree requirements. Prerequisites: Admission into the Honors Program or Permission of the Coordinator of the Honors Program; HONN101 or ENGN101 with a grade of B- or higher.

HONN290 Honors Capstone Experience 1 Credit

This course challenges the Honors Program student to extend his or her senior Capstone experience. While participating in the departmental capstone specific to his/her field of study, the Honors Capstone student will also (1) develop a proposal for attaining an Honors level of scholarship with the experience and (2) make a formal presentation of the experience to an appropriate, interested audience beyond the capstone class. The goals of this experience are to challenge the student to plan for (but, due to the time limit of the semester, not necessarily execute) the "next step" in his or her scholarly work and to seek support and helpful feedback from knowledgeable persons in the field of study. The specific nature of the proposal will be determined by the student and designated mentors, including the Honors Program advisor (usually the Honors Program Coordinator) and the Capstone instructor. The Honors Capstone Experience (HCE) will differ from student based on the type of project or experience chosen and the particular field of study. Like the Department Capstone itself, the HCE is a highly individualized effort that nonetheless meets a general set of course objectives.

This course is required for graduation with the Honors Program designation. Prerequisite: Enrollment in good standing in the NCC Honors Program; student not enrolled in the Honors Program but who meet Honors Program GPA qualifications may enroll with permission of the Honors Program Coordinator. Co-requisite: To be taken concurrently with the required Capstone course in the student's degree program of study. **This course is required for graduation with the Honors Program designation.**

HOSPITALITY AND RESTAURANT MANAGEMENT

HSPN101 Introduction to Hospitality 3 Credits

This survey of the hospitality industry covers the history, contem-

porary 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.

HSPN110 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: HSPN101

HSPN201 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: HSPN101; BUSN104

HSPN210 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: HSPN101

HSPN211 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: HSPN210

HSPN290 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: 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

HSVN111 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: ENGN101, HSVN205, PSYN101

HSVN123 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: HSVN111, HSVN205

HSVN125 Individual Assessment and Planning 3 Credits

This course reviews the process of designing and implementing supports for human service consumers. Presentation and discussion will include current and evolving models of assessment and planning, as well as the various factors that influence the achievement of individual plans. Prerequisites: HSVN111 or PSYN101

HSVN126 Issues in Developmental Disabilities and Mental Health 3 Credits

This course provides an introduction to the study of mental health and developmental disabilities. Mental health topics covered will include recent developments in the understanding of adjustment as an on-going process, major types of adjustment disorders, diagnosis, treatment, ethical issues and review of the psychological, social and cultural impact of adjustment problems. The course will also cover major types of developmental disabilities, assessment, causes and treatment, ethical issues and the physical, psychological and social impact of having a developmental disability. Prerequisites: PSYN101, HSVN205; Corequisite: HSVN123

HSVN190 Fieldwork I 3 Credits

Pre-approval of fieldwork site by department chairperson before placement. (A GPA of 2.0 is recommended.) This is a lab course designed to provide the student with an opportunity to apply knowledge gained in previous course work to various human service settings. Students will be assigned to a human service agency where they will observe its methods and philosophies. The site supervisor and the academic coordinator will determine the level of participation by the intern. Prerequisites: LEXN101, BCPN101; Prerequisites or Corequisites: HSVN123, HSVN125, HSVN126. Students are expected to have field work placement before class begins.

HSVN205 Supporting Students/Others with Challenging Behavior 3 Credits

This course will provide human service providers with knowledge and skills for supporting students and others displaying challenging behaviors, using framework of positive behavioral supports. Human service providers will gain knowledge of the basic assumptions about the context and functions of behavior and understand the role that behavior plays in helping students influence people and events in their environment, meet their basic needs, and/or avoid unpleasant situations. By developing strategies to determine the functions of certain behaviors, human service providers will gain new and effective strategies for supporting students and others who demonstrate challenging behaviors in the classroom, as well as in other settings. The focus on the teaching of new skills (as opposed to intrusive interventions that rely on the elimination of challenging behaviors) will provide human service providers with

effective, positive approaches that respect the dignity of the individual and facilitate social inclusion. Prerequisites: HSVN111 or EDUN130 or SLPN114 or permission of Human Services Department Chairperson.

**HSVN212 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: PSYN101.

**HSVN220 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: HSVN212

HSVN225 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: HSVN212; Corequisite: HSVN220

HSVN290 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: HSVN190, ENGN101; Prerequisites or Corequisites: MTHN103, PSYN240, HSVN212. 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.

HSVN291 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. Educational/observational activities will also be credited as part of the internship experience. Prerequisite: HSVN190; Co-requisites: HSVN225, HSVN220.

HUMANITIES

HUMN101 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 criticism are discussed throughout the course.

Students will sample primary and secondary sources from the arts, literature, religion, philosophy, history, and the social sciences. The terms and methods of critical analysis used in the various fields of study will be stressed.

HUMN102 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 artists' 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.

HUMN103 Music Appreciation 3 Credits

In this course, students will develop the skill of perceptive listening and an understanding of the elements, forms and styles of several music periods. The course offers discussion of the musical style along with the societal and historical significance of the period. Students will also learn to critically perceive musical selections. Field trips may be part of this curriculum and students may incur nominal fees.

HUMN104 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.

HUMN107 World Religion 3 Credits

An introductory level survey course exploring the universality of religion in human experience. This course will cover the religious traditions that have a major influence in the world today: Taoism, Buddhism, Hinduism, Islam, Judaism, Christianity, Baha'i, and tribal nature-based religions (Native American and African).

Cultural and societal change, schisms and divisions such as the Protestant Reformation, rituals and devotional practices, and the relationship between religion and socio-political conditions will be referenced, but emphasis will be placed on a comparison of religious ideas and the teachings of the founders, prophets, and major leaders who have shaped each religious tradition rather than on the facts of institutional history. A portion of the study of each religion will focus on reading selections from its primary sacred texts and literature. Prerequisite: ENGN101

HUMN109 Introduction to Philosophy 3 Credits

An introductory survey covering various components of philosophy including Epistemology, Metaphysics, Materialism, Realism, Pragmatism, Logic, Idealism, Existentialism and Aesthetics. This will include classical original, interpretation, development and modern application of these concepts.

HUMN110 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 ENGN099 or Accuplacer placement score equivalent to ENGN101

HUMN120 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 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 and the literature that defines the major eras of theatrical history, students will improve their understanding of how culture evolved from pre-historical times to the modern day. 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—either at the College, at another theatre or in the community. Students will gain confidence in their abilities to be part of a performing arts event as well as an appreciation for the importance of culture in our daily lives. Prerequisite: ENGN101

HUMN130 Music Composition**3 Credits**

In this course students with little or no music experience will learn the fundamentals of music structure and the process of composing and writing down simple music compositions. Steps in the process will include analysis of already existing music, developing an understanding of the grand staff, notes and their values, melody writing, and harmonizing simple melodies. The course will enable students to follow the rules for part writing, which will lead to an original piece as a final project.

HUMN140 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.

HUMN220 Classic Myths in Western Civilization**3 Credits**

This course will focus on myths from Ancient Greece but will also include 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 these 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. The reasons why myths are studied in various fields and the differences in approach will also be reviewed.

Selections from various myths and legends will be read in prose or verse translations. Short excerpts will also be read from some of the major European and American authors who have been inspired by them. References to the visual arts will also be included. Prerequisite: Any one of the following courses or Permission of the Instructor: HUMN101 or HUMN107 or HISN101 or PSYN101

HUMN230 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: ENGN101

HUMN260 Counterculture in the USA, 1956 - 1976**3 Credits**

A seminar style course in the ideas and styles developed by individuals who were the leaders of what became identified as the various counterculture movements of this volatile twenty year period. Writings by such influential figures as Allen Ginsberg and Adrienne Rich, Norman O. Brown and Herbert Marcuse, Jerry Rubin and Abby Hoffman, Timothy Leary and Tom Wolfe, Patti Smith and Bob Dylan, Huey Newton and Malcom X will be read and discussed. The course will cover the Beatniks, the New Student Left, Hippies, Feminism, The Black Panthers, and Gay/Lesbian "coming out of the closet."

Each student will be engaged in independent study of the work of several prominent figures and will be expected to contribute presentations focused on analysis of excerpts they've selected. This course is reading, writing, and analytic thinking intensive. Prerequisites: HUMN101 or ENGN102 or any American or British Literature course

LEARNING EXPERIENCE**LEXN101 First Year Experience****1 Credit**

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.)

LEXN110 Service Learning Experience**1 Credit**

This course will engage students in service experiences within the community. Service learning is the integration of service and learning where each is valued as necessary for the other. It is a way of learning that takes place through and within the performance of meaningful service in a community, and a way of enriching service through academic learning. Students will develop and commit to a sustained community service project with approval from faculty for a minimum of 16 hours for the semester and will participate in reflection sessions that take place in bi-weekly seminars.

LIBERAL ARTS**LIBN101 Liberal Arts and Career Preparation****1 Credit**

This course introduces students to the intellectual tradition of the liberal arts. Drawing from the humanities, the social sciences, the sciences and mathematics, and world languages, students will explore career applications of skills learned from these disciplines.

In addition, students will explore a variety of career clusters for which Liberal Arts is an appropriate preparation. Students will complete a career interest inventory as a way to begin their exploration of future careers. Guest speakers will provide testimony to the importance of the Liberal Arts for success in the world of business and in the professions. Corequisite: ENGN101

LIBN296 Liberal Arts Project: A Capstone Experience**3 Credits**

The Liberal Arts Project course is a capstone course in the Liberal Arts Degree Program that provides students with the opportunity to integrate critical and analytical skills to evaluate diverse ideas, information, and research. The student-designed project

will emphasize the relationships of knowledge and information from the following discipline groups: mathematics/science, social science and behavioral science, English and the humanities, and technology and research. The project may take the form of an extended research paper, a creative project, or even a project to improve the community.

In consultation with the supervising faculty member, the student or a small group of students will design and complete a project that integrates the student learning outcomes for the Liberal Arts Degree Program. Particular attention will be paid to Critical Thinking (including Scientific Methodology, Numeracy Applications, and Information Literacy), Written Communication, and Oral Communication skills. Prerequisite: Completion of 45 credits of course work applicable to the Liberal Arts Associate Degree Program

WORLD LANGUAGES

LNGN101 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.

LNGN102 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: LNGN101

LNGN105 Spanish I 3 Credits

An introductory course for the first year language study that takes a communicative, functional approach to learning Spanish at the college level. The course includes grammar, conversation, culture, and readings. At the end of the course the student will be able to speak and write basic Spanish. **Students who have taken two or more years of high school Spanish will be required to take a Spanish placement test.**

LNGN106 Spanish II 3 Credits

Spanish II initially reviews, then builds on the simple sentence structures and vocabulary learned in Spanish I. Students will understand and converse in day-to-day Spanish and know basic aspects of various Hispanic cultures. Students will also read authentic materials and basic literature, and will write letters and short essays. Course activities accommodate all learning styles and are both innovative and relevant to student experiences. Video materials bring Spanish to life for students by illustrating in context the grammar and vocabulary students are learning. Prerequisite: LNGN105 or **Spanish placement test score of 75 or higher.**

LNGN109 Italian I 3 Credits

An introductory course for first year language study that takes a communicative, functional approach to teaching and learning Italian 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 Italian.

LNGN110 Italian II 3 Credits

A continuation of LNGN109. Prerequisite: LNGN109

LNGN113 Basic German 6 Credits

Basic German enables students to ask simple questions, understand basic instructions, and take part in a basic conversation on familiar subjects. Students will be able to understand short texts and instructions. Students will be able to carry out a conversation in a restaurant environment using the appropriate vocabulary.

While the culture of German-speaking countries is not emphasized in the course, some attention is paid to cultural behavior and social relationships.

LNGN114 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.

LNGN115 German II 3 Credits

German II is the second of two semesters of elementary German. The course will continue to emphasize listening, reading, speaking, and writing skills within culturally significant contexts.

Students will study the dative and genitive cases, dative and genitive prepositions, nouns with "der-" and "ein-" words, imperatives, modals, subordinate clauses, the future and past tenses, and adjective endings.

Students study vocabulary related to mass media, movies, and cultural performances. They are introduced to German foods, restaurants, and eating habits. Prerequisite: LNGN114

LNGN214 German III 3 credits

German III will build upon linguistic, cultural and grammatical concepts acquired in German I and German II, and will enable students to develop and enhance their communicative language and cross-cultural skills. Students will increase their vocabulary base, construct and apply more flexible and complex sentences, phrases and thoughts in German, and gain greater insight into the cultural nuances of the German-speaking countries. Throughout the course, special attention will be given to using German in practical, real-life situations. Except for specific grammatical explanations, the course will be conducted entirely in German. Prerequisites: German II or permission of the department chair or program director.

LNGN120 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.

LNGN121 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: LNGN120

LNGN205 Spanish III**3 Credits**

Spanish III includes a review of the grammar, geography, and culture taught in Spanish II. During this course, students will expand their knowledge of the Spanish-speaking countries through authentic readings and videos. They will also write essays on a variety of themes and will use complex sentence structures. Ample listening activities will enhance this course to sharpen students' listening comprehension and speaking skills. Prerequisite: LNGN106

LNGN206 Spanish IV**3 Credits**

Spanish IV initially reviews verb tenses learned in Spanish III. The grammar instruction expands to include commands, the preterite tense and the subjunctive mode. Students will further develop their abilities to produce the spoken language. The vocabulary content of the course will focus on health and wellness, modern technology, the pressures of contemporary life, and art/culture. The cultural and historical focus of the course is on Latin America. Students will read authentic materials, literature, and will write short essays related to these countries. Course activities accommodate all learning styles and are both innovative and useful in the academic setting and in the community. Prerequisites: LNGN205 or permission of the Program Director or Department Chair

LNGN220 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: LNGN121

LNGN221 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: LNGN220

MECHANICAL DESIGN TECHNOLOGY**MDTN110 Automation Programming****3 Credits**

Students will learn the basic concept of programming a 3-axis robot. Students will design, construct, and program robots for various design applications. These robots will be both bench top and IR controlled. Laboratory exercises complement classroom instruction. Prerequisite: CADN111

MDTN280 Mechanical Design Capstone Preparation**3 Credits**

Students work in teams under the direction of a faculty advisor to research an engineering design project. Engineering communication, such as reports and oral presentations are covered. We emphasize practical design skills acquired in companion senior-level core courses. Students pursue collaborative research on a design problem of their choice. Students must demonstrate that they can use computer-aided design to model the project, use their engineering computational skills to show that the project will work safely, and present their design package for evaluation. Prerequisite: CADN112

MDTN285 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. Prerequisite: MDTN280

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.

MSTN101 Swedish Massage I**3 Credits**

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: SCIN111

MSTN105 Spa Techniques**2 Credits**

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 or Corequisite: SCIN111, MSTN101

MSTN111 Musculo-Skeletal Studies**2 Credits**

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: SCIN111

MSTN119 Massage Business Practices**3 Credits**

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.

MSTN121 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: MSTN101, SCIN111

MSTN124 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: MSTN101, SCIN111

MSTN126 Massage Rules and 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 and the National Certification Board of Therapeutic Massage Bodywork (NCBTMB). Course will also cover NH Rules governing massage therapy and therapists.

MSTN131 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: SCIN111, MSTN101

MSTN132 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: MSTN101, SCIN111

MSTN133 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, S.O.A.P. notes, focusing on specific problems and their treatment will be addressed. Prerequisites: MSTN121, SCIN111

MSTN134 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.

MSTN135 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: MSTN121, SCIN111

MSTN136 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: SCIN111, MSTN101

MSTN137 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: MSTN101, SCIN111

MSTN139 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: MSTN101, SCIN111

MSTN141 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 and forms of chi and how they relate to treatments and overall health of the individual.

MSTN143 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: MSTN101, SCIN111

MSTN145 Aromatherapy**2 Credits**

Use of essential oils for medical and massage purposes. Student will learn to customize aromas for specific purposes.

MSTN147 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: MSTN101, SCIN111

MSTN148 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, Kripaulu Institute, MA and Omega Institute, NY. Somatic massage emphasizes slow, full-body strokes and metaphysical and holistic (physical, psychological and emotional) approach to the experience of bodywork. Prerequisites: MSTN121, SCIN111

MSTN149 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: MSTN101, SCIN111

MSTN153 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: MSTN101, SCIN111

MSTN190 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**MTHN097 Mathematics I****4 Credits**

This is a course for students who have difficulty with basic mathematics or who need a good review in basic arithmetic computation skills. The course begins with the arithmetic of whole numbers and then goes into fractions, decimals, percent, word problems, unit conversions, and finally introductory algebra. Minimum passing grade of C is required. **Credits do not count toward degree or program requirements.** Prerequisite or corequisite: LEXN101

MTHN099 Algebra I**3 Credits**

A mathematics course which deals with basic and intermediate algebra topics including solving equations, inequalities, systems of linear equations; factoring and simplifying algebraic expressions; basic graphing techniques and applications of all skills. Prerequisite: Placement Test or mastery of MTHN097. Minimum passing grade of C is required. **Credits do not count toward degree or program requirements.** Prerequisite or corequisite: LEXN101

MTHN103 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 to be covered include: Number Theory and Systems, Functions and Modeling, Finance, Geometry and Measurement, Probability and Statistics, and selected subtopics related to the student's major field of study. A graphing calculator will be required. **Fulfills mathematics requirement for Automotive Technology, Collision Repair Technology, Early Childhood Education, Honda Automotive Technology, Holistic Massage, and Human Services students only.** Prerequisite: Placement Test or MTHN099.

MTHN104 Topics in Mathematics**3 Credits**

This course is designed to give students basic mathematical concepts and methods that will assist them in using mathematics in both their personal and professional lives. The course provides exposure to problem solving, sets, systems of numeration, geometry, financial mathematics and statistics. Prerequisite: Placement Test or mastery of MTHN097

MTHN106 Elementary Statistics**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 MTHN099

MTHN108 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 MTHN099 or Permission of Instructor

MTHN110 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, and vectors are studied in detail. Applications to problem solving are emphasized. Prerequisite: Placement Test or MTHN099 or Permission of Instructor

MTHN115 Finite Mathematics**4 Credits**

Topics will include linear models, matrix theory, linear programming, combinatorics, and mathematics of finance. Prerequisite: MTHN099 or Placement Test or permission of Instructor

MTHN120 PreCalculus**4 Credits**

Students will begin the course with a general discussion about functions including range, domain, extrema, and inverse functions. The ideas will then be applied to trigonometric, exponential and logarithmic functions. Complex numbers including DeMoivre's Theorem and Euler's Theorem will be studied. The connection of complex numbers to vectors will be elucidated. 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 students 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 MTHN110 or Permission of Instructor

MTHN170 Discrete Mathematics**3 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, and Boolean algebra. Prerequisites: MTHN110 or MTHN115

MTHN206 Statistic for Business and Behavioral Sciences**4 Credits**

This course will emphasize the use of statistical procedures in research applications. Students will investigate studies pertaining to the business and behavioral sciences and learn to perform the appropriate statistical analysis. Topics include t-tests, hypothesis testing, multiple regression, chi square, analysis of variance, and nonparametric statistics. The computer program SPSS will be utilized. This course contains a service learning option. A Texas instruments TI-83+ or TI84 graphing calculator is required. Prerequisite: MTHN106

MTHN210 Calculus I**4 Credits**

Calculus is introduced through studies of functions, limits, differentiation and higher order derivatives. Problems in maximum and minimum and related rates are considered. Integration is introduced by analyzing the definite and indefinite integral, areas, and volumes. Prerequisite: Placement Test or MTHN120 or Permission of Instructor

MTHN211 Calculus II**4 Credits**

This course is a continuation of Calculus I. The scope of the course includes the differentiation and integration of transcendental functions such as trigonometric, logarithmic and exponential functions. Also included are various methods of integration and the study of infinite sequences and series. Prerequisite: MTHN210

MTHN212 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: MTHN211

MTHN215 Linear Algebra**4 Credits**

This course contains both the theory and computational skills needed to study vector spaces, linear transformations, diagonalization, eigenvalues, and orthogonality. Students are expected to develop the ability to reason through and coherently write up proofs of theorems as well as develop computational skills. Pre- or Co-requisite: MTHN211

MTHN216 Math Language, Logic and Proof**4 Credits**

Students will become familiar with the language of mathematics and learn how to use it in writing mathematical proofs. Various methods of proof will be presented, and students will be expected to demonstrate a level of proficiency in their utilization. Fundamental concepts in the areas of set theory, number theory, relations and functions, and logic will be discussed and proved. Prerequisite: MTHN211

MTHN217 Probability and Statistics**4 Credits**

This course begins with a discussion of the differences between descriptive and inferential statistics, the different types of data, and the rudiments of statistical distributions. Classical probability theory and probability distributions are discussed in general. Specific probability distributions appropriate to discrete data and continuous data are developed in detail. Estimation, hypothesis testing, and applications provide "real life" examples. Linear relationships and regression analysis provide another means to make predictions and show correlations. Prerequisite: MTHN210; Prerequisite or Corequisite: MTHN211

MTHN220 Elementary Differential Equations**4 Credits**

This first course in Differential equations studies the theory, solutions methods, and application of ordinary differential equations. It includes separable variables, homogeneous equations, integrating factors, higher order differential equations, LaPlace transforms, numerical methods, and applications. Prerequisite: MTHN211

**MTHN285 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 MTHN210 and MTHN211

ADVANCED MACHINE TOOL TECHNOLOGY**MTTN101 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.

**MTTN 111 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.

MTTN118 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.

**MTTN122 Machine Tool Processes and
Theory II****7 Credits**

This course is primarily concerned with advanced engine lathe operations, setup and operation of various types of milling machines, grinding operations and procedures as well as precision measuring inspection tools and techniques. Also, levers and leverages, temperature effects on metal and transmission of power along with emphasis on accuracy and production methods. Prerequisite: MTTN111

MTTN123 Principles of CNC**3 Credits**

Topics studied in this course include a full description of programming, machine terminology, operations, and equipment used in 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 Acurite, Prototrak and Leadwell machines will offer students real world machining experience. Prerequisites: BCPN101, MTTN111

MTTN133 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: MTTN123

**MTTN201 Lean and Green Manufacturing
Methods****3 Credits**

This course introduces the student to the fundamentals of contemporary methodologies. These methodologies include production and inventory control systems, such as Lean and Six Sigma. Plant management, safety and work flow will be discussed. New green manufacturing innovations and processes will also be reviewed. Case studies of existing plans will be used in the course. Guest lecturers, and plant visits to see these topics in action will be part of the course as schedules permit. Prerequisites: MTTN101 or permission of Program Coordinator/Department Chair.

**MTTN223 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 draw machine parts through the use of GibbsCAM, and produce and

post programs to run CNC milling machines and CNC lathes. Prerequisites: BCPN101, CADN131, MTTN123

MTTN231 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, cylindrical grinding, heat treating, machining with conversationally programmed CNC machines, electrical discharge machining, digital readout units and CNC milling (programming & operation). Prerequisites: MTTN122, Corequisite: MTTN123

MTTN232 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: MTTN123, MTTN231

NURSING

NURN120 Fundamental Nursing Skills 3 Credits

NURN120, Fundamental Nursing Skills, is a three-credit, ten hour per week 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, health care 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: PSYN101, SCIN201 Corequisites: NURN130, SCIN202, PSYN201

NURN130 Concepts for Nursing Practice 4 Credits

NURN130, Concepts for Nursing Practice, is a four 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 NURN130 by scoring a minimum of Level 2 on the ATI Fundamentals of Nursing exam. Prerequisite SCIN201, PSYN101 Corequisites: NURN120, PSYN201, SCIN202

NURN140 Nursing Care I: Concepts and Skills 9 Credits

NURN140, Nursing Care I, Concepts and Skills, introduces the student to the care of patients across the life span with a variety of alterations in health. Care of the patient during perioperative period and wound care will be addressed, as well as the care of patients with selected alterations in health including cardiac, respiratory, endocrine, musculoskeletal, and neurological/mental

health alterations. Selected health alterations are explored in light of the program's conceptual framework, pathophysiology, pharmacology, and interdisciplinary interventions. Concepts and skills introduced in NURN120 and NURN130 will be applied and further developed throughout the semester. Clinical experience will occur in a combination of medical-surgical, psychiatric, community, and lab simulation settings. Prerequisites: NURN120, NURN130, PSYN201, SCIN202

NURN220 Nursing Care II: Concepts and Skills 8 Credits

NURN220, Nursing Care II: Concepts and Skills, 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, immune, and endocrine 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: NURN140, NURN230

NURN230 Pharmacology for Nursing Practice 3 Credits

NURN230, 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: NURN120, NURN130

NURN240 Management of Nursing Care Across the Lifespan 10 Credits

NURN240, 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: NURN220

PEACE AND SOCIAL JUSTICE STUDIES

PJSN101 Introduction to Peace and Social Justice Studies 3 Credits

This introductory course is designed to provide an overview of the nature of concerns about equality that impact a community. The common threads of gender, race, and socio-economic status will be considered throughout the course to demonstrate how social inequality differentiates the value of one group compared to another group.

Through course readings, student-led discussions, and guest speakers, students will examine the most pressing issues in the local community, and they will learn how to translate their knowledge into action as change agents.

A Service-Learning opportunity will be available for students to work with a not-for-profit organization in the community.

PJSN105 Foundations of Conflict Resolution

3 Credits

The course offers an introduction to the field of conflict analysis and resolution, and it examines definitions of conflict and diverse views of its "resolution." Thinking about human behavior and social systems is explored as they relate to the origins of conflict and the role of conflict in violent and peaceful social change. Students consider appropriate responses to conflict at interpersonal, intergroup, industrial, communal, and international levels.

PJSN108 Theories of Conflict and Conflict Resolution

3 Credits

This course examines major social scientific theories of conflict with an emphasis on the need for theories to inform our ability to resolve conflict. The course weaves together ideas from conventional disciplines with new approaches to the causes of deep-rooted conflict. A major focus in the course is on analysis as a tool.

PJSN140 Peace Education, Leadership and Sustainability

3 Credits

This course will take place at the University of Peace (UPEACE) in Costa Rica where students will learn about cutting-edge concepts in peace education, leadership and sustainability. The course is planned to provide students with the knowledge, perspectives, and skills for teaching and leading with understanding, cooperation, and sensitivity to global interconnectedness. Classroom learning will be complemented with visits to organizations that embody the principles of peace and sustainability. Evenings will provide a structured time for group debriefing, reflection and journal writing.

In addition to the usual tuition and fees, PJSN140 students will be expected to pay for travel, accommodation, food, passport, health insurance (including evacuation insurance), and other related costs for the trip to Costa Rica. Contact the Program Coordinator for specific information.

PJSN201 Group Facilitation Theory and Practice

3 Credits

This course develops students' skills in working with groups. The course incorporates theories and models of group dynamics, facilitation, and group development, as well as workshop development and delivery. This course uses a practice-based approach, including role-playing and workshop presentations.

PJSN210 Theory and Practice of Mediation

3 Credits

This course examines theories, methods, and techniques of mediation. Students will have the opportunity to demonstrate their knowledge of mediation skills.

PJSN290 Peace and Social Justice Studies Internship

3 Credits

The internship for the Peace and Justice Studies Program is a hands-on learning experience that provides an opportunity for students to practice learning outcomes and skills learned in the program under the direct supervision of an on-site internship supervisor.

With the permission of the supervising faculty member, the internship may be arranged at a for-profit or a not-for-profit organization. Prerequisites: Completion of 45 credits of course work applicable to the Liberal Arts—Peace and Justice Studies Associate Degree Program.

PARALEGAL STUDIES

PLSN101 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: ENGN101

PLSN102 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: PLSN101, ENGN101

PLSN210 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: PLSN101; Prerequisite or Corequisite: PLSN102, PLSN230

PLSN220 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: PLSN101; Prerequisite or Corequisite: PLSN102

PLSN230 Contracts and Business Organizations

3 Credits

The graduate 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, 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: PLSN101; Prerequisite or Corequisite: PLSN102

PLSN240 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: PLSN101; Prerequisite or Corequisite: PLSN102, PLSN220

PLSN250 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: PLSN101; Prerequisite or Corequisite: PLSN102

PLSN260 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. Prerequisite: PLSN101; Prerequisite or Corequisite: PLSN102

PLSN280 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.

PLSN290 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

POLN101 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.

POLN102 American Government and Politics 3 Credits

Emphasis is on the structure and processes of the American system of government and politics on the federal, state, and local level.

POLN205 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: POLN101 or POLN102 or POLN210 or HISN241 and ENGN101

POLN210 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: ENGN101

POLN220 American Politics and Mass Media 3 Credits

This course explores the changing relationship of the mass media and politics. 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. Prerequisite: ENGN101

PSYCHOLOGY

PSYN101 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.

PSYN110 Reality Television, Video Games, Social Media and You 3 Credits

What do shows that feature fictional serial killers teach us about mental health? Are reality shows featuring mentally ill individuals realistic? Does playing games such as Grand Theft Auto make you violent? Texting drives your professor nuts but is it damaging your sense of self, connection to others and damaging your mental abilities? This course will offer students an opportunity to explore the impact of popular culture in their daily lives. Students will engage in an analysis of television, video games, social media, films and advertising through the lens of psychology. We will learn how basic psychological concepts are related to things we do every day without giving it a thought and discuss how societal forces shape our desires to consume media in all its varied forms.

PSYN130 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 relationships. 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.

PSYN201 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.

PSYN202 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: PSYN101

PSYN204 Human Sexuality 3 Credits

This course is an overview of the field of human sexuality. It will provide students a space to explore human sexuality from biological, psychological, and social perspectives. In this class students will be encouraged to become aware of their own sexual attitudes, values, and behaviors. Students will discuss the different aspect of masculinity and femininity along with other constructs. Critical issues directly and indirectly associated with sexual behavior will also be explored throughout the course. Prerequisite: PSYN101

PSYN205 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: PSYN101

PSYN207 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: PSYN101

PSYN210 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: PSYN101

PSYN211 Issues in the Psychology of Grief and Loss: Adaptation to Lifelong Changes 3 Credits

This course will explore the everyday loss of life. How early losses and the different ways of everyday grieving shape us as we move through the life cycle. This course will look at lifelong changes and how these changes, good and bad, evoke the grieving process. This course will look at current issues, ways to assist others and ourselves through times of change and the grieving process, research and ethical issues of grief and loss. The course will explore grief and loss from an academic, personal, social, cultural and experiential perspective. This course will complement courses in the Early Childhood Education, Human Services, Nursing, and Teacher Education degrees, and Psychology and Sociology curriculums. Prerequisites: PSYN101, PSYN201 or SOCN101

PSYN220 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 to develop, conduct and write research reports. Prerequisite: PSYN101; Co-requisite: MTHN106.

PSYN240 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: PSYN101 or Permission of the Instructor

**PSYN280 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. Prerequisites: PSYN220 and SOCN228 or permission of the program coordinator or department chair

READING

RDGN095 Reading Strategies 3 Credits

A preparatory course designed to develop the comprehension skills, thinking skills and vocabulary mastery necessary for reading college-level materials. *Credits do not apply toward degree requirements.* Student must receive a minimum passing grade of C. Prerequisite: Placement test. Prerequisite or corequisite: LEXN101

RDGN096 Reading for College Success 3 Credits

This course develops reading strategies that will allow students to meet the demands of college-level textbooks. Students will develop effective reading and study strategies in order to learn from factual material. Vocabulary development is emphasized. *Credits do not count toward degree requirements.* Students must receive a minimum passing grade of C. Prerequisite: Placement test; Prerequisite or corequisite: LEXN101

RDGN107 Critical Reading 3 Credits

Critical Reading provides instruction in advanced reading skills. This course is designed to develop the student's thinking and reasoning skills through reading. Upon completion of this course, the student should be able to apply critical reading and inferential thinking skills to college texts and other reading material. Prerequisite: Placement test

SCIENCES

SCIN101 Biology 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 or photosynthesis, genetics from classic Mendelism to current biotechnologies. Laboratory exercises support lecture topics and are

designed to develop scientific inquiry and critical thinking.

SCIN102 Biology II: An Evolutionary Journey 4 Credits

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.

SCIN111 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. A series of laboratory experiences are included to provide a practical support for concepts presented in lecture.

SCIN115 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.

SCIN116 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.

SCIN117 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.

SCIN120 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 well the body absorbs and utilizes them.

SCIN130 Physics I 4 Credits

A study of elementary classical physics with emphasis on the application of physical principles to problem solving. Topics include linear and projectile motion, Newton's laws, transitional and rotational equilibrium, work and energy, momentum, circular and rotational motion, and mechanical properties of matter. Prerequisite: MTHN110 (C grade or better highly recommended).

SCIN131 Physics II 4 Credits

A continuation of the study of elementary classical physics with emphasis on the application of physical principles to problem solving. Topics include simple harmonic motion, waves, thermodynamics, electricity and magnetism and geometrical optics. If time permits, some modern physics topics may be discussed. Prerequisite: SCIN130

SCIN134 Stereo Physics 4 Credits

Stereo physics is an introduction to physics built around stereo systems and sound. The physical principles of each topic and how they are applied to sound recording and playback are covered.

Topics include sound, waves, electricity and magnetism, heat and force. Prerequisite: MTHN099

SCIN141 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 bio-chemistry. This course does not fulfill the requirements of General Chemistry I & II or Organic Chemistry I & II.

SCIN142 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 MTHN099 or Accuplacer score recommendation of a Group E elective (or higher)

SCIN143 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. Prerequisites: SCIN142 with C or better; Satisfactory completion of MTHN099 or appropriate Accuplacer score

SCIN150 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: MTHN099 or Placement Test

SCIN151 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: MTHN099, SCIN150 or Permission of Instructor

SCIN160 Genetics 4 Credits

The first half of the course is devoted to Mendelian genetics, including dominance, mono- and dihybrid crosses, sex-linkage, cell division, traditional chromosome mapping for both prokaryotes and eukaryotes, and sex determination. The second half is devoted to more modern molecular genetics, including detailed study of DNA structure, mutations, replication, transcription, translation, and regulation of gene expression in both prokaryotes and eukaryotes. Also included in the latter half are recombinant DNA technology, genomics and proteomics, and discussion of viral genetics and cancer. Depending on the instructor, interests of students, and time constraints, the course may also include population, evolutionary and conservation genetics, and genetic aspects of behavior. Laboratory investigation will support topics discussed in class. Prerequisite: SCIN101

SCIN201 Anatomy and Physiology I 4 Credits

This Anatomy and Physiology I course 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 and nervous. These areas will be covered in a series of detailed lectures which are supported by hands-on laboratory experiences, including cytology, histology, physiological experimentation both wet lab and computer-assisted, study of human anatomical models, and dissection of appropriate specimens. Prerequisite: Grade of C or better in High School Chemistry OR SCIN141 Introduction to Chemistry OR Grade of 75 or better on departmental exam AND Grade of C or better in High School Biology OR SCIN101 Biology I

SCIN202 Anatomy and Physiology II 4 Credits

This course is a continuation of Anatomy and Physiology I that focuses on understanding how anatomy and detailed physiology of each system affects the function of the whole organism. Systems covered in this course include the endocrine, cardiovascular, immune, respiratory, digestive, excretory and reproductive. Other topics which are pertinent for overall homeostasis and survival are covered, and include: system imbalances, nutrition, metabolism, acid/base and fluid/electrolyte balance and genetics. Hands-on and computer-assisted laboratory experiments will be performed that parallels and support lecture topics. Prerequisite: SCIN201

SCIN205 Basic Pathophysiology 3 Credits

A course designed to provide the student with an understanding of the various mechanisms by which human diseases develop. Includes a survey of common disorders involving each of the major body systems. Prerequisite: SCIN111

SCIN112 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 biochemical principles are also included. Prerequisite: SCIN111

SCIN215 Microbiology 4 Credits

This is a comprehensive study of the basic principles of microbiology. A brief survey of the history of the science and evolutionary taxonomy is given. Emphasis is placed on understanding the variety and differences among microbes, their metabolism, genetics, and their relationship, pathogens or not, to humans. Also covered are modern recombinant DNA technologies, including genetic engineering, gene therapy, DNA profiling, PCR genomics, and cloning. Laboratory study accompanies this course and successful completion of these exercises and the isolation and identification of unknown organisms are necessary as a partial requirement of the course. Prerequisites: SCIN101 or SCIN201

SCIN220 Ecology 4 Credits

The course covers factors that influence the distribution of organisms; populations and species interactions, such 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: SCIN101 and SCIN102

SCIN231 Calculus-Based Physics I 4 Credits

A study of classical physics using calculus. Topics include linear and projectile motion, Newton's laws, translational and rotational equilibrium, work and energy, momentum, circular and rotational motion, and mechanical properties of matter. Corequisite or Pre-requisite: MTHN210

SCIN232 Calculus-Based Physics II 4 Credits

A continuation of the study of elementary classical physics using calculus. Topics include simple harmonic motion, waves, thermodynamics, electricity and magnetism and geometrical optics. If time permits, some modern physics topics may be discussed. Prerequisite: SCIN231

SCIN242 Organic Chemistry I 4 Credits

This first of a two course sequence in organic chemistry, emphasizing modern concepts and problem-solving in structure, synthesis and mechanism, based on a functional group approach. Laboratory experiments will reinforce class lecture where possible. Prerequisites: SCIN142 and SCIN143

SCIN280 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). Prerequisite: MTHN106 or greater; SCIN101 and SCIN143 or SCIN131 or SCIN232. Prerequisite or Corequisite: SCIN215

SCIN285 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: SCIN280

SPEECH-LANGUAGE PATHOLOGY ASSISTANT**SLPN111 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.

SLPN112 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.

SLPN114 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 SLPN111

SLPN115 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.

SLPN121 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 SLPN111, SLPN114

SLPN123 Disorders of Articulation 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. Pre-requisites: Minimum Grade of C in SLPN111, SLPN114, SLPN112, SLPN115

SLPN210 Communicaton Aspects of Autism Spectrum Disorders 3 Credits

This course introduces students to the history, definitions, demographics, and characteristics of individuals with autism spectrum disorders across the life span. Theoretical explanations of autism spectrum disorders will be explored. Various treatment

models, approaches, procedures and intervention strategies will be discussed and critiqued. Prerequisites/Co-requisites: Minimum grade of C in SLPN112, SLPN114, SLPN121, HSVN205

SLPN220 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: SLPN121, SLPN123, HSVN205

SLPN221 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 SLPN220

SLPN290 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 SLPN221; Corequisite: SLPN291, SPLN292 (with permission of instructor), or SPLN293

SLPN 291 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. Forty-four 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 and approval of Practicum Coordinator. Pre/Corequisite: SLPN290. This course is required ONLY if a student is not earning credit in SLPN293.

SLPN 292 Speech-Language Pathology Assistant Practicum II 2 Credits

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 and approval of Practicum Coordinator. Pre/Corequisite: SLPN290. This course is required ONLY if a student is not earning credit in SLPN293.

SLPN 293 Speech-Language Pathology Assistant Practicum III 3 Credits

The student will work in an approved setting under the supervision of an ASHA-certified Speech and Language Pathologist. The practicum course will provide one hundred 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. Forty-four hours of educational/observational activities will also be credited as part of the fieldwork experience. Prerequisite: Minimum grade of C in all Speech-Language Pathology Assistant coursework and approval of the Practicum Coordinator. Pre or Corequisite: SLPN290. This course is required ONLY if a student is not earning credit in SLPN293.

SIGN LANGUAGE

(For Sign Language offerings, refer to LNGN listings)

SNLN201 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: SOCN206, or permission of Department Chair or Program Director

SOCIOLOGY AND ANTHROPOLOGY

SOCN101 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.

SOCN108 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.

SOCN110 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.

SOCN201 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.

SOCN205 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.

SOCN115 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.

SOCN206 Sociology of 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. Prerequisites: SOCN101 or PSYN101. It is strongly recommended that students in the Sign Language Certificate program complete the companion course, ASL1, in the same semester as Sociology of Deaf Culture.

SOCN228 Class, Status and Power 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: PSYN101 or SOCN101 or permission of program coordinator or department chair.

SOCN250 Crime and Society

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 crisis 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 will also explore the ways that cultural beliefs, fear, and stereotypes shape the way we think about and respond to crime. Prerequisite: SOCN101 or PSYN101.

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Commissioner Dr. Virginia Barry
Concord, New Hampshire

Commissioner Tara G. Reardon
Concord, New Hampshire

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Mary Nelson
Marian Noronha
Former Mayor Bernard Streeter
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Lucille A. Jordan
President

B.S., M.Ed., M.A., Ohio State University

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B.Ed., SUNY at Buffalo; M.Ed., Rivier College

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Vice President of Academic Affairs

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Administrative Assistant to the President

Kathleen Ruggiero

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Academic Advising Center Director

B.S., Boston State College; M.A., Northeastern University

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B.S., New York Institute of Technology; M.S., St. John's University

Jason Pennington

Academic Advisor

B.A., University of Michigan-Flint; M.A., Wayne State University

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Maximus Tardiff

Office Clerk

Amanda Morrell

Office Clerk

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College VA Certifying Official

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Mollie Little

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M.Ed. Southern New Hampshire University

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B.A., Northland Baptist Bible College;

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B.A., Franklin Pierce College;

M.B.A., Southern New Hampshire University

Laurie Berna

Business Office Manager/Bursar

A.S., NHCTC - Nashua

Eileen Flight

Stock Clerk III

Sikt Grote

Purchasing/Payables Supervisor

B.S., University of Bridgeport; M.B.A., Southern NH University

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Barbara Lewin

Senior Accounting Technician

Toni Mason
Purchasing Assistant
A.S., Nashua Community College

Mary Martin
Cashier

Mirjana Topic
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B.S., University of Belgrade

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Workforce Development Center*
B.A, Regis College; M.S., Simmons College; M.S., Boston College

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Continuing Education Coordinator
B.S., Southern New Hampshire University

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A.S., Nashua Community College

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Program Director, General Studies*
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M.L.S., University of Pittsburgh; Ed.D., Boston University

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Librarian
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Douglas Pelzcar
Audio Visual Specialist

Eva Dymek
Library Aide

Alicia Ferraiuolo
Library Aide

Christina Ferraiuolo
Library Aide

Melissa Roberts
Cataloger

Stephanie Saxton
Library Aide

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Anne Eule
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BA, Suffolk University

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B.S., Franklin University

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Certificate - Computer Information, NHCTC-Nashua

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Gary Beaudoin
Building Maintenance Supervisor

Jose Cardona
Building Service Worker II

Eva Reynolds
Building Services Supervisor

Nathan Tate
Building Services Supervisor

Ken Schevey
Maintenance Mechanic

Scott Mitoulas
Building and Grounds

David Richard
Building and Grounds

Helen Twombly
Building Service Worker II

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Jonathan Mason

Security Officer

Brad Coates

Security Officer

Kyle Metcalf

Security Officer

WELLNESS CENTER

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Wellness Center Director

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Clerk

Christopher Michailides

Clerk

Kristen Bechard

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**SCIENCE, ENGINEERING TECHNOLOGY,
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**TRANSPORTATION: AUTOMOTIVE &
AVIATION****Karl E. Wunderlich**

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 A.A.S., Automotive Services, New Hampshire Community
 Technical College at Nashua; ASE Certified; Master Collision
 Technician, I-Car Certified

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 ASE Certified Master Technician, BMW N.A.

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Daniel L. Jones

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Fiat of North America; Caterpillar Diesel Engines; Fitchburg State College; ASE Certified Master Auto Technician

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Northern Essex Community College; East Coast Aero Technical School; University of Lowell; Wentworth Institute

Ben Wagstaff

Lab Assistant
A.S., Nashua Community College

EMERITI ADMINISTRATION

Keith W. Bird, Ph.D.

President-Emeritus 1995-1997

Robert E. Bloomfield

President-Emeritus 1970-1995



2011 - 2012

STUDENT CALENDAR

Fall Semester 2011 (8/29 – 12/16/2011)

August 15	Tuition due for Fall semester
August 29	Fall Classes Begin
September 3	Saturday classes will meet
September 5	Labor Day Holiday – No classes
September 6	Last day to add classes without instructor permission (except online classes)
September 6	Last day to withdraw with full refund from 8 – week term (8/29 – 10/22/2011)
September 12	Last day to withdraw with full refund (16-week term)
September 16	Last day to resolve “I” grades from summer term
October 10	Columbus Day – All classes are held as scheduled
October 24	Second 8 – week term begins (10/24 – 12/16/2011)
October 31	Last day to withdraw with full refund from 8 – week term (10/24 – 12/16/2011)
November 1	Fall Open House, 4 – 7 pm
November 3	Last day to withdraw with a “W” grade (16-week term)
November 7	Registration for Spring 2012 semester begins
November 11	Veterans’ Day – No classes
November 24-25	Thanksgiving – No classes (including Saturday classes)
December 16	Fall Semester Ends
December 21	Final grades available for viewing on Student Information System

Spring Semester 2012 (1/23 – 5/10/2012)

January 9	Tuition due for Spring semester
January 16	Martin Luther King Holiday
January 23	Spring Semester Classes Begin
January 30	Last day to add classes without instructor permission (except online classes)
January 30	Last day to withdraw with full refund from 8 – week term (1/23 – 3/10/2012)
February 6	Last day to withdraw with full refund (16-week term)
February 10	Last day to resolve “I” grades from fall term
February 20	Presidents’ Holiday – No classes
March 12-18	Spring Break – No classes
March 21	Second 8 – week term begins (3/19 – 5/10/2012)
March 26	Last day to withdraw with full refund from 8 – week term (3/19 – 5/10/2012)
March 31	Last day to withdraw with a “W” grade (16-week term)
April 2	Registration for Fall 2012 semester begins
April 14	Spring Open House, 9 am – 1 pm
May 10	Spring Semester Ends
May 15	Final grades available for viewing on Student Information System
May 19	Graduation – 11:00 am