2014–2016 Catalog

For the latest updates, please visit www.northshore.edu/downloads/college_catalog.pdf
Mission Statement
North Shore Community College is a source of hope and opportunity and a regional leader for social and economic change. Blending tradition and innovation, liberal arts and career preparation, intellectual development and cultural and personal growth, we foster a diverse and caring community of learners where all are welcome and each is challenged. We offer life-long education responsive to changing community needs, a global economy, evolving technology and the shifting role faced by individuals and institutions. Our greatest contribution to the Commonwealth is the success and achievement of our students.

Vision Statement
North Shore Community College will be a catalyst for personal, community and regional change through education, training and civic engagement. The College will serve as a beacon of hope and opportunity for an increasingly diverse student body and be a respected full partner with other public and private organizations seeking better lives for North Shore residents and a vibrant future for the region.

North Shore Community College is accredited by the New England Association of Schools and Colleges.

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Information Subject to Change
This catalog is published as a convenient source of information for prospective students and for the general public. To allow for unforeseen developments that may occur along budgetary or other lines, the College reserves the right to add or delete courses and programs or to revise tuition, fees and insurance requirements described herein. Some programs of study may be offered only at a particular campus location.
Information Directory

Inquiries concerning North Shore Community College and its programs are cordially invited. Prospective students and their families are welcome to visit the campus and may make arrangements for individual conferences to discuss admissions, programs of study, financial aid or other matters of interest. The Information Directory will provide assistance in directing inquiries to the proper departments.

North Shore Community College Home Page: www.northshore.edu

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The Cummings Center • 81 Elliott Street, Suite 121E • Beverly
Institute for Corporate Training and Technology/

Corporate Training Solutions 978-236-1200  781-593-6722 x1200

Corporate and Community Education:

Noncredit Courses 978-236-1200  781-593-6722 x1200
Evening Administrator 978-236-1200  781-593-6722 x1200
Fax 978-236-1220
TTY for the Deaf 978-236-1231

Switchboard Hours
Monday – Friday from 8:00 AM to 5:00 PM. To contact a Night Administrator on Monday – Thursday evenings and Saturday mornings, call the main number 978-762-4000 or 781-593-6722, and press x6628 for the Lynn Campus or x4313 for the Danvers Campus Police.

Evening Administrators
Cummings Center – 978-236-1200; Danvers Campus (Saturday only) – 978-762-4000 x5554; Lynn Campus – 978-762-4000 x6628 or 781-593-6722 x6628. For assistance on evenings, weekends, or holidays, contact the Campus Police at 781-593-7032.
Get Ready for the North Shore Community College Experience
If you’re thinking about starting or returning to college, you’ve made the right choice! But don’t stop here. Once you have read about our programs and student support services, call us with your individual questions. An admissions counselor will be happy to answer your questions or set up an in-person appointment for you.

Here’s where you can learn more about NSCC:
• Access our official college website: www.northshore.edu.
  You’ll find schedules for credit and noncredit classes, admissions information, financial aid information, and much more!

• For credit degrees and certificates, call Admissions: 978-762-4188 or 781-477-2107.

• For information on credit distance learning opportunities, call 781-477-2172.

• For noncredit courses, certificates, and corporate or contract training, call the Division of Corporate and Community Education: 978-236-1200.

Paying for College
Money-smart students know that NSCC is one of the most affordable options around. And some of these students are getting their two-year associate degree here at NSCC and then finishing their bachelor's at a four-year college or university. It just makes sense!

And for working adults, day, evening, weekend and summer classes mean keeping a normal work week and family schedule while still getting a first-class education.

Financial Aid
You can apply for aid even before your official acceptance to college. However, you must be accepted to a degree or certificate program before you receive your financial aid. Assistance is available from a variety of sources:

• Grants – Federal, institutional, and state grants are awarded based on demonstrated financial need and satisfactory academic progress. Grants do not have to be repaid. Call the Student Financial Services Office for details.

• Scholarships – Scholarships are also nonrepayable and are awarded based on demonstrated need and academic merit.

• Work Study – Depending on your financial need and satisfactory academic progress, you may be eligible for federal work-study programs, either on or off campus.

• Loans – College loans are repaid over an extended time period and are awarded based on demonstrated financial need and/or credit worthiness and satisfactory academic progress.

Get Set for College Success

North Shore Community College

Are you...
...a high school senior or junior who would like to start college close to home?
...a working professional who knows that staying ahead in today’s fast-paced job market means updating your skills?
...new to the North Shore of Massachusetts or returning here after living and studying elsewhere?
...or, like many of our students here at NSCC, have you decided it’s time for a change? A new career? A first career? New skills? Is it time to go out and get the education you’ve always dreamed of?

The NSCC Advantage
• We’re affordable – With highly competitive tuition rates, we’re one of your best choices for a college education.

• We’re nearby – With campuses in Danvers and Lynn, and an Institute for Corporate Training and Technology in Beverly, we’re in your neighborhood.

• We’re flexible – You can take classes days, nights, weekends or online. Study full-time or part-time. Classes are small and fit your busy lifestyle.

• We’re here to help you – Our Student Support and Advising Center received the “Outstanding Student Services Program” award from the Deans of the State Community College system.

• We’re succeeding with our students – In a recent survey, more than 90% of our students reported that they were attaining their educational goals at NSCC.

• We’re sending you to the top – More than one-third of our students enroll in transfer programs. That means that after finishing their two-year degree at NSCC, they’re headed for some of the best four-year colleges and universities in Massachusetts and across the United States.

• We’re career savvy – Our hands-on certificate and degree programs prepare you for today’s fastest growing career fields. Certificate programs are offered for credit and noncredit studies.

Who We Are at NSCC
In its 48-year history, North Shore Community College has served over 230,000 area residents by providing college-level academic and career education. NSCC is part of the Massachusetts Regional Community College system and is accredited by the New England Association of Schools and Colleges, Inc.

Because it is partially funded by public monies, the cost of a community college education is significantly lower than at many private colleges and universities. Admission is open to anyone with a high school diploma or equivalent.
Many people will tell you that college is what you make it. We agree. But at NSCC, we’re also here to make a difference by being available when you need us. To support you in your college study, we offer:

**An Award-Winning Student Support and Advising Center**—Danvers and Lynn Campuses

**Honors Program**—Enrichment, challenges, and intensive preparation for transfer to select institutions

**Workshops in Self-Development**—Self-awareness, stress-management, and career planning

**Counseling**—Career, academic, and college adjustment counseling

**College Success Seminar**—A 3-credit elective course focusing on the skills and awareness needed for success in college and in life

**Individualized Admissions**—Orientation, registration, and educational planning to support your goals

**Tutoring**—Free tutoring in writing, math, ESL, reading, study skills, the sciences, and most academic course content areas. Online e-tutoring available for many subject areas including math, writing, accounting and the sciences.

**State-of-the-Art Library Danvers and Lynn Campuses**
- Modern libraries with NOBLE (North of Boston Library Exchange—a computerized network of local academic and public libraries), Internet, access to over 70 electronic databases, 70,000 volumes, hundreds of journals, and audiovisual resources
- Expert, helpful librarians to help find information you need
- Preview areas for viewing class videos and DVDs

**Technology Resources**
- Computer Labs – Open days and evenings
- Computers running Windows XP Pro and Mac OS X (10.4.8), word processing, spreadsheet and database software, access to the Internet
- Expert lab assistants to help you with that term paper or computer project

**At NSCC, it’s never “one-size-fits-all”**
We know that many of our students are juggling college with work, family and community commitments. So we keep our classes flexible and accessible.

- Opt for day or evening classes, or a day/evening combination.
- Study full-time or part-time.
- Get ahead by taking summer classes.
- Choose some non-traditional routes to your college degree or certificate:
  - Center for Alternative Studies and Educational Testing Center advises you on getting college credit for what you already know. Your work or professional training may be eligible to college credits if you can demonstrate your knowledge via portfolio, standardized tests, prometric tests, or NSCC faculty-prepared exams.
  - Distance learning opportunities are available which deliver college courses to you via audio CDs, video, telecourses, and online courses.

**Straight to the Top**
At NSCC, you can keep your eyes on the prize. For some students, that means transferring to a four-year college or university to finish a bachelor’s degree. For others, it means training for and getting their dream career. Wherever you’re headed, NSCC doesn’t just help you with your studies here, we prepare you for your next goal.

- College Transfer Programs—More than one-third of NSCC students are enrolling in our college transfer programs, which means they’re starting their bachelor’s degree close to home while taking advantage of our individualized classes and low-cost tuition.

- Joint Admissions Program—By formally signing up for Joint Admissions, you can simultaneously enroll at a designated four-year college from a list of participating colleges throughout Massachusetts and the United States.

- Traditional Transfer Programs—Many NSCC graduates successfully transfer—often as juniors—to hundreds of four-year colleges and universities to complete their bachelor’s degrees.

**Real-World Work Experience**
At NSCC, you can combine classroom study with hands-on work experience so that as a job applicant, you can confidently say you have work experience.

- Cooperative Education and Internships are unique plans of education which integrate classroom study with a planned and supervised work experience. Co-ops are paid while Internships are not paid. These 120-hour experiences allow students to acquire practical skills as well as to be exposed to the reality of the world beyond the boundaries of the campus, enhancing the self-awareness and direction of the individuals.

These opportunities are dependent upon the cooperation between the educational institution and employers to form a total educational program. The interrelated experience and study components are carefully planned and supervised to produce optimum educational results.

- The Career Placement Office provides for its students and alumni a comprehensive approach to a successful job search. Assistance with resume and cover letter preparation as well as interviewing tips are provided. The office also maintains an extensive list of job leads and sponsors campus job recruitment activities regularly.
Strategic Plan 2013-2016

Pathways, Partnership, Performance...
Leading the Way

Strategic Direction One: Pathways
We will design and develop clear pathways to student learning, support certificate and degree completion, promote and enhance transfer options, and improve resources for career exploration, preparation, and placement.

Goal
North Shore Community College will foster engaging, outcomes-oriented learning through proactively establishing clear pathways for students to achieve their academic goals, fulfill their intellectual and personal potential, prepare for current and emerging careers, and serve as active citizens in their communities.

Vision Project* Key Outcomes
College Completion (2)
Student Learning (3)
Preparing Citizens (5)
Closing Achievement Gaps (6)

Outcome
By 2016, North Shore Community College will have a comprehensive system of institutional pathways to student learning, including establishing, documenting, and achieving student learning and success outcomes.

Key Priorities
• Establish and define clear pathways for students to achieve their academic goals and prepare for current and emerging careers
• Foster engaging outcomes-oriented learning and academic programs that meet 21st Century demands
• Enhance advising, tutoring and other academic support services, with focus on special populations such as students with disabilities, veterans, developmental and other at risk groups
• Expand student development opportunities for students to develop their intellectual scholarship and personal potential
• Coordinate and enhance Career Counseling and Placement Services
• Position financial aid and scholarship strategies to enhance enrollment, retention and student success
• Strengthen and support Teaching, Learning and Assessment through faculty scholarship and involvement
• Provide comprehensive “Intrusive” advising and orientation services
• Enhance transfer educational planning services and systems
• Focus on Vision Project and funding formula metrics with initiatives to increase graduation and completion rates, reduce achievement gaps, and increase retention, persistence and other measures of student success

Strategic Direction Two: Partnership
We will further develop alignments with state workforce needs, strengthen engagement through community partnerships, increase outreach efforts, and provide leadership to regional, state, and national initiatives that promote student access and success.

Goal
North Shore Community College will cultivate and strengthen relations with industry, business, government agencies, community organizations, K-12 schools, colleges and universities, and alumni to define and achieve mutually beneficial goals that enhance student access, success, and state workforce needs.

Vision Project* Key Outcomes
College Participation (1)
Workforce Alignment (4)
Preparing Citizens (5)

Outcome
By 2016, North Shore Community College will have a coordinated, collaborative process for aligning state workforce and community needs, including identifying, cultivating, and tracking external relationships and relevant workforce outcomes.

Key Priorities
• Strengthen partnerships with business and industry to design programs that align with state workforce needs
• Engage government agencies for support and funding
• Expand partnerships with K-12, CBOs, and communities to increase postsecondary participation
• Collaborate with other higher education institutions to enhance student success and align programs and learning
• Support Adult Learning, GED, developmental education, college readiness opportunities
• Expand Articulations/credentialing of credit and non-credit
• Increase number and variety of Civic Engagement activities and embed Service Learning across curricula
• Expand online offerings for high-demand, workforce related courses and programs
• Increase STEM initiatives for middle and high school students at NSCC
• Increase business partnerships and student placement rates via coop programs and internships
• Expand Academic Technologies for both in-classroom and on-line education, including developing a comprehensive, interdepartmental strategy for flexible learning
• Integrate internal efforts around workforce initiatives
Strategic Direction Three: Performance
We will enhance institutional effectiveness and competitive advantage, maximize resources, pursue external support, and create a sustainable and socially responsible campus and community environment.

Goal
North Shore Community College will advance its mission and protect its long-term viability through a strategic and outcomes-based focus on institutional effectiveness, culture of assessment, collaboration and communications, innovative programs of high quality, a sustainable campus, healthy enrollments, growth in giving and grant funding, fiscal responsibility, and process improvements.

Vision Project* Key Outcomes
College Completion (2)
Student Learning (3)
And Closing Achievement Gaps (6)

Outcome
By 2016, North Shore Community College will be positioned for long-term stability and success by having in place a systematic process for institutional assessment, improvement in measures of performance, and resulting high levels of institutional effectiveness.

Key Priorities
• Strengthen culture of assessment and continuous process improvement to ensure effectiveness of programs and services
• Use outcomes-based institutional effectiveness to guide development of programs/services and resource allocation
• Linkage of Enrollment Management with Academic planning and Facilities
• Expanded ability for flexible data reporting, collecting evidence for outcomes, tracking key performance indicators and fostering data-driven planning
• Enhanced levels of service provided to campus constituents
• Invest in new and emerging programs, initiatives, and technologies – foster innovative programs
• Assess and enhance college wide diversity initiatives
• Extend current online and in-class instruction through incorporating emerging distributed learning models such as open content, mobile applications, collaboration technologies, and flexible classrooms
• Expansion and renovation of the Lynn Campus
• Identify and increase alternative revenue streams
• Continue to expand sustainability initiatives, reduce emissions, and support the Association of College and University Presidents’ Climate Commitment to advance the values and infrastructure of a sustainable campus
• Optimize technology usage for communication, efficiencies and effectiveness • Evaluate and coordinate faculty and staff professional development programs

* For more information on the MA Board of Higher Education’s Vision Project visit www.mass.edu/visionproject.

General Education Outcomes
NSCC is committed to preparing students for the challenges of living and working in a global economy and providing a competent workforce for the region north of Boston. In recognition of the importance of teaching critical thinking skills to college students, the College has designed its General Education Outcomes to reflect compatible components of critical thinking.

DEFINE
• Comprehend and critically interpret ideas and information, whether presented verbally, symbolically, numerically, visually, or artistically.
• Construct thoughtful, creative questions and ideas based on relevant and appropriate information.
• Participate in opportunities for civic engagement such as internships, community service, service-learning or democratic processes and reflect on those experiences.

INVESTIGATE
• Recognize when information is needed; locate, organize, evaluate, and use that information effectively.
• Use information technology critically and creatively.

EVALUATE
• Explore issues from multiple perspectives, differentiate approach for audience and purpose, and support ideas with sufficient evidence.
• Work within diverse communities to develop solutions to civic problems of local, national, and/or global significance.

CONCLUDE
• Relate to individuals, groups and organizations in the professional/work environment and community by demonstrating respectful and honest behaviors that have been modeled in the academic setting.
• Recognize the environmental, social, and economic aspects of sustainability and its interdependence, and express awareness of how their values and choices affect the environment and society.
• Make informed decisions to solve real world problems.

COMMUNICATE
• Produce logically developed writing using correct grammar, spelling, and punctuation.
• Cite sources appropriately within written or oral work.
• Demonstrate accurate calculations and symbolic operations.
• Use appropriate technology for basic applications, information access, and electronic communication.
• Show respect and courtesy for others both within and outside the NSCC community and reflect sensitivity to other points of view.
Admissions

General Admission Policy
All interested adults and high school students are welcome and eligible to register in credit and/or noncredit courses. NSCC maintains an open admissions policy and accepts students on a first-come, first-served basis without regard to race, gender, sexual orientation, color, national origin, age, religion, or disability status. Students who want to enroll in one of NSCC’s degree or certificate programs, whether full or part-time, must formally apply and be admitted to the College. Enrolling in a program through the application process is called matriculation. A high school diploma, GED, or completing an approved homeschool program is required for admission to NSCC.

Some programs restrict entrance to those who have met specific requirements; candidates who do not yet meet those requirements will be admitted to the College and given the opportunity to register for prerequisite coursework. Admissions information is available at the Danvers and Lynn locations or by calling 978-762-4188 or at 781-477-2107. Applications are available at all campus locations, by phone request or on our website at www.northshore.edu/downloads/admission_app.pdf

Application Procedure
Pre-Admission counseling for prospective students is available at the Danvers and Lynn locations. Requirements for admission include a high school transcript verifying graduation, a high school diploma, a GED diploma, or documentation from an approved homeschool program. NSCC has a rolling admissions policy: as completed applications are received, decisions are made on a first-come, first-served basis. Students may begin their coursework for many programs in fall, spring, or summer, but some programs begin their cycle in fall only. Call Admissions/Records for specific information.

Any student who has been previously accepted to the College but has never attended classes at NSCC must file a new application prior to registering for classes in a subsequent semester.

Residency Information
All students will be required, upon application and/or registration, to complete and sign a Massachusetts Community Colleges In-State Tuition Eligibility Form.

Generally, in order to qualify for the in-state tuition rate, an applicant must have proof of MA residency. A resident is defined as a person who has lived for at least six months in MA and who intends to remain in MA indefinitely. International students and, under most circumstances, non-resident aliens are not eligible for MA resident rates. The form will require students to indicate potential documentation to prove residency.

Homeschoolers
All homeschooled students, without a high school diploma or GED, are eligible to apply for admission to a degree or certificate program provided they have successfully completed an approved homeschool program in accordance with Massachusetts General Laws or the laws of their home state.

To determine whether a student has participated in an approved homeschool program, the student shall submit, with the application for admission, evidence that the homeschool program was approved by the student’s school district’s superintendent or school committee. Additionally, if the homeschooled student is under the age of compulsory attendance, which is sixteen (16) years old in Massachusetts, a letter from the student’s school district’s superintendent or school committee is required stating that the student is not considered truant and would not be required to attend further schooling or continue to be homeschooled if the student has completed his/her homeschool program before the age of sixteen.

The College reserves the right to limit or deny enrollment of any student under the age of sixteen (16) in a course or program based on a case-by-case consideration of a variety of factors, including but not limited to: the student’s maturity, life experience, placement test scores, prior education, course content, instructional methodology, and potential risks associate with participation in a particular course or program.

Homeschool students who have not completed their high school requirements are welcome at the college as non-matriculated students provided they meet the prerequisites for the classes they wish to take.

Assessment Testing
North Shore Community College is committed to student success by ensuring that all students are assessed and placed in courses which are appropriate to their academic skills. Students who cannot document proficiency (see Basic Skills Core/Proficiency Requirements) are required to complete Computerized Placement Tests (CPTs) to establish current ability in reading, writing, and math. The results of CPTs are used to determine appropriate course placement. These tests also verify communications and/or math proficiency for courses listing these as prerequisites. Students may drop in for testing at the Center for Alternative Studies and Educational Testing on either campus. Review materials are available in the Center for Alternative Studies and Educational Testing, in the Student Support and Advising Centers or online.

Results of placement tests may indicate need for courses in reading, writing, and/or math at the pre-college level. These foundation classes are designed to prepare students for college-level courses required for a degree or certificate program. These courses are developmental in nature and do not count toward a degree or certificate and are not transferable to another college.

Students whose first language is not English are assessed in the Center for Alternative Studies and Educational Testing to evaluate their English speaking, listening, reading, and writing skills and to determine appropriate placement into ESL classes.

Developmental Courses
In order to succeed in college programs of study, students may need to improve their skills in English and in Mathematics. All students are assessed when they come to the college to determine if they need courses to help them prepare for college-level reading and writing, or to achieve mathematics proficiency. These courses are offered through several departments.

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English as a Second Language
Students whose first language is not English may need specific courses in ESL. Students are tested to determine their level of proficiency in reading, writing, listening, and speaking. Those who are beginning to learn English will qualify for several levels of noncredit Basic ESL classes through the Division of Corporate and Continuing Education. These courses do not earn college credit, but will prepare students to communicate well at work and in the community.

Those who place into Intermediate or Advanced ESL may need to take several courses as part of their chosen certificate or degree program. Students are not required to take all courses in a sequence if they demonstrate required proficiency through assessment or class performance. Students will take only the courses they need in Reading and Vocabulary, Writing and Grammar, and Listening and Speaking. Students are encouraged to retest between semesters if they believe they are ready to skip the next level.

Students also have the option of earning a certificate in ESOL. This certificate is designed for students who wish to learn English to apply employment skills they bring from other countries.

Professional educators in the ESL Multimedia Lab are available to help students study independently outside of class, so that they can progress as quickly as possible through ESL. Tutoring is also available.

Communication Skills
Students who are not ready for college-level courses such as Composition 1 may test into Communication Skills courses. These courses are designed to increase the student’s ability to read critically, increase vocabulary, and to write better paragraphs and essays.

Students who test into Level 1 will take three linked courses in College Reading 1, College Writing 1, and Practical Applications. Successful completion of these courses allows the student to enroll in Level 2 classes; some high achievers will qualify for Composition 1 at the end of the semester in which they studied Level 1 courses.

Students who test into Level 2 will take two linked courses, College Reading 2 and College Writing 2; students are encouraged to enroll in SSC101 College Success Seminar as well. Students who successfully complete these courses will qualify for Composition 1 and all other courses that require Communications proficiency.

Students who have strong reading skills but need to strengthen their writing skills will qualify for COM099 – Basic Communications. Upon successful completion of this course, they will qualify for Composition 1 and all other courses that require Communications proficiency.

Mathematics
Students who have not achieved mathematics proficiency and/or are not ready for college-level math courses may be placed into developmental courses to build skills required for successful completion of college-level math courses.

Program Admission Requirements
Some programs have specific prerequisites for admission which may include courses, documentation, orientations, essays or interviews. For specific program requirements go to www.northshore.edu/academics/programs/and choose your program of interest. You may also call Admissions/Outreach, 978-762-4188 or 781-477-2107.

Readmission Policy
The following students must apply for readmission prior to registration in any given semester: students who have not been matriculated and enrolled at the College within the previous two years; students who have graduated from the College; and students in selective admission programs (such as Nurse Education, Physical Therapist Assistant, Occupational Therapy Assistant, Radiologic Technology, Respiratory Care, Medical Assisting Certificate, Veterinary Technology, Surgical Technician Certificate and Practical Nursing Certificate) who have interrupted their sequence of professional courses with a course withdrawal, course failure, and/or semester stop out. Students in health professions programs seeking readmission must meet current Program and College admission requirements, and follow the specific policies and procedures defined by individual programs.* Readmission to health professions programs is not automatically guaranteed. If readmitted, students are permitted only one readmission to their program on a space available basis with approval by the Program Director.

*Individual Program policies and procedures are documented in program manuals/handbooks.

Transfer Students
North Shore Community College encourages application from transfer students and makes every effort to accept all applicable college-level credits.

Students must complete admission requirements and arrange for official transcripts to be sent from any colleges previously attended. Transfer credit is granted for comparable coursework completed at other accredited institutions of higher education with a ‘C’ or 2.0 grade point average or higher provided that course content relates to a student’s program of study. Transfer students who have taken computerized placement testing (CPT) at another Massachusetts Community College or State College can submit those scores to the Center for Alternative Studies and Educational Testing for evaluation at NSCC. Score reports from college equivalent testing services such as CLEP and DANTES can be brought to the Center for Alternative Studies and Educational Testing for evaluation if applicable.

A minimum of 15 college-level credits completed at NSCC is required to graduate with an associate degree.

Official transfer credit evaluations are provided by the Enrollment and Student Records Office subsequent to admission, and the student is notified by mail. Students may contact the Center for Alternative Studies and Educational Testing for information on obtaining credit for college equivalent professional training and prior learning.
Change of Program
A North Shore Community College student is admitted to a specific degree or certificate program within the College. If you wish to change your program, you must file a completed Change-of-Program form with the Enrollment and Student Records Office within the first three weeks of the fall or spring semester. Change-of-Program requests received after the three-week period will be processed for the following semester. A student who is considering a change should meet with an academic advisor to discuss career and educational goals. A student requesting more than one change of program per semester must have the written approval of an advisor. A student requesting a change to a selective admissions program must enter the admissions process and meet the current admission requirements.

Matriculation
A matriculated student is one who has met all admission requirements and has been accepted into a program of study as a degree or certificate candidate. The program of study that is in effect at the time of matriculation is the one the student can plan to follow to complete degree requirements. If program requirements subsequently change, the matriculated student can choose whichever best facilitates graduation as long as the program remains active at the College.

Only matriculated students can receive a degree or certificate from the College.

A non-matriculated (non-degree status) student may enroll in a course or courses but is not considered to be pursuing a degree or certificate. A student may apply for matriculated status by submitting the appropriate documents within the first three weeks of the semester.

Choosing a Major
If the student’s goal is eventual completion of one or more college degrees, it is important to develop an educational plan. Although anyone is welcome to continue to take credit courses at North Shore Community College as long as he/she is interested, the student may find the educational experience more rewarding if some realistic goals and a time frame for completion are established. College advisors and Student Support and Advising Center academic counselors can help choose a major, identify a career path, find resources for overcoming academic and personal difficulties, and outline a plan according to the student’s needs and wishes. The plan may be changed if the student changes his/her mind for any reason.

New England Regional Student Program
The New England Regional Student Program enables residents of New England to attend an out-of-state college or university within New England at a reduced tuition rate for certain degree programs that are not available at public institutions in their own state. For more information on NEBHE’s Tuition Break program, visit the New England Board of Higher Education website at: www.nebhe.org.

International Students
All students wishing to attend North Shore Community College who are not United States citizens or legal permanent residents of the United States must apply for admission as international students. In addition to the Application for Admissions/Matriculation, international applicants must submit the following documentation. All documents must be translated into English.

All applicants must submit proof of successful completion of high school. Official transcripts of all study completed at the high school (secondary) level and college or university level, if applicable, are required.

Students whose primary language is not English must submit a Test of English as a Foreign Language (TOEFL) score report of 500 or higher on the paper-based test (173 on the computer-based test or a 61 on the TOEFL IBT) as an indication of proficiency in the English language. International students are not accepted into the ESOL program. To obtain information about the TOEFL, you may contact Educational Testing Service at TOEFL, Box 6151, Princeton, NJ, 08541, by telephone at 609-771-7100, or by visiting their website at www.toefl.org. The NSCC TOEFL Institution Code is 3651.

The U.S. Citizenship and Immigration and Naturalization Service (USCIS) requires international students to present proof of their ability to pay for all their educational and living expenses while studying in the United States. International applicants must submit a letter of financial support indicating that they or their sponsors have the required funds (details will be provided to applicants) convertible into U.S. dollars. International students are not eligible to apply for financial aid while studying at NSCC, nor are they eligible for Massachusetts residency tuition and fee rates.

Certain other conditions and documents may be required of international applicants. An international application package containing complete directions and all required forms will be sent to all international applicants. They may be accessed on the website at www.northshore.edu/international/. Application should normally be made six months in advance of the expected entrance date.

Criminal Offender Record Information and Sex Offender Registry Information
Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or includes a clinical affiliation with a private or public health care provider, may be required to undergo a Criminal Offender Record Information (CORI) and/or a Sex Offender Registry Information (SORI) check. Depending on the contents of a student’s CORI report, participation in a clinical affiliation or field placement required in the student’s academic program may be denied. CORI checks may be performed pursuant to Mass. General Laws, Chapter 6, Sections 167-178B, and consistent with guidelines promulgated by Executive Office for Health and Human Services, and/or the Commonwealth’s Department of Public Health. Sex Offender checks shall be performed pursuant to Massachusetts General Laws, Chapter 6, Sections 178C-178P.

For more information regarding the College’s CORI/SORI process, please contact Thanh Giddarie, Director of Human Resource Development, x5470.
Dual Admission Program with Historically Black Colleges
North Shore Community College participates in a dual admission/transfer articulation program with six historically black colleges. The colleges currently involved in this program are Cheyney University, Delaware State College, Florida Agricultural and Mechanical University, Hampton University, Howard University, and Tuskegee University.

Joint Admissions Programs
North Shore Community College has joined with several four-year colleges and universities in the Joint Admissions Program. The purpose of these agreements is to provide a smooth and efficient transfer of students from an Associate degree program at NSCC into a Bachelor’s degree program at any of the participating four-year schools. Students must complete specific NSCC programs with a college-level GPA of 2.0 or higher in order to be guaranteed admission into the participating four-year college or university they have selected.

During their first semester at NSCC, students fill out a Joint Admissions Participation Form indicating the four-year schools they are interested in transferring into. They then receive a preliminary acceptance letter from the Director of Admissions of each school chosen.

With Massachusetts state colleges and universities, NSCC also has a special Tuition Advantage Program for Joint Admissions students. This allows students to save one-third off the cost of tuition at the four-year college if they graduate and transfer with a college-level GPA of 3.0 or higher. The Student Support and Advising Centers have all the details.

NSCC currently has Joint Admissions agreements with the following public institutions: University of Massachusetts Amherst, Boston, Dartmouth and Lowell campuses; Bridgewater, Fitchburg, Framingham, Mass. College of Liberal Arts, Salem, Westfield, and Worcester State Universities; Mass. College of Art and Mass Maritime Academy. There are also agreements with the following private institutions: Northeastern University and Embry-Riddle Aeronautical University in Engineering Sciences; Dowling College and Embry-Riddle Aeronautical University in Aviation Science, Emmanuelle College, Merrimack College, Eastern Nazarene College, and Suffolk University. For more information, call Admissions or 978-762-4000 x6688.

Vocational Instructor / Interdisciplinary Studies with University of Massachusetts Boston
North Shore Community College has developed a reverse articulation agreement with the University of Massachusetts Boston. Students in the University’s Center for Occupational Education Vocational Instructor Approval Program are eligible to apply up to eighteen of their credits from UMass toward NSCC’s Associate of Arts Degree Program in Interdisciplinary Studies. Students can then apply their credits (Associate of Arts Degree) from NSCC toward a Bachelor Degree Program at UMass Boston. That is, the student begins at the University, transfers to NSCC for the Associate degree, and returns to the University for completion of the Bachelor’s degree. This program is intended for those teaching or wishing to teach Vocational Instruction in one of the Commonwealth’s comprehensive high schools or vocational schools. Additional information can be obtained from the Enrollment and Student Records Office.

Northeast Consortium of Colleges and Universities in Massachusetts (NECCUM)
Eligible students at North Shore Community College may cross-register for up to two courses per semester at any participating institution in the Northeast Consortium of Colleges and Universities in Massachusetts. Colleges in the Consortium are: Endicott College, Gordon College, Marian Court College, Merrimack College, Middlesex Community College, Montserrat College of Art, North Shore Community College, Northern Essex Community College, Salem State University, University of Massachusetts Lowell. Certain restrictions apply. For further information, contact the Director of Enrollment and Student Records, 1 Ferncroft Road, Danvers.

Massachusetts College Online Consortium
North Shore Community College participates in the Massachusetts Colleges Online Consortium. The consortium gives students access to online courses available at the public colleges and community colleges across the state. These courses complement North Shore’s distance learning offerings to make it easier for a student to complete his/her program of study. Computer with Internet access is required. Some courses require specialized software.

Student Records
North Shore Community College keeps official, permanent records on all students. The academic record is the only permanent record guaranteed maintenance in perpetuity and is kept in the Enrollment and Student Records Office, Danvers Campus. In accordance with the provisions of the Family Educational Rights and Privacy Act (FERPA), commonly referred to as the “Buckley Amendment,” NSCC has adopted the regulations below to protect the privacy rights of its students and/or parents.

Changing Biographical Data
In order to change one’s legal name on College records, a student must present a certified copy of a court order indicating a legal name change has been granted. As for changing one’s gender designation on College records, a student must provide a certified copy of a court order showing the change of gender, or other legal identification, such as a Massachusetts driver’s license, reflecting the student’s new gender. If a student presents evidence to the College that the student’s name, gender or other biographical information has been legally changed, the College will recognize that change in its records and in the application of its policies.

Fresh Start
Students who have been absent from the college for two years or longer may request to reenroll under the terms of the Fresh Start program. Under this program, a returning student with a poor academic history may request to be reenrolled if he or she were a transfer student. Courses completed during earlier periods of enrollment with grades suitable for transfer will be accepted toward graduation but will not be included in the cumulative average. Courses completed during earlier periods of enrollment with non-transferable grades will not be counted toward graduation or included in the cumulative average. If the Fresh Start option is selected, all prior coursework and grades remain on the student’s transcript. The Fresh Start option can be exercised only once. Students who implement the Fresh Start option are not eligible for subsequent F Waivers. A student must have below a 2.0 cumulative GPA to petition for a Fresh Start.
Fresh Start Applications are available in the Student Support and Advising Center and must be completed in consultation with an Academic Advisor.

Fresh Start status does not apply to financial aid. Financial aid recipients must be making satisfactory progress toward their degree and their complete academic history will be reviewed when determining eligibility for aid.

Exercising the Fresh Start option does not allow a student to bypass the admission requirements of selective admission programs or the program’s readmission policies and procedures. A student’s entire academic history is considered for admission, or readmission, into these programs.

Family Educational Rights and Privacy Act (FERPA)
FERPA affords students certain rights with respect to their educational records. A summary of these rights is outlined below:

1. The right to inspect and review the student’s records within 45 days of the date NSCC received a request for access. Students should submit to the Enrollment and Student Records Office written requests that identify the record(s) they wish to inspect. The Director of Enrollment and Student Records will make arrangements for access and notify the student of the time and place where the records may be inspected.

2. The right to request amendment of the student’s education records that the student believes are inaccurate or misleading. Students may ask NSCC to amend a record that they believe is inaccurate or misleading. The student must clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If NSCC decides not to amend the record as requested by the student, NSCC will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student’s education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official includes contractors, consultants, volunteers, and other outside service providers used by NSCC to perform institutional services and functions; a person employed by NSCC in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

4. NSCC has designated certain types of information as “directory information.” This includes the student’s town of residence, degree information (this includes graduation date, honors status, and the degree program in which the student is enrolled), and enrollment status (this consists of dates of enrollment and full or part-time status) and Dean’s List/other Academic Awards. Directory information may be released by the college to a requesting third party without a student’s prior written consent. Students may request to restrict release of this information, and this data will not be released except as authorized by law. REQUESTS TO RESTRICT “DIRECTORY INFORMATION” MUST BE MADE IN WRITING TO THE ENROLLMENT AND STUDENT RECORDS OFFICE. A student must notify the College’s Enrollment and Student Records Office in writing within two (2) weeks of the beginning of each semester if s/he does not wish to have any or some of his/her student information designated as directory information. The College assumes that failure of any student to do so indicates approval for release. Once requested, a student’s record will be flagged as confidential, and the College will release no information to any requestor under any circumstances except as authorized by FERPA, such as a court order. The request will remain in place until the student rescinds the request.

5. Notwithstanding the College’s definition of directory information, the Department of Defense (DOD) pursuant to the Omnibus Consolidated Appropriations Act of 1997 (the Solomon Amendment), identifies the following information as “student recruiting information”: student name, address, telephone listing, date of birth, place of birth, level of education, degree awarded, most recent educational institution attended, and current major. If the College receives a request for student recruiting from the DOD or one of its affiliated agencies, the College will release the student recruiting information requested. Because the information sought by the DOD may include information not designated as directory information under the College’s policy, compliance with the DOD’s request may result in the release of personally identifiable information. When student recruiting information is released pursuant to the DOD request, notice of the request and release of the information will be posted in a conspicuous location in the College’s Enrollment and Student Records Office for a period equaling an academic year.

6. If a student has exercised his or her right to request that no information (See #4) be designated as directory information, then no information shall be released to any third party, including the DOD, health insurance companies, and prospective employers. Additionally, his/her name will not be displayed in the commencement program or associated with other graduation events and/or publications.

7. The right to file a complaint with the U.S. Department of Education concerning alleged failures by NSCC to comply with the requirements of FERPA. The name and address of the office that administers FERPA are:
Family Policy Compliance Office
U.S. Department of Education
400 Maryland Avenue
SW Washington, DC 20202-5901

Additional FERPA information is available at the Enrollment and Student Records Office.
Programs for High School Students

Dual Enrollment

The Dual Enrollment program provides an opportunity for high school or homeschooled students to take college courses. Students may choose to do so to finish high school requirements or to earn high school and college credits simultaneously. Dual Enrollment students are mainstreamed into the college student population and should avail themselves of NSCC’s many academic services including advising, free tutoring, and the use of the library and computer labs. Students must meet all course prerequisites and complete paperwork that includes their high school guidance counselors’ approval for credit. Some Dual Enrollment students may be eligible for state funding for a class. Preference is given to first generation college students and students interested in MassTransfer courses and STEM (science, technology, engineering and math). Students may register for as many classes as they wish and pay additional expenses out of pocket at the regular tuition rate.

For further information contact Enrollment or visit our website for information and application materials: www.northshore.edu/dual.

Educational Talent Search Program

The Educational Talent Search program (ETS) is a grant program funded by the U.S. Department of Education. The ETS program identifies and encourages youth from non-traditional backgrounds who have the potential to succeed in higher education. Educational Advisors are located in the Lynn High Schools and outreach to the Lynn Alternative High Schools and Lynn Middle Schools. Services include academic, career, and financial advising; tutoring; college visits; SAT prep; and College Success Seminars. Participants are encouraged to graduate from high school and continue on to the postsecondary school of their choice. For more information, call 781-477-2114.

MCAS – Pathways to Success

This program offers high school students, who received a Certificate of Completion rather than a high school diploma because they did not pass MCAS, an opportunity to enroll in a noncredit course at the community college. The classes will provide intensive and individualized instruction in Math and/or English using skill modules based on developmental education teaching/learning strategies and MCAS standards. Students may then elect to retake the MCAS test. Career exploration, advising, academic planning tools, and student success sessions will be incorporated into the classes. For more information, please contact the Pathways to Success Coordinator at 978-739-5433 or visit www.northshore.edu.

North Shore Secondary Post-Secondary CVTE Linkage Consortium

North Shore Community College is the lead agency for the North Shore Secondary Post-Secondary Career Vocational Technical Education Linkage Consortium. The Consortium focuses on increasing academic standards at both secondary and post-secondary levels by offering access to early accuplacer assessment, introducing students to career pathways, and providing high school students the opportunity to earn college credit while still in high school through articulation agreements.

Some of the high schools we collaborate with include: Beverly HS, Essex Agricultural and Technical HS, Gloucester HS, Lynn Vocational Technical HS, Northeast Metropolitan Technical HS, North Shore Technical HS, Peabody HS and Salem HS.

For information or questions, please visit the website, www.northshore.edu/high-school/articulations/index.html or call the Consortium office at 978-739-5521.

Upward Bound

Upward Bound (UB) is a federal- and state-funded program designed to help low-income and first-generation college-bound high school students prepare for higher education. The program serves an academically, economically, and ethnically diverse group of Lynn, MA, students. Upward Bound provides new academic and cultural challenges and experiences while providing a close and intensive support system of tutoring and counseling.

During the academic year, participants attend high school during the day and come to Upward Bound after school for tutoring, extracurricular activities, academic counseling, and social time with other UB students in a positive and supportive setting. The summer program is designed to recreate a college living and learning environment, providing a variety of academic classes in the mornings, and tutoring and extracurricular activities in the afternoons and evenings. Students are required to participate in both the academic year and summer components of Upward Bound.

In addition to tutoring sessions and cultural, social, and service events, students attend public speaking and SAT preparation courses, and complete a Senior Class that covers the college admissions and financial aid application processes. Upward Bound’s success is reflected in its graduates, who are accepted and attend colleges and universities across the nation.

Although most students start with Upward Bound at the end of the eighth grade, older applicants may be accepted. For more information about Upward Bound, please call 781-477-2161 or visit the office on the Lynn Campus in Room LE330.
Financial Information

Tuition & Fees for Day, Evening, Online, Weekend & Summer Courses

Academic Year 2014–2015

Tuition and fees are subject to change by the Massachusetts Board of Higher Education and/or North Shore Community College’s Board of Trustees. Students should refer to the website www.northshore.edu/financial_aid/cost in order to view the current tuition and fees.

CREDIT COURSES

<table>
<thead>
<tr>
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<th>Tuition and Fees</th>
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<tr>
<td>Regional, per credit tuition</td>
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<td>Non-Resident, per credit tuition</td>
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<td>General College Fee, per credit</td>
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</tr>
<tr>
<td>Technology Fee, per credit</td>
<td>$12.00</td>
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</tbody>
</table>

HEALTH INSURANCE AND MASSPIRG FEES

Health insurance is mandatory for all matriculated students registering for 9 or more credits. The fee may be waived upon proof of comparable health insurance coverage. Students with comparable coverage can waive the charge via their Pipeline account. The following health insurance fees are for the 2013–2014 academic year (the following charges are adjusted annually):

- Annual Health Insurance Fee: $1,603.00 (coverage from Sept. 1 – Aug. 31)
- Spring & Summer Health Insurance Fee: $1,067.00 (coverage from Jan. 1 – Aug. 31)

The College also charges a MASSPIRG fee each semester. It is $9.00 per semester. Students have the option to waive this fee. The waiver option is available via their Pipeline account. Please contact Student Financial Services with any questions about the above fees.

Student Financial Services Policies

PAYMENT DUE DATES AND LATE PAYMENT FEES

Failure to pay a student account balance in full on or before the semester tuition and fee payment due date (which is always prior to the start of each semester) may result in cancellation of a student’s class schedule.

The College reserves the right to charge a $50.00 late fee to any past due account balances. Students participating in the College’s Monthly Payment Plan may also be subject to a per payment late fee if they do not make their monthly payments on the agreed upon dates.

RETURN CHECK FEES AND PAST DUE ACCOUNTS

A $25.00 fee will be added on a student’s account for any check returned to the College by our bank. Once a student has a personal check returned, all subsequent payments must be made by money order or credit card.

Students, with past due balances from a previous semester, will not be allowed to register or attend classes for future semesters. The College reserves the right to hold diplomas, grades, and transcripts from all students who have not met their payment obligations. It is a College policy that only those students who have met all their academic and financial requirements for graduation are able to participate in the College’s graduation ceremonies.

Semester Payment Plans

The College offers students who take credit courses the opportunity to finance their semester tuition and fees over as much as four months for any given semester (not including the Summer semesters). The length of a plan is determined by when the student makes their first payment. The cost for using the plan is $40.00 per semester. This fee is non-refundable. The College reserves the right to no longer offer this plan collectively or individually in any case deemed appropriate.

Veterans Benefits

Veterans and their family members may be entitled to receive benefits from the Veterans Administration to help pay for college costs. In order to receive benefits at NSCC veteran students must:

1. Be accepted into a credit degree or certificate program.
2. Apply for VA Education benefits using VONAPP (Veterans online application) at www.gibill.va.gov/apply-for-benefits/applications.
3. Provide NSCC Veterans Services with a copy of your completed education benefits application along with a copy of the “long form” DD214 member 4.
4. If you are in the Massachusetts National Guard, provide Veterans Services with a Certificate of Eligibility for each semester.
5. For active duty members, provide Veterans Services with Tuition Assistance paperwork.
6. For Army reservists, first set up an account with GoArmyEd at www.goarmyed.com and then provide Veterans Services at NSCC with a Certificate of Eligibility.

A Veterans Waiver is applied against State Tuition charges and can only be used for Day or Evening credit courses. In order to use this waiver, you must provide the “long form” DD214 and the discharge conditions must not be dishonorable. Once approved for benefits students must complete the Certification Request Form on the NSCC Veterans page each semester after registering for classes.

For more information concerning eligibility, please contact Veterans Services at 978-762-4187. More information on veterans benefits and services is also available at www.northshore.edu/veterans.

Refund Policy for Credit Courses

NOTE: Students should refer to the current semester “Course Schedule” for refund policies for clock-hour and noncredit programs.

Non-attendance does not constitute withdrawal from a course or the College. Therefore, students are considered registered for a course until they officially withdraw from that course online through Campus Pipeline or by completing a withdrawal form directly through the Enrollment Office.

The percentage of refund due the student is as follows:

The refund policy for 15-week credit courses grants a 100% refund of tuition and fees for a specific range of dates which is governed by the start date of each semester. The refund policy for credit courses with unique start and end dates grants a 100% refund of tuition and fees for a specific range of dates which is governed by the start date of each course. After the tuition and fee refund period, students may receive a 100% refund of tuition-only as determined by the start date of each course. There are NO REFUNDS after the tuition-only refund period. For more information, please consult the Refund Policy on our Student Financial Services website www.northshore.edu/financial_aid/cost/refund.html.
State Tuition Waivers and Scholarships
Veterans - Please see Veterans information listed earlier for more information about the Veterans State Tuition Waiver.
Senior Citizens Tuition Waiver - In accordance with Massachusetts General Laws C.69, Sec. 7G, individuals 60 years of age or older are eligible to receive a waiver of their State Tuition for Day or Evening credit courses. To receive this benefit, they must be matriculated into an eligible program and present documentation at the time of registration attesting to their age. However, they are required to pay all other mandatory College fees. Senior citizens enrolling in noncredit courses, special programs, seminars or private lessons are required to pay all tuition and processing fees in full.
Native American Scholarships - Native Americans who have resided in the Commonwealth of Massachusetts for at least five consecutive years may apply for a scholarship to the Bureau of Indian Affairs. This scholarship covers tuition only.
State Employees Tuition Remission - Contact your agency for information. Tuition remission policies do not differ for day and evening/weekend students.
DSS Children Adopted by State Employees - Eligible students in the custody of the Department of Social Services adopted by an eligible state employee through the DSS on or after December 31, 1994, who are not over the age of 24, are eligible for a tuition waiver.
John and Abigail Adams Scholarship - Students that are eligible for the John and Abigail Adams Scholarship will be notified in the Fall of their senior year in high school. Recipients of the Scholarship are eligible for an award of a non-need-based tuition waiver for state-supported undergraduate courses. Individual student awards shall be no more than the resident undergraduate tuition rate at the participating institution. Students are also required to maintain a G.P.A. of 3.0 for continued eligibility. Eligibility requirements are available at www.osfa.mass.edu.

Financial Aid
Both day and evening students are eligible for financial aid, provided they file a Free Application for Federal Student Aid (FAFSA), meet all enrollment requirements, and qualify based on need. For students who meet all eligibility requirements, their award is initially based on full-time enrollment, e.g., 12-21 credits; however, a student’s actual award is based on the number of credits they are enrolled in on the financial aid freeze date (typically the last day to add/drop for a given semester). This date is designated by the College each semester.

Financial aid is awarded based on the information a student and his/her parents (in the case of dependent students) provide on the FAFSA. This form is used by the Federal Government to determine what a family can afford to pay for College. The cost of attendance at NSCC includes both direct costs payable to the institution (tuition, fees and health insurance for those students who need it or cannot waive it) and indirect costs based on a student’s individual circumstances (e.g., books, supplies, transportation). This cost of attendance and the information provided on the FAFSA are then used to determine an individual student’s financial aid award for a given semester or academic year. This award may include free aid such as scholarships and grants and self-help such as work study employment and student loans.

The amount of financial aid award is not affected if the student adds or drops one or more courses after the designated freeze date and remains enrolled in at least one course. See the College’s Refund Policy for information regarding withdrawing from all courses.

Eligibility Requirements
To be eligible to receive financial aid, a student must meet the following requirements:
• Complete a FAFSA by the priority deadline (May 1st for Fall and November 1st for Spring) and any additional documents requested by Student Financial Services (SFS).
• Possess a high school diploma or GED.
• Cannot be in default on a Federal Education Loan or owe a refund on a Federal Grant.
• Be enrolled in an eligible degree or certificate program at North Shore Community College (NSCC).
• Be registered with Selective Service (if required).
• Be a U.S. citizen or eligible non-citizen.
• Make satisfactory academic progress to remain eligible for financial aid by meeting the requirements of the Satisfactory Academic Progress Policy which can be found on the Student Financial Services webpage at www.northshore.edu/financial_aid/help/sap.html.

In addition to outlining the Satisfactory Academic Progress requirements, this policy document includes information about:
• Maximum Credit Review
• How a student’s financial aid is effected by Repeating Coursework
• How Developmental Coursework effects a student’s financial aid
• A comprehensive description of the stages of the College’s Satisfactory Academic Progress requirements
• How a student can continue to enroll and gain reinstatement of their financial aid

All students using financial aid as a means to finance their education are encouraged to review this policy prior to enrolling at the College.

Types of Financial Aid Programs Available at North Shore Community College:
Grant Aid - Non-repayable monies award based upon demonstrated financial need and satisfactory academic progress.
• Federal Programs: Pell Grant, Supplemental Education Opportunity Grant
• State Programs: Massachusetts Tuition Waiver Program, Massachusetts Performance Bonus Grant, Massachusetts Public Service Grant, Massachusetts Categorical Waivers, Massachusetts Access Cash Grant, Paraprofessional Teacher Grant.
• Institutional Programs: NSCC Grant, NSCC Institutional Grant.

Scholarships - Non-repayable monies award based upon demonstrated need and/or academic merit and academic program.
Institutional Programs - NSCC Foundation Scholarship, Trio Scholarship
Federal Work Study Program (On Campus & Off Campus)
This program offers part-time employment opportunities during the semesters, breaks and vacations. Funding availability and a student’s need determine how often they can work. Work Study awards are based upon demonstrated need, satisfactory academic progress and funding availability.

Federal Family Education Loan Program
Students who decide to use loans to finance their education should contact Student Financial Services for information about how to obtain one of the following:
- A Subsidized or Unsubsidized Stafford Student Loan.
- A PLUS Loan - which can only be obtained by creditworthy parents of undergraduate students.

Private Loan Programs
Typically, students attending North Shore Community College do not borrow private loans. However, there are certain circumstances for which a private loan may be helpful for specific student situations; for example, if a student does not qualify for or chooses not to apply for financial aid, or is taking a program that requires specific equipment or has additional educationally related expenses such as flight costs for the Aviation Program. The private loans currently available can be obtained by a creditworthy student and/or cosigner. Please contact Student Financial Services with any further questions regarding private loan options.

Return of Title IV Funds/Institutional Refund Policy
Federal regulations require each educational institution to have a written policy for the refund and repayment of aid received by students who withdraw from all classes during any semester for which aid has been approved. These policies are effective only if the student completely terminates enrollment (e.g., voluntarily withdraws from all courses or is dismissed from all classes).

The term “Title IV funds” refers to the Federal financial aid programs authorized under the Higher Education Act of 1965 as amended) and includes the following programs:
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (SEOG)
- Federal Subsidized/Unsubsidized Family Federal Education Loan (FFEL)
- Federal PLUS Loan

The calculation of the return of Title IV funds and state funds if applicable) is determined by the date that the student withdrew from all classes. A student’s withdrawal date is determined by:
- The date the student officially notifies the institution of his/her intent to withdraw; or
- The student’s last day of recorded class attendance or at an academically related activity; or
- The midpoint of the enrollment period for students who leave without notifying the institution (an unofficial withdrawal).

Earned Federal Aid
Federal law requires that, when you withdraw from all your classes during the enrollment period, the amount of financial aid assistance that you have “earned” up to that point is determined by a specific formula. The enrollment period for a program measured in credit hours is one semester; an enrollment period for a program measured in clock hours is the total number of clock hours in the program of study.

The amount of financial aid that you have earned is determined on a pro-rata basis. That is, if you withdraw after completing 40 percent of the enrollment period, you have earned 40 percent of the amount of federal aid for which you were entitled. The school takes all or a portion of your earned federal financial aid except Federal Work-Study earnings if applicable) to pay any outstanding charges that remain on your account. Once you have completed more than 60 percent of the enrollment period, you earn all of your financial aid for which you were entitled.

Return of Funds Allocation
In accordance with federal regulations, financial aid funds are returned in the following order if applicable:
1. Unsubsidized FFEL
2. Subsidized FFEL
3. Federal Pell Grant
4. Federal SEOG
5. Other Title IV programs
6. Other state, private and institution aid to the student

Institutional & Student Responsibilities
NSCC’s responsibilities in regard to the return of Title IV/state funds include:
- Provide each student with the information given in this policy.
- Identify students who are affected by this policy and complete the Return of Title IV and/or state funds calculation in accordance with federal and state regulations.
- Return any Title IV funds and state funds to the appropriate programs.
- The student’s responsibilities in regard to the return of Title IV/state funds include:
  - Return to the Title IV programs any funds that were disbursed directly to the student and which the student was determined not to have earned in accordance with federal and state regulations.

All policies based on federal and state regulations are subject to change at anytime.

Contact Information
Any additional questions about this information should be directed to Student Financial Services on either the Lynn or Danvers Campuses. We can also be reached using any of the contact information shown below:

Mailing address
North Shore Community College, 1 Ferncroft Road, Danvers, MA 01923, Attention: Student Financial Services

Telephone numbers
Danvers Campus 978-762-4189, Lynn Campus 781-477-2191

Fax numbers
Danvers Campus 978-762-4015, Lynn Campus 781-477-2189

Email: sfs@northshore.edu

Web: www.northshore.edu/financial_aid
Programs of Study

North Shore Community College offers lifelong education through certificate and degree programs in credit and noncredit contexts. Driven by the College’s mission to promote social and economic improvement through liberal arts and career preparation, NSCC programs are planned and developed in response to emerging community and regional needs.

The College offers 47 credit programs leading to an associate in arts, associate in science, or associate in applied science degree, and 35 credit certificate programs. In addition, there are three clock-hour programs and 31 noncredit certificate and certification training programs. Please see below for a listing of NSCC's Programs of Study followed by the programs of study information pages.

For the most current program of study information, visit www.northshore.edu.

Credit Programs of Study

North Shore Community College offers three types of credit programs: transfer degree; career degree; and career certificate. Transfer degree programs are designed to prepare students for upper-division study at four-year colleges and universities. Career degree programs enable students to begin a career after graduation in a technical, supporting, or professional occupation. Career degree programs also include general education courses and may be used to transfer to a four-year college or university. Career certificate programs are one-year programs that provide students with the basic skills needed for quick entry into the job market. These programs are offered through the divisions of Business Sciences, Health Professions, Human Services, Liberal Studies, and Sciences and Math.

Some programs of study can be completed entirely online or in a blended option. A blended program means that some of the program’s courses can be taken online, giving the student some flexibility in scheduling. Detailed information can be found at www.northshore.edu/elearning.

In order to graduate, students must demonstrate proficiency in communications and mathematics and meet all program requirements.

Accounting (ACD)
Accounting Certificate (ACN)
Advanced Manufacturing Technology Certificate (MNC)
Animal Care Specialist (ASD)
Animal Care Specialist Certificate (ASC)
Aviation Management (AMD)
Aviation Science Professional Pilot (AVD)
Biotechnology (BOD)
Biotechnology Certificate (BOC)
Business Administration Transfer (BAT)
Child & Adolescent Behavioral Health Certificate (BHC)
Computer-Aided Design Certificate (CAI)
Computer Applications (CED)
Computer Applications Certificate (CEC)
Computer Information Systems (CIT)
Computer Networking (CKD)
Computer Networking Certificate (CKC)
Computer Programming (CPD)
Computer Science Transfer (CST)
Criminal Justice (CRD)
Criminal Justice Certificate (CRC)
Culinary Arts & Food Service (CLD)
Culinary Arts & Food Service Certificate (CLC)
Developmental Disabilities (DDD)
Developmental Disabilities Directed Support Certificate (DSC)
Dietary Management Certificate (DMC)
Drug and Alcohol Rehabilitation (DAD)
Early Care & Education Infant/Toddler Child Care Certificate (ITC)
Early Childhood Development (EDT)
Early Childhood Education (ECD)
Elementary Education Transfer Program (EET)
Energy Utility Technology (ERD)
Energy Utility Technology Certificate (ERC)
Engineering Science Transfer (EST)
English as a Second Language (ELL)
Environmental Horticulture (HUD)
Environmental Studies (EVT)
Executive Administrative Assistant (EAD)
Financial Services Certificate (FNC)
Fire Protection & Safety Technology (FPD)
Food Science & Safety (FSD)
Gerontology Certificate (GER)
Graphic Design – Integrated Media (IMD)
Graphic Design – Print (GDD)
Graphic Design Certificate (GDC)
Health Care Technician (HCC)
Health Science (LHD)
Hotel Management (HOD)
Human Services Practitioner (HSD)
Interdisciplinary Studies (IDT)
Law Enforcement Certificate (LEC)
Legal Administrative Assistant (LAD)
Legal Office Support Certificate (LOS)
Liberal Arts (LAT)
Management (MGD)
Marketing (MKD)
Medical Administrative Assistant (MAD)
Medical Assisting Certificate (MAC)
Medical Coding Certificate (MOC)
Medical Office Support Certificate (MOS)
Mental Health Certificate (MHC)
Nurse Education (NSG)
NSCC RN to BSN Program (NSB)
Nutritional Science & Diet Technology (NSD)
Occupational Therapy Assistant (OTA)
Office Support Certificate (OFC)
Paralegal (PAD)
Paralegal Certificate (PAC)
Physical Therapist Assistant (PTA)
Practical Nursing Certificate (PNR)
Pre-Engineering (PET)
Radiologic Technology (RAD)
Respiratory Care (RSP)
Small Business Management -Entrepreneurship (SBC)
Substance Abuse Counseling Certificate (SAC)
Surgical Technology Certificate (SRG)
Travel, Tourism & Hospitality (TGD)
Veterinary Technology (VET)
Web Development Certificate (WDV)
Wellness and Healing Arts Certificate (WHA)
Youth Worker Certificate (PYW)

Clock-Hour Programs of Study
These clock-hour programs are Massachusetts state-approved training programs where 60 minutes of continuous training is equivalent to one clock hour. The curriculum includes didactic and clinical hands-on courses preparing students to take the required State licensure exam.
Aesthetics & Skin Care Basic (ZAE)
Cosmetology (ZCS)
Nail Technician Certificate (ZNT)

Noncredit Programs of Study
The noncredit programs offer training in a wide variety of career opportunities. These programs are designed to serve the educational needs of both full-time and part-time students and the training needs of business and industry on the North Shore. Noncredit programs lead to industry certification, licensure, or a college certificate of completion. These programs are offered through the Division of Corporate and Community Education.

For more information and a listing of noncredit course descriptions, visit www.northshore.edu.

AMA Certificate of Management (XCM)
Auto Damage Appraisal (XAD)
Autodesk (XAO)
Basic Culinary Arts (XCR)
Bookkeeping & Accounting (XBA)
Central Sterile Processing Technician (XSP)
Cisco CCNA Discovery Program (XCC)
CompTIA A+ (XTA)
CompTIA Network + (XCT)
CompTIA Security + (XAS)
Dental Assistant (XDA)
Dialysis Technician (XDT)
EKG Technician (XET)
Event Planning (XEP)
Floral Design (XFL)
Food Service Director (XFS)
Front Office Essentials (XOE)
Graphic Design (XGD)
Interior Design (XID)
Introduction to SolidWorks (XSW)
Landscape & Garden Maintenance (XLG)
Landscape Design (XLD)
Medical Interpreting (XMC)
Microsoft Office Suite (XMO)
Nurse Assistant/Home Health Aide (XCN)
PC & Networking Support (XPC)
Pharmacy Technician (XPT)
Phlebotomy Technician (XPH)
SHRM Essentials of Human Resource Management (XSH)
SHRM Learning System (XSL)
Web Design (XWB)
Credit Programs of Study

Accounting (ACD)
Career, Degree (AS)

The Accounting Degree, a four-semester program, prepares students for a variety of entry-level accounting positions in small to medium-sized businesses, partnerships, and corporations. In addition to learning how to analyze, calculate, record transactions, maintain financial records, and prepare a wide variety of financial reports, students are introduced to financial analysis. Other topics include managerial accounting and taxation, as well as budgeting and accounting for payroll, accounts receivables, accounts payables, investments, stock, and bonds.

Technology, communication, and business skills are also emphasized throughout the program. Students gain hands-on computer experience: specialized training is provided in Excel, Quickbooks, and individual tax preparation software. Both oral and written communication skills are integrated into the course work. A solid background in business is acquired through required course work in business law, management, and marketing.

As part of this program, students have the opportunity to enhance career development by integrating both classroom study and work experience in the Accounting field through participation in the Cooperative Education/Internship course.

FIRST YEAR

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<tr>
<th>Note</th>
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<tr>
<td>BUS101</td>
<td>Math for Business and Finance</td>
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<td>CMP101</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<td>MKT101</td>
<td>Marketing</td>
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<td>ACC101/102</td>
<td>Basic Accounting 1 &amp; 2</td>
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<td>ACC106</td>
<td>Computer Applications in Accounting</td>
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<td>Business Law</td>
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<td>CMP104-150</td>
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<td>MGT102</td>
<td>Principles of Management</td>
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Total Semester Credits: 15 15

SECOND YEAR

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<td>ACC208</td>
<td>Taxation</td>
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<td>MGT202</td>
<td>Corporate Finance</td>
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<td>ACC201/202</td>
<td>Intermediate Accounting 1 &amp; 2</td>
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<td>COP202</td>
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<td>Economics Elective(s)</td>
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<tr>
<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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</table>

Total Semester Credits: 15 15

Total Program Credits: 60

Requirement Notes
1 May be fulfilled by challenge exam and 3 liberal arts credits.
2 Student must have completed the CPS100 pre-requisite within the last 5 years.
3 May substitute BUS100 Introduction to Business.
4 Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit business elective.
5 Select one of the following: ECO103 or ECO104. Students transferring to a 4-year institution should check the transferability of the course selected.

Course Learning and Credentialing Options
Distance Learning – some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This program is offered on both campuses.
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- Some courses are offered only during the evening hours.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- While pursuing this degree program, students may also earn an Accounting Certificate (ACN). Refer to the ACN Program of Study or speak to your academic advisor for certificate course requirements.
Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Accounting Certificate (ACN)
Career, Certificate (C1)
The Accounting Certificate, a one-year program, prepares students for a variety of entry-level accounting positions in small to medium-sized businesses, partnerships, and corporations. Students learn how to analyze, calculate, record transactions, maintain financial records, and prepare financial reports. Other topics include managerial accounting and taxation, as well as budgeting and accounting for payroll, accounts receivables and accounts payables.

In addition, communication and business technology are emphasized throughout the program. Both oral and written communication skills are integrated into the course work. Students also gain hands-on computer experience: specialized training is provided in Excel, Quickbooks, and individual tax preparation software.

Because all the courses in this certificate program are also required in the Accounting Degree (ACD) program, students may continue onto to complete the degree program.

FIRST YEAR

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<th>Course Code</th>
<th>Course Name</th>
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<td>Basic Accounting 1</td>
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<td>BUS100</td>
<td>Introduction to Business</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<td>Basic Accounting 2</td>
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<td>ACC106</td>
<td>Computer Applications in Accounting</td>
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<td>ACC201</td>
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<td>Managerial Accounting</td>
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<tr>
<td>ACC208</td>
<td>Taxation</td>
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Total Semester Credits: 12 15

Total Program Credits: 27

Requirement Notes
1 For students wishing to complete the certificate program within one year must complete ACC102 prior to enrolling in ACC201 and ACC203:
   * Students starting in September must take ACC102 during the winter intersession to complete the program by the following May. (Note: ACC102 runs only if there is a minimum number of students enrolled)
   * Students starting in January must take ACC102 in the summer to complete the program requirements by December.
   * Students who complete ACC101 in the summer will be able to complete the remaining program requirements by the following May.
2 May be fulfilled by challenge exam and 3 liberal arts credits.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This program is offered on both campuses.
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- Some courses are offered only during the evening hours.
- Students may apply the credits earned in this program toward the course requirements for an Associate Degree in Accounting (ACD).

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Advanced Manufacturing Technology Certificate (MNC)
Career, Certificate (C1)

The Advanced Manufacturing Technology Certificate Program provides an introduction to the manufacturing industry, and prepares students with the knowledge and skills for entry-level employment. Program electives enable students to focus on technical courses that may align with individual educational and career goals in manufacturing. The program also provides the flexibility for students to earn experiential learning credit through cooperative education and internships, on the job training opportunities, and prior work experiences.

<table>
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<tr>
<th>FIRST YEAR</th>
<th>Note</th>
<th>FALL</th>
<th>SPRING</th>
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<td>MAT131</td>
<td>Technical Mathematics 1</td>
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<td>Experiential Learning Directed Elective(s)</td>
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<td>MAT132</td>
<td>Technical Mathematics 2</td>
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<td>Introduction to Manufacturing</td>
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Total Program Credits: 25

Requirement Notes
1. MAT151 and MAT152 Precalculus 1 and 2 sequence may be substituted for MAT131 and MAT132.
2. Experiential Learning includes COP202 Cooperative Education/Internship at a program-related employment site, On the Job Training (OJT), and credit for life/prior work experience. Credentialization of OJT and life/prior work experience is awarded through the Center for Alternative Studies.
3. Technical Directed Electives: MET122, MET124, MET214, MET216, MET222, MET224, MET232, CAD101, CAD102

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Curriculum may be delivered in a flexible format, and may include hands-on as well as classroom and on-line experiences. Students may also receive course credit through documented prior learning and OJT employment experiences through the College’s Center for Alternative Studies.
- Umbrella competencies (Team Work/Team Building, Problem Solving, Quality, Interpersonal and Technical Communications Project Leadership) will be threaded throughout the curriculum.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Credit Programs of Study

Animal Care Specialist (ASD)
Career, Degree (AAS)
The Animal Care Specialist program is designed for students wishing to work with dogs, cats and other small animals, but not in the capacity of a groomer or vet technician. Students lacking qualifications to enter either the Professional Grooming or Veterinary Technology program may begin in the Animal Care Specialist program and at a later date request to transfer into another program. Employment opportunities include Animal Control officers, dog day care center operators, kennel technicians, dog trainers, animal shelter workers, dog walkers and pet sitters, retail shop owners and other occupations related to the management and care of pets.

FIRST YEAR

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>ANS107</td>
<td>Medical Terminology for Animal Science 1</td>
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<td>ANS122</td>
<td>Fundamentals of Grooming</td>
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<td>Biology 1</td>
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<td>ANS110</td>
<td>Canine and Feline Nutrition</td>
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<td>ANS112</td>
<td>Ethics and Law for Pet Care Professionals</td>
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<td>ANS116</td>
<td>Fundamentals of Animal Health</td>
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<td>ANS142</td>
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Total Semester Credits: 15 15

SECOND YEAR

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<td>ANS126</td>
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Total Semester Credits: 15 16

Total Program Credits: 61

Requirement Notes
1 May be fulfilled by challenge exam and 3 liberal arts credits.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to this Program occurs only in the Fall Semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
Animal Care Specialist Certificate (ASC)
Career Certificate (C2)

The Animal Care Specialist program is designed for students wishing to work with dogs, cats and other small animals, but not in the capacity of a groomer or vet technician. Students lacking qualifications to enter either the Professional Grooming or Veterinary Technology program may begin in the Animal Care Specialist program and at a later date request to transfer into another program. Employment opportunities include Animal Control officers, dog day care center operators, kennel technicians, dog trainers, animal shelter workers, dog walkers and pet sitters, retail shop owners and other occupations related to the management and care of pets. Students who wish to operate their own businesses or who plan to be employed as an Animal Control officer are encouraged to apply to the Associate Degree program. The certificate program may be sufficient for other employment opportunities.

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Total Semester Credits: 15 15

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to this Program occurs only in the Fall Semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
Aviation Management (AMD)
AN OPTION OF AVIATION SCIENCE (AV)
Career, Degree (AS)

The Aviation Management program at NSCC is designed to provide the student with the general management skills needed for entry-level positions as supervisors, managers or sales trainees, assistant managers, administrators, or administrative assistants in the field of aviation. Coursework in aviation sciences, accounting, economics, management, marketing, and other related business areas exposes students to the basic principles and applications of aviation management within the aviation industry.

Job opportunities in the aviation field include positions at major and regional airlines, fixed-base operators, aircraft and aircraft component manufacturers (including GE, and Pratt and Whitney), fractional operators, and corporate aviation flight departments, to name a few. According to the FAA, the aerospace industry outlook shows industry-wide sustained growth into the foreseeable future (FAA Aerospace Forecast: Fiscal Years 2013–2033. www.faa.gov).

For students interested in transferring to a four-year institution to pursue a bachelor’s degree in Aviation Management or Business Management, the coursework provides a strong base of aviation science, business, and liberal arts courses required for such pursuits.

FIRST YEAR

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Total Semester Credits: 16

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Total Semester Credits: 15

Total Program Credits: 61

Requirement Notes
1. AVS103, Private Pilot Flight Training, required for transfer to Bridgewater State College. Other recommended courses are: HIS101, HIS102, MGT201, MGT202, MKT204, PSY102, or SOC106.
2. Students with no computer background should take CPS100. Otherwise, CPS114 is recommended.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Transportation between the Beverly Airport and the Danvers or Lynn Campus is NOT provided.
- AVS101 and AVS212 meet fall semester only at Beverly Airport
- GEO110 meets fall semester days; spring semester evenings.
- AVS214 meets spring semester only at Beverly Airport.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- AVS103 has an additional Flight Training Fee. Please contact the program coordinator or go to the Aviation Sciences Department web page at www.northshore.edu for more information.
Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Aviation Science Professional Pilot (AVD)
Career, Degree (AS)
The Aviation Science Professional Pilot program at NSCC provides students with the professional training necessary to become fixed-wing commercial pilots. It begins at the private pilot level, and prior experience is not required for admission. Students with previously earned FAA flight certificates and ratings may receive academic credit through advanced standing. The program combines classroom instruction and flight training in both aircraft and an FAA-approved ground simulator (Advanced Aviation Training Device). NSCC requires all students to obtain a minimum of an FAA Second Class Medical Certificate prior to acceptance in the program.

Flight training requires a minimum 250 total flight hours, and includes 50 hours of dual instruction in the Redbird LD model Advanced Aviation Training Device. Coursework provides the knowledge required for pilot certification and ratings, and includes several FAA-approved ground schools which are conducted under FAR part 141. All flight instruction is required to be conducted by an appropriately rated FAA-certified flight instructor at the NSCC-approved flight training facility, Beverly Flight Center, and is conducted under FAR part 61. Total costs for flight training are approximately $41,890.

Graduates are prepared for careers as professional pilots for regional airlines, corporate and general aviation, and government agencies such as the military and the FAA. Transfer agreements have been established with several Bachelor degree programs such as Embry-Riddle Aeronautical University and Bridgewater State University. The Aviation Science Professional Pilot Program at NSCC is accredited by the Aviation Accreditation Board, International (AABI).

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Requirement Notes
1. Students with no previous computer background should take CPS100; otherwise, CPS114 is recommended.
2. Recommend MAT152 or MAT200 or MAT251; for students wishing to pursue an upper level degree at a transfer institution, CPS114, ECO103, ECO104, HIS101, HIS102, PHY101, PSY102, or SOC106 are recommended.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.
Credit Programs of Study

Program Information
- Transportation between the Beverly Airport and the Danvers or Lynn Campus is NOT provided.
- All flight training courses (AVS103, AVS104, AVS109, AVS205, and AVS208) have an additional Flight Training Fee. Please contact the program coordinator or go to the Aviation Sciences Department webpage at www.northshore.edu for more information.
- AVS101, AVS212, and AVS203 meet fall semester only at Beverly Airport.
- GEO110 meets fall semester days; spring semester evenings.
- AVS102 and AVS214 meet spring semester only at Beverly Airport.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Aviation Science Professional Pilot students must possess an FAA Second or First Class Medical Certificate prior to acceptance into the program.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Biotechnology (BOD)
AN OPTION OF LIBERAL ARTS
Transfer, Degree (AA)
This program is designed to provide a basic understanding of the principles of biotechnology, preparing the students for employment in entry-level positions in the industry or to transfer to a four-year Life Science Program. The program has been developed with the assistance and guidance of biotechnology firms throughout the area to assure that students acquire skills that can be applied in a wide variety of biotechnology industries, from manufacturing to research.

In addition, students receive hands-on training by carrying out specific and extensive biotechnological applications in the laboratory. The program is enhanced by combining the scientific aspects of biotechnology with a strong liberal arts foundation, thus providing transfer credits to four-year programs.

The following background is recommended for this program: algebra and biology. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program. It is highly recommended that students meet with the program coordinator on a semester basis to review the program, and discuss course selections for successful completion of the program requirements.

**FIRST YEAR**

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**Total Semester Credits:** 17 18

**SECOND YEAR**

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**Total Semester Credits:** 17 13

**Total Program Credits:** 65

Requirement Notes
1. May be fulfilled by challenge exam and 3 liberal arts credits
2. This elective may be fulfilled by: PHI116 or PHI120.
Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students should meet with the Biotechnology Program Coordinator to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- Students may also earn a Certificate in Biotechnology. Students should speak with the Program Coordinator to review the courses required for the certificate.

Admissions and Transfer Information
- The following background is recommended for this program: algebra and biology. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Biotechnology Certificate (BOC)
Career, Certificate (C1)
The Biotechnology Certificate is a one-year laboratory science intensive program which is designed to prepare students and retrain professionals for entry into the field of biotechnology. The curriculum provides both the theoretical and practical hands-on laboratory training needed for entry-level positions in the biotechnology industry.

The following background is recommended for this program: algebra and biology. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program. Students are strongly urged to meet with the program coordinator on a semester basis to review the program, and discuss course selections for successful completion of the program.

FIRST YEAR

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Total Semester Credits: 15
Total Program Credits: 28

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students wishing to complete this certificate in one year should enter the program after successful completion of: MAT092 Elementary Algebra 2, or after achieving an equivalent score on the math placement test; Biology at the high school or college level; and communications proficiency.
- Students may apply the credits earned in this program toward the requirements for an Associate Degree in Biotechnology.
- Students should meet with the Biotechnology Program Coordinator to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- The following background is recommended for this program: algebra and biology. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Business Administration Transfer (BAT)
Transfer, Degree (AA)

The Business Administration Transfer program prepares students to transfer to four-year institutions offering a Business baccalaureate program. This program includes a strong base of courses needed to pursue a bachelor’s degree in accounting, entrepreneurial studies, finance, general business, management, management information systems, marketing, and other related business areas.

Designed to parallel the first two years of course work that would be completed at most four-year institutions, a student’s course load includes a balance between business and liberal arts courses. Because of this, transferring is relatively simple and our students are held in high regards by all institutions that accept our transfers.

Graduates of this program have transferred into Business programs at a variety of colleges and universities which include but are not limited to: Babson College, Bentley University, Boston University, Endicott College, Merrimack College, Northeastern University, Salem State University, Suffolk University, as well as the Universities of Massachusetts at Amherst, Boston, Dartmouth, and Lowell.

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Total Semester Credits: 16 16

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<td>ECO103/104</td>
<td>Economics 1 &amp; 2</td>
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<td>Advanced Literature Elective(s)</td>
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</table>

Total Semester Credits: 15 15

Total Program Credits: 62

### Requirement Notes
1. Students may substitute ACC101 Basic Accounting 1 and ACC102 Basic Accounting 2 for ACC108 Financial Accounting. Students are advised to check the requirements of the transfer institution.
2. The student must select from MAT140, MAT143 or MAT151 or above. MAT151: Precalculus 1 or above is generally required for transfer. Students enrolled in credit courses prior to Fall 1999 may have alternative means to satisfy this requirement and should speak to their Advisor or the Student Support Center.
3. Students must select three of the following Business Directed Electives: BUS100, BUS102, MGT102 and/or MKT101.
4. Recommended: CPS100-Information Technology and Its Applications or PSY110 - Organizational Psychology and the Workplace.

### Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

### Program Information
- This program is offered on both campuses.
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- Students planning to transfer to a four-year college should check the requirements of that particular college before selecting courses.
- Completing this program graduation requirements may provide eligibility under the Massachusetts Transfer Compact for transferring courses as a unit towards a bachelors degree within the Massachusetts state colleges and universities, provided the student meets the admission criteria at the four-year school.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- Some courses are offered only during the evening hours.
Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Child & Adolescent Behavioral Health Certificate (BHC)
Career, Certificate (C1)
The Child & Adolescent Behavioral Health Certificate provides the academic foundation and hands-on field placement training for students to successfully embark on a career working with children, adolescents and their families in treatment settings such as schools, community agencies, residential programs, hospitals and family homes. The program helps students develop the necessary knowledge, attitude and skills to establish professional therapeutic relationships, identify treatment goals and intervention strategies, engage in conflict resolution and problem solving management techniques, and work collaboratively with other professionals in the human service field. The program emphasizes prevention, intervention and treatment strategies to facilitate positive change in children, adolescents and their families.

Working with children, adolescents and their families can be a rewarding and fulfilling experience. There is a high demand for human service practitioners in agencies that serve children, adolescents and their families. The Bureau of Labor Statistics reports that human service careers are among the fastest growing occupations in the United States.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

First Year  

<table>
<thead>
<tr>
<th>Course (Code)</th>
<th>Note</th>
<th>Fall Cr</th>
<th>Spring Cr</th>
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<tbody>
<tr>
<td>CMP101</td>
<td>Composition 1</td>
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<td>HUS101</td>
<td>The Human Services Worker</td>
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<td>HUS140</td>
<td>Intro to Child &amp; Adol Behavioral Health Care</td>
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<td>HUS142</td>
<td>Child &amp; Adol Behavioral Health Care Practice With Fam</td>
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<td>PSY102</td>
<td>Introductory (General) Psychology</td>
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<td>HUS102</td>
<td>Helping Skills in Human Services</td>
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<td>HUS130</td>
<td>Life Changes &amp; Crisis: Adaptation &amp; Intervention</td>
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<td>HUS137</td>
<td>Field Placement 1: Human Services Practitioner</td>
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<td>PSY114</td>
<td>Child Psychology</td>
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</tbody>
</table>

Total Semester Credits: 15  

Total Program Credits: 27

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This certificate program can be applied to the Human Services Practitioner Associate Degree Program
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Credit Programs of Study

Computer Aided Design Certificate (CAI)
Career, Certificate (C1)
This program provides the fundamentals of design and technical description in the field of Computer Aided Design. This 23 credit certificate program is available for incoming students, and is also well suited for individuals currently working in the manufacturing or architectural areas who wish to acquire competency. The student is trained in AutoCAD software products.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Note</th>
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<th>SprinG</th>
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<tr>
<td>CAD101</td>
<td>Principles of Computer-Aided Design 1</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>CPS100 1</td>
<td>Information Technology and Its Applications</td>
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<td>MAT151-XXX</td>
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<tr>
<td>CAD102</td>
<td>Principles of Computer-Aided Design 2</td>
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<td>CMP150</td>
<td>Technical Writing</td>
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<tr>
<td>MAT152-XXX</td>
<td>Mathematics Elective at MAT152 level or above</td>
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</table>

Total Semester Credits: 13 10
Total Program Credits: 23

Requirement Notes
1 May be fulfilled by challenge exam and 3 liberal arts credits. Students with appropriate prerequisite are strongly recommended to substitute CPS101.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- CAD101 and CAD102 are scheduled in the evening at the Lynn Campus, and online.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.

Admissions and Transfer Information
- Admission to the Program occurs only in the Fall Semester.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.

Computer Applications (CED)
AN OPTION OF COMPUTER PROGRAMMING
Career, Degree (AS)
The Computer Applications Degree Program prepares students for careers in Information Technology. Through courses in business, technical writing, operating systems, web technology, software, and programming languages students develop technical skills necessary for entry-level employment in the IT field. Students have the opportunity to gain work experience through an internship.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
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<tr>
<td>BUS100</td>
<td>Introduction to Business</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>CPS100 1</td>
<td>Information Technology and Its Applications</td>
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<tr>
<td>MAT151</td>
<td>Precalculus 1</td>
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<tr>
<td>SPE102 or SPE104</td>
<td>Speech</td>
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<tr>
<td>CPS114</td>
<td>Advanced Microsoft Office</td>
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<tr>
<td>CPS124</td>
<td>Web Fluency</td>
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<td>CPS138</td>
<td>Internet Networking and Security</td>
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<td>LA-ELECTIVE</td>
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<td>CPS126</td>
<td>Web Page Design and Creation</td>
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<tr>
<td>or CPS158 2</td>
<td>Dreamweaver</td>
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Total Semester Credits: 15 16
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<th>SECOND YEAR</th>
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<th>SPRING Cr</th>
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<td>CPS210</td>
<td>Computer Systems Development</td>
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<td>SS-ELECTIVE</td>
<td>Social Science Elective(s)</td>
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<td>CLNG-ELECTIVE</td>
<td>Computer Language Elective</td>
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<td>or SFTW-ELECTIVE</td>
<td>Software Elective(s)</td>
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<td>CPS122</td>
<td>Operating Systems</td>
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<td>CPS168</td>
<td>Introduction to Access</td>
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<tr>
<td>COP202</td>
<td>Cooperative Education/Internship</td>
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**Total Semester Credits:** 14 15

**Total Program Credits:** 60

**Requirement Notes**
1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. CPS 158 is a 3 credit course.
4. Software Electives include: CPS124, CPS126, CPS130, CPS134, CPS136, CPS140, CPS142, CPS146, CPS148, CPS150, CPS152, CPS158, CPS160, CPS162, CPS174, CPS176, CPS178, CPS180, CPS182, and CPS218, CPS250. ACC106 may also be used to fulfill this requirement.
5. CPS170 - Database Theory and Applications (4 credits) may be substituted for CPS168.
6. This requirement is intended to further a student's career goals. Please meet with an advisor to determine how to best fulfill this course requirement.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- Students may also earn a Certificate in Computer Applications. Students should speak with their academic advisor to review the courses required for the certificate.

**Admissions and Transfer Information**
- Students entering this program should have the following academic background to begin the required coursework: algebra at the high school or college level.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Credit Programs of Study

Computer Applications Certificate (CEC)  
Career, Certificate (C1)

The Computer Applications Certificate is designed for students who wish to add information technology skills to their educational and/or career background.

Students learn many aspects of information technology including Microsoft Office, operating systems software, web technology, and technical writing. Software electives can be selected from courses in web development, database technology, and hardware.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td>CMP150</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<tr>
<td>CPS114</td>
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<td>SPE102</td>
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<td>or SPE104</td>
<td>Small Group Communication</td>
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<td>CPS122</td>
<td>Operating Systems</td>
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<td>CPS168</td>
<td>Introduction to Access</td>
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<tr>
<td>CPS210</td>
<td>Computer Systems Development</td>
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<td>CLNG-ELECTIV</td>
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<td>or CPS138</td>
<td>Internet Networking and Security</td>
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<td>or CPS222</td>
<td>Visual Basic 1</td>
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<td>or SFTW-ELECTIVE</td>
<td>Software Elective(s)</td>
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</table>

Total Semester Credits: 13 14

Total Program Credits: 27

Requirement Notes

1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. CPS170 - Database Theory and Applications may be substituted for CPS 168.

Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information

- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- Students may apply the credits earned in this program toward the requirements for an Associate Degree in Computer Applications.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.

Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Computer Information Systems (CIT)
AN OPTION OF LIBERAL ARTS
Transfer, Degree (AA)

The Computer Information Systems Program provides the first two years of study leading to a baccalaureate degree in Computer Information Systems.

The curriculum consists of courses in programming, systems development, and business. This Information Systems focus is combined with a broad background in the liberal arts, including courses in English composition, mathematics, laboratory science, social sciences and humanities. This program prepares students for transfer to a four-year computer information systems curriculum.


FIRST YEAR

<table>
<thead>
<tr>
<th>Course</th>
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<td>ACC101/102</td>
<td>Basic Accounting 1 &amp; 2</td>
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<td>HIS-ELECTIVE</td>
<td>History Elective(s)</td>
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<td>MAT151-XXX</td>
<td>Math Elective(s) at MAT151 level or above</td>
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<td>CMP104-150</td>
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SECOND YEAR

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<td>Humanities Elective(s)</td>
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<td>Principles of Macroeconomics/Princ of Micro</td>
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<td>LIT202-216</td>
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<td>Laboratory Science Sequence Elective(s)</td>
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<td>Computer Systems Development</td>
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<td>MGT102</td>
<td>Principles of Management</td>
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Total Program Credits: 65

Requirement Notes
1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. A minimum of 6 credits in mathematics is required at the MAT151 - Precalculus 1 level or above. Calculus 1 is often required at transfer institutions.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Computer Networking (CKD)
AN OPTION OF COMPUTER PROGRAMMING
Career, Degree (AS)

The Networking option prepares students for employment in network support and security in a variety of work environments, including professional offices, small businesses, government, and large corporations. Students are prepared for positions that require the maintenance of network hardware and software as well as troubleshooting networks. Among the employment opportunities for graduates are supporting local-area network (LAN), wide-area network (WAN), Internet, and intranet systems.

The following background is recommended for this program: algebra and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program. Students are strongly urged to meet with their academic advisor on a semester basis to review the program, and discuss course selections for successful completion of the program.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Note</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>CMP101</td>
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<td>CPS130</td>
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</tr>
<tr>
<td>CPS138</td>
<td>Internet Networking and Security</td>
<td>4</td>
<td></td>
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<tr>
<td>CPS223</td>
<td>Visual Basic 2</td>
<td>4</td>
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<td></td>
<td>Total Semester Credits:</td>
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<th>FALL</th>
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<td>Cr</td>
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<tr>
<td>BUS100</td>
<td>Introduction to Business</td>
<td>3</td>
<td></td>
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<tr>
<td>CMP150</td>
<td>Composition 2: Technical Writing</td>
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<tr>
<td>CPS101</td>
<td>Computer Science 1 (Java 1)</td>
<td>4</td>
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<tr>
<td>CPS170</td>
<td>Database Theory and Applications</td>
<td>4</td>
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<tr>
<td>CPS250</td>
<td>Advanced Network Security</td>
<td>3</td>
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<tr>
<td>CPS102</td>
<td>Computer Science 2 (Java 2)</td>
<td>4</td>
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<tr>
<td>CPS182</td>
<td>Information Systems Disaster Recovery</td>
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<td>COP202</td>
<td>Cooperative Education/Internship</td>
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<tr>
<td>or OPN-ELECTIVE</td>
<td>Open Elective(s)</td>
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<tr>
<td>or OPN-ELECTIVE</td>
<td>Programming with PHP and mySQL</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CPS122</td>
<td>Operating Systems</td>
<td></td>
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<tr>
<td>or CPS240</td>
<td>Programming with PHP and mySQL</td>
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<td>Total Semester Credits:</td>
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| Total Program Credits: | 61 |

Requirement Notes
1. This requirement is intended to further a student’s career goals. Please meet with an advisor to determine how to best fulfill this course requirement.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- Students may also earn a Certificate in Computer Networking. Students should speak with their academic advisor to review the courses required for the certificate.

Admissions and Transfer Information
- The following background is recommended for this program: algebra and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Computer Networking Certificate (CKC)
Career, Certificate (C1)

The Computer Networking Certificate is a two-semester program providing training for students in network technology. Students learn how to configure and support various types of networks and their underlying operating systems. Among employment opportunities for graduates are PC technician, IT helpdesk, and network support.

The following background is recommended for this program: CMP101 Composition 1 or equivalent, and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program. Students are strongly urged to meet with their academic advisor on a semester basis to review the program, and discuss course selections for successful completion of the program.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>FALL Cr</th>
<th>SPRING Cr</th>
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</thead>
<tbody>
<tr>
<td>CMP150 Composition 2: Technical Writing</td>
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<tr>
<td>CPS130 Computer Hardware</td>
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<tr>
<td>CPS170 Database Theory and Applications</td>
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</tr>
<tr>
<td>CPS101 Computer Science 1 (Java 1)</td>
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<td></td>
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<tr>
<td>or CPS218</td>
<td>4</td>
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<tr>
<td>CPS122 Operating Systems</td>
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<td>4</td>
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<tr>
<td>CPS134 Introduction to Computer Networks</td>
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<tr>
<td>CPS136 Advanced Computer Networks</td>
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<td>CPS138 Internet Networking and Security</td>
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Total Semester Credits: 14 14

Total Program Credits: 28

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- Students may apply the credits earned in this program toward the requirements for an Associate Degree in Computer Networking.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.

Admissions and Transfer Information
- The following background is recommended for this program: CMP101 Composition 1 or equivalent, and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Computer Programming (CPD)
Career, Degree (AS)

The Computer Programming Program prepares students for careers in the Information Technology field. This program provides a background in software development with required courses in several different programming languages. Students acquire skills needed to design and write software to support the needs of end-users. Electives can be selected from courses in internet technology, database technology, hardware, operating systems, and programming languages. Students have the opportunity to gain work experience through an internship.

The following background is recommended for this program: algebra and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program. Students are strongly urged to meet with their academic advisor on a semester basis to review the program, and discuss course selections for successful completion of the program.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course Code</th>
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<td>CPS107</td>
<td>Programming Logic and Design</td>
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<td>3 Cr</td>
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<td>CPS222</td>
<td>Visual Basic 1</td>
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<td>MAT151</td>
<td>Precalculus 1</td>
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<td>Software Elective(s)</td>
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<td>3 Cr</td>
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<tr>
<td>BUS100</td>
<td>Introduction to Business</td>
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<td>3 Cr</td>
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<tr>
<td>CPS168</td>
<td>Introduction to Access</td>
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<td>2 Cr</td>
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<td>CPS223</td>
<td>Visual Basic 2</td>
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<td>4 Cr</td>
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<tr>
<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<td>3 Cr</td>
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<tr>
<td>SFTW-ELECTIVE</td>
<td>Software Elective(s)</td>
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Total Semester Credits: 16

**SECOND YEAR**

<table>
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<th>Course Title</th>
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<td>CMP150</td>
<td>Technical Writing</td>
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<td>CPS101</td>
<td>Computer Science 1 (Java 1)</td>
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<td>4 Cr</td>
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<td>CPS138</td>
<td>Internet Networking and Security</td>
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<td>4 Cr</td>
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<td>CPS170</td>
<td>Database Theory and Applications</td>
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<tr>
<td>CPS102</td>
<td>Computer Science 2 (Java 2)</td>
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<td>4 Cr</td>
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<td>CPS210</td>
<td>Computer Systems Development</td>
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<td>4 Cr</td>
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<tr>
<td>CPS224</td>
<td>Object Oriented Programming in C++</td>
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<td>4 Cr</td>
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<tr>
<td>COP202</td>
<td>Cooperative Education/Internship</td>
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<td>4 Cr</td>
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<td>or OPEN-ELECTIVE</td>
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</table>

Total Semester Credits: 15

Total Program Credits: 60

**Requirement Notes**
2. This requirement is intended to further a student’s career goals. Please meet with an advisor to determine how to best fulfill this course requirement.

**Course Learning and Credentialing Options**
- Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
- Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.

**Admissions and Transfer Information**
- The following background is recommended for this program: algebra and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Computer Science Transfer (CST)
Transfer, Degree (AA)

The Computer Science Transfer Program prepares students for transfer to a four-year baccalaureate program in Computer Science. This program combines an in-depth study of programming concepts with a strong mathematics and physical science sequence.

The following background is recommended for this program: mathematics through trigonometry and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program. Students are strongly urged to meet with their academic advisor on a semester basis to review the program, and discuss course selections for successful completion of the program.

**FIRST YEAR**

<table>
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<td>MAT251/252</td>
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<td>Composition 2 Elective</td>
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<tr>
<td>PHY201</td>
<td>Physics 1</td>
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Total Semester Credits: 15 15

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<th>SECOND YEAR</th>
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<tr>
<td>Note</td>
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<td>HUM-ELECTIVE</td>
<td>Humanities Elective(s)</td>
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<td>MAT241</td>
<td>Discrete Structures</td>
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<td>PHY301</td>
<td>Physics 3</td>
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<td>SS-ELECTIVE</td>
<td>Social Science Elective(s)</td>
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<td>CPS224</td>
<td>Object Oriented Programming in C++</td>
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<tr>
<td>CPS226</td>
<td>Computer Organization and Architecture</td>
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<td>EGS216</td>
<td>Introduction to Digital Logic Design</td>
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<td>CPS218</td>
<td>UNIX</td>
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<tr>
<td>or CPS222</td>
<td>Visual Basic 1</td>
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Total Semester Credits: 18 16

Total Program Credits: 64

Course Learning and Credentialing Options
- Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
- Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- The following background is recommended for this program: mathematics through trigonometry and computer literacy. Students without this background may need to take prerequisite course work prior to enrolling in some of the courses required in this program.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Cosmetology Certificate (ZCS)
Career, Certificate (CC)
This Cosmetology Program is designed to provide the student with the basics of art, science, and the knowledge and skills needed in the field of cosmetology as well as the general education and fundamentals in management which may be needed in salon operation. The one-year program follows the guidelines outlined by the Board of Registration of Cosmetology. Upon successful completion of 1000 hours of theory and practice required, the student is ready to take the THE MASSACHUSETTS STATE BOARD OF COSMETOLOGY EXAM. To qualify for an operator’s license the cosmetologist must pass an examination in both theory and practice. After two years of employment, the graduate may apply for licensure as a cosmetologist with the Massachusetts Board of Registration in Cosmetology.

<table>
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<tr>
<th>Course Code</th>
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<tr>
<td>COS801</td>
<td>Introduction and Practice of Cosmetology</td>
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<td>COS803</td>
<td>Theory and Science of Cosmetology</td>
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<td>COS811</td>
<td>Cosmetology Practicum</td>
<td>96</td>
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<td>COS802</td>
<td>Practice of Cosmetology</td>
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<tr>
<td>COS804</td>
<td>Theory and Science of Cosmetology 2</td>
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<tr>
<td>COS812</td>
<td>Advanced Cosmetology Practicum</td>
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Total Semester Hours: 500 500
Total Program Hours: 1000

Program Information
- Students must complete all COS courses each semester to progress in the program.
- Students receive hands-on experience through the open clinic for clients.

Admissions and Transfer Information
- Admission to the Program occurs only in the Fall Semester.
- This is a Limited Capacity Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program; program has a limited seating capacity.

Criminal Justice (CRD)
Career, Degree (AS)
The program prepares students for a career in the criminal justice system as well as advancing the education of employed criminal justice professionals. From a theoretical understanding of human behavior and its relationship to law, students learn criminal justice goals and functions. Among the employment opportunities for graduates are state and local patrol officers, company investigators, security positions, and entry-level positions in correctional agencies.

For professions requiring a four-year degree, the Criminal Justice Program offers transferable credit to four-year colleges and universities. Graduates of the program may transfer as third-year Criminal Justice students to Northeastern University, Southern Vermont College, University of New Haven, Mount Ida College, Curry College, Trinity College of Vermont, and Salem State University.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Fall</th>
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<tbody>
<tr>
<td>CMP101</td>
<td>Composition 1</td>
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<tr>
<td>CRJ101</td>
<td>Introduction to Criminal Justice</td>
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<td>CRJ103</td>
<td>Criminal Law</td>
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<td>CRJ105</td>
<td>Constitutional Interpretations of Criminal Proc 1</td>
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<td>PSY102</td>
<td>Introductory (General) Psychology</td>
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<td>CMP104-150</td>
<td>Composition 2 Elective</td>
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<td>CRJ106</td>
<td>Constitutional Interpretations of Criminal Proc 2</td>
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<td>CRJ110</td>
<td>Juvenile Justice System</td>
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<td>or MAT 140-143</td>
<td>Liberal Arts Math or Intro to Statistics</td>
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Total Semester Credits: 15 15
## SECOND YEAR

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<td>CRI108</td>
<td>Crisis Intervention in the Field of Criminal Justice</td>
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<tr>
<td>CRI202</td>
<td>Principles of Corrections</td>
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<tr>
<td>SOC126</td>
<td>Race, Gender, and Class</td>
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<td>SPE102</td>
<td>Speech</td>
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<td>Liberal Arts Elective(s)</td>
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<td>Laboratory Science Elective</td>
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<td>CRI-ELECTIVE</td>
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<td>SOC104</td>
<td>Criminology</td>
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<td>CRI208</td>
<td>Critical Issues in Criminal Justice</td>
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<td>or SCI-ELECTIVE</td>
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<td>CRJ206</td>
<td>Criminal Investigation</td>
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<td>or HUM-ELECTIVE</td>
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<td>CRJ210</td>
<td>Criminal Justice Internship</td>
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</table>

**Total Semester Credits:** 15 15

**Total Program Credits:** 60

### Requirement Notes
1. For MASS TRANSFER students should take a Humanities Elective.
2. Strongly recommend SOC 106 Introduction to Sociology for students seeking the Certificate in Law Enforcement (although it is a recommended course in the Associate Degree, it is required in the certificate program). For MASS TRANSFER students should take MAT 140 or 143.
3. For MASS TRANSFER students should take a Lab Science course (4 credits)
4. Strongly recommend CRJ201 Law Enforcement Management for students seeking the Certificate in Law Enforcement (although it is a recommended course in the Associate Degree, it is required in the certificate program.) PYW101 Working With Youth may be substituted for CRJ elective.
5. For MASS TRANSFER, students should take a Science (either 3 or 4 credits). Many four year institutions require two sequential lab sciences.
6. Recommend CRJ210 Criminal Justice Internship for students who seek criminal justice related work experience, however, some 4-year colleges will not accept transfer of internship credit or may require substantial documentation of internship/work activities.

### Course Learning and Credentialing Options
- Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
- Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

### Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

### Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
Credit Programs of Study

Criminal Justice Certificate (CRC)
Career, Certificate (C1)

This 27-credit certificate program is designed to provide career education and a credential for those entering or currently working in the field of criminal justice. Courses will enhance knowledge and skills in the practices and components of the criminal justice system. This program can lead directly into the two year Criminal Justice Program.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>Note</th>
<th>FALL</th>
<th>SPRING</th>
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<tbody>
<tr>
<td>CMP101</td>
<td>Composition 1</td>
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<tr>
<td>CRI-ELECTIVE</td>
<td>Criminal Justice Elective(s)</td>
<td>3</td>
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<tr>
<td>CRI101</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
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<td>CRI103</td>
<td>Criminal Law</td>
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<td>Introductory (General) Psychology</td>
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<td>Criminology</td>
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<td>SOC126</td>
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Total Program Credits: 27

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This certificate can be applied to the Criminal Justice Associate Degree Program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.

Culinary Arts & Food Service (CLD)
Career, Degree (AAS)

The degree program opens the door to a career in food. The course of study is designed to combine practical training with broad-based knowledge. Hands-on culinary courses begin with the basics of knife-handling in the laboratory kitchen through the implementation of our on-campus restaurant kitchen, dining room, and bakery. These courses are complemented with the study of nutrition and food sciences as well as classes in management, facilities planning, and personnel administration. Cutting edge cultural courses include food history and culture and food writing. Program graduates face exciting opportunities in a fast-growing industry that encompasses the traditional path in a restaurant kitchen or dining room or can veer into catering, banquet management, menu consulting, food writing, recipe testing and development, baking and pastry, corporate food, and a whole host of other possibilities.

The program includes a hands-on work experience through Cooperative Education and Internships which integrate classroom study with a supervised work experience.
### Credit Programs of Study

#### FIRST YEAR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>CFS101</td>
<td>Basic Culinary Techniques</td>
<td>2</td>
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<tr>
<td>CFS104</td>
<td>Introduction to Breads, Pastries, and Desserts</td>
<td>2</td>
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<tr>
<td>CFS114</td>
<td>Food Safety and Sanitation</td>
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<tr>
<td>CFS116</td>
<td>Banquet and Function Management</td>
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<td>CFS118</td>
<td>Stocks, Soups, and Sauces</td>
<td>2</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<tr>
<td>BUS101</td>
<td>Math for Business and Finance</td>
<td>3</td>
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<tr>
<td>CFS102</td>
<td>Meat/Poultry/Fish Fabrication and Production</td>
<td>2</td>
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<tr>
<td>CFS106</td>
<td>Baking Production &amp; Merchandising of Bakery Products</td>
<td>2</td>
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<tr>
<td>CFS108</td>
<td>Table Service</td>
<td>2</td>
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<td>CFS110</td>
<td>Introduction to Garde Manger</td>
<td>2</td>
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<td>CMP104-150</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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**Total Semester Credits:** 14

### SECOND YEAR

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<td>Danish, Croissant, Choux, and Puff Pastry</td>
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<td>CFS212</td>
<td>American Regional Cuisine</td>
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<td>CFS214</td>
<td>Buffet and Specialty Food Preparation</td>
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<td>CFS228</td>
<td>Food and Beverage Cost Control</td>
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<td>CFS234</td>
<td>Culinary Arts Workplace Seminar</td>
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<td>IDS106</td>
<td>Understanding Nutrition</td>
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<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<td>CFS134</td>
<td>Wine in the Food Industry</td>
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<td>CFS204</td>
<td>Classical Baking</td>
<td>2</td>
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<td>CFS206</td>
<td>A La Carte Restaurant Operations</td>
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<td>CFS216</td>
<td>International Cuisine</td>
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<td>COP202</td>
<td>Cooperative Education/Internship</td>
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</table>

**Total Semester Credits:** 16

**Total Program Credits:** 60

#### Requirement Notes

1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. Recommend IDS156 - Cultural History of Food
3. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption form found on the Academic Department web page for details. If exemption is approved, student must complete a 3-credit open elective

#### Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

#### Program Information

- While pursuing this degree program, students may also earn a certificate in Culinary Arts and Food Service (CLC). Please speak to your academic advisor about the course requirements needed for the certificate.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

#### Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
Culinary Arts & Food Service Certificate (CLC)
Career, Certificate (C1)

The certificate program is aimed at students wishing to concentrate solely on hands-on culinary arts or students who already hold a degree. Laboratory classes encompass the kitchen, dining room and bakery, many with emphasis on providing direct customer service. Nutrition and food safety courses are also required. Students are eligible to take any related courses offered in the degree program as electives. A certification in food sanitation is offered and encouraged within this course of study.

<table>
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<tr>
<th>FIRST YEAR</th>
<th>Note</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFS101</td>
<td>Basic Culinary Techniques</td>
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<tr>
<td>CFS102</td>
<td>Meat/Poultry/Fish Fabrication &amp; Production</td>
<td>2</td>
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<tr>
<td>CFS104</td>
<td>Introduction to Breads, Pastries, and Desserts</td>
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<tr>
<td>CFS114</td>
<td>Food Safety and Sanitation</td>
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<tr>
<td>CFS118</td>
<td>Stocks, Soups, and Sauces</td>
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<td>CFS234</td>
<td>Culinary Arts Workplace Seminar</td>
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<td>CFS-ELECTIVE 1</td>
<td>Culinary Arts and Food Service Elective</td>
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<td>CFS106</td>
<td>Baking Production &amp; Merchandising of Bakery Products</td>
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<td>CFS110</td>
<td>Introduction to Garde Manger</td>
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<td>CFS206</td>
<td>A La Carte Restaurant Operations</td>
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<td>LA-ELECTIVE 2</td>
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Total Semester Credits: 12 13

Total Program Credits: 25

Requirement Notes
1. Students may select from the following 2-credit CFS electives: CFS108 Table Service, CFS116 Banquet & Function Management, CFS202 Danish, Croissants, Choux and Puff Pastry, CFS204 Classical Baking, CFS212 American Regional Cuisine, CFS216 International Cuisine.
2. Select one of the following: CMP101, CPS100, or IDS106.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students may apply the credits earned in this program toward the course requirements for an Associate degree in Culinary Arts and Food Service (CLD).
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
## Credit Programs of Study

### Developmental Disabilities (DDD)
**Career, Degree (AS)**

Graduates from this career program are prepared for a variety of employment opportunities working with adults or children with developmental disabilities in residential, vocational, educational, family support and recreational programs.

Through specialized curriculum including field placements, counseling skills and crisis intervention techniques, students integrate theory with practice in the field of developmental disabilities.

Students may choose to transfer to a four-year college following completion of this program.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

<table>
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<th>FIRST YEAR</th>
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<tr>
<td>Note</td>
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<td>DVD101</td>
<td>Introduction to Development Disabilities</td>
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<tr>
<td>HUS101</td>
<td>The Human Services Worker</td>
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<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<td>DVD121/122</td>
<td>Field Place &amp; Sem 1 &amp; 3 in Developmental</td>
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<td>DVD103</td>
<td>Developmental Disabilities: Special Topics</td>
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<td>BIO103</td>
<td>Anatomy &amp; Physiology 1</td>
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<td>or BIO108</td>
<td>The Body in Health and Disease</td>
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<td>HUS104</td>
<td>The Field of Human Services: An Overview</td>
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**Total Program Credits:** **60**

### Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

### Program Information

- New students are required to meet with the program coordinator prior to registration. In subsequent semesters, students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

### Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.

- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Developmental Disabilities Direct Support Certificate (DSC)
Career, Certificate (C1)

Graduates from this certificate program find challenging jobs in recreational, residential, vocational, and educational programs working with children and adults with developmental disabilities. Students combine academic course work with field placements at local agencies to develop the personal and professional skills necessary for successful employment.

The 21 credits can be transferred directly into the Associate Degree in Developmental Disabilities at NSCC or to other colleges. Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

FALL                     SPRING

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<th>Course</th>
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<td>DVD101</td>
<td>Introduction to Developmental Disabilities</td>
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Total Semester Credits: 12 9

Total Program Credits: 21

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This certificate program can be applied as the first 21 credits of the Associate Degree program in Developmental Disabilities (DDD).
- New students are required to meet with the program coordinator prior to registration. In subsequent semesters, students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Dietary Management Certificate (DMC)
Career, Certificate (C1)

The Dietary Management Certificate Program is designed to prepare students for entry level managerial positions in hospitals, long term care facilities, assisted living centers, food service contract companies, schools, and correctional facilities. Upon graduation, students will be able to prepare nutritious menus, purchase, receive and store foods, maintain food safety and sanitation standards, manage personnel, and maintain basic quality assurance and budgetary reports.

Students may continue their education by transferring into the Nutritional Science and Diet Technology Program at North Shore Community College.

<table>
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<tbody>
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<td>DTC102</td>
<td>Nutrition for Healthy Living</td>
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<td>DTC202</td>
<td>Food Preparation</td>
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<td>Information Technology and Its Applications</td>
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<td>DTC204</td>
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<td>MGT201</td>
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Total Semester Credits: 15 12
Total Program Credits: 27

Requirement Notes
1. IDS 106: Understanding Nutrition can be substituted for DTC 102: Nutrition for Healthy Living.
2. Students with a certificate or associate degree in Culinary Arts may waive DTC 202: Food Preparation. Students with careers in culinary without a degree may take a departmental exam for DTC 202 Food Preparation.
3. May be fulfilled by challenge exam and 3 liberal arts credits.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Drug and Alcohol Rehabilitation (DAD)
Career, Degree (AS)

Students enrolled in the associate degree program take the coursework leading to employment in comprehensive substance abuse rehabilitation hospitals, dual diagnosis programs, clinics, prevention programs, health care and welfare facilities. Experience has shown that people with a minimum of one year of recovery have a better chance of success in this field of study.

For students intending to further their education, the program provides transferable credit to four-year colleges.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

**FIRST YEAR**

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<td>The Human Services Worker</td>
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<td>DRG206</td>
<td>Prevention of Substance Abuse</td>
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<td>Helping Skills in Human Services</td>
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Total Semester Credits: 15 15

**SECOND YEAR**

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<td>Field Place &amp; Sem 2 in Drug &amp; Alcoholism Rehab</td>
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<td>The Field of Human Services: An Overview</td>
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Total Semester Credits: 15 15

Total Program Credits: 60

**Requirement Notes**

1. May be fulfilled by challenge exam and 3 liberal arts credits.

**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**

- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- The Substance Abuse Counseling certificate may be applied to the Drug and Alcohol Rehabilitation Associate Degree program.

**Admissions and Transfer Information**

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Early Care and Education Certificate Infant/Toddler Child Care (ITC)

Career, Certificate (C1)

This one year early childhood certificate prepares new students, as well as those who are working in the field wanting to continue their education, for professional work with children from birth to 3 years of age. This program includes a series of courses designed to develop competencies in the areas of child development, special needs, curriculum planning, and health and safety in infant and toddler education. Direct work and observation of children under the age of 3 are an essential part of this certificate.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

**FIRST YEAR**

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<td>Supporting the Young Child's Physical &amp; Mental Health</td>
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Total Semester Credits: 15

Total Program Credits: 18

Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information

- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.

Early Childhood Development (EDT)

AN OPTION OF LIBERAL ARTS

Transfer, Degree (AA)

This Early Childhood Development degree option is designed for students who, after graduation from North Shore Community College, plan to transfer to a four-year college where they will pursue provisional certification in teaching pre-kindergarten through second grade in public school settings. A balance of liberal arts and professional hands-on coursework and field work provides a well-rounded basis for further study as well as competency in teaching in preschool classrooms.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.
## Credit Programs of Study

### FIRST YEAR

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<td>Foundations of Early Childhood Education</td>
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<td>Speech</td>
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<td>Child Growth and Development</td>
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<td>ECE202</td>
<td>Using the Expressive Arts With Young Children</td>
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**Total Semester Credits:** 16 16

### SECOND YEAR

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<td>MAT146</td>
<td>Math for Elementary School Teachers 2</td>
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**Total Semester Credits:** 15 15

**Total Program Credits:** 62

### Requirement Notes

1. Recommend SOC112 or SOC126 or ANT102 or IDS136.

### Course Learning and Credentialing Options

- Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to [www.northshore.edu/distance](http://www.northshore.edu/distance).

- Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to [www.northshore.edu/cas](http://www.northshore.edu/cas).

### Program Information

- Before you meet with your advisor and register for courses, you should consult catalogues of four-year colleges to which you intend to transfer.

- As much as possible, you should match NSCC courses with the freshman and sophomore years at the four-year colleges.

- New students who are not eligible for college level math should consult with the program coordinator as early as possible to plan their schedules.

- MAT144 should be taken before ECE261.

- Not all courses are offered in every semester. Please consult with the program coordinator to ensure that you are able to satisfy program requirements in the proper sequence.

### Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.

- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see [www.mass.edu/masstransfer](http://www.mass.edu/masstransfer)); or, it may have a transfer agreement with a private 4-year college (please see [www.northshore.edu/academics/departments](http://www.northshore.edu/academics/departments)). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
**Early Childhood Education (ECD)**

**Career, Degree (AS)**

This Early Childhood option prepares students for Office for Child Care Services certification and employment as Lead Teachers in non-public school settings for children ages 2.9 to six years. Sequences of courses in Human Services and Early Childhood Education are reinforced by observation of and direct work with young children preparing students for immediate work in the field of early childhood and offering some transferable credits to four-year colleges.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**

- ECE245 and ECE202 should be taken in the same semester after completion of ECE101 with a grade of C or better. Delay in taking ECE245 may postpone degree completion by two semesters.
- Not all courses are offered in every semester. Please consult with the program coordinator to ensure that you are able to satisfy program requirements in the proper sequence.
- The Infant/Toddler Certificate, Special Needs Certificate, Paraeducator Certificate, Child Development Associate (CDA), and Family Development Credential (FDC) may be applied to the Early Childhood Education Associate Degree Program.

**Admissions and Transfer Information**

- Students who are interested in transfer should select liberal arts courses in lieu of open electives that will satisfy a 3-credit liberal arts requirement in the program in which they want to transfer.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

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### Credit Programs of Study

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**Total Program Credits:** 60

**Requirement Notes**

1. Recommended: PSY114, PSY118, PSY136, or SOC112
2. Recommended: ECE116, ECE206, HUS102, HUS104, HUS120, HUS122

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**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.
Elementary Education Transfer Program (EET)
AN OPTION OF LIBERAL ARTS
Transfer, Degree (AA)

The Elementary Education Program prepares students for careers teaching and working with elementary school children in public school settings. Students build knowledge and applied skills through liberal arts and sciences coursework and courses relating directly to the experience of working with elementary school children. Graduates of the program will move directly into the career field as paraeducators/teacher aides or they can transfer after graduation into four-year college teacher preparation programs where they will complete the requirements for elementary education teacher licensure to teach in first through sixth grade public school settings.

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<td>PSY102</td>
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<td>Speech</td>
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<td>Intro to Literature</td>
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**Total Semester Credits:** 15 15

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<td>World Regional Geography</td>
<td></td>
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</tbody>
</table>

**Total Semester Credits:** 16 16

**Total Program Credits:** 62

**Requirement Notes**
1. May be fulfilled by challenge exam and 3 liberal arts credits.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Energy Utility Technology (ERD)
AN OPTION OF INDUSTRIAL ELECTRONICS
Transfer, Degree (AS)

The Energy Utility Technology Associate Degree Program prepares students for rewarding and diverse careers in the Energy Industry. Classroom and laboratory experiences focus on the generation, transmission and distribution of electric power. Coursework provides students with the flexibility to prepare for jobs in the Business, Computer, and/or Engineering Departments of electric utilities.

FIRST YEAR

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<tr>
<th>Course</th>
<th>Note</th>
<th>FALL</th>
<th>SPRING</th>
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<tr>
<td>CMP101</td>
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<tr>
<td>CPS100</td>
<td>1 Information Technology and Its Applications</td>
<td>3</td>
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<td>EUT-ELECTIVE</td>
<td>2 EUT-Directed Elective</td>
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<td>IEL101/102</td>
<td>Electrical Principles 1 and 2</td>
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<td>MAT135/136</td>
<td>3 Applied Technical Mathematics 1 &amp; 2</td>
<td>4</td>
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<td>CAD101</td>
<td>Principles of Computer-Aided Design 1</td>
<td>4</td>
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<tr>
<td>CMP104-150</td>
<td>Composition 2 Elective</td>
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Total Semester Credits: 17

SECOND YEAR

<table>
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<tr>
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<th>SPRING</th>
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<tbody>
<tr>
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<td>EUT102</td>
<td>Introduction to the Energy Utility Industry</td>
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<td>PHY100</td>
<td>Applied Physics</td>
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<td>2 EUT Directed Elective</td>
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<td>EUT104</td>
<td>Generation, Transmission and Distribution</td>
<td>4</td>
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<tr>
<td>EUT106</td>
<td>Energy Industry Safety</td>
<td>3</td>
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<tr>
<td>EUT108</td>
<td>Energy Industry Practicum/Internship</td>
<td>3</td>
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</tr>
</tbody>
</table>

Total Semester Credits: 16

Total Program Credits: 62

Requirement Notes
1. May be fulfilled by challenge exam and 3 liberal arts credits, or by CPS190 and 3 liberal arts credits.
2. Students must complete 15 credits of EUT Directed Electives. These electives enable students to focus on areas that may contribute to individual advancement toward further educational goals as well as their career goals in the energy utility industry. The electives are clustered into three categories to provide some career guidance and focus for students. Students may select electives from any of the following categories: Business: ACC108, ACC203, BUS100, BUS102, MGT102, MGT201, MKT101; Computer Information and Technology: CPS101, CPS114, CPS122, CPS134, CPS136, CPS138, CPS168, CPS170, CPS210, CPS222; Engineering and Technology: CAD102, CHE103, CHE104, MAT251, MAT252, MAT301, PHY201, PHY202, PHY301.
3. May be fulfilled by MAT151/152 and 2 liberal arts credits.
4. May be fulfilled by PHY101.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students who complete CAD102 and CMP150 will also earn a Certificate in Computer Aided Design.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Completion of the Energy Utility Technology Certificate program is required for admission to this program.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Credit Programs of Study

Energy Utility Technology Certificate (ERC)
Career, Certificate (C1)

The Energy Utility Technology Certificate is a 28 credit program offered over two semesters. Students will be introduced to the energy utility industry and participate in classroom and laboratory experiences that focus on electrical generation processes, power plant systems and functions, industry safety, and the transmission and distribution of electric power.

This certificate program is designed to fill a critical need for qualified entry level workers in the Energy Utility Industry. Job opportunities exist for line workers, meter workers and sub-station maintenance workers. Individuals seeking employment at utility companies must meet employer-specific hiring requirements. Individuals with serious driving and/or legal infractions should be aware that their actions may impact their employability.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>FALL</th>
<th>SPRING</th>
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<tbody>
<tr>
<td>Note</td>
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<tr>
<td>CPS190</td>
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<td>Intro to Computer Applications in Telecommunications</td>
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<td>EUT102</td>
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<td>Introduction to the Energy Utility Industry</td>
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<td>Applied Technical Mathematics 1</td>
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<td>Generation, Transmission, and Distribution</td>
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<td>EUT106</td>
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<td>Energy Industry Safety</td>
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<td>Energy Industry Practicum/Internship</td>
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<tr>
<td>IEL102</td>
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<td>Electrical Principles 2</td>
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Total Semester Credits: 15 14

Total Program Credits: 29

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This program is offered during the day at the Lynn Campus.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Individuals seeking employment at National Grid and other utility companies must meet employer-specific hiring requirements.
- Individuals with serious driving and/or legal infractions should be aware that their actions may impact their employability.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.

Engineering Science Transfer (EST)
Transfer, Degree (AS)

The Engineering Science Program provides the first two years of an engineering education leading to a baccalaureate degree. The program combines general education with instruction in mathematics, physics, chemistry, engineering, and computer science. This program prepares students for transfer into the junior year of a four-year engineering curriculum. The program’s curriculum provides flexibility, enabling a student to specialize in chemical, civil, computer, electrical, industrial, mechanical, nuclear or plastics engineering.

Students should consult with an advisor from the engineering faculty and the college to which they expect to transfer regarding specific transfer requirements.

Graduates of the Engineering Science Program have transferred into engineering programs at a variety of colleges and universities which include: Boston University, Clarkson University, Cornell University, Embry-Riddle Aeronautical University, Georgia Institute of Technology, Franklin Institute of Technology, Massachusetts Maritime Academy, Merrimack College, Northeastern University, Rensselaer Polytechnic Institute, University of Massachusetts at Amherst and Lowell, Wentworth Institute of Technology and Worcester Polytechnic Institute.

Mathematics through trigonometry, physics, and chemistry at the high school or college level with grades of ‘C’ or better are required for admission into this program. Students not meeting the admissions requirements may wish to consider the Pre-engineering Program, which prepares students for the Engineering Science Program.
### Credit Programs of Study

#### First Year

<table>
<thead>
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<th>Course</th>
<th>Note</th>
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<th>Spring</th>
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<tbody>
<tr>
<td>CMP101</td>
<td>Composition 1</td>
<td>3</td>
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<tr>
<td>EGS101</td>
<td>Introduction to Engineering</td>
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<tr>
<td>CHE103/104</td>
<td>General Chemistry 1 &amp; 2</td>
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<td>MAT251/252</td>
<td>Calculus 1 &amp; 2</td>
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<td>PHY201-202</td>
<td>Physics 1 &amp; 2</td>
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<tr>
<td>CMP104-150</td>
<td>Composition 2 Elective</td>
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<tr>
<td>CPS101</td>
<td>Computer Science 1 (Java 1)</td>
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Total Semester Credits: **17**

#### Second Year

<table>
<thead>
<tr>
<th>Course</th>
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<th>Spring</th>
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<tbody>
<tr>
<td>MAT301</td>
<td>Calculus 3</td>
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<td>PHY301</td>
<td>Physics 3</td>
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<tr>
<td>EGS-ELECTIVE</td>
<td>1 Engineering Elective(s)</td>
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<td>EGS-ELECTIVE</td>
<td>1 Engineering Elective(s)</td>
<td>3</td>
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<tr>
<td>HUM-ELECTIVE</td>
<td>Humanities Elective(s)</td>
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<tr>
<td>or SS-ELECTIVE</td>
<td>Social Science Elective(s)</td>
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<td>1 Engineering Elective(s)</td>
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<tr>
<td>MAT302</td>
<td>Differential Equations</td>
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</table>

Total Semester Credits: **17**

Total Program Credits: **69**

#### Requirement Notes

1. Engineering Electives are: CAD101, CAD102, CHE201, CHE202, CPS102, CPS224, EGS201, EGS202, EGS204, EGS206, EGS211, EGS212, EGS214, EGS216, GEO114, MAT210, PHY302.

#### Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

#### Program Information

- This program is offered during the day at the Lynn Campus.
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- EGS201 EG206, EGS211, and MAT301 are scheduled in the Fall semester during the day at the Lynn Campus.
- EGS202, EGS204, EGS212, EGS216, and MAT302 are scheduled in the Spring semester during the day at the Lynn Campus.
- CAD101, and CAD102 are scheduled in the evening at the Lynn Campus, and online.

#### Admissions and Transfer Information

- Students not meeting the entrance requirements for the Engineering Science Transfer Program should apply for admission to the Pre-Engineering Program. Students should also work with an academic advisor to outline and complete the courses necessary to meet the requirements for entry into the Engineering Science Transfer Program.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
English as a Second Language (ELL)
Certificate of Completion Credit (CO)

Students are tested to determine their level of proficiency in reading, writing, listening, and speaking. People who are just beginning to learn English will qualify for several levels of non-credit Basic ESL classes through the Division of Corporate and Continuing Education. These non-credit courses do not earn college credit, but will prepare students to communicate well at work and in the community. Those who place into Intermediate or Advanced ESL may need several courses before they earn their certificate. Students will take only the courses they need in Reading and Vocabulary, Writing and Grammar, and Listening and Speaking. Professional educators in the ESL Multimedia Lab are available to help students study independently outside of class, so that they can progress as quickly as possible through ESL. Students are encouraged to retest between semesters if they believe they are ready to skip the next level. The certificate in ESOL is designed for students who wish to learn English to apply employment skills they bring from other countries.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Course</th>
<th>FALL Cr</th>
<th>SPRING Cr</th>
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<tr>
<td>ESL110</td>
<td>Advanced ESL Grammar 1</td>
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<tr>
<td>ESL112</td>
<td>Advanced ESL Reading and Vocabulary 1</td>
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<td>ESL114</td>
<td>Advanced ESL Writing 1</td>
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<td>ESL116</td>
<td>Advanced ESL Listening and Speaking 1</td>
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<td>ESL122</td>
<td>Advanced ESL Reading and Vocabulary 2</td>
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<td>ESL126</td>
<td>Advanced ESL Listening and Speaking 2</td>
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<tr>
<td>ESL128</td>
<td>Advanced ESL Writing and Grammar 2</td>
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**Total Semester Credits:** 12 12

**Total Program Credits:** 24

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- Entrance to each course is by completion of the previous level with a grade of “C” or better or by Placement Test.
- Six credits of Advanced Level 1 or 2 ESL courses may fulfill up to 6 Open Elective credits in an NSCC career certificate or associate degree as applicable.
- Students interested in completing the Certificate of Completion must consult with the Chairperson of the ESL Department.
- A Certificate of Completion may be awarded to students who complete ESL122 Advanced ESL Reading and Vocabulary 2, and ESL126 Advanced ESL Writing and Grammar 2 with a grade of “C” or better and who establish listening and oral proficiency as determined by ESL126 Advanced ESL Listening and Speaking 2 with a grade of “C” or better or by ESL Departmental assessment.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Environmental Horticulture (HUD)
Career, Degree (HUD)

The Horticulture program is designed for students wishing to become employed or self-employed in the ‘green’ industry. Students are prepared for a wide range of employment opportunities in landscaping and landscape management, nursery and garden center operation, turf and golf course management, tree care and related occupations. Students may prepare for the Massachusetts state arboriculture licensing, pesticide licensing and hydraulics licensing.

First Year

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>CMP101</td>
<td>Composition 1</td>
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<tr>
<td>HRT101</td>
<td>Introduction to Turf</td>
<td>3</td>
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<tr>
<td>HRT106</td>
<td>Landscape Installation &amp; Maintenance</td>
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<td>HRT210</td>
<td>Plants for the New England Landscape</td>
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<tr>
<td>IDS168</td>
<td>Exploring the Landscape of Sustainability</td>
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<td>HRT110</td>
<td>Plant and Soil Science</td>
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<td>HRT122</td>
<td>Fundamental of Plant Health</td>
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<td>HRT201</td>
<td>Urban Tree Care</td>
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<td>HRT230</td>
<td>Field Placement and Seminar in Horticulture</td>
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Total Semester Credits: 14 15

Second Year

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<td>BUS100</td>
<td>Introduction to Business</td>
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<td>BUS112</td>
<td>Contemporary Organizational Communications</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<td>HRT206</td>
<td>Landscape Design</td>
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<td>ACC110</td>
<td>Small Business Computerized Accounting</td>
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<td>CMP148</td>
<td>Composition 2: Literature and the Environment</td>
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<td>IDS 182</td>
<td>Organic &amp; Sustainable Food Production</td>
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<tr>
<td>IDS128</td>
<td>Environmental Law and Policy</td>
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<td>Liberal Arts Elective(s)</td>
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<tr>
<td>OPN ELECTIVE</td>
<td>Open Elective(s)</td>
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Total Semester Credits: 15 16

Total Program Credits: 60

Requirement Notes
1 HRT110 Plant and Soil Science runs January through March.
2 HRT122 Fundamentals of Plant Health runs January through March.
3 HRT201 Urban Tree Care runs January through March.
4 HRT230 Field Placement and Seminar in Horticulture runs April thru July.
5 May be fulfilled by challenge exam and 3 liberal arts credits.
6 Recommend IDS 166 Introduction to Sustainable Living.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/degrees). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Environmental Studies (EVT)
AN OPTION OF LIBERAL ARTS
Transfer, Degree (AA)

The Environmental Studies Program is an interdisciplinary transfer program that helps students understand the underlying causes of environmental problems and fosters an active search for solutions. These environmental problems are complex. Therefore, the program provides a broad range of liberal arts experiences in two tracks – Environmental Awareness and Environmental Science – leading to lifelong awareness of sustainability issues that connect the environment, the economy, and society. Students may select courses from either track or may take courses that combine both. Students will be prepared to continue their studies as they pursue further degrees at four-year colleges. Career opportunities for graduates include environmental science, natural resources, and advocacy.

FIRST YEAR

<table>
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<tr>
<td>BIO101</td>
<td>1 Biology 1: The Basics of Life</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<tr>
<td>IDS166</td>
<td>Introduction to Sustainable Living</td>
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<td>HSS-ELECTIVE</td>
<td>History Sequence Elective(s)</td>
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<tr>
<td>MAT140-XXX</td>
<td>Mathematics Elective(s) at MAT140 level or above</td>
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<tr>
<td>BIO102</td>
<td>Biology 2: Diversity of Life</td>
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<tr>
<td>CMP148</td>
<td>Composition 2: Literature and the Environment</td>
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<td>EV-ELECTIV</td>
<td>Directed Elective(s)</td>
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Total Semester Credits: 16 16

SECOND YEAR

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<td>Advanced Literature Elective(s)</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<td>EV-ELECTIVE</td>
<td>Directed Elective(s)</td>
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</table>

Total Semester Credits: 15 15

Total Program Credits: 62

Requirement Notes
1 BIO105/BIO106 sequence may be substituted for the BIO101/BIO102 sequence. Students pursuing the Environmental Science track are advised to take the BIO105/BIO106 sequence.
2 Students pursuing the Environmental Science track for transfer to a four-year college/university should select MAT electives at MAT151 level or higher. Students should check with the desired transfer institution as to the specific math requirements for their particular program of interest.
3 Directed Electives - Environmental Awareness Track: HIS140, IDS112, IDS168, IDS182, LIT214, PHI126, BIO128, BIO130, BIO140, BIO142, BIO150; Environmental Science Track: BIO128, BIO130, BIO140, BIO142, BIO150, CHE103, CHE104, CHE201, CHE202, CHE211, CHE212, PHY101, PHY102, PHY201, PHY202, PHY301.
4 CPS100 may be fulfilled by challenge exam and 3 liberal arts credits.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance. Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This program is offered in two tracks: Environmental Awareness and Environmental Science. These tracks are identified through the Environmental Studies Directed Electives. Students must complete 12 credits of Environmental Studies Directed Electives which enable them to focus on areas that may contribute to individual advancement toward further educational goals and career goals. Students may select directed electives from either track or may combine electives from both.
- To further support the environmental nature of this program and to deepen student awareness and understanding of environmental issues, students are encouraged, whenever possible, to select sections of the required course designated as “Green Curriculum” courses which include sustainability and/or environmental topics. Please see the current course schedule for Green Curriculum listings.
- Students are advised to consult catalogues of four-year colleges to which they intend to transfer before meeting with their advisor or registering for courses. As much as possible, students should match NSCC courses with the freshman and sophomore years at the four-year college.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Executive Administrative Assistant (EAD)
Career, Degree (AS)
The Executive Administrative Assistant degree program provides an opportunity for students to achieve superior administrative office skills needed to assume high-level administrative assistant positions. The two-year curriculum is very comprehensive and includes extensive computer training in word processing, spreadsheets, database, as well as keyboarding, transcription, administrative procedures, office management, accounting, business communications, and interpersonal skills.
The program includes a hands-on work experience through Cooperative Education and Internships which integrate classroom study with a supervised work experience.

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<tr>
<td>OFT101</td>
<td>Keyboarding and Word Processing</td>
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<td>OFT114</td>
<td>Business Communications</td>
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<td>OFT150</td>
<td>Interpersonal Skills in the Workplace</td>
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<td>ACC104</td>
<td>Essentials of Accounting for Business</td>
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<td>OFT102</td>
<td>Advanced Keyboarding and Word Processing</td>
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<td>OFT222</td>
<td>Spreadsheet and Presentation Applications</td>
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<td>OFT209</td>
<td>Information Transcription</td>
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<td>OFT212</td>
<td>Administrative Office Procedures</td>
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<td>OFT226</td>
<td>Records Management and Database Applications</td>
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<td>OFT240</td>
<td>Administrative Office Management</td>
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<td>OFT252</td>
<td>Integrated Office Applications</td>
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<td>SPE102/104</td>
<td>Speech or Small Group Communication</td>
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Requirement Notes
1 Students who are not computer literate are encouraged to select CPS100.
2 Students who touch type 35 wpm or more and have knowledge of Microsoft Word 2010 may waive OFT 101 and register for OFT 102. The credits for OFT101 may be fulfilled with a 3-credit OPEN Elective.
3 Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit open elective.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.
Credit Programs of Study

Program Information
- OFT courses are offered at Lynn Campus only.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- While pursuing this degree program, students may also earn a certificate in Office Support (OFC). Please speak to your academic advisor about the course requirements needed for the certificate.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Financial Services Certificate (FNC)
Career, Certificate (C1)
The Financial Services Certificate, a one-year program, prepares students for a variety of entry-level positions in the financial services industry. Students will learn how to analyze problems and calculate solutions common in banking, insurance, and investment companies. Other topics include business ethics, regulations and servicing of customers, as well as financial planning and personal finance.

In addition, communication and business technology are emphasized throughout the program. Both oral and written communication skills are integrated into the course work. Students will gain hands-on experience in several popular software packages. In addition, students will learn how to use computer skills to prepare reports and analyze data, as well as report and present findings from a financial services perspective.

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<tr>
<th>FIRST YEAR</th>
<th>FALL</th>
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<tbody>
<tr>
<td>BUS100</td>
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<tr>
<td>BUS101</td>
<td>Introduction to Business</td>
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<td>BUS112</td>
<td>Math for Business and Finance</td>
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<tr>
<td>CPS100</td>
<td>Contemporary Organizational Communications</td>
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<td>FIN102</td>
<td>Information Technology and Its Applications</td>
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<td>BUS116</td>
<td>1 Introduction to Financial Services</td>
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<td>BUS120</td>
<td>Personal Finance</td>
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<td>IDS204</td>
<td>Business Ethics</td>
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<tr>
<td>MKT110</td>
<td>Marketing of Services</td>
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</table>

Total Semester Credits: 15 12
Total Program Credits: 27

Requirement Notes
1 May be fulfilled by challenge exam and 3 liberal arts credits.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Financial Aid eligibility is pending
Fire Protection and Safety Technology (FPD)

Career, Degree (AS)

This program provides a solid, professional education for fire service personnel and those persons interested in the fire service or roles related to the fire service.

The program’s curriculum provides flexibility, enabling students to acquire knowledge and intellectual skills necessary for career advancement as well as the opportunity to continue their education at a four-year college.

With the proper selection of liberal arts and open electives, a student can transfer to the Bachelor of Science degree program in Fire Science Administration at Salem State University. Courses are offered day, evening, and online. Check the program’s academic department web page for additional information.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>FALL</th>
<th>SPRING</th>
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<td>FPS101</td>
<td>Principles of Emergency Services</td>
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<td>FPS103</td>
<td>Fundamentals of Fire Prevention</td>
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<td>FPS-ELECTIVE</td>
<td>Fire Protection Elective</td>
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<td>FPS106</td>
<td>Building Construction for Fire Protection</td>
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<tr>
<td>FPS134</td>
<td>Introduction to Hazardous Materials</td>
<td>3</td>
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<tr>
<td>FPS158</td>
<td>Principles of Fire &amp; Emerg. Services, Safety and Surv</td>
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<tr>
<td>Note</td>
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<td>FPS204</td>
<td>Chemistry of Hazardous Materials</td>
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<td>FPS211</td>
<td>Fire Protection Systems and Equipment</td>
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<td>FPS112</td>
<td>Fire Behavior and Combustion</td>
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<td>FPS202</td>
<td>Fire Protection Hydraulics and Water Supply</td>
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Total Program Credits: 60

Requirement Notes
1. Must be an FPS100 level or FPS200 level course.
2. Students should select courses that meet current and future career goals.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet.
- Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with the Program Coordinator on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This program could be completed in its entirety online or in a traditional classroom or a combination of both.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Food Science & Safety (FSD)
Career, Degree (AAS)

Food Science and Safety is designed to prepare students for a wide range of careers in food quality control, processing, product development, microbiology, sanitation and safety. Opportunities for employment include positions with food processing operations, food research and development departments, biotechnology firms, food regulatory control laboratories, food sanitation and public health services, local, state, and federal inspection services. The only Associate Degree Program in New England, Food Science and Safety is approved by the United States Department of Agriculture’s Food Safety and Inspection Service (USDA’s FSIS), and is recognized by the United States Department of Commerce (USDC), Institute of Food Technologists (IFT), Massachusetts Health Officers Association (MHOA) and American Society of Microbiology (ASM). Students also may earn certificates in food sanitation, Hazard Analysis Critical Control Point (HACCP) and Environmental Health Technology (EHT).

### FIRST YEAR

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<td>FSN104</td>
<td>Technology of Food Processing</td>
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<td>MAT143-XXX</td>
<td>Mathematics Elective(s) at MAT143 level or above</td>
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<td>or CHE103</td>
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<td>DTC102</td>
<td>Nutrition for Healthy Living</td>
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<td>or IDS106</td>
<td>Understanding Nutrition</td>
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<td>Introductory Chemistry 2</td>
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<td>FSN106</td>
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**Total Semester Credits:** 16

### SECOND YEAR

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<td>BTN201</td>
<td>Basic Laboratory Applications</td>
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<td>CFS114</td>
<td>Food Safety and Sanitation</td>
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<td>FT-ELECTIVE</td>
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<td>FSN124</td>
<td>HACCP-Estab. Hazard Analysis Critical Control Pt Prog</td>
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<td>FSN202</td>
<td>Food Chemistry</td>
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<td>FSN208</td>
<td>Microbiology of Foods</td>
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<td>FSN210</td>
<td>Brewing Science and Other Fermentations</td>
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**Total Semester Credits:** 14

**Total Program Credits:** 60

**Requirement Notes**
1. Students may take MAT143 or any higher level of Mathematics.
2. May be fulfilled by challenge exam and 3 liberal arts credits.
3. Food Technology Directed Electives include any BIO, BTN, CHE, DTC, or FSN course.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Gerontology Certificate (GER)

Career, Certificate (C1)

This program provides a basic credential to those working in the field of aging without previous academic training or credentials. The one-year certificate program leads directly into the two-year Gerontology Associate Degree program.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

FIRST YEAR

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<td>HUS130</td>
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<td>SWG104</td>
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<td>SWG203</td>
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<td></td>
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</table>

Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information

- This certificate program can be applied to the Human Services Practitioner Associate Degree Program.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Graphic Design - Integrated Media (IMD)
AN OPTION OF MARKETING
Career, Degree (AS)

The Graphic Design - Integrated Media Degree delivers insights into marketing, graphic design and promotional trends and issues facing graphic designers, marketing organizations, clients and our society. New media marketing alternatives are rapidly emerging in promotional and communication offerings. These include new methodologies and offerings in print, web design, social media (blogs, social networks, video sites), wikis, mobile media (podcasts and smartphone apps), webinars and email promotions. This program offers the concepts and hands-on skills development to better prepare students for a dynamic career focused on new media marketing and graphic design.

As part of the program, students produce a portfolio of their designs and can gain valuable work experience through a supervised internship work experience.

**FIRST YEAR**

<table>
<thead>
<tr>
<th>Note</th>
<th>FALL Cr</th>
<th>SPRING Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMP101Composition 1</td>
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<td>CPS124Web Fluency</td>
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<td>CPS158Dreamweaver</td>
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<td>GRA202Digital Illustration</td>
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<tr>
<td>MKT101Marketing</td>
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<tr>
<td>CMP104-150Composition 2 Elective</td>
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</tr>
<tr>
<td>CPS174Introduction to Flash</td>
<td>3</td>
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<td>GRA118Digital Page Layout</td>
<td>3</td>
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<tr>
<td>GRA140Integrated Media Design Principles</td>
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<td>IDS108IT, Society and Culture</td>
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**Total Semester Credits:** 15 15

**SECOND YEAR**

<table>
<thead>
<tr>
<th>Note</th>
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<tbody>
<tr>
<td>ART114Visual Design Theory</td>
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<td>GRA116Electronic Imaging</td>
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<td>GRA204Typography</td>
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<td>MKT216Internet Marketing</td>
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<tr>
<td>SPE102Speech</td>
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<tr>
<td>COP202Cooperative Education/Internship 1</td>
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<tr>
<td>GRA216Graphic Design Portfolio</td>
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<tr>
<td>LA-ELECTIVELiberal Arts Elective(s)</td>
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<tr>
<td>MKT204Advertising</td>
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</table>

**Total Semester Credits:** 15 15

**Total Program Credits:** 60

**Requirement Notes**

1. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit open elective.

**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**

- GRA courses offered fall and spring semesters, day only in Lynn
- GRA courses offered evenings in Lynn on a two-year rotating basis.
- ART114 offered fall and spring semester, day only in Lynn.
- CPS124 offered spring semester, online only.
- CPS158 offered fall semester, online; spring semester, day only in Lynn.
- CPS174 offered spring semester, online only.
- IDS108 offered spring semester, day only in Lynn.
- MKT204 offered spring semester, day only in Lynn; fall semester, evening only in Danvers, alternating years.
- MKT216 offered fall semester online only.
- Composition 2 Electives (suggested): CMP104, CMP120, and CMP150.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.

---

**North Shore Community College  2014–2016**
Graphic Design Certificate (GDC)
Career, Certificate (C1)

The Graphic Design Certificate provides accelerated, focused training for students seeking entry-level employment in various aspects of print-focused graphics, including print and electronic publishing. Students learn how to expand their creativity and style, while creating computer-generated graphic designs for both electronic and print products. Students also gain valuable experience utilizing several computer software programs to generate their designs. Development of oral, written, and presentation skills are key goals of the coursework. As part of the program, students produce a portfolio of their designs.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cr</td>
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<td>ART110</td>
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<td>GRA212</td>
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<tr>
<td>GRA216</td>
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</table>

Total Semester Credits: 15  12
Total Program Credits: 27

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- GRA courses offered fall and spring semesters, day only in Lynn.
- GRA courses offered evenings in Lynn on a two-year rotating basis.
- Students may apply the credits earned in this program toward the course requirements for an Associate degree in Graphic Design (GDD).
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Graphic Design-Print (GDD)
AN OPTION OF MARKETING
Career, Degree

The Graphic Design - Print Degree prepares students for a dynamic career in the graphic design or marketing communications fields. This specialized program expands traditional business and marketing offerings with the inclusion of a broad range of graphic design courses that serve to enhance a student's creativity and preparation for the job market. Course work prepares students for entry-level employment in various aspects of the marketing communications field including advertising or promotion, as well as for positions in print-focused graphic design or electronic publishing. As part of the program, students produce a portfolio of their designs and can gain valuable work experience with hands-on work experience through Cooperative Education and Internships which integrate classroom study with a supervised work experience.

FIRST YEAR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ART114</td>
<td>Visual Design Theory</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<td>GRA102</td>
<td>Graphics Production</td>
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<td>GRA202</td>
<td>Digital Illustration</td>
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<td>ART110</td>
<td>Basic Drawing 1</td>
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<td>BUS100</td>
<td>Introduction to Business</td>
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<td>CMP104-150</td>
<td>Composition 2 Elective</td>
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<td>GRA116</td>
<td>Electronic Imaging</td>
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<tr>
<td>GRA118</td>
<td>Digital Page Layout</td>
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Total Semester Credits: 15

FALL SPRING

SECOND YEAR

<table>
<thead>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>GRA130</td>
<td>Introduction to Digital Photography</td>
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<td>GRA204</td>
<td>Typography</td>
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<td></td>
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<tr>
<td>GRA212</td>
<td>Electronic Publishing Issues</td>
<td>3</td>
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<tr>
<td>MKT101</td>
<td>Marketing</td>
<td>3</td>
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<tr>
<td>SPE102</td>
<td>Speech</td>
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<tr>
<td>COP202</td>
<td>Cooperative Education/Internship</td>
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<tr>
<td>CPS158</td>
<td>Dreamweaver</td>
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<td>GRA216</td>
<td>Graphic Design Portfolio</td>
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<tr>
<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<tr>
<td>MKT204</td>
<td>Advertising</td>
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</table>

Total Semester Credits: 15

Total Program Credits: 60

Requirement Notes
1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit open elective.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- GRA courses offered fall and spring semesters, day only in Lynn.
- GRA courses offered evenings in Lynn on a two-year rotating basis.
- ART114 offered fall and spring semesters, day only in Lynn.
- CPS158 offered fall semester, online; spring semester, day only in Lynn.
- MKT204 offered spring semester, day only in Lynn; fall semester, evening only in Danvers, alternating years.
- Composition 2 Electives (suggested): CMP104, CMP120, and CMP150.
- While pursuing this degree program, students may also earn a certificate in Graphic Design (GDC). Please speak to your academic advisor about the course requirements needed for the certificate.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
Credit Programs of Study

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.

Health Care Technician (HCC)
Career, Certificate (C1)

This certificate is designed to prepare students for employment as entry-level health care technicians in a variety of health care settings and positions. For those students interested in creating a progression pathway into another health-related program/career, the courses may meet some of the recommended or required admission prerequisites, and/or some program requirements in another health-related program.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>FALL</th>
<th>SPRING</th>
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<tbody>
<tr>
<td>CMP101</td>
<td>note</td>
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<tr>
<td>HLS102</td>
<td>1</td>
<td>Anatomy &amp; Physiology for Allied Health</td>
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<tr>
<td>HLT-ELECTIVE</td>
<td>2</td>
<td>Health Technician Elective(s)</td>
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<td>PSY102</td>
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<td>Introductory (General) Psychology</td>
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<td>ALH150</td>
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<td>The Dynamics of Health Care</td>
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<tr>
<td>HLT-ELECTIVE</td>
<td>2</td>
<td>Health Technician Elective(s)</td>
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<td>LA-ELECTIVE</td>
<td>3</td>
<td>Liberal Arts Elective(s)</td>
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<td>PHI120</td>
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<td>Health Technician Elective(s)</td>
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<td>Total Program Credits:</td>
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</table>

Requirement Notes
1. This requirement may be fulfilled by substituting BIO103/104 - Anatomy and Physiology 1 & 2, which is recommended if interested in creating a pathway for progressing into a Health Profession Associate Degree Program and/or transfer. Please consult an academic advisor for more information.
2. Health Technician elective(s) (some vary from 3 credits) - Students should choose from the following:
   * Emergency Medical Technician - Basic Certification: EMS104
   * Emergency Medical Care (First Responder Certification): EMS102
   * Any approved non-credit health career course(s)/program(s) transferred in through the Center for Alternative Studies (CAS). For a current list of approved noncredit programs, contact CAS or Corporate and Community Education.
3. If interested in creating a pathway for progressing into another health-related program, the following are recommended based on your interest (note: some courses listed below have prerequisites). Please consult an academic advisor for more information.
   * Nurse Education NSG - PSY118, CMP104-150, substitute BIO103/104 for HLS102, any course meeting a NE-Directed elective, or BIO110.
   * Occupational Therapy Assistant - OTA - PSY118, CMP104-150, substitute BIO103/104 for HLS102.
   * Physical Therapy Assistant PTA - CMP104-150, substitute BIO103/104 for HLS102, or a HUM-Elective
   * Practical Nursing PNR - PSY118, BIO110.
   * Radiologic Technology RAD - CMP104-150, CPS100, substitute BIO103/104 for HLS102, or MAT143.
   * Respiratory Care RSP - CHE101, CMP104-150, substitute BIO103/104 for HLS102, or BIO110.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This certificate is designed to prepare students for employment as entry-level health care technicians in a variety of health care settings and positions. For those students interested in creating a progression pathway into another health-related program/career, the courses may meet some of the recommended or required admission prerequisites, and/or some program requirements in another health-related program.
Health Science (LHD)  
AN OPTION OF LIBERAL ARTS  
Career, Degree (AA)  

Health Science is a liberal arts degree program that can prepare a student for transfer to a four-year institution in a health professions program or for employment in health care directly upon graduation. The program of study can be designed to emphasize laboratory sciences such as chemistry, biology, or physics; to incorporate health career electives such as electrocardiography or phlebotomy; and to include cooperative education or internship experience. Students acquire a foundation in communications, humanities, and behavioral sciences.

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<tr>
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<tbody>
<tr>
<td>BEH-ELECTIVE</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>ALH150</td>
<td>The Dynamics of Health Care</td>
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<tr>
<td>or OPN-ELECTIVE</td>
<td>Open Elective(s)</td>
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<td>LSS-ELECTIVE</td>
<td>Laboratory Science Sequence Elective(s)</td>
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<td>MAT140-XXX</td>
<td>Mathematics Elective(s) at MAT140 level or above</td>
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<td>Composition 2 Elective</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<td>CHE114</td>
<td>Chemistry for Health Sciences</td>
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<th>SECOND YEAR</th>
<th>FALL</th>
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<td>HUM-ELECTIVE</td>
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<td>OPN-ELECTIVE</td>
<td>Open Elective(s)</td>
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<td>HSS-ELECTIVE</td>
<td>History Sequence Elective(s)</td>
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<td>LIT202-216</td>
<td>Advanced Literature Elective(s)</td>
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<td>Laboratory Science Sequence Elective(s)</td>
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<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<tr>
<td>ALH229/202</td>
<td>Health Science Cooperative Education or Internship</td>
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<tr>
<td>or OPN-ELECTIVE</td>
<td>Open Elective(s)</td>
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<td><strong>Total Semester Credits:</strong></td>
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<td><strong>16</strong></td>
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<tr>
<td><strong>Total Program Credits:</strong></td>
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</tr>
</tbody>
</table>

**Requirement Notes**

1. Open electives leading to employable skills include: ALH118, ALH130, ALH132, ALH134, ALH136, OFT116, OFT130. Students planning to transfer should select open electives consistent with their desired four-year program.

2. A mathematics sequence is strongly recommended. MAT140 or above is generally required for transfer; however, most health professions programs at the four-year level require MAT151 or above. Students enrolled in credit courses prior to Fall 1999 may have alternative means to satisfy this requirement and should speak to their Advisor or the Student Support Center.

3. May be fulfilled by challenge exam and 3 liberal arts credits.

**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**

- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.

- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.

- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Hotel Management (HOD)
AN OPTION OF TOURISM AND HOSPITALITY
Career, Degree (AS)

The Hotel Management Program is designed to provide students with theory, applied skills (ie: negotiating, social media, planning) and competencies needed for a variety of entry-level positions in the Hotel Industry. Students who successfully complete the Hotel Management program will be prepared for employment in entry-level positions such as banquet and catering, front desk supervisor, concierge, or sales office assistant while working their way up into managerial positions with excellent salaries and benefits. Career development is enhanced through participation in the Tourism/Hospitality Internship or the Tourism/Hospitality/Cooperative Education program.

First Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
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<th>Spring Cr</th>
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<td>Math for Business and Finance</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<tr>
<td>CPS100</td>
<td>Information Technology and Its Applications</td>
<td>3</td>
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<tr>
<td>SPE102/104</td>
<td>Speech or Small Group Communication</td>
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<td>TOU104</td>
<td>Introduction to Tourism and Hospitality</td>
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<td>ACC108</td>
<td>Financial Accounting</td>
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<td>CMP104-150</td>
<td>Composition 2 Elective</td>
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<td>CPS124</td>
<td>Web Fluency</td>
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<tr>
<td>HSP108</td>
<td>Hotel Operations</td>
<td>3</td>
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<tr>
<td>HSP110</td>
<td>Planning Meetings, Conferences, and Special Events</td>
<td>3</td>
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<tr>
<td>GEO116</td>
<td>World Regional Geography</td>
<td>3</td>
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<tr>
<td>or IDS138</td>
<td>Geo-Cultural Dev of New England &amp; North Shore</td>
<td>3</td>
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<td><strong>Total Semester Credits:</strong></td>
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SECOND YEAR

<table>
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<tr>
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<th>Course Name</th>
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<th>SPRING Cr</th>
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<tr>
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<td>Business Directed Elective(s)</td>
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<tr>
<td>CF5228</td>
<td>Food and Beverage Cost Control</td>
<td>3</td>
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<tr>
<td>CPS114</td>
<td>Advanced Microsoft Office</td>
<td>4</td>
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<td>HSP222</td>
<td>Hospitality and Travel Law</td>
<td>3</td>
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<tr>
<td>COP202</td>
<td>Cooperative Education/Internship</td>
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<tr>
<td>HSP114</td>
<td>Marketing the Tour. and Hosp. Industry</td>
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<tr>
<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<td>OPN-ELECTIVE</td>
<td>Open Elective(s)</td>
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<td><strong>Total Semester Credits:</strong></td>
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<td><strong>13</strong></td>
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</tbody>
</table>

**Total Program Credits:** 61

**Requirement Notes**
1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. Select from: BUS100, MGT102, MGT206
3. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit open elective.
4. Foreign language is recommended: FRE101/102 or SPN. Other suggested Liberal Arts are ECO103/104, GOV104, MDA104 or PSY102.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- HSP and TOU courses are offered during the day at the Lynn campus only.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’S Student Support and Advising Center on the Lynn or Danvers campus.
Human Services Practitioner (HSD)
Career, Degree (AS)

The Human Services Practitioner Program provides the academic work and field experience for successful careers in human services, as well as a strong foundation for transfer to four-year colleges and universities. This program is unique in that students may choose to specialize in either Mental Health or Gerontology. Students are encouraged to build upon their unique abilities to work collaboratively with individuals, families, and agencies. The program fosters the development of the skills necessary for practitioners in human services through active learning strategies, clinical field placements, community research projects, and case studies. Upon graduation students are qualified for entry level positions such as mental health counselor, residential case manager, outreach worker, gerontology assistant, crisis intervention worker, life skills counselor, family advocate, and community organizer. The Bureau of Labor Statistics reports that human service careers are among the fastest growing occupations in the United States.

The following certificates may be applied to the Human Services Practitioner Associate Degree Program: Mental Health Certificate, Gerontology Certificate, Gerontology Activities Specialist, Youth Worker Certificate, Certified Nursing Assistant Certificate, Family Development Credential.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

### FIRST YEAR

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>HUS101</td>
<td>The Human Services Worker</td>
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<tr>
<td>MEH105</td>
<td>Introduction to Mental Health Work</td>
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<td>PSY102</td>
<td>Introductory (General) Psychology</td>
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<td>PSY112</td>
<td>Introduction to Gerontology</td>
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<td>CMP104-150</td>
<td>Composition 2 Elective</td>
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<td>HUS102</td>
<td>Helping Skills in Human Services</td>
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<td>HUS130</td>
<td>Life Changes &amp; Crisis: Adaptation &amp; Intervention</td>
<td>3</td>
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<td>HUS137</td>
<td>Field Placement 1: Human Services Practitioner</td>
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<td>IDS205</td>
<td>Community Problems and Social Issues</td>
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Total Semester Credits: 15

### SECOND YEAR

<table>
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<td>The Body in Health and Disease</td>
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<td>HUS104</td>
<td>The Field of Human Services: An Overview</td>
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<td>HUS132</td>
<td>Group Dynamics and Techniques</td>
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<td>PSY210</td>
<td>Abnormal Psychology</td>
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<td>HUS108</td>
<td>Pharmacology for Human Services</td>
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<td>HUS138</td>
<td>Field Place &amp; Seminar 2: Human Services Practitioner</td>
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<td>HUS139</td>
<td>Field Place &amp; Seminar 3: Human Services Practitioner</td>
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<td>MEH206</td>
<td>Advanced Helping Skills</td>
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<tr>
<td>or SWG104</td>
<td>Nutritional and Health Aspects of Aging</td>
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Total Semester Credits: 15

Total Program Credits: 60
**Credit Programs of Study**

**Requirement Notes**
1. MEH104 Life Crisis: Theories & Intervention, and SWG208 Life Change & Adaptation in Life may be substituted for HUS130 Life Changes & Crisis: Adaptation & Intervention.
2. HUS140 may be substituted for IDS205 Community Problems & Social Issues or SWG 203 Advocacy for Elders.
3. BIO103 and BIO104 may be substituted for BIO108.
4. SWG102 Intervention Techniques and Program Planning may be substituted for HUS132 Group Dynamics and Techniques.
5. PSY114 may fulfill this requirement when applying courses from the Child & Adolescent Behavioral Health Certificate (BHC).
6. HUS142 may fulfill this requirement when applying courses from the Child & Adolescent Behavioral Health Certificate (BHC).

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- The Mental Health Certificate, Gerontology Certificate, Child Adolescent Behavioral Health Certificate, Gerontology Activities Specialist, Youth Worker Certificate, Family Development credential and Certified Nursing credential may be applied to the Human Services Practitioner Associate Degree program.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Interdisciplinary Studies (IDT)

AN OPTION OF LIBERAL ARTS
Transfer, Degree (AA)

As a Liberal Arts option, the IDS program offers students a unique opportunity to explore topics and issues in an interdisciplinary way. The program is based on the belief that knowledge from various academic disciplines can be integrated so that it reflects what actually happens in life and the real world. In this way, knowledge about the real world will have a certain unity and coherence to it. In an era of over-specialization and fragmentation, the IDS program emphasizes the mastery of relevant knowledge in this holistic and comprehensive way.

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<tbody>
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Total Semester Credits: 16

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<td>IDS-ELECTIVE</td>
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<td>IDSU-ELECTIVE</td>
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Total Semester Credits: 15

Total Program Credits: 62

Requirement Notes
1. Students enrolled in credit courses prior to Fall 1999 may have alternative means to satisfy this requirement and should speak to their Advisor or the Student Support Center.
2. Any IDS course which fulfills these elective categories.
3. Recommend that 3 of these credits be CPS100-Information Technology and Its Applications.
4. IDS102 may be taken more than once as an elective since the topic/theme changes.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students planning to transfer to a four-year college should check the requirements of that particular college before selecting courses.
- MAT140-Liberal Arts Math or above is generally required for transfer. However, certain programs may require MAT151-College Algebra 1 or above.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Law Enforcement Certificate (LEC)

Career, Certificate (C1)

Developed in cooperation with the Massachusetts Chiefs of Police Association, the Law Enforcement Certificate Program prepares students for a career in law enforcement. The certificate combines specialized criminal justice and general education coursework to provide students with the knowledge and skills they need to complete for entry into the Massachusetts law enforcement field. All of the credits earned in the certificate program can be applied to a Quinn Bill eligible associate in science degree in criminal justice.

**FIRST YEAR**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>FALL Cr</th>
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<tr>
<td>CMP101</td>
<td>Composition 1</td>
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<td>CRJ101</td>
<td>Introduction to Criminal Justice</td>
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<td>CRJ105</td>
<td>Constitutional Interpretations of Criminal Proc 1</td>
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<td>PSY102</td>
<td>Introductory (General) Psychology</td>
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<td>SOC106</td>
<td>Introduction to Sociology</td>
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<td>CRJ103</td>
<td>Criminal Law</td>
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<td>CRJ201</td>
<td>Law Enforcement Management and Planning</td>
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<td>SOC104</td>
<td>Criminology</td>
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<td>SPE102</td>
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Total Semester Credits: **15**

Total Program Credits: **27**

**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**

- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

- This certificate can be applied to the Criminal Justice Associate Degree program.

**Admissions and Transfer Information**

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Legal Administrative Assistant (LAD)
Career, Degree (AS)

The Legal Administrative Assistant degree program prepares students to enter today's high-tech legal office environment. The program provides extensive training in computerized keyboarding, word processing, spreadsheets, database, legal terminology, transcription, and the advanced language arts skills needed to prepare and edit a wide variety of legal documents. Training also focuses on developing and refining the communications, interpersonal skills, and decision-making skills necessary to be successful in a challenging career.

As part of the program, students have the opportunity to enhance career development by integrating both classroom study and work experience through participation in the Office Technology Internship or the Office Technology Cooperative Education program.

### FIRST YEAR

<table>
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<tr>
<th>Course</th>
<th>Note</th>
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<td>BUS102</td>
<td>Business Law</td>
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<tr>
<td>OFT101</td>
<td>Keyboarding and Word Processing</td>
<td>3</td>
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<td>OFT114</td>
<td>Business Communications</td>
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<td>PLG101</td>
<td>Introduction to Law and Paralegal Practice</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<td>OFT102</td>
<td>Advanced Keyboarding and Word Processing</td>
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<td>OFT150</td>
<td>Interpersonal Skills in the Workplace</td>
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<tr>
<td>OFT222</td>
<td>Spreadsheet and Presentation Applications</td>
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### SECOND YEAR

<table>
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<td>Information Transcription</td>
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<td>Records Management and Database Applications</td>
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<td>RES204</td>
<td>Real Estate Law</td>
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<td>COP202</td>
<td>Cooperative Education/Internship</td>
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<td>OFT220</td>
<td>Legal Office Procedures</td>
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<td>OFT252</td>
<td>Integrated Office Applications</td>
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<td>SPE102/104</td>
<td>Speech or Small Group Communication</td>
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<td><strong>Total Semester Credits:</strong></td>
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<td><strong>15</strong></td>
<td><strong>16</strong></td>
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</tbody>
</table>

**Total Program Credits:** 61

### Requirement Notes

1. Students who are not computer literate are encouraged to select CPS100. Other Liberal Arts electives are PHI116, IDS204.
2. Students who touch type 35 wpm or more and have knowledge of Microsoft Word 2010 may waive OFT101 and register for OFT 102. The credits for OFT101 may be fulfilled with a 3-credit Open Elective.
3. Recommend IDS204 Ethics in Business
4. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit open elective.

### Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

### Program Information

- OFT courses are offered primarily at the Lynn Campus.
- While pursuing this degree program, students may also earn a certificate in Legal Office Support (LOS). Please speak to your academic advisor about the course requirements needed for the certificate.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

### Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
Legal Office Support Certificate (LOS)

Career, Certificate (C1)

The Legal Office Support certificate is a short-term training program specifically designed for students interested in acquiring the skills needed for entry-level positions in small to medium law firms. Training focuses on developing a high level of proficiency in keyboarding and word processing, preparing various legal documents, and understanding legal office ethics and procedures. Students learn how to prepare court and client documents related to various legal specialties such as litigation, contracts, torts, criminal law, family law, real estate, wills and estates.

Courses in this certificate are transferable to the Legal Administrative Assistant (degree) program.

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<td>OFT102</td>
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<td><strong>12</strong></td>
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**Total Program Credits:** 26

**Requirement Notes**
1. Students who touch type 35 wpm or more and have knowledge of Microsoft Word 2010 may waive OFT101 and register for OFT102. The credits for OFT101 may be fulfilled with a 3-credit OPEN elective.
2. A minimum grade of C- is required to graduate from this program and to meet OFT prerequisites.
3. Recommend IDS204 Ethics in Business or CMP101 Composition 1

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- OFT courses are offered primarily at the Lynn Campus.
- Students may apply the credits earned in this program toward the course requirements for an Associate degree in Legal Administrative Assistant (LAD).
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Credit Programs of Study

Liberal Arts (LAT)
Transfer, Degree (AA)

Equivalent to the first two years of a baccalaureate degree, this program prepares students to complete their studies when they transfer to a four-year college or university. The program provides a preferred foundation for careers in such fields as executive management, law, medicine, and education.

**FIRST YEAR**

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**FIRST YEAR Total Semester Credits:**

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**SECOND YEAR**

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<td>LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<td>or MOD-ELECTIVE</td>
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<td>CPS100</td>
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**SECOND YEAR Total Semester Credits:**

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**Total Program Credits:**

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<tr>
<td></td>
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</table>

**Requirement Notes**

1. Students enrolled in credit courses prior to Fall 1999 may have alternative means to satisfy this requirement and should speak to their Advisor or the Student Support Center.

2. Intermediate foreign language proficiency is required by many transfer institutions. Students should check the requirements of the institution to which they hope to transfer.

3. May be fulfilled by challenge exam and 3 liberal arts credits.

**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**

- Before you meet with your advisor and register for courses, you should consult catalogues of four-year colleges to which you intend to transfer.
- As much as possible, you should match NSCC courses with the freshman and sophomore years at the four-year colleges. MAT140-Liberal Arts Math or above is generally required for transfer. However, certain programs may require MAT151-Precalculus 1 or above.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Management (MGD)
Career, Degree (AS)

The Management Degree prepares students for a variety of positions in many business environments. In addition to learning the theory and application of corporate and small business management, students are provided with a solid foundation in business law, business mathematics, and human resource management. Other topics include basic and managerial accounting, economics, and marketing.
Business technology is also emphasized. Students will gain hands-on experience in several popular software packages. In addition, students will learn how to use computer skills to prepare reports and analyze data, as well as report and present findings from a management perspective.

As part of this program, students have the opportunity to enhance career development by integrating both classroom study and work experience in the management field through participation in the Cooperative Education/Internship course.

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<thead>
<tr>
<th>FIRST YEAR</th>
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<tbody>
<tr>
<td>BUS101</td>
<td>Note</td>
<td>Math for Business and Finance</td>
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<td>CMP101</td>
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<td>Composition 1</td>
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<td>CPS100</td>
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<td>Information Technology and Its Applications</td>
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<td>MGT102</td>
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<td>Principles of Management</td>
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<td>ACC101/102</td>
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<td>Basic Accounting 1 &amp; 2</td>
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<td>BUS102</td>
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<td>Business Law</td>
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<td>BUS120</td>
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<td>CMP104-150</td>
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<td>Composition 2 Elective</td>
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<td>MKT101</td>
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<tbody>
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<td>Liberal Arts Elective(s)</td>
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<td>MGT206</td>
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<td>Small Business Management/Entrepreneurship</td>
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<td>COP202</td>
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<td>Cooperative Education/Internship</td>
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<td>ECO-ELECTIVE</td>
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<td>Economics Elective(s)</td>
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<td>or MGT208</td>
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<td><strong>Total Program Credits:</strong></td>
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</table>

**Requirement Notes**
1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit business elective.
3. Select one of the following: ECO103 or 104. Students transferring to a 4-year institution should check the transferability of the course selected.
4. BUS112 Contemporary Organizational Communications is recommended.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- This program is offered on both campuses.
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- Some courses are offered only during the evening hours.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Credit Programs of Study

Marketing (MKD)
Career, Degree (AS)

The Marketing Degree prepares students for a variety of sales and promotions positions in many business organizations. In addition to learning how to apply marketing skills in both service and product oriented environments, students are provided with a solid foundation in advertising, business law, and business mathematics. Other topics include basic and managerial accounting, economics, and management.

Business technology is also emphasized. Students will gain hands-on experience in several popular software packages. In addition, students will learn how to use computer skills to prepare reports and analyze data, as well as report and present findings from a marketing perspective. Course work in web-based advertising and promotion is also available.

As part of this program, students have the opportunity to enhance career development by integrating both classroom study and work experience in the management field through participation in the Cooperative Education/Internship course.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
<th>FALL</th>
<th>SPRING</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS101</td>
<td>Math for Business and Finance</td>
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<tr>
<td>CMP101</td>
<td>Composition 1</td>
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<td>CPS100</td>
<td>Information Technology and Its Applications</td>
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<td>MKT101</td>
<td>Marketing</td>
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<tr>
<td>ACC101/102</td>
<td>Basic Accounting 1 &amp; 2</td>
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<td>Business Law</td>
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<td>MGT102</td>
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Total Semester Credits: 15

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<td>LA-ELECTIVE</td>
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Total Semester Credits: 15

Total Program Credits: 60

Requirement Notes
1. May be fulfilled by challenge exam and 3 liberal arts credits
2. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit business elective.
3. Select one of the following: ECO103 or 104. Students transferring to a 4-year institution should check the transferability of the course selected.
4. Select one of the following courses: GRA140 Integrated Media Design Principles, MKT110 Marketing of Services, MKT203 Principles of Selling, MKT205 Principles of Retailing, or RES201 Real Estate Principles and Practices 1.
5. BUS112 Contemporary Organizational Communications or another Marketing Elective is recommended.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.
Program Information
- This program is offered on both campuses.
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This is a blended program and can be completed in a traditional classroom or by completing 50% or more of the course requirements online.
- Some courses are offered only during the evening hours.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Credit Programs of Study

Medical Administrative Assistant (MAD)
Career, Degree (AS)
The Medical Administrative Assistant degree program provides students with an extensive background in medical terminology and transcription along with knowledge of third-party billing and records management. Computer skills needed for competitive employment such as word processing, spreadsheets, database, and medical software are also integrated into the course work. Employment opportunities are found in a variety of medical settings such as physician's offices, hospitals, clinics, insurance companies, research laboratories, public health departments, and health maintenance organizations.

The program includes a hands-on work experience through Cooperative Education and Internships which integrate classroom study with a supervised work experience.

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Total Program Credits: 60

Requirement Notes
1. Students who are not computer literate are encouraged to select CPS100.
2. Students who touch type 35 wpm or more and have knowledge of Microsoft Word 2010 may waive OFT101 and register for OFT102. The credits for OFT101 may be fulfilled with a 3-credit OPEN elective.
3. Students must attain a final grade of C- to meet graduation requirement.
4. This requirement may be fulfilled by substituting BIO103 and BIO104 - Anatomy & Physiology 1 & 2 with grades of C (73%) or better.
5. Recommend PSY118 and/or PHI120.
6. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program web page for details. If exemption is approved, student must complete a 3-credit open elective.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- OFT courses are offered primarily at the Lynn Campus.
- While pursuing this degree program, students may also earn a certificate in Medical Office Support (MOS). Please speak to your academic advisor about the course requirements needed for the certificate.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
Medical Assisting Certificate (MAC)

Career, Certificate (C1)

Medical assistants are multiskilled health professionals specifically educated to work in ambulatory settings performing administrative and clinical duties. The practice of medical assisting directly influences the public’s health and well-being, and requires mastery of a complex body of knowledge and specialized skills requiring both formal education and practical experience that serve as standards for entry into the profession. This program provides classroom instruction and practicum experience that prepares students for a career as a medical assistant. The program emphasizes patient care in the office or clinic, as well as administrative and communication skills. Upon graduation, students may find employment opportunities in private physicians’ offices, group practices, ambulatory care clinics, HMO clinics, community health centers, and public health facilities.

The Medical Assisting Certificate Program at North Shore Community College is accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Medical Assisting Education Review Board (MAERB).

Commission on Accreditation of Allied Health Education Programs
1361 Park Street
Clearwater, FL 33756
727-210-2350

First Year

<table>
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<td>MAC142</td>
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<td>OFT219</td>
<td>Medical Administrative Procedures</td>
<td>3</td>
</tr>
<tr>
<td>PHI120</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
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</table>

Total Semester Credits: 15 14

Total Program Credits: 29

Requirement Notes
1. This requirement may be fulfilled by substituting BIO103 and BIO104 - Anatomy & Physiology 1 & 2 with a grade of C(73%) or better.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- In order to graduate from the Medical Assisting Program a grade of C (73%) or better is required for BIO 108, MAC142, OFT101, OFT116, ALH156, MAC146, OFT219, and a grade of PC is required for MAC144.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to this Program occurs only in the Fall semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
Medical Coding Certificate (MOC)

Career, Certificate (C1)

Medical Coding Certificate is a one-year comprehensive training program that will prepare students for entry-level coding positions in physician’s office, hospitals, nursing homes, or other health agencies. The program emphasizes a science background as well as a working knowledge of ICD-9 and CPT-4 basic coding principles so that students may assign diagnostic and procedural codes to specific diagnoses, diseases, and procedures. Students will recognize the importance of a coder’s position to ensure a successful medical practice. The capstone to this program is a Medical Coding Practicum where students will acquire actual hands-on work experience.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

FIRST YEAR

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<thead>
<tr>
<th>Course</th>
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<tr>
<td>HLS102</td>
<td>1</td>
<td>Anatomy &amp; Physiology for Allied Health</td>
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<tr>
<td>OFT116</td>
<td>2</td>
<td>Medical Terminology</td>
</tr>
<tr>
<td>OFT120</td>
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<td>Basic Keyboarding or Challenge Exam</td>
</tr>
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<td>OFT134</td>
<td></td>
<td>ICD-9-CM Coding</td>
</tr>
<tr>
<td>ALH118</td>
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<td>Third Party Reimbursement</td>
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<tr>
<td>ALH150</td>
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<td>The Dynamics of Health Care</td>
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<tr>
<td>BIO206</td>
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<td>Human Disease and Conditions</td>
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<td>BUS132</td>
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<td>Business Workplace Seminar</td>
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<tr>
<td>OFT136</td>
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<td>CPT-4 Coding</td>
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<td>OFT138</td>
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<td>Medical Coding Practicum</td>
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**Total Semester Credits:** 11

**Total Program Credits:** 25

**Requirement Notes**

1. This requirement may be fulfilled by substituting BIO103 and BIO104 - Anatomy & Physiology 1 & 2 with grades of C (73%) or better.
2. Students must attain a final grade of C- to meet graduation requirement.
3. OFT138 is a 30-hour supervised work place experience.

**Course Learning and Credentialing Options**

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**

- OFT courses are offered primarily at the Lynn Campus.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

**Admissions and Transfer Information**

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Medical Office Support Certificate (MOS)

Career, Certificate (C1)

The Medical Office Support Certificate is a short-term training program for the student interested in working in a medical setting such as a hospital records room, physician’s office, clinic, medical laboratory or allied health organization. The program emphasizes a strong medical vocabulary and solid communication skills. It also provides training in computerized keyboarding, word processing, and transcription as well as third-party billing and medical office procedures.

Courses in this certificate are transferable to the Medical Administrative Assistant degree program.

### First Year

<table>
<thead>
<tr>
<th>Note</th>
<th>Course</th>
<th>Fall Cr</th>
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<tr>
<td></td>
<td>BIO108 The Body in Health and Disease</td>
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<tr>
<td>1</td>
<td>OFT101 Keyboarding and Word Processing</td>
<td>3</td>
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<td>2</td>
<td>OFT114 Business Communications</td>
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<td>OFT116 Medical Terminology</td>
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<td>ALH118 Third Party Reimbursement</td>
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<td></td>
<td>BUS132 Business Workplace Seminar</td>
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<td></td>
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<td>OFT140 Medical Records Transcription</td>
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<td></td>
<td>OFT219 Medical Administrative Procedures</td>
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</table>

**Total Semester Credits:** 12 13

**Total Program Credits:** 25

### Requirement Notes

1. This requirement may be fulfilled by substituting BIO103 and BIO104 - Anatomy & Physiology 1 & 2 with grades of C (73%) or better.
2. Students who touch type 35 wpm or more and have knowledge of Microsoft Word 2010 may waive OFT101 and register for OFT102. The credits for OFT101 may be fulfilled with a 3-credit OPEN Elective.
3. A minimum grade of C- is required to graduate from this program and to meet OFT prerequisites.
4. Students must attain a final grade of C- to meet graduation requirement.

### Course Learning and Credentialing Options

- **Distance Learning** - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
- **Alternative Credentialing** - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

### Program Information

- OFT courses are offered primarily at the Lynn Campus.
- Students may apply the credits earned in this program toward the course requirements for an Associate degree in Medical Administrative Assistant (MAD).
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

### Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Credit Programs of Study

Mental Health Certificate (MHC)

Career, Certificate (C1)

To provide formalized education for both entry level workers and current workers who do not have college education. This certificate will qualify students to work in the field of Mental Health as Direct Support Professionals, Outreach Counselors or Educational Specialists. It will also qualify students to work as Relief staff on weekends or as Part Time Staff in various Human Service Programs.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

FALL       SPRING
Cr  Cr

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<td>CMP101</td>
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<td>HUS101</td>
<td>The Human Services Worker</td>
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<td>IDS205</td>
<td>Community Problems and Social Issues</td>
<td>3</td>
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<td>MEH105</td>
<td>Introduction to Mental Health Work</td>
<td>3</td>
</tr>
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<td>PSY102</td>
<td>Introductory (General) Psychology</td>
<td>3</td>
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<td>HUS102</td>
<td>Helping Skills in Human Services</td>
<td>3</td>
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<td>HUS130</td>
<td>Life Changes &amp; Crisis: Adaptation &amp; Intervention</td>
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<td>HUS137</td>
<td>Field Placement 1: Human Services Practitioner</td>
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<td>OPN-ELECTIVE</td>
<td>Open Elective(s)</td>
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Total Semester Credits: 15 12

Total Program Credits: 27

Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information

- This certificate program can be applied to the Human Services Practitioner Associate Degree Program.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
NSCC RN to Salem State University BSN (NSB)
AN OPTION OF NURSE EDUCATION
Career, Degree (AS)

The RN to BSN Program prepares students to complete the MA transfer block credits and liberal arts course requirements in preparation for matriculation to SSU. Upon completion of the Program of Study, students are eligible to transfer to SSU to complete 30 upper level nursing credits and earn a BSN.

FIRST YEAR

<table>
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<th>Course</th>
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<td>Nursing 1</td>
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<tr>
<td>NSG102</td>
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<td>Nursing 2</td>
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<td>NSG103</td>
<td></td>
<td>Pharmacology and the Role of the RN</td>
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<td>NSG201</td>
<td></td>
<td>Nursing 3</td>
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</tr>
<tr>
<td>NSG202</td>
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<td>NSG203</td>
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<td>RN in Contemporary Society</td>
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Total Semester Credits: 18 21

SECOND YEAR

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<td>MAT143</td>
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<td>Introduction to Statistics</td>
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<td>PHI120</td>
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<td>Medical Ethics</td>
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<td>OPN ELECTIVE</td>
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<td>Open Elective(s)</td>
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<td>OPN-ELECTIVE</td>
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<td>Open Elective(s)</td>
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<tr>
<td>CPS100</td>
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<td>Information Technologies and Its Applications</td>
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<td>or LA-ELECTIVE</td>
<td>Liberal Arts Elective(s)</td>
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<td>or SPN101A</td>
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<td>Elementary Spanish 1: Health Professions</td>
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<td>or SPN102</td>
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<td>Elementary Spanish 2</td>
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Total Semester Credits: 12 15

Total Program Credits: 66

Requirement Notes
1. The credit total for the Nurse Education courses can range from 35-41 credits depending upon year the student graduated from the Nurse Education Program.
2. Pre-requisite MAT092 or 094 or 135 with C or better or placement exam.
3. May be fulfilled by any open elective course other than NSG or PNR courses.
4. SPN 101 may be substituted for SPN 101A.
5. May be fulfilled by the suggested course or other course that meets the indicated Elective.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This program is designed for graduates of the North Shore Community college Nurse Education Program to complete the Mass Transfer Block, Humanities course and Liberal Arts courses required in preparation for transfer to Salem State University to earn a BSN. Graduates of the Nurse Education Program with an unencumbered RN license who complete the MA Transfer Block and elective Courses with an overall GPA of 2.5 or higher are eligible for enrollment in the SSU RN to BSN Program. To earn a BSN degree at SSU students complete 30 credits of upper level nursing courses. Please note that you must receive a grade of C or better in all required courses. Also, you must meet NSCC residency requirements of 15 credits.
- All HUM, LA, and OPEN electives should be selected in consultation with an academic advisor to ensure transferability to Salem State University.

Admissions and Transfer Information
- This is a special admissions Program. Admission to the program has specific entrance requirements, including that you must be a graduate of the NSCC Nurse Education Program (no time limit). Graduates of the Nurse Education Program with an unencumbered RN license who complete the MA Transfer Block and Elective Courses with an overall GPA of 2.5 or higher are eligible for enrollment in the SSU RN to BSN Program. To earn a BSN degree at SSU students complete 30 credits of upper level nursing courses. For further information about the program, application process and admissions requirements contact Susan Curry at ADNtoBSN@northshore.edu.
Nurse Education (NSG)
Career, Degree (AS)
This program prepares interested students for a career in nursing as Registered Nurses. Graduates of the program receive an Associate in Science degree and are eligible to enter the licensure process, which includes successful completion of the National Council Examination for Registered Nurses (NCLEX RN).

General education courses in English, physical, biological and social sciences provide a foundation that supports nursing theory and promotes intellectual growth. Nursing courses build knowledge of the theoretical base of nursing. Each nursing theory course includes a clinical education experience. During clinical education experiences, students develop nursing skills and apply theory in the care of clients in a variety of local health care agencies.

The program is organized as a competency-based curriculum with modified self-pacing. Students achieve competencies utilizing learning alternatives such as 1) directed self-study, 2) attending lectures, 3) participating in seminars and discussions, 4) participating in nursing skill laboratory demonstrations and practice, and 5) using multimedia and computer educational programs.

Graduates seeking licensure in Massachusetts must meet the licensure requirements outlined by the Commonwealth of Massachusetts Board of Registration in Nursing, including being of “good moral character.” Individuals with a court record or a criminal conviction should contact the Board(s) of Registration in Nursing in any state in which they plan to work for guidelines in determining “good moral character,” prior to program entry.

The curriculum is approved by the Board of Registration in Nursing of the Commonwealth of Massachusetts and is accredited by the National League for Nursing Accrediting Commission. Information regarding accredited nurse education programs may be obtained from the National League for Nursing Accrediting Commission at 3343 Peachtree Rd NE, Suite 500, Atlanta, Georgia 30326; 800-669-1656.

Program Admission Requirements
- Graduation from high school or high school equivalency (GED) certificate.
- Completion of algebra, biology (may be satisfied by a course in Anatomy and Physiology), and Chemistry at the high school or college level with grades of ‘C’ or better.
- Satisfactory achievement in the TEAS entrance examination for Schools of Nursing. (Test results will be considered valid for three years from the date the exam was taken.)
- Completion of the Nurse Education Admissions Questionnaire.
- Submission of transcripts from any college previously attended.
- A Personal interview may be held at the discretion of the college.

Applicants are encouraged to attend an informational meeting offered throughout the Fall and Spring semesters at scheduled times listed in the application packet.

Prior to the start of classes in the program:
1. Accepted students must present a completed immunization record and documentation of physical health by licensed primary health care provider. Candidates must self verify ability to meet the technical standards: physical, tactile, communication, auditory and mental/cognitive required in professional nursing practice settings.
2. Earn Basic Cardiac Life Support Certification from the American Heart Association at the Health Provider Level.

The program encourages LPN’s to seek admission through advanced placement. There are several pathways to admission, which are determined on a case-by-case basis. For example, graduates of a LPN Program accredited by the Massachusetts Board of Registration in Nursing may be awarded advanced standing credits without examination. Applications for transfer by students from other schools of nursing are considered on a case-by-case basis. Applicants should contact Enrollment Services for further information.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.
## Credit Programs of Study

### First Year

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<td>NSG104</td>
<td>Introduction to Pharmacology</td>
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<td>PSY102</td>
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<td>BIO104</td>
<td>Anatomy &amp; Physiology 2</td>
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<td>Composition 2 Elective</td>
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<td>NSG102</td>
<td>Nursing 2</td>
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<td>NSG105</td>
<td>Pharmacology and the Role of the Registered Nurse</td>
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<td>PSY118</td>
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**Total Semester Credits:** 19 20

### Second Year

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<td>Introduction to Microbiology</td>
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<td>NSG201</td>
<td>Nursing 3</td>
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<td>SOC106</td>
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<td>NE-ELECTIVE</td>
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<td>Nurse Education Directed Elective</td>
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<td>NSG203</td>
<td>The Registered Nurse in Contemporary Society</td>
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**Total Semester Credits:** 17 14

**Total Program Credits:** 70

### Requirement Notes

1. The pre-requisite for Anatomy and Physiology 1 can be met through ONE of the following with no time limit for when it was completed: BIO101 or BIO105 with “C” or higher; or TEAS version V only Science section score of 50% or higher; or LPN Certificate; or a Bachelor of Science in biological science or chemistry. It can also be met with ONE of the following completed within the past 5 calendar years: high school biology with a “C” or higher, biology CLEP test with a score of 50 or higher, or AP biology test with a score of 3 or higher.

2. A grade of ‘C’ or better is required to meet the Nurse Education program requirement.

3. Choose any humanities, math at the MAT140 level or above, social science, CPS, or interdisciplinary studies (IDS) course.

### Course Learning and Credentialing Options

- Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

- Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

### Program Information

- To enroll in NSG102, or NSG202 you must achieve a minimum grade of 75% in each previous Nursing (NSG) course. A grade of 75% is also required to complete NSG202 and NSG203.

- In order to continue in the sequence of Nursing courses, you must achieve a grade of “C” or better in BIO103, BIO104, BIO110, CMP101, CMP 2 Elective, PSY102, PSY118, and SOC106.

- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

### Admissions and Transfer Information

- Admission to this Program occurs only in the Fall semester.

- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.

- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
Nutritional Science & Diet Technology (NSD)
Career, Degree (AS)

Nutritional Science and Diet Technology is designed primarily to prepare students to become Dietetic Technicians. Diet Technicians work independently as nutrition consultants, manufacturers’ representatives and nutrition research assistants, or in partnership with a registered dietitian in a variety of settings: Clinical - hospitals, nursing homes, health maintenance organizations, research facilities, home health care program; Food Service Management - restaurants, corporations, correctional facilities, schools; Community - community health programs, public health agencies, Meals-On-Wheels; Wellness - health clubs, weight management clinics, community wellness centers; Business - food producers, distributors and vendors.

**FIRST YEAR**

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<td>CFS114</td>
<td>Food Safety and Sanitation</td>
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<td>CMP101</td>
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<td>Introductory Chemistry 1 &amp; 2</td>
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<td>Information Technology and Its Applications</td>
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**SECOND YEAR**

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<td>FSN104</td>
<td>Technology of Food Processing</td>
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<td>Introduction to Dietary Management</td>
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<td>Human Resource Management</td>
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<td>Speech or Small Group Communication</td>
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**Total Program Credits:** 62

**Requirement Notes**
1 Students transferring to four year institutions should take Anatomy and Physiology, BIO103 and BIO104. BIO103 and BIO104 satisfy the requirement of BIO108.
2 May be fulfilled by challenge exam and 3 liberal arts credits.
3 Students may select from the following: FSN124 HACCP or other Food Science Course, BIO110 Introduction to Microbiology, MAT143 Statistics, IDS150 Herbal Pharmacology, IDS156 Cultural History of Food, IDS126 Exploring the Brain/Mind, IDS148 Yoga, Meditation, Stress Management, ALH150 The Dynamics of Health Care, ALH156 Interpersonal Skills for Health Professionals, CFS228 Food Beverage and Cost Control, MKT101 Marketing, MGT102 Principles of Management.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- DTC 104 offered spring semester of even years (Spring 2012, 2014, etc.)
- DTC204 and DTC206 offered spring semester of odd years (Spring 2013, 2015, etc.)

**Admissions and Transfer Information**
- Admission occurs in both the fall and spring semesters.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Credit Programs of Study

Occupational Therapy Assistant (OTA)  
Career, Degree (AS)

The Occupational Therapy Assistant (OTA) Program provides active classroom instruction and extensive field experience in the technical level theory and practice of occupational therapy with individuals and populations across the life span within various service delivery models. The prescribed curriculum affords students the opportunity to develop the necessary skills needed to seek employment as an entry-level occupational therapy assistant in a variety of institutional and community-based settings. Job opportunities are available in rehabilitation facilities, general hospitals, outpatient clinics, long term care facilities, home health agencies, public school systems, and various community programs servicing those with or at risk for health related problems and dysfunction.

The Occupational Therapy Assistant (OTA) Program is offered in 3 options of study (variations in curriculum sequence) to meet the needs of students. These variations include: 1) a traditional full-time option, 2) a part-time curriculum sequence, and 3) an accelerated option. The traditional full-time (2-year) and part-time (3-year) options of study combine general education courses with OTA courses in sequencing of the curriculum. The accelerated option of study is designed for students who have completed the 6 general education requirements of the traditional OTA program [BIO103, BIO104, CMP101, CMP104-150, PSY102, PSY118] and can commit to a full-time day program for an extended 3-semester time frame, typically 13-14 months pending fulfillment of Level 2 fieldwork requirements. OTA courses constitute all of the full-time credit hours within the extended 3 semesters [fall, spring, and summer that extends into the next fall]. Program requirements are the same for each option of study. Further description and outline of the course sequencing for each option of study can be found in the Student Handbook section OTA Program Options of Study.

On an individual basis, graduates of the program have been able to receive transfer credits to professional schools and continue their studies to become occupational therapists. Acceptance of the transfer credits depends on the receiving institution. Students planning to transfer should consult directly with the institution of their choice. NSCC’s OTA Program has an official transfer agreement with Salem State Universities combined BS/MS Program in Occupational Therapy.

The OTA Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association, Inc. (AOTA). Graduates of the program receive an Associate in Science degree and are eligible to sit for the national certification examination administered by the National Board for Certification in Occupational Therapy, Inc. (NBCOT). After successful completion of this examination, the individual will be a certified occupational therapy assistant (COTA). In addition, most states require licensure to practice. Licensure in many states, including Massachusetts is based on the results of the NBCOT certification exam. A felony conviction may affect a graduate’s ability to sit for the NBCOT certification examination or attain state licensure. In order to practice as an Occupational Therapy Assistant in Massachusetts, individuals must be licensed and work under the supervision of a Licensed Occupational Therapist.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

Information regarding academic accreditation, professional certification and Massachusetts’ licensure may be obtained from the following organizations respectively:

Accreditation Council for Occupational Therapy Education  
c/o The American Occupational Therapy Association, Inc.  
4720 Montgomery Lane  
PO Box 31220  
Bethesda, MD 20824-1220  
(301) 652-2682  
www.aota.org

National Board for Certification in Occupational Therapy, Inc.  
12 South Summit Ave., Suite 100  
Gaithersburg, MD 20877-4150  
(301) 990-7979  
www.nbcol.org

Board of Registration in Allied Health Professionals  
Division of Professional Licensure  
1000 Washington Street, Suite 710  
Boston, MA 02118-6100  
(617) 727-3071  
www.mass.gov/dpl/boards/ah

The OTA Program is a selective admissions program. Further information about the program, application process, and admission requirements can be found on the academic department web page at www.northshore.edu/departments/ota
## CREDIT PROGRAMS OF STUDY

### FIRST YEAR

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<td>Therapeutic Application of Modalities 1</td>
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<td>OTA105</td>
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<td>OTA108</td>
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Total Semester Credits: **19**

### SECOND YEAR

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<td>OTA207</td>
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Total Semester Credits: **13**

Total Program Credits: **70**

### Requirement Notes

1. The pre-requisite for Anatomy and Physiology 1 can be met through ONE of the following with no time limit for when it was completed: BIO101 or BIO105 with “C” or higher; or TEAS version V only Science section score of 50% or higher; or LPN Certificate; or a Bachelor of Science in biological science or chemistry. It can also be met with ONE of the following completed within the past 5 calendar years: high school biology with a “C” or higher, biology CLEP test with a score of 50 or higher, or AP biology test with a score of 3 or higher.

### Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

### Program Information

- Entrance into any Occupational Therapy Assistant course requires successful completion of all prerequisite courses and requires a grade of “C” (73%) or better for all OTA courses. A grade of “P” is required for OTA204 and OTA208.
- In addition to the traditional two-year curriculum, the OTA Program is offered in an accelerated option of study and a part-time option of study. Please refer to the OTA Program web page for further information about these options.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

### Admissions and Transfer Information

- Admission to this Program occurs only in the Fall Semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Office Support Certificate (OFC)
Career, Certificate (C1)

The Office Support certificate is a short-term training program specifically designed for students wishing to acquire the software skills needed for rapid entry into the workplace. It is also geared to those who wish to update their previous office skills for re-entry into the job market. Specialized training is provided in computerized keyboarding, word processing, records management, information transcription, and other office software applications needed for today’s highly technical office environment.

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Requirement Notes
1. Students who are not computer literate are encouraged to select CPS100.
2. Students who touch type 35 wpm or more and have knowledge of Microsoft Word 2010 may waive OFT101 and register for OFT102 the credits for OFT101 may be fulfilled with a 3-credit OPEN elective
3. A minimum grade of C- is required to graduate from this program and to meet OFT prerequisites.

Course Learning and Credentialing Options
- Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
- Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- OFT courses are offered primarily at the Lynn Campus.
- Students may apply the credits earned in this program toward the course requirements for an Associate degree in either Executive Administrative Assistant (EAD) or Legal Administrative Assistant (LAD).
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Credit Programs of Study

Paralegal (PAD)
Career, Degree (AS)

Paralegals are qualified through education and training to perform substantive legal work under the supervision of an attorney. The objective of the Paralegal Program is to provide high quality paralegal education combining legal theory and practice to enable students to achieve professional competence and to contribute to the advancement of the profession. The study of legal ethics, including the prohibition against the unauthorized practice of law by lay-persons, is an integral part of the curriculum. Paralegals may not provide legal services directly to the public, except as permitted by law. Students are prepared to assist attorneys in investigating facts, researching legal issues, drafting legal documents and correspondence, and preparing for trial.

The paralegal occupation is one of the fastest growing in America today. Paralegals are employed in law firms, federal, state, and municipal government, banks, insurance companies, corporate legal departments and business entities, and other public and private enterprises. The Paralegal program is offered at the Danvers Campus. Courses are also scheduled Evening/Weekend and Summer Sessions. Evening/weekend students should refer to Program Requirements in the College Catalog. The Paralegal Program is approved by the American Bar Association.

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Total Program Credits: 60

Requirement Notes
1 May be fulfilled by challenge exam and 3 liberal arts credits.
2 Recommend PHI116-Ethics; but may also be fulfilled by ART102-108; ASL; CMP104-190; DRA102; FRE; HUM; IDS101, 112, 118, 122, 134, 142; LIT; MDA108, 110, 112; MUS104, 106, 126, 128; PHI; REL; SPE; or SPN.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- PLG106 prerequisites are CMP101, PLG101 and PLG102.
- PLG201, PLG203, and PLG204 prerequisites are PLG101 and PLG102.
- PLG206 prerequisites are PLG201, PLG104, BUS102 and RES204; Corequisites are PLG203 and PLG204 or by permission.
- Not all courses are offered in every semester. Please consult with an academic advisor to ensure that you are able to satisfy program requirements in the proper sequence.
Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Paralegal Certificate (PAC)
Career, Certificate (C1)
The certificate program provides career education, professional skills and a credential for students with either an associate's or baccalaureate degree. Students with an associate's degree must meet the general education requirements set by the American Bar Association. This certificate program can be completed in a year: September to August. This program is approved by the American Bar Association.

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Total Semester Credits: 12 9 3 3
Total Program Credits: 27

Requirement Notes
1 May be fulfilled by challenge exam and 3 liberal arts credits.
2 Electives are: PLG104 (no prerequisites) PLG204, PLG 206.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- PLG106 prerequisites are CMP101, PLG101 and PLG102
- PLG201 and PLG203 prerequisites are PLG101 and PLG102
- PLG205 prerequisites are Communications Proficiency and CPS100
- RES204 prerequisites are Communications and Mathematics proficiencies
- Not all courses are offered in every semester. Please consult with an academic advisor to ensure that you are able to satisfy program requirements in the proper sequence.

Admissions and Transfer Information
- Admission to this program requires a prior Associate or Bachelor Degree.
Credit Programs of Study

Physical Therapist Assistant (PTA)
Career, Degree (AS)

The Physical Therapist Assistant program has been designed for students seeking entry-level positions as Physical Therapist Assistants. The comprehensive curriculum has been designed to develop competency in the entry level skills necessary for the Physical Therapist Assistant practicing in the field. Theoretical and practical experience in classroom and laboratory are supplemented by three clinical rotations over two full-time or three part-time years of study.

The program prepares graduates to work under the supervision of a licensed physical therapist in a variety of health care settings, including rehabilitation facilities, schools, long term care, home health care, pediatrics, acute care hospitals, orthopedics, and sports medicine clinics. Students in the program are encouraged to apply for student membership to the American Physical Therapy Association during their first year in the program. Graduates of the program receive an Associate’s degree in science and are eligible to take the national licensing exam administered by the Federation of State Boards of Physical Therapy. In order to practice in the state of Massachusetts physical therapist assistants must be licensed.

Although the program is non-transferable as a whole, on an individual basis graduates of the program considering a further degree have been able to obtain transfer credits for some courses to schools offering a baccalaureate degree in exercise physiology or related health program. Acceptance of transfer credits depends on the receiving institution. Students should consult directly with the institution of their choice.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

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Credit Programs of Study

Requirement Notes
1. The prerequisite for Anatomy and Physiology 1 can be met through one of the following with no time limit for when it was completed: BIO101 or BIO105 with “C” or higher; or TEAS version V only Science section score of 50% or higher; or LPN Certificate; or a Bachelor of Science in biological science or chemistry. It can also be met with one of the following completed within the past 5 calendar years: high school biology with a “C” or higher, biology CLEP test with a score of 50 or higher, or AP biology test with a score of 3 or higher.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing.
For information, please go to www.northshore.edu/cas.

Program Information
- Entrance into any Physical Therapist Assistant course requires a grade of ‘C’ (75%) or better in all PTA prerequisite courses.
- For graduation from the Physical Therapist Assistant program a grade of ‘C’ (75%) or better is required for all Physical Therapist Assistant courses.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to this Program occurs only in the Fall semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Practical Nursing Certificate (PNR)
Career, Certificate (C2)

The Practical Nursing Program provides the education necessary for the practice of practical nursing and the awarding of a certificate from the College upon completion of the ten-month program. Student learning occurs through a curriculum based on accepted nursing concepts with emphasis on the development of technical competencies, communication skills, and critical thinking facilitated by faculty guidance and selection of relevant learning experiences in classroom, seminar, laboratory, and clinical settings. Upon completion of the PN Program, the graduate will be prepared to function within the Standards of Practice, demonstrating safe, competent, ethical nursing practice. Employment as an LPN is available in numerous settings that include subacute, acute, chronic, rehabilitation, and community health care settings.

The PN Program is approved by the Massachusetts Board of Registration in Nursing. Graduates of the program are eligible to take the NCLEX-PN Licensure Examination. Graduates seeking licensure in Massachusetts must meet the licensure requirements outlined by the Commonwealth of Massachusetts Board of Registration in Nursing, including being of "good moral character." Individuals with a court record or a criminal conviction should contact the Board(s) of Registration in Nursing in any state in which they plan to work for guidelines in determining “good moral character,” prior to program entry.

Individuals may contact the Massachusetts Board of Registration in Nursing at 1-617-973-0800 or at www.mass.gov/dph/boards/rn for a myriad of information that among other topics includes nursing education, statues, rules and regulations, licensing, and complaint resolution.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

The PN Program is a selective admissions program. Further information about the program, application process, and admission requirements can be found on the academic department web page at www.northshore.edu (click on certificate programs and scroll to practical nursing).

Admission Information: Candidates for the Practical Nursing Program must complete the following requirements: submit evidence of graduation from high school or Equivalency (GED); achieve the required minimum scores on the Test of Essential Academic Skills (TEAS); obtain 3 references: (a) immediate supervisor (b) employer or teacher (c) friend of at least 2 years duration; complete the Practical Nursing Admissions Questionnaire; obtain official transcripts from all colleges previously attended.

Following acceptance into the PN Program, candidates must: submit evidence of physical and emotional health sufficient to meet program competencies and technical standards as indicated by a physician’s recommendation(s); be CPR (Healthcare Provider) certified; present evidence of health insurance.

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<td>Overview of Microbiology</td>
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<td>Human Development and Health Promotion</td>
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<td>Pharmacology for Practical Nursing</td>
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**Total Program Credits:** 42
Requirement Notes
1 May be fulfilled by substituting BIO103/104 Anatomy & Physiology 1 & 2.
2 May be fulfilled by substituting BIO110 Introduction to Microbiology.
3 May be fulfilled by substituting PSY118 Human Growth & Development.
4 May be fulfilled by substituting IDS106 Understanding Nutrition.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Successful completion of the courses in the Practical Nursing program means earning a grade of 75% or better in all PNR and HLS courses.
- For graduation from the Practical Nursing program all Practical Nursing (PNR) and all Health support (HLS) courses must be successfully completed.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission into this certificate program occurs only in the Fall semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
Credit Programs of Study

Pre-Engineering (PET)

AN OPTION OF LIBERAL ARTS

Transfer, Degree (AA)

The Pre-engineering Program provides comprehensive instruction to students who may not have the appropriate academic preparation to begin the Engineering Science Program. The program stresses the development of fundamental skills in mathematics, physics, chemistry, and computer science.

Students may take the first year of both years of Pre-engineering according to their needs prior to applying for entrance into the Engineering Science Program.

Because of the flexibility within the Pre-engineering curriculum, it is highly recommended that students considering this program meet with an advisor from the engineering faculty.

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Requirement Notes
1. Pre engineering Electives are: CAD101, CHE101, CHE102, CPS101, and CMP150. Students who have NOT had any chemistry should consult with their advisor and consider taking CHE101 - Introductory Chemistry 1.
2. May be fulfilled by challenge exam and 3 liberal arts credits.

Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.
Radiologic Technology (RAD)
Career, Degree (AS)

The registered radiographer uses x-rays and other imaging modalities to obtain vital diagnostic information about the internal structure and function of the human body. This associate degree program is designed to educate the student radiographer within a full-time, 21-month period. The graduate of this JRCERT accredited program is eligible to sit for the national certification examination administered by the American Registry of Radiologic Technologists. Successful completion of the exam bestows the credential R.T. (R) - Registered Technologist (Radiography) and qualifies the radiographer for the Commonwealth of Massachusetts radiographer's license.

Academic courses in the program are closely interwoven with supervised clinical instruction at affiliating local hospitals. Clinical education is highly structured and earns significant credits towards the A.S. degree. A new class starts each September and finishes two years later. Applicants are encouraged to call or write to the college for the specific admissions procedures and deadlines.

Information regarding accredited radiologic technology programs may be obtained from the Joint Review Committee on Education in Radiologic Technology (JRCERT) at 20 N. Wacker Drive, Suite 2850, Chicago, IL, 60606; 312-704-5300.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

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Total Semester Credits: 13 17 5

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Total Semester Credits: 13 13

Total Program Credits: 61

### Requirement Notes
1. The pre-requisite for Anatomy and Physiology 1 can be met through ONE of the following with no time limit for when it was completed: BIO101 or BIO105 with “C” or higher; or TEAS version V only Science section score of 50% or higher; or LPN Certificate; or a Bachelor of Science in biological science or chemistry. It can also be met with ONE of the following completed within the past 5 calendar years: high school biology with a “C” or higher, biology CLEP test with a score of 50 or higher, or AP biology test with a score of 3 or higher.
2. May be fulfilled by challenge exam and 3 liberal arts credits.

### Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.
Program Information
- Students will be required to attend clinical during winter intersession in accordance with program requirements and policies.
- Entrance into any Radiologic Technology (RAD) course requires a grade of "C" (75%) or better in all prerequisite courses. For graduation from the Radiologic Technology program a grade of "C" (75%) or better is required for all Radiologic Technology (RAD) courses.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to the Program occurs only in the Fall semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC's Student Support and Advising Center on the Lynn or Danvers campus.

Respiratory Care (RSP)
Career, Degree (AS)
Respiratory Therapists are licensed health care professionals who evaluate, treat, and care for patients with breathing or other cardiopulmonary disorders. Working closely with physicians, Respiratory Therapists are actively involved in the daily care of their patients by teaching and promoting respiratory health, administering therapy, working on the “code team” performing cardiopulmonary resuscitation (CPR), or helping to improve the quality of life of people with breathing disorders. Respiratory Therapists may work in hospitals, care for newborn babies in nurseries, travel around to care for patients at home, or pursue business/sales opportunities.
This fully accredited program combines lectures, laboratory activities, and hospital experience that lead to an Associate in Science degree, eligibility for the national examinations, and entrance into the Massachusetts licensure process.
Information regarding accredited Respiratory Care programs may be obtained from the Committee on Accreditation of Respiratory Care (CoARC) at 1248 Harwood Rd., Bedford, Texas; 76021-4244; (817)-283-2835, www.coarc.com. Additional information can be obtained from the American Association of Respiratory Care at www.AARC.org.
Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

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<td>Respiratory Care Pharmacology</td>
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<td>Fundamentals of Respiratory Care 1 &amp; 2</td>
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<td>RSP111/112</td>
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<td>Respiratory Care Clinical Experience 1 &amp; 2</td>
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<td>RSP131/132</td>
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<td>Respiratory Care Lab 1 &amp; 2</td>
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<td>BIO104</td>
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<td>Anatomy &amp; Physiology 2</td>
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<td>CHE101</td>
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<td>Introductory Chemistry 1</td>
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<tr>
<td>RSP222</td>
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<td>Introduction to Respiratory Disease</td>
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<td>RSP201/202</td>
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<td>Fundamentals of Respiratory Care 3 &amp; 4</td>
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<td>RSP211/212</td>
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<td>Respiratory Care Clinical Experience 3 &amp; 4</td>
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<td>RSP231/232</td>
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<td>Respiratory Care Lab 3 &amp; 4</td>
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<td>BIO110</td>
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<td>Introduction to Microbiology</td>
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<td>RSP214</td>
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<td>Respiratory Care Clinical Experience 5</td>
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<td>RSP215</td>
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<td>Contemporary Topics in Respiratory Care</td>
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Total Program Credits: 68
Requirement Notes
1. The pre-requisite for Anatomy and Physiology 1 can be met through ONE of the following with no time limit for when it was completed: BIO101 or BIO105 with “C” or higher; or TEAS version V only Science section score of 50% or higher; or LPN Certificate; or a Bachelor of Science in biological science or chemistry. It can also be met with ONE of the following completed within the past 5 calendar years: high school biology with a “C” or higher, biology CLEP test with a score of 50 or higher, or AP biology test with a score of 3 or higher.
2. The prerequisites for RSP102 Fundamentals of Respiratory Care 2 are RSP101, RSP111, and RSP132, MAT091 with a “C” or better or its equivalent.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Entrance into any Respiratory Care course requires a grade of “C” (75%) or better in all Respiratory Care prerequisite courses. For graduation from the Respiratory Care program a grade of “C” (75%) or better is required for all Respiratory Care (RSP) courses.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to this Program occurs only in the Fall semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Credit Programs of Study

Small Business Management - Entrepreneurship (SBC)
Career, Certificate (C1)

The Small Business Management Entrepreneurship Certificate, a two-semester program, offers the knowledge and skills needed to start a new business venture, contribute to a growing enterprise, identify new business opportunities, and/or successfully operate a small company. Students in this program will learn all the components of running an entrepreneurial venture or small business, including planning, organizing, leading and controlling all aspects of a small business organization. They will also develop strong critical thinking and problem solving skills.

In addition, communication strategies and business technology are emphasized. Both oral and written communication skills are integrated into the course work. Students gain hands-on computer experience: Quickbooks training is provided in.

**FIRST YEAR**

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<th>Note</th>
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<th>SPRING Cr</th>
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<tr>
<td>BUS100</td>
<td>Introduction to Business</td>
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<td>Contemporary Organizational Communications</td>
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<td>MGT208</td>
<td>Small Business Financial Management</td>
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<td>MKT101</td>
<td>Marketing 1</td>
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<tr>
<td>ACC110</td>
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<td>Small Business Computerized Accounting</td>
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<td>DIR-ELECTIVE</td>
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<td>Directed Elective</td>
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<td>MGT201</td>
<td>Human Resource Management</td>
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<td>MGT206</td>
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<td>MKT204</td>
<td>Advertising</td>
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Total Semester Credits: 15 13

Total Program Credits: 28

**Requirement Notes**
1. Recommended: IDS204-Ethics in Business.
2. Students may substitute ACC106 for ACC110.
3. Students must select one (1) of the following Directed Electives: MKT216-Internet Marketing, or GRA140-Integrated Media Design Principles.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- Some courses are offered only during the evening hours.

**Admissions and Transfer Information**
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Substance Abuse Counseling Certificate (SAC)
Career, Certificate (C1)

This program will provide human service professionals and others the education necessary to enter into careers related to substance abuse. This program leads directly into the two-year degree Drug and Alcohol Rehabilitation Program. Experience has shown that people with a minimum of one year of recovery have a better chance at success in this field of study.

<table>
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<th>FIRST YEAR</th>
<th>Note</th>
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<th>SPRING</th>
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<tr>
<td>DRG101</td>
<td>Substance Abuse and Society</td>
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<td>DRG204</td>
<td>Physiological &amp; Medical Aspects of Substance</td>
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<td>HUS101</td>
<td>The Human Services Worker</td>
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<td>PSY102</td>
<td>Introductory (General) Psychology</td>
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<td>CMP101</td>
<td>Composition 1</td>
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<td>DRG201</td>
<td>Substance Abuse Counseling for Individuals</td>
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<td>DRG206</td>
<td>Prevention of Substance Abuse</td>
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<tr>
<td>HUS102</td>
<td>Helping Skills in Human Services</td>
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<td>HUS108</td>
<td>Pharmacology for Human Services</td>
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Total Semester Credits: 12 15

Total Program Credits: 27

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- This certificate program can be applied as the first year in the Associate Degree “Drug & Alcohol Rehabilitation (DAD)” program.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Credit Programs of Study

Surgical Technology Certificate (SRG)
Career, Certificate (C2)

Surgical Technologists assist in operations under the supervision of surgeons or registered nurses. Before an operation, surgical technologists help to set up the operating room with surgical instruments, equipment, and other sterile supplies needed for surgery. They may transport patients to the operating room, help position them on the operating table, and assist the surgeon in draping the patient with sterile drapes to prevent exposure.

During surgery they pass instruments and other sterile supplies to surgeons and surgeon’s assistants. They may hold retractors, cut sutures, and help count sponges, needles, supplies, and instruments. Surgical Technologists help prepare, care for, and dispose of specimens taken for laboratory analysis during operations. They also assist in the application of dressings after the surgical procedure. They may also operate the sterilizer, lights, suction machines, and other diagnostic equipment.

After a surgical procedure, the surgical technologist may assist in transporting the patient to the Post Anesthesia Care Unit. They assist nurses and ancillary personnel in cleaning and restocking the operating room for the next surgical procedure.

Surgical Technologists are vital personnel that work side-by-side with the surgeon during a surgical procedure. They assure that the surgeon has all the proper equipment and supplies needed for a particular operation. This program is accredited by the Commission on Accreditation for Allied Health Education Programs (CAAHEP) through the Accreditation Review Committee on Education in Surgical Technology (ARC-EST). Information on accredited Surgical Technology programs may be obtained from the ARC-EST at 6 West Dry Creek Circle, Suite 210, Littleton, Colorado 80120, telephone 303-694-9262.

Surgical Technologists graduating from this accredited program are eligible to take the national certification examination administered by the Liaison Council on Certification for the Surgical Technologist.

<table>
<thead>
<tr>
<th>FIRST YEAR</th>
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<tr>
<td>HLS102</td>
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<td>HSL104</td>
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<td>SRG100</td>
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<td>SRG101</td>
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<td>SRG104</td>
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<td>SRG106</td>
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<td>SRG114</td>
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<td>SRG120</td>
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<td>SRG131</td>
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Requirement Notes
1. BIO103/104 may be substituted with a ‘C’ or better, to fulfill this requirement.
2. BIO110 may be substituted with a ‘C’ or better to fulfill this requirement.
3. OFT116 may be substituted with a ‘C’ or better, to fulfill this requirement.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Surgical Technology Program courses require a grade of (75%) or better in all SRG and HLS courses.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to this program occurs only in the fall and it is a full-time, day program.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
Travel, Tourism & Hospitality (TGD)
Career, Degree (AS)

The Tourism Hospitality Program is designed to provide students with theory, applied skills (ie: negotiating, social media, planning) and competencies needed for entry-level positions in a variety of Tourism/Hospitality industries located in the Greater Boston and North of Boston Region. Students who successfully complete this program will be prepared for entry-level employment in tourist attractions, museums, meetings planning, convention/conference centers, visitor’s bureaus/chambers of commerce, travel agency, airline, and tour guide services. The program includes a hands-on work experience through Cooperative Education and Internships which integrate classroom study with a supervised work experience.

**FIRST YEAR**

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<td>CPS100</td>
<td>1 Information Technology and Its Applications</td>
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<td>TOU104</td>
<td>Introduction to Tourism and Hospitality</td>
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<td>TRV106</td>
<td>Selling Travel Destination</td>
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<td>GEO116</td>
<td>World Regional Geography</td>
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<td>or IDS138</td>
<td>Geo-Cultural Development of New England</td>
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<td>BUS101</td>
<td>Math for Business and Finance</td>
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<td>HSP110</td>
<td>Planning Meetings, Conferences, and Special Events</td>
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<td>HSP114</td>
<td>Marketing the Tourism and Hospitality Industry</td>
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<td>TRV103</td>
<td>Automated Systems for the Travel Industry</td>
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Total Semester Credits: 16 15

**SECOND YEAR**

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<td>SPE102/104</td>
<td>Speech or Small Group Communication</td>
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<td>COP202</td>
<td>4 Cooperative Education/Internship</td>
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<td>LA-ELECTIVE</td>
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<td>TOU210</td>
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<tr>
<td>TOU216</td>
<td>Tourism Development and Management</td>
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Total Semester Credits: 15 15

Total Program Credits: 61

**Requirement Notes**
1. May be fulfilled by challenge exam and 3 liberal arts credits.
2. The following Business courses are recommended: BUS100, MGT102, MGT206.
3. Foreign language is recommended: FRE101/102 or SPN. Other suggested Liberal Arts are: ECO103/104, GOV104, MDA104, PSY102.
4. Students may be eligible for COP202 exemption. Please see the COP202 Coop Ed/Internship Exemption Form found on the Academic Program page for details. If exemption is approved, student must complete a 3-credit open elective.

**Course Learning and Credentialing Options**
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

**Program Information**
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- HSP, TOU and TRV courses are offered during the day at the Lynn campus only.

**Admissions and Transfer Information**
- Program available days only at the Lynn Campus.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.
Veterinary Technology (VET)
Career, Degree (AAS)

This two year Associate of Applied Science Degree Program trains the student to work in a clinical veterinary setting. Graduates of the program are employed in veterinary clinics and hospitals, as well as being qualified for positions in research facilities. The curriculum is also designed to prepare the student to successfully complete the National Veterinary Technician Certification Exam. The emphasis of this program is on the health and care of small domestic animals (dogs and cats).

This program is accredited by the American Veterinary Medical Association (AVMA). Information about the AVMA can be obtained at www.avma.org.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

<table>
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Total Semester Credits: 17 17 3

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Total Semester Credits: 17 16

Total Program Credits: 70

Requirement Notes
1. These courses require a grade of ‘C’ or better to meet prerequisite and graduation requirements.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.
Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Admission to the Program occurs only in the Fall semester.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
- This program may meet the eligibility criteria for MassTransfer and Joint Admissions with Massachusetts public colleges and universities (please see www.mass.edu/masstransfer); or, it may have a transfer agreement with a private 4-year college (please see www.northshore.edu/academics/departments). You may also visit NSCC’s Student Support and Advising Center on the Lynn or Danvers campus.

Web Development Certificate (WDV)
Career, Certificate (C1)
The Web Development Certificate is a two-semester program providing training for students interested in expanding their web technology skills. The program focuses on the development of web sites including the visual design, client side programming, and server side programming to meet business needs.

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Total Semester Credits: 15 12

Total Program Credits: 27

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- All courses required for this program are scheduled (fall semester/spring semester) as outlined on the official program of study sheet. Some courses may be available both semesters; students should consult the course schedule for course availability and speak with their academic advisor.
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This program could be completed in its entirety online or in a traditional classroom or a combination of both.

Admissions and Transfer Information
- Students entering this program should have the following academic background to begin the required coursework: computer literacy at the high school or college level.
- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Wellness & Healing Arts Certificate (WHA)
Career, Certificate (C1)

This certificate is designed with a three-fold purpose 1) to provide students interested in holistic health a broad perspective of the field, 2) to provide an opportunity for health professionals to acquire a new skill or competency, and 3) to emphasize the unity of mind and body as expressed in various holistic healing modalities. The courses will emphasize methods and techniques which promote wellness, emphasize preventive measures in healthcare, and address the need for greater dialogue between conventional medical practitioners and alternative practitioners.

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Requirement Notes
1 This requirement may be fulfilled by substituting BIO103 and BIO104 - Anatomy and Physiology 1 & 2.

Course Learning and Credentialing Options
Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.
Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information
- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.

Admissions and Transfer Information
- Students entering this program should have the following academic background to begin the required coursework: Successful completion of CMP101.
- This is a Special Admissions Program - Admission to this program has specific entrance requirements and may be competitive; program may have limited seating capacity. Further information about the program, application process and admission requirements can be found at www.northshore.edu/academics/programs.
Youth Worker (PYK)

Career, Certificate (C1)

The Youth Worker Certificate provides students with specific foundation skills and knowledge to work with at-risk youth in non-traditional settings. Youth workers provide strengths-based youth development, support, outreach, interventions, and conflict resolution to adolescents and young adults. The Youth worker Certificate is recommended for students who plan careers working with youth in: Probation/Parole Services, Youth Case Management, Juvenile Corrections, Alcohol and Drug Abuse Prevention and Counseling, Youth Social or Mental Health Services, Family and School Counseling, Law Enforcement, Vocational/Employment Counseling, Faith-based Ministries. The Youth Worker Certificate can be applied to the Criminal Justice, Developmental Disabilities, and Human Services Practitioner Associate Degree programs.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

FIRST YEAR

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Total Semester Credits: 6

Total Program Credits: 9

Course Learning and Credentialing Options

Distance Learning - some sections of the above courses may be available through a distance learning format. For information, please go to www.northshore.edu/distance.

Alternative Credentialing - Alternative options for earning course credit may exist and can be explored through the Center for Alternative Studies and Educational Testing. For information, please go to www.northshore.edu/cas.

Program Information

- Students are strongly urged to meet with their academic advisor on a semester basis or as needed to review the prerequisites of each course within the program and discuss course selections for successful completion of this program.
- This certificate program can be applied to the Criminal Justice and Human Services Practitioner Degree Programs.

Admissions and Transfer Information

- This is an Open Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program.
Aesthetics and Skin Care - Basic (ZAE)

Certificate of Completion Noncredit (CN)
The Aesthetics and Skin Care Program offered by North Shore Community College is a 300 clock-hour licensed program regulated by the Massachusetts Board of Registration of Cosmetology. The competency-based curriculum includes training in the fundamentals, scientific, and clinical application of basic skin care aesthetics. Students have the opportunity to develop manipulation skills and practice hands-on fundamentals in an actual salon environment. Graduates will be prepared to take and pass the State Board Examination that leads to the issuing of an aesthetician’s license. Once licensed, graduates are eligible to work in a salon or spa as a skin care specialist.

Certification Training (CT)
The 300 clock hour program must complete a total of 300 clock hours to be eligible to take the Massachusetts Aesthetics Licensure Examination. Program meets two evenings and every other Saturday.

Admissions and Transfer Information
- Admission into this certificate program occurs only in the Fall semester.
- The 300 clock hour program is NOT eligible for financial aid.
- This is a Limited Capacity Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program; program has a limited seating capacity.

Program Information
- Program is approved by the Massachusetts Board of Registration of Cosmetology. Students must complete a total of 300 clock hours of supervised field work; and any combination of three electives (two workshops (W) equal one elective.)
- Program meets two evenings and every other Saturday.
- Program is NOT eligible for financial aid.
- This is a Limited Capacity Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program; program has a limited seating capacity.

Auto Damage Appraisal (XAD)

Certificate Training (CT)
This 60-hour state approved course is for individuals who want to obtain their Automobile Appraisal License and have some automotive experience. This course will cover how to read, write, and appraise auto damage and prepare students for the Massachusetts state certification exam.

Instruction includes: introduction of insurance regulations, the policy as contract, law & regulations, parts nomenclature of the motor vehicle, collision diagnosis, frame damage, repairs, and cost estimating.

CSA782 Auto Damage Appraisal

Autodesk (XAO)

Certificate of Completion Noncredit (CN)
The Institute for Corporate Training and Technology at NSCC is a designated Autodesk Training Center. This designation by Autodesk is your assurance that the facility and quality of instruction meet the high standards of the developer.

AutoCAD courses are primarily geared for, but not limited to, design drafting, architectural, engineering, mapping graphics, documentation, construction, landscaping and interior design professional who utilize CAD to increase their productivity and new tools for creative expression. Extensive use of the CAD workstation is employed, with only one student at each station.

CSP302 AutoCAD: Level 1
CSP515 AutoCAD: Level 2

Program Information
- Knowledge of Windows and Basic Drafting is required for entrance into this program.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

Basic Culinary Arts (XCR)

Certificate of Completion Noncredit (CN)
To earn a certificate you must complete 6 courses, including: Basic Culinary Arts, Beyond Basic Culinary Arts, ServSafe plus 40 hours of supervised field work; and any combination of three electives (two workshops (W) equals one elective.) New and different elective and workshops are offered every semester plus 40 hours supervised field work.

Note
CSA156 Fundamentals of Catering
CSA324 1 Nutrition/Cooking Workshop
CSA485 2 Intro to Culinary Arts: Part 1
CSA487 2 “ServSafe” Food Sanitation
CSA490 Nutrition for the Food Service Professional
CSA552 Cake Decorating
CSA553 2 Intro to Culinary Arts: Part 2

Requirement Notes
1 Workshops - see below.
2 Required course.
Noncredit Programs of Study

Program Information
- Students must complete 40 hrs of supervised work experience (paid or volunteered). Documentation must be provided in the form of a letter.
- To earn a certificate students must complete three required courses: Basic Culinary Arts, Beyond Basic Culinary Arts, and ServSafe; and any three culinary electives (two workshops = one elective) plus 40 hours supervised work experience. Electives and workshops vary each semester. Please consult the course catalog for the workshops and courses scheduled each semester.
- After completing the certificate requirements contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

Bookkeeping and Accounting (XBA)
Certificate of Completion Noncredit (CN)
This certificate is designed for bookkeepers who need to learn computerized accounting and the current software, individuals who are interested in a career in business accounting and financial services, home based business owners and others who want to learn the basics of accounting and how to use the current software programs. Knowledge of the keyboard and some experience with windows and a mouse are required.

CSA367 Making Money as a Freelance Bookkeeper
CSA405 Bookkeeping and Accounting Part 1
CSA406 Bookkeeping and Accounting Part 2
CSP108 Microsoft Excel: Level 2
CSP115 Microsoft Excel: Level 1
CSP172 QuickBooks Payroll
CSP286 QuickBooks Pro: Level 1
CSP291 File Management Proficiency
CSP498 QuickBooks Pro: Level 2

Program Information
- After completing the nine required courses contact Corporate and Community Education to receive your certificate.
- Knowledge of the keyboard and experience with Windows is required for entrance into this program.
- All nine of the above courses are required for completion of the certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

Central Sterile Processing Technician (XSP)
Certification Training (CT)
Central Sterile Processing Technicians clean and sterilize surgical instruments and medical equipment. Technicians set up equipment and deliver them to surgical areas, hospital rooms, clinics and even patient’s homes. Students learn how to assemble, adjust and check non-sterile equipment, and sterile supplies needed for surgery or other medical procedures. Learn about microbes, and germs and how they cause infections.

Students also learn how Central Sterile Processing departments manage inventory, order supplies, inspect, maintain, deliver, and retrieve equipment and instruments for surgery, emergency room and other patient care units.

Program includes classroom, lab, and experience in a sterile processing department during the clinical portion of the program.

Space is limited. Call for information at (978) 236-1200.
Cisco CCN Discovery (XCC)
Certification Training (CT)

After completing this program a student will be able to take the CCENT (Cisco Certified Entry Network Technical) exam. CCENT certifies the practical skills required for entry-level IT positions. In addition, this certification demonstrates a student’s aptitude and competence to work in an environment that features Cisco networking devices and software.

CSP411  CCNA Discovery I and II
CSP424  CCNA Discovery III
CSP425  CCNA Discovery IV

Program Information
- Two years experience in either MacOS or Windows and access to the Internet is required for entrance into this program.
- After completing CSP411 students are prepared to test for the CCENT certification exam.
- After completing CSP424 and CSP425 students are prepared to test for the CCNA certification exam.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
- After passing the CCNA certification exam, students continuing towards an associate degree program may apply for credit for completing these certifications through the Center for Alternative Studies.

CompTIA A+ (XTA)
Certification Training (CT)

CompTIA A+ Certification is designed to do the following: open doors to the Information Technology Profession; provide you with an industry recognized, valued credential; confirm that you have the ability to get the job done right; arm you with the knowledge, technical ability and customer service skills that are necessary to be a successful computer service technician.

CSP363  CompTIA A+ Certification Training

Program Information
- Basic knowledge of the computer, computer concepts, and keyboarding required for entrance into this program.
- After completing this course, students will be prepared to take the CompTIA A+ certification exams. Two exam vouchers are included in the cost of the course. CompTIA is the IT industry's largest developer of vendor neutral IT certification exams. CompTIA is recognized worldwide as a trusted indicator of qualified and competent professionals in the IT industry.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

CompTIA Network+ (XCT)
Certification Training (CT)

Network+ certification candidates possess the knowledge to configure and operate a variety of networking products. This exam covers a wide range of vendor and product neutral networking technologies that can also serve as a prerequisite for vendor-specific IT certifications. A+ certification along with Network+ certification may be used as an elective in the MCSA program.

CSP448  Comp TIA Network + Certification Training

Program Information
- Knowledge of the computer, computer concepts and keyboarding required. A+ certification recommended but not required for entrance into this program.
- After completing this course students will be prepared to take the CompTIA Network+ certification exam. An exam voucher is included in the cost of the course. CompTIA is the IT industry’s largest developer of vendor neutral IT certification exams. CompTIA is recognized worldwide as a trusted indicator of qualified and competent professionals in the IT industry.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

CompTIA Security+ (XAS)
Certification Training (CT)

You need Security+ Certification if your job responsibilities include securing network services, network devices, and network traffic. Build on your knowledge and professional experience with computer hardware, operating systems, and network as you acquire the specific skills required to implement basic security services on any type of computer network.

CSP471  CompTIA Security +

Program Information
- Knowledge of the computer, computer concepts, keyboarding, and networking required. CompTIA A+ and CompTIA Network+ are recommended for entrance into this program.
- After completing this course students will be prepared to take the CompTIA Security+ certification exam. An exam voucher is included in the cost of the course. CompTIA is the IT industry’s largest developer of vendor neutral IT certification exams. CompTIA is recognized worldwide as a trusted indicator of qualified and competent professionals in the IT industry.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

Dental Assistant (XDA)
Certification Training (CT)

Enter the health care field with a 70-hour training program for certification as a Dental Assistant. Familiarize yourself with all areas of pre-clinical dental assisting and train in the professional skills required to function as an assistant in the dental practice. The state of Massachusetts requires any dental office employee who will be required to function as an assistant in the dental practice. The state of Massachusetts requires any dental office employee who will be performing radiological procedures (X-Rays) to take and pass the DANB Radiology Health and Safety Exam (RHS). In addition to the classroom lecture and hands on lab, this program also includes an optional clinical rotation.

Administrative Aspects include: the history of dentistry and dental assisting; intro to the dental office; legal aspects of dentistry; policies and guidelines. Clinical Aspects include: intro to oral anatomy; dental operatory; dental equipment, into to tooth structure; primary and permanent teeth; the oral cavity and related structures; proper patient positioning; dental hand-pieces; sterilization; and other areas.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with
a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

CSA340 Dental Assistant

Program Information
- This 70-hour program will prepare students to sit for the DANB Radiology Health and Safety Examination (RHS). The State of MA requires that any dental office employee who will be performing radiological procedures (X-rays) must take and pass the DANB RHS exam.
- Exam cost is not included as part of the cost of this program. Testing is held at Pearson Vue Testing Centers.

Dialysis Technician (XDT)
Certificate of Completion Noncredit (CN)
Under the supervision of physicians and registered nurses, Dialysis Technicians operate kidney dialysis machines, prepare dialyzer reprocessing and delivery systems as well as maintain and repair equipment. Furthermore, technicians work with patients during dialysis procedures and monitor and record vital signs. Dialysis Technicians must also assess patients for any complications that occur during the procedure and must be ready to take necessary emergency measures including administering oxygen and performing Basic Cardiopulmonary resuscitation. Additionally, they may also be involved in the training of patients for at-home dialysis treatment and providing them with the emotional support they need for self-care.

CSA342 Dialysis Technician

Program Information
- This 50-hour program provides students with the knowledge and skills needed to perform the duties required of Dialysis Technicians.
- This program does not include a national or state certification as part of its overall objectives. Federal Medicare law dictates individuals have 1,000 to 1,500 hours of work experience to sit for the exam. Additionally there is no student internship or clinical rotation offered as part of this program.

EKG Technician (XET)
Certification Training (CT)
This comprehensive 50-hour EKG Technician Program prepares students to function as EKG Technicians and to take the ASPT, Electrocardiograph (EKG) Technician exam, and other National Certification Exams.

This course will include important practice and background information on anatomy and physiology of the heart, medical disease processes, medical terminology, medical ethics, legal aspects of patient contact, electrocardiography and stress testing. Additionally, students will practice with EKG equipment and perform hands-on labs including introduction to the function and proper use of the EKG machine, the normal anatomy of the chest wall for proper lead placement, 12-lead placement, and other clinical practices.

Program Information
- This 50-hour EKG Technician course fulfills the requirements to take the EKG Technician certification exam (CEKGT) through the American Society for Clinical Pathology. www.ascp.org. Exam cost is not included in the cost of this program.

Event Planning (XEP)
Certificate of Completion Noncredit (CN)
Learn the fundamentals of event planning, explore the various facets of an event planner’s job, define industry terms and gain practical insight into the valuable tools and resources available to become a successful event planner.

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<td>CSA405</td>
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<td>Bookkeeping and Accounting: Part 1</td>
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<td>CSA487</td>
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<td>“ServSafe” Food Sanitation</td>
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<td>CSA631</td>
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<td>Time Management</td>
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<td>CSL118</td>
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<td>Fundamentals of Finance and Accounting for Non-Finance</td>
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<td>CSL122</td>
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<td>How to Manage Conflict in the Organization</td>
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<td>CSL143</td>
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<td>Successful Negotiating</td>
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<tr>
<td>CSL155</td>
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<td>How to Plan &amp; Manage Your Company Budget</td>
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<tr>
<td>CSM902</td>
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<td>Floral Design: Level 1</td>
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<tr>
<td>CSP115</td>
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<td>Microsoft Excel: Level 1</td>
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Requirement Notes
1 Required

Program Information
- To earn a certificate students must complete CSA064 the eight week Event Planning course, CSA151 Event Design and Decor and any six other related courses. In addition students must complete 40 hours of work experience (paid or volunteered). Documentation must be provided in the form of a letter. For assistance in planning which courses to take that match your event planning interest, please call 978-236-1200.
- After completing the requirements, contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
Floral Design (XFL)
Certificate of Completion Noncredit (CN)
To earn a certificate, students must complete six required courses and two electives (two workshops equal one elective). In addition, students must provide documentation of 40 hours of supervised field work. Required courses: Floral Design 1, Floral Design 2, Floral Merchandising and Business Practices, Wedding Flowers, Sympathy Flowers, Creative Gift & Fruit Baskets, Any combination of three electives (two workshops equal one elective).

CSM902 1  Floral Design 1
CSM907  Floral Design 2
CSM916  Sympathy Floral Art
CSM937  Floral Merchandising & Business Practices
CSM946  Creative Gift & Fruit Baskets
CSM957  Wedding Flowers

Requirement Notes
1  Floral Design 1 must be taken prior to any of the required courses.

Program Information
- To earn a certificate students must complete the above six required courses and any two floral design electives (two workshops = one elective).
- Students must also complete 40 hours of supervised work experience (paid or volunteered). Documentation must be provided in the form of a letter.
- After completing the requirements, contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

Food Service Director (XFS)
Certificate of Completion Noncredit (CN)
Designed for those who are seeking employment or advancement in the food service industry, and to satisfy Department of Public Health requirements. Earn a Food Service Director certificate from NSCC when you complete studies and pass examinations in all three concentrations (may be taken in any order.)

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<td>CSA485</td>
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<tr>
<td>CSA490</td>
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<td>CSL122</td>
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Requirement Notes
1  “ServSafe” awarded by the National Restaurant Association and Educational Foundation (NRAEF.) It is recommended that you purchase the textbook and begin reading materials before the class date. “ServSafe” certification renewable every 5 years.

Program Information
- Testing “bubble sheet” included in the “ServSafe” textbook is required to take the final exam. If you purchase a used textbook and this sheet is missing, you may purchase a testing sheet through the NRAEF website at: www.nraef.org.
- After completing these five required courses, contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

Front Office Essentials (XOE)
Certificate of Completion Noncredit (CN)
Prepare for entry level employment in the business world. Be computer savvy using Microsoft Office. Perform general office procedures; filing, answering telephones, greeting visitors, scheduling and more. Hands-on classes in state-of-the-art computer classrooms. To earn a certificate you must complete nine courses.

CSA405  Bookkeeping and Accounting Part 1
CSA631  Time Management
CSA811  Customer Service
CSA816  Training for the Front End Office
CSP115  Microsoft Excel: Level 1
CSP116  Microsoft Word: Level 1
CSP240  Introduction to the Computer
CSP286  QuickBooks Pro: Level 1
CSP291  File Management Proficiency
CSW141  Business Writing

Program Information
- Prerequisite - Introduction to Computers or experience with Microsoft Windows.

Graphic Design (XGD)
Certificate of Completion Noncredit (CN)
The courses offered in the certificate program will give a practical, broad introduction to the conception, design, and production of promotional materials and printed communications. Professionals who work or wish to work in public relations, promotion, printing, graphic design, or art direction, will benefit from this program, as well as administrators who wish to have technical understanding of this field. A choice of two Web Design Workshops from the Web Design Certificate Program are required. Once you have successfully completed the necessary courses, petition Corporate and Community Education in writing so your transcript can be evaluated and your certificate awarded.

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<td>CSP497</td>
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<td>CSP499</td>
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Requirement Notes
1  Textbook required

Program Information
- Knowledge of the computer and file structures required. Graphic design experience recommended for entrance into this program.
- To earn a certificate students must complete these seven required courses and at least two web design workshops. Please consult the Web Design Program sheet for information about the web design workshops.
- After completing the requirements, contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
**Interior Design (XID)**  
**Certificate of Completion Noncredit (CN)**

Be equipped to enter the professional field of Interior Design. This program will become a stepping stone in exploring further degree programs, help you move into a more senior position in a firm, channeling your knowledge and creativity into an entry position in the Interior Design field.

In the seven required courses, you will learn basic drawing skills, drafting symbols, line quality for designing plans, presentation boards, and schedule layout. Learn the design development process along with the history of styles and selection of appropriate finish materials and fabrics. A.D.A. compliance and fire codes will be covered. Once you have successfully completed the necessary courses, petition Corporate and Community Education in writing so your transcript can be evaluated and your certificate awarded.

**Requirement Notes**
- **1 Required**
- **2 Students are required to take CSA403 Drafting for Interior Designers prior to taking CSA402, CSA617 and CSA675.**

**Program Information**
- To earn a certificate students must complete these seven courses: CSA073, CSA242, CSA402, CSA403, CSA616, CSA617, CSA694 and at least two electives.
- After completing the requirements, contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
- Electives vary each semester. Please consult the course catalog for the courses scheduled each semester.

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**Introduction to SolidWorks (XSW)**  
**Certificate of Completion Noncredit (CN)**

Use the latest in 3D parametric modeling to learn the foundation of drafting and design principles. SolidWorks allows you to apply your knowledge to a curriculum-designed project that integrates real world applications. Students will design a mechanical project, piece by piece, create 3D models of each part and assemble the parts to produce a working drawing of their model. SolidWorks is the global standard in 3D mechanical design software. It helps organizations reduce time-to-market, design better quality product faster, maintain a competitive advantage, and increase sales. SolidWorks delivers powerful 3D design capabilities, unmatched ease-of-use, at an affordable cost.

**Program Information**
- Students must have knowledge of Windows and basic drafting for entrance into this program.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

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**Landscape & Garden Maintenance (XLG)**  
**Certificate of Completion Noncredit (CN)**

Students spend two mornings a week gaining hands-on experience while learning how the experts care for and maintain new and existing landscapes, gardens, and lawns at the Long Hill Reservation, a beautiful country garden estate in Beverly. Designed for homeowners, gardeners, landscape workers, and individuals who wish to broaden their horticultural knowledge. This unique program insures that the student experiences the best that the New England growing seasons have to offer.

**Program Information**
- Courses are taught at the Trustees of the Reservation, Long Hill, in Beverly.
- To earn a Landscape and Garden Maintenance Certificate, you must also complete 120 hours of supervised field experience (paid or volunteered). Documentation must be provided in the form of a letter from one or more supervisors or clients stating the number of hours of service.
- After completing the certificate requirements, contact Corporate and Community Education to receive your certificate. There is an award ceremony each spring at the Trustees of the Reservation Long Hill.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
Landscape Design (XLD)
Certificate of Completion Noncredit (CN)
Create landscapes and home gardens that are both aesthetically appealing and will flourish in New England. Learn the art of designing with architectural representation, horticultural requirements, and selection of appropriate specimens.

Landscapers, homeowners, gardeners, and enthusiasts who enjoy horticulture will benefit from these courses.

Note
CSM240 1 The Business of Landscaping
CSM280 1 Basic Design
CSM286 1 Trees – Identification and Culture
CSM287 1 Perennials, Annuals, Vines: Identification & Culture
CSM293 1 Identification and Culture of Shrubs
CSM351 2 Advanced Identification of Trees
CSM352 2 Advanced Identification of Shrubs
CSM356 1 Landscape Construction
CSM942 1 Landscape Design Basics I
CSM962 1 Landscape Graphics I
CSM984 1 Landscape Graphics II
CSM993 1 Landscape Design Basics II
CST115 2 Mass. Cert Landscape Professional Exam
CST941 3 Landscape and Garden Maintenance – Fall
CST935 3 Landscape & Garden Maintenance – Spring
CST958 3 Landscape and Garden Maintenance – Summer

Requirement Notes
1 Required
2 Elective course
3 These 3 courses are required for Landscape Design Certification Program Certificate (XLD) and upon completion of these courses, students are also eligible to receive the Landscape & Garden Maintenance Certificate (XLG)

Program Information
- To earn a certificate students must complete the 12 required courses plus 120 hours of field experience (paid or volunteered). Documentation must be provided in the form of a letter.
- After completing the requirements, contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.

Medical Interpreting (XMC)
Certificate of Completion Noncredit (CN)
This course, in collaboration with TransFluenci Translation & Interpreting Services, provides a working knowledge of the various aspects of Medical Interpreting. Increase your awareness of the skills necessary to work as an interpreter in a healthcare setting such as a hospital or community clinic. Medical interpreters are in great demand, especially in Massachusetts, where interpreters are legally mandated in acute care hospitals and behavioral health hospitals. This course will prepare you to sit for the exam. Bring an audio digital recorder to class. Textbook required, available at the Danvers campus bookstore.

Note
CSA044 Medical Interpreting

Microsoft Office Suite (XMO)
Certificate of Completion Noncredit (CN)
As technology makes our lives simpler, it seems there is more to do. Busy office professionals use Microsoft Office as a tool to keep their files organized and up-to-date, route mail correctly, and process documents. Get all the knowledge you need to be comfortable with computers and the latest version of Microsoft Office. Classes are hands-on in our state-of-the-art computer classrooms.

Note
CSP100 1 Keyboarding on the Computer
CSP101 1 Microsoft PowerPoint Level 2
CSP104 1 Microsoft Access Level 2
CSP105 2 Microsoft Word: Level 2
CSP108 2 Microsoft Excel: Level 2
CSP115 2 Microsoft Excel: Level 1
CSP116 2 Microsoft Word: Level 1
CSP177 2 Microsoft PowerPoint Level 1
CSP240 2 Introduction to the Computer
CSP255 2 Microsoft Access: Level 1
CSP291 2 File Management Proficiency
CSP423 1 Microsoft Word Level 3
CSP451 1 Microsoft Excel Level 3
CSP474 1 Microsoft Access Level 3
CSP475 2 Microsoft Outlook: Level 1

Requirement Notes
1 Elective
2 Required

Program Information
- After completing the certificate requirements contact Corporate and Community Education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
- Level 2 and Level 3 courses are designed to prepare students for the Microsoft Office Certification Exams (MOS).
- A passing grade in the Microsoft Office Certification exams may provide eligibility to earn four credits towards CPS114 Advanced Microsoft Office.
Nail Technician (ZNT)
Certification Training (CT)

Students will earn 100 clock hours of instructional class time over a 12-week period to become eligible to participate in the Massachusetts state exam. Students will study the anatomy and physiology of the hand and arm, nail repair, acrylics, French manicure, professional ethics, salon management and state law issues. Evening classes are held at the Essex Agricultural Institute, Cosmetology Building, Route 62, Maple Street in Danvers on both Monday and Wednesday evenings. Included in the cost of tuition: a professional technician travel case, salon tools and supplies, required textbook, workbook and state exam review book.

Requirement Notes
1 Textbooks and nail technician kit included. Space is limited.

Program Information
- Students receive hands-on experience through the open clinic for clients.
- This 100-hour clock hour (not eligible for Financial Aid) program fulfills all Commonwealth of Massachusetts requirements for manicurist. You must pass state administered practical and written exams before you can practice. Testing is held at an offsite location and requires exam and licensing fees.

Admissions and Transfer Information
- This is a Limited Capacity Admissions Program - Proof of high school graduation or the equivalent is required for admission to this program; program has a limited seating capacity.

Nurse Assistant/Home Health Aide (XCN)
Certification Training (CT)

Enter the health care field with a 100-hour training program for dual certification as a Nurse Assistant and Home Health Aide. Fulfill your classroom hours on campus and your clinical experience in a local nursing facility. You must pass the state board examination to become a Certified Nurse Assistant. You will also receive a Home Health Aide Certificate.

The skills taught in our DPH approved training program include vital signs, moving and turning patients, personal care basics, bed making, bed bath and feeding, record keeping and responding to emergencies.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

CSA687 Nurse Assistant/Home Health Aide

Program Information
- This 100-hour program fulfills all Massachusetts Department of Public Health requirements for both nurse assistant and Home Health Aide. Includes 21 hours of clinical experience at a local nursing facility. You must pass a state administered Certified Nurse Assistant exam before you can practice as a CNA. Testing held at an offsite location. Upon successful completion of the program, students will also receive a Home Health Aide Certificate.

Admissions and Transfer Information
- Assessment testing is required in reading and math at the College’s Center for Alternative Studies before admission.
- Proof of immunizations and a negative TB test is required at the first class.
- Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.
- Students must be able to meet the performance requirements listed in the technical standards for the program.
PC & Networking Support (XPC)

Certification Training (CT)

Get the skills needed to install and configure PC hardware such as disks, memory, network adapters, operating systems, Windows and DOS. Learn how to install Microsoft Office, set up printing, and troubleshoot common networking, including LANs and WANs, TCP/IP, and network administration. This program will prepare you for the CompTIA A+, CompTIA Network+ and the entry-level Microsoft Certified Professional (MCP) certifications.

CSP363  CompTIA A+ Certification Training
CSP411  CCNA Discovery 1 & 2
CSP448  Comp TIA Network + Certification Training

Program Information
- Before beginning this program, knowledge of the computer, computer concepts, and keyboarding are required.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
- This program will prepare you for the CompTIA A+, CompTIA Network+ and the Cisco CCENT™ industry certification exams. CompTIA is the IT industry’s largest developer of vendor neutral IT certification exams. Recognized worldwide as a trusted indicator of qualified and competent professionals in the IT industry, these certifications will prepare for the next level; Microsoft Certified Technology Specialist.

Pharmacy Technician (XPT)

Certification Training (CT)

Enter the pharmacy field and take the Pharmacy Technician Certification Board’s (PTCB) exam. Technicians work in hospitals, home infusion pharmacies, community pharmacies, and health care settings, working under the supervision of a registered pharmacist. Course content includes medical terminology specific to the pharmacy, reading and interpreting prescriptions, and defining drugs by generic and brand names. You will learn dosage calculations, I.V. flow rates, drug compounding, dose conversions, dispensing of prescriptions, inventory control, and billing and reimbursement. In addition to the classroom lecture and hands on lab, this program also includes an optional clinical rotation.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

CSA270  Pharmacy Technician Program

Program Information
- Knowledge of the computer is recommended for entrance into this program.
- Students must be at least 18 years old and have a high school diploma or GED to take the certification exam.
- After completion of this course students are prepared to take the National Certification exam given by the Pharmacy Technician Certification Board at www.ptcb.org. The exam cost is not included in the course cost.

Phlebotomy Technician (XPH)

Certification Training (CT)

This 90-hour Phlebotomy Technician Program prepares professionals to collect blood specimens from clients for the purpose of laboratory analysis. Course fulfills the requirements to take the National Healthcareer Association’s (NHA) Certified Phlebotomy Technician (CPT) exam. www.ascp.org

Classroom and lab work includes terminology, anatomy and physiology; blood collection procedures; specimen hands-on practice; and training in skills and techniques to perform puncture methods. In addition to 90 hours of classroom lecture and hands on labs, this program also includes a 40 hours clinical rotation as part of the program. In addition to the classroom lecture and hands on lab, this program also includes an optional clinical rotation.

Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

CS1104  Phlebotomy Technician

Program Information
- This 90-hour Phlebotomy Technician course fulfills the requirements to take the National Healthcareer Association’s (NHA) Certified Phlebotomy Technician (CPT) exam. www.ascp.org
- Students interested in participating in an academic program that involves working with children, the disabled, or the elderly, or which includes a clinical affiliation, internship, or field placement with a private or public healthcare provider, may be required to undergo criminal background checks, including a national as well as local check (i.e. Massachusetts Criminal Offender Record Information (CORI) and Sex Offender Record Information (SORI)). Depending on the contents of these criminal background check(s), a student’s participation in an academic program that involves working with children, the disabled, or the elderly or which includes a clinical affiliation, internship or field placement with a private or public healthcare provider may not be allowed, and therefore may impact a student’s ability to complete program requirements. Furthermore, please note that eligibility
to participate in the program and/or clinical affiliation, internship or field placement as a result of screening requirements, such as criminal background checks, is not a guarantee of eligibility to sit for professional credentialing examination(s) or employment upon graduation.

**SHRM Essentials of Human Resource Management (XSH)**

**Certificate of Completion Noncredit (CN)**

If you're new to human resources or simply want to strengthen your employee management skills, the SHRM Essentials of Human resource Management Certificate Program is for you. Knowledge of the essentials can make you a better manager, protect your company from needless litigation, and help advance your career. Offered in cooperation with the Society for Human resources Management (SHRM), this cost-effective course covers real-life HR issues, including employment law, selecting qualified employees, compensation, the employee performance process, and much more.

CSA678  SHRM Essentials of Human Resource Management

**Program Information**
- This course is geared toward entry level Human Resource Professionals.
- A SHRM Certificate of Completion will be received upon completion of this course. May be eligible for CEU’s.

**SHRM Learning System (XSL)**

**Certification Training (CT)**

If you've been intending to earn your Professional Human Resources (PHR) or Senior Professional in Human Resources (SPHR) designation, it may be time to enroll in our updated and expanded HRCI exam preparation course. We offer this program in cooperation with the Society for Human Resource Management (SHRM). The curriculum, designed by subject matter experts, includes application exercises that develop specific competencies and decision-making skills. As a certification preparation program, it consistently beats the national pass rate. By attending our course, you get the added benefits of an experienced instructor, interaction with peers, and a structured classroom environment that enhances learning and helps you stay on track. You’ll share real-world experiences with other HR professionals that can improve your workplace effectiveness immediately.

CSA693  The SHRM Learning System Certification Program

**Program Information**
- After completing this course students will be prepared to take the PHR or SPHR exam. www.shrm.org. A minimum of two years experience in HR is required before taking the SPHR exam. May be eligible for 3.5 CEU’s.

**Web Design (XWB)**

**Certificate of Completion Noncredit (CN)**

This introductory certificate program provides both broad and technical instruction in the planning, design and production of a web site. Web pages can be quite comprehensive containing text, graphics, animation, video, audio and other forms. HTML, FTP, JavaScript, Java, and site maintenance are among the topics. Windows and Navigating the Internet, or equivalent experience are prerequisites of this program. Once you have successfully completed the necessary courses, petition Corporate & Community Education in writing so your transcript can be evaluated and your certificate awarded.

**Note**

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<tr>
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<tr>
<td>CSP247</td>
<td>HTML 1 - Creating Web Pages</td>
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<tr>
<td>CSP415</td>
<td>CGI Scripting and Server Interface</td>
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**Requirement Notes**
1 Required

**Program Information**
- Knowledge of the computer, file structure, the internet, and keyboarding are required for entrance into this program.
- Students must complete the required courses and any two electives
- Any two of the above courses will fulfill the workshop requirement for the Graphic Design Certificate (XGD).
- After completing the requirements contact Corporate and Community education to receive your certificate.
- Individuals not seeking a certificate may enroll in any class as long as the appropriate entrance requirements are met.
Credit Course Descriptions

ACC-Accounting

ACC101 3 Basic Accounting 1
Pre: Communications and Mathematics Proficiencies
Introduction of the accounting process for the financial enterprise. Students will gain insight to the value of financial reports in business decision-making. Communicative, quantitative, critical thinking and ethical considerations will be emphasized. Topics include: the framework of accounting, the preparation and analysis of financial statements, transaction analysis for service and merchandising operations, inventories, accounting information systems, internal control, and accounting for cash. General ledger software and other appropriate computer applications may be included. Fulfills open and business electives. (3 hours of lecture per week)

ACC102 3 Basic Accounting 2
Pre: ACC101
A continuation of ACC101 applying communicative, quantitative, and critical thinking skills to Generally Accepted Accounting Principles. Topics include: accounting for receivables, plant assets, natural resources, intangible assets, investments, payroll, accounting for various types of equity, introductory current and long term liabilities, partnerships, corporations, and preparation of the Cash Flow Statement. General ledger software and other appropriate computer applications may be included. Fulfills open and business electives. (3 hours of lecture per week)

ACC104 3 Essentials of Accounting for Business
Pre: Communications and Mathematics Proficiencies
A one-semester introductory accounting course. Students will use journals, ledgers, and work sheets to summarize transactions and prepare financial statements. Includes maintenance and record keeping for checking accounts, petty cash funds, and payroll. The course will include computer software covering the accounting cycle. Fulfills open and business electives. (3 hours of lecture per week)

ACC106 3 Computer Applications in Accounting
Pre: ACC101 or ACC108 & CPS100 within last 5 years
Co: ACC102
Designed to give students with an accounting background a familiarity with computers and their role in business situations. Provides an overview of accounting terms, concepts, principles, and procedures generally applicable to a business and applies those principles to an integrated accounting software package and Microsoft Excel software. Student must have completed the CPS100 pre-requisite within the last five years. Fulfills open and business electives. (3 hours of combined lecture and lab per week)

ACC108 3 Financial Accounting
Pre: Communications and Mathematics Proficiencies
Introduction to accounting using financial statements and information as a means of making effective business decisions. Specific topics include GAAP, the accounting transactions, adjusting accounts, merchandise operations, inventories, cash, internal controls, receivables, current and long-term assets and liabilities. The analysis of formal financial statements will be integrated throughout the course. Computer applications, such as spreadsheets, may be included. Fulfills open and business electives. (3 hours of lecture per week)

ACC110 3 Small Business Computerized Accounting
Pre: Communications and Mathematics Proficiencies
This course provides an overview of a computerized accounting system for small business owners and entrepreneurs. Topics include: Setting up the business and accounts, invoicing and receiving payments, creating automatic transactions and alerts, analyzing payables and receivables, reconciling accounts, and generating financial statements and reports. Fulfills open and business electives. (1 hour of lecture per week)

ACC201 3 Intermediate Accounting 1
Pre: ACC102 or ACC108
An in-depth study of accounting concepts, theory, and principles as applied to financial accounting. Focuses on the preparation and analysis of the income statement, balance sheet and statement of cash flows. Emphasis is on accounting issues relating to cash, temporary investments, receivables, inventories, and time value of money. Fulfills open and business electives. (3 lecture hours per week)

ACC202 3 Intermediate Accounting 2
Pre: ACC201
A continuation of ACC201. Topics include analysis of plant assets, intangible assets, current, contingent and long-term liabilities, corporate capital elements, investments, statement of cash flows, and interpretation of accounting data for business decisions. Fulfills open and business electives. (3 lecture hours per week)

ACC203 3 Managerial Accounting
Pre: ACC102 or ACC108
Emphasizes the use of cost issues for management to make informed decisions for business planning. Topics include cost classifications, job cost systems, cost behavior, cost- volume-profit analysis, budgeting with variance analysis using standard costs, segment reporting, responsibility accounting, relevant costs for decision making, financial statement analysis, and additional topics may be covered. Fulfills open and business electives. (3 lecture hours per week)

ACC208 3 Taxation
Pre: ACC101 or ACC108
Presents an introduction to personal and business taxation. Topics include filing status and dependency determination, income inclusions and exclusions, components of total income, allowable deductions and credits. Introduces taxation of partnerships and corporations. The course may include software with Individual Taxation applications. Fulfills open and business electives. (3 lecture hours per week)

ALH-Allied Health

ALH118 3 Third Party Reimbursement
Pre: Knowledge of Medical Terminology
Examines the third party billing process utilizing simulated case studies, computer software, and the use of various health insurance claim forms required by third party payers such as Blue Shield, Medicare, Medicaid, Commercial Carriers, Workers Compensation, and Health Maintenance Organizations. Related terminology, submission of claims, case flow, office policies, the patient registration process, and the use of referrals are reviewed. An overview of the reimbursement process, fee schedules, review of explanation of benefits, coordination of benefits, and collection procedures will also be presented. An introduction to the ADA American Dental Association) claim form will be included. (3 lecture hours per week)
ALH120 3 Living with Health
Pre: Communications Proficiency
An introductory course for non-health students which explores the physical, emotional, social, intellectual, and spiritual areas of health. It encourages students to take a proactive stance toward maintaining health through fitness, exercise, and diet. It touches on current health issues such as self-care, aging, substance abuse, and pollution. Fulfills open and liberal arts electives. (3 lecture hours per week)

ALH122 3 Fundamentals of Patient Care
Pre: Communications Proficiency
This course will provide students with a foundation of knowledge and skills that are necessary in providing basic patient care within the various health professions. Topics will include: an introduction to the various healthcare professionals and their roles in patient care; vital signs measurements; infection control; body mechanics and patient ambulation/transfer; assistance with Activities of Daily Living (ADLs), a review of the basic function and care of common catheters, tubes, and lines; and basic medical documentation. (2 hours of lecture and 2 hours of lab per week)

ALH130 3 Electrocardiography
Pre: Communications Proficiency
A systematic coverage of the anatomy, physiology and electrophysiology of the cardiovascular system in relation to electrocardiography. Special attention is given to the genesis of rhythms and their hemodynamic effects, as well as a general introduction to cardiac dysrhythmias. (2 hours of lecture, 2 hours of lab per week)

ALH132 3 Phlebotomy
This course will provide practical instruction in obtaining patients’ specimens by venipuncture and microcollection techniques, and the proper collection and transportation of other clinical laboratory specimens. (2 hours of lecture and 2 hours of lab per week)

ALH134 5 Certified Nursing Assistant
Pre: Communications Proficiency
This competency based course will serve to prepare a multi-skilled nursing assistant educated to provide basic nursing care and emotional support, and to skillfully observe patients in order to contribute to the patient care plan. The content will be presented through lecture, discussion, demonstration laboratory, and clinical practice under the supervision of a licensed nurse. The course is designed to meet federal and state guidelines for certification of nursing assistants. (3 hours of lecture, 2 hours of lab, and 2 hours of clinical per week)

ALH136 1 Technical Nursing Assistant Skills Lab
Pre: Communications Proficiency and ALH134
Co: Mathematics Proficiency
This competency based skills lab uses a multi-skilled approach to educate certified nursing assistants to perform technical tasks that may be delegated by a licensed professional within the confines of the law. Topics include: performance of EKG and phlebotomy, preparation of laboratory specimens, medical asepsis, universal precautions and observation and reporting techniques. (2 hours of lab per week)

ALH150 3 The Dynamics of Health Care: Personal and Public Issues
Pre: Communications Proficiency
An introduction to the rapidly changing U.S. health care system and its relationship to the individual and society at large. The course will examine how the health care system has responded to and is shaped by economic, legal, and political policy decisions. Moral and ethical issues that are related to health care delivery decisions will be explored. Fulfills open and liberal arts electives. (3 lecture hours per week)

ALH156 1 Interpersonal Skills for Health Professionals
Pre: Communications Proficiency
This course is designed to enhance performance of a health care student in a professional, helping relationship within the health care delivery system. Topics include: communication skills, psychological theory, personality theory, stages of human development, and professionalism. (1 hour of lecture per week)

ALH161 1 Pharmacology 1: Principles
Pre: Communications and Mathematics Proficiencies
Presents the basic principles of pharmacology, including drug science theories, basic chemistry of drugs, administration routes, related calculations and measurements, anatomy and physiology of the central and peripheral nervous systems. (1 lecture hour per week)

ALH162 1 Pharmacology 2: Survey of Medications
Pre: ALH161
Presents the identification and classification of the pharmaceutical agents used in hospitals and clinics. Discusses the method of action of non-respiratory drugs, including the effect on the body as an integrated functional unit; the indications, contraindications, hazards, adverse effects, and the application to patients in and out of the clinical setting. (1 lecture hour per week)

ALH164 3 Pharmacy Technician Procedures
Pre: MAT116, BIO108, CMP101, and OFT116
An introductory course designed to train individuals to be competent pharmacy technicians. The course concentrates on drug information, preparation, delivery, and usage. Lecture and lab practice will be combined to adequately cover such topics as: terminology, mathematics and weights/measures as applied to pharmacy practice, aseptic technique, and hospital pharmacy systems. (2 hours of lecture and 2 hours of lab per week)

ALH168 1 Pharmacy Law
Pre: Communications Proficiency
Through presentation and discussion of case studies, the student will learn to apply the law to specific situations in pharmacy practice and procedure. (1 hour of seminar per week)

ALH202 3 Health Science Internship
Pre: Min 24 credits in Health Sci prog and min CQPA of 2.0
This course is designed to enhance career development by integrating classroom study and practical experience with a faculty supervised, 120-hour work experience in the student’s academic major. Seminars are presented with a focus on the following areas: course orientation, job search skills, professional work ethics, human relations, and professional, personal, and social development. Seminar attendance is required. This course is subject to the availability of internship sites. (120 internship hours)
**Credit Course Descriptions**

**ALH229 3 Health Science Co-Operative Education**
Pre: Min 24 credits in Health Sci prog and min CQPA of 2.0
This course is designed to enhance career development by integrating classroom study and practical experience with a faculty supervised, 120-hour, paid work experience in the student’s academic major. Seminars are presented with a focus on the following areas: course orientation, job search skills, professional work ethics, human relations, and professional, personal, and social development. Seminar attendance is required. This course is subject to availability of Coop work sites. (120 cooperative education hours)

**ALT - Alternative Studies**

**ALT103 1 Skill Assessment and Portfolio**
Preparation Pre: Submission of on-line survey or interview
The course is designed to guide students through the process of assessing and writing about college-level learning derived from experiences. Students work with an Instructional Specialist to identify skills, knowledge and attitudes as they develop a narrative, prepare a resume, select supporting documentation and achieve competency in packaging a formal written presentation (a portfolio). This course may fulfill the prerequisite requirement for Evaluation Credit Portfolio and/or may be taken for personal growth. Students must contact the Center for Alternative Studies for a personal interview or submit an on-line survey to a CAS Instructional Specialist prior to registration. A letter grade is awarded for completion of this course.

**ANS - Animal Science**

**ANS102 3 Canine & Feline Behavior**
Pre: Communications and Mathematics Proficiencies
This course is designed to provide the student with an understanding of dog and cat behavior, from puppy and kittenhood through their adult lives. Areas to be discussed include dog and cat body language, canine and feline communication, social structure, and stages of puppy and kittenhood. Students will also learn pet owner personalities and how to properly converse with different owners. Solutions to behavior problems will also be explored.

**ANS104 2 Breed ID**
Pre: Communications and Mathematics Proficiencies
This course is designed to familiarize the pet care professional student with the various breeds of dogs and cats. Specific breed characteristics and temperaments will be discussed and students will become familiar with many breed standards. (2 hours of lecture per week)

**ANS107 1 Medical Terminology for Animal Science 1**
Pre: Communications and Mathematics Proficiencies
This section of the two part course is designed to give the animal care worker a vocabulary that will allow and enhance their communication with the veterinary medical professions and improve their ability to utilize veterinary related literature in the course of their work. (1 hour of lecture per week)

**ANS108 1 Medical Terminology for Animal Science 2**
Pre: ANS107
This course is a continuation of ANS107. In it students will continue to explore medical terms needed to communicate adequately with veterinary professionals. Areas of specific interest will be terminology dealing with body cavities, surgical procedures, and specific body systems. (1 hour of lecture per week)

**ANS110 2 Canine and Feline Nutrition**
Pre: Communications and Mathematics Proficiencies
This course is designed to introduce and familiarize the pet care professional student with the many aspects of canine and feline nutrition. Areas to be discussed include the canine and feline digestive system, the nutrients and their functions involved with pet nutrition, analyzing the 4 types of pet foods, feeding a raw, natural diet and feeding dogs and cats at different stages of their life. (2 hours of lecture per week)

**ANS112 2 Ethics and Law for Pet Care Professionals**
Pre: Communications and Mathematics Proficiencies
This course is designed to educate the student about the laws and ethical issues relevant to caring for pets in the state of Massachusetts. Areas to be covered include Mass General Laws Chapters 140 and 272, property laws, labor laws, contract law, release forms, liability and bonding, and OSHA regulations for related industries. Ethical issues involving animal welfare and humane practices, breeding, workplace issues, business issues, competition, and client interests will be discussed. (2 hours of lecture per week)

**ANS114 2 Kennel Hygiene and Maintenance**
Pre: Communications and Mathematics Proficiencies
This course is designed to familiarize the student with skills and knowledge necessary to operate and maintain a boarding kennel. Areas to be discussed include correct construction for any size boarding kennel, efficient design, environment control, security, sanitation, feeding and watering, exercising, disease prevention, record keeping, and customer relations. If time permits, the design and operation of a cattery will also be discussed. (2 hours of lecture per week)

**ANS116 3 Fundamentals of Animal Health**
Pre: Communications and Mathematics Proficiencies
This course is designed to inform Grooming/Animal Care Specialists students about various, common health conditions related to dogs and cats. Areas to be discussed include skin and coat diseases and treatments, eye and ear diseases and treatments, parasites and their control, pet first aid, canine and feline CPR, infectious diseases, vaccinations, and diabetes. Students will also learn how to give a dog or cat an injection and administer pill and liquid medications. (3 lecture hours per week)

**ANS120 2 Canine Training**
Pre: ANS102
This course is designed to allow the student to take the information learned in behavior and apply it to training dogs. Skills taught will include puppy temperament testing, preventative puppy training, basic obedience commands, training to modify behavior problems, training for AKC good citizenship title, tracking, and basic agility. The student will be introduced to AKC obedience trials, the degrees and titles, and the classes offered. Students are expected to supply their own dogs for the course. More than one dog may be used. (2 hours of lecture per week)

**ANS122 2 Fundamentals of Grooming**
Pre: Communications and Mathematics Proficiencies
This course is designed to familiarize the Animal Care Specialist with all the tools available for grooming dogs and cats. These tools include brushes, combs, dematting tools, nail clippers, scissors, thinning shears, electric clippers, clipper blades, and muzzles. The different coat types will be discussed, as well as which tools do best with which coat types. The student will also become familiar with the numerous shampooing, conditioning, dematting, and styling products available on the market. The student will be taught
the skills of brushing, combing, dematting, washing, drying, ear care, foot grooming, and nail clipping. Safety and restraint while performing these skills will also be emphasized. (1 hour of lecture and 6 hours of lab per week)

ANS124  2  Herpetology for Pet Care Professionals  
Pre: Communications and Mathematics Proficiencies  
A study of the snakes, lizards, and turtles commonly found as pets with an emphasis on proper environment, housing, nutrition, and disease diagnosis and prevention. Social habits and handling techniques will also be explored. (2 hours of lecture per week)

ANS126  3  Introduction to Small Mammals in the Laboratory and Home  
Pre: Communications and Mathematics Proficiencies  
Introduces students to the care and husbandry of small mammals. Discusses use of small mammals in laboratory settings and as pets. Informs students of regulatory requirements involved with housing significant numbers of small mammals. (3 lecture hours per week)

ANS128  3  Avian Science for Pet Care Professionals  
Pre: Communications and Mathematics Proficiencies  
A study of the categories, varieties, and characteristics of pet birds with an emphasis on proper housing, health issues, nutritional needs, grooming requirements, and handling techniques. (3 lecture hours per week)

ANS130  3  Alternative Therapies a Veterinary Perspective  
Pre: Communications and Mathematics Proficiencies  
This is a survey course to introduce animal care workers to the concepts and modalities of alternative medicine currently available for animals. Topics to be covered include: homeopathy, acupuncture, Chinese herbal medicine, chiropractic, flower essences, herbal medicine, Ayurvedic medicine, Ayurvedic medicine and therapeutic touch modalities. Fundamental principles and theories of each modality will be discussed. (3 lecture hours per week)

ANS140  3  Visual Merchandising for the Animal Care Industry  
Pre: Communications and Mathematics Proficiencies  
This course provides basic design fundamentals and develops technical and creative skills to produce attractive displays for students planning careers in retail animal businesses. Topics covered include: characteristics and development of display, merchandising techniques, types of window and interior displays, design elements and principles, display arrangements, props and fixtures, lighting and signage as well as advertising and public relations as applied to animal related businesses.

ANS142  3  Animal Facilities Management  
Pre: Communications and Mathematics Proficiency  
This course is designed to introduce animal care students to the principles and processes involved with housing animals as part of a business model. In addition students will be familiarized with other aspects of owning and operating a variety of animal related businesses, including: grooming, retail, daycare, boarding and shelters. Areas to be discussed include: location, zoning, licenses, interior and exterior design, pricing, hiring, fixtures and equipment and client relations. (3 lecture hours per week)

ANS202  3  Practical Shop Administration  
Pre: Communications and Mathematics Proficiencies  
This course is designed to familiarize the student with all aspects of running their own dog related business. Areas to be covered include location for their business, zoning laws, licenses, interior design, fixtures and equipment, advertising, record keeping, calculating fees and prices, computerizing business, and public relations. Purchasing supplies & equipment will also be discussed along with an overview of professional organizations related to each business. Each student will be expected to do a term project on the business they hope to operate. (3 lecture hours per week)

ANS204  7  Basic Grooming  
Pre: ANS122 and completion of all courses in the Animal Care first year curriculum.  
This course is designed to familiarize the Professional Grooming student with the different breed profile patterns used in grooming. Breeds studied will include Spaniels, Setters, Terriers, Poodles and other breeds that have a pattern. The skills of clipping, scissoring, hand stripping, and thinning shear styling will be emphasized. Reconstruction, conditioning and maintaining a show coat will also be taught. (2 hours of lecture, 10 hours of lab per week)

ANS206  6  Advanced Grooming 1  
Pre: ANS 204  
This course is designed to further enhance the skills learned in Basic Grooming, student’s styling abilities and speed for completing skills. Emphasis will be on perfecting breed patterns, corrective grooming for lack of conformation and increasing speed of styling and scissoring. Class time will be divided between grooming dogs and studying the not so commonly groomed breeds. (2 hours of lecture and 10 hours of lab per week)

ANT - Anthropology

ANT102  3  Cultural Anthropology  
Pre: Communications Proficiency  
Examines the nature of culture in simple tribal communities living in various regions and natural environments on the planet. Inuit/ Eskimo peoples of the Arctic, African, Villagers, Asian cultures, and American Indians of the Americas are groups that may be discussed. Industrial/hi-tech cultures will be compared to pre-industrial/low-tech tribal cultures. Fulfills liberal arts, behavioral science, and social science electives. (3 lecture hours per week)

ART - Art

ART102  3  Art History and Appreciation  
An appreciation of art developed through lectures and discussions about the nature and meaning of art in the human experience. While art is viewed as encompassing many forms, special attention is given to the historical development of architecture, painting, and sculpture, primarily in the Western world. Fulfills liberal arts and humanities electives. (3 lecture hours per week)

ART110  3  Basic Drawing 1  
Students will practice skill building so that they can delineate the shape and form of objects, the dimension of pictorial space, and qualities inherent in the object or its space. Lectures, discussion, demonstrations and individual critiques are directed to develop an appreciation for drawing that recognizes that activity as a formal statement that functions as a record of individual experience. Fulfills liberal arts, humanities, and open electives. (3 lecture hours per week)
ART111  3  Basic Drawing 2  
Pre: ART101 or permission of instructor  
The student will use marking or tonal media to practice the 
placement of images on or within the picture plane depicting the 
shape of the object. Discussion, demonstration, and individual 
criticism will provide a basis for analysis of the use of the surface 
of the picture plane, invented qualities that contribute to the 
illusion of volume or space, and the use of simulated elements 
which establish a subjective content to the work. Slide lectures 
will provide a short history of drawing and recent research in the 
physiology and psychology of vision. Fulfills liberal arts, humanities, 
and open electives. (3 lecture hours per week)

ART114  3  Visual Design Theory  
Pre: Communications Proficiency  
Covers design principles and visual organization tools used for the 
effective placement of design elements into a page. Student will 
learn about technical and aesthetic use of topography as a design 
and communication tool. Color theory, color psychology design 
development process, and approaches for drawing two and three 
dimensional images and illustrations are examined. Fulfills open, 
liberal arts, and humanities electives. (3 hours of lecture per week)

ASL - American Sign Language  

ASL101  3  Elementary American Sign Language 1  
An introduction to ASL, the native language of deaf people in the United States. Emphasis on basic ASL vocabulary and grammatical rules, manual alphabet and numbers, visual/gestural communication, and information about deaf culture. Fulfills open, liberal arts, humanities, and modern language electives. (3 lecture hours per week)

ASL102  3  Elementary American Sign Language 2  
Pre: ASL101  
A continuation and refinement of the skills introduced in ASL101. Emphasis will be on acquiring a natural grace of signing, understanding the nuances of deaf culture, and expanding use of ASL vocabulary and grammar. All classes will be taught in ASL. Fulfills open, liberal arts, humanities, and modern language electives. (3 lecture hours per week)

AVS - Aviation Science  

AVS101  4  Private Pilot Ground School  
Pre: Communications and Mathematics Proficiencies  
This FAA approved Part 141 ground school includes basic flight concepts, principles of meteorology, airmen publications, map projections, pre-flight planning, computer and course plotting, basic radio navigational systems and applications, federal air regulations, use of avionics and emergency procedures. This course prepares students for the FAA Commercial Pilot written examination. (60 hours, 4 hours of lecture per week)  
Course restricted to Aviation Science majors.

AVS102  4  Commercial Pilot Ground School  
Pre: AVS101, AVS103  
Co: AVS104, AVS107  
This FAA approved Part 141 ground school includes advanced flight concepts, weight and balance, advanced performance, reciprocating and gas turbine engine theory, advanced environmental considerations, aircraft propeller theory and operations, principles of meteorology, airmen publications, map projections, pre-flight planning, complex computer and course plotting, advanced radio navigational systems and applications, federal air regulations, use of avionics, cockpit resource management, decision making, communications and emergency procedures. This course prepares students for the FAA Commercial Pilot written examination. (60 hours, 4 hours of lecture per week)  
Course restricted to Aviation Science majors.

AVS103  3  Private Pilot Flight Training  
Co: AVS101  
Includes approximately 50 hours of flight instruction (dual and solo) covering pre-flight operations, aircraft systems, taxi and ground performance, basic flight maneuvers including takeoffs and landings (normal, soft, and short) stall procedures, emergency operations, cross-country flight, use of radio and navigation equipment under VFR, and control of aircraft by reference to instruments only. This course prepares students for the FAA Private Pilot Practical Flight test.  
Course restricted to Aviation Science Professional Pilot and Aviation Management majors.

AVS104  3  Advanced Cross-Country Flight Training  
Pre: AVS101 and AVS103  
Co: AVS102, AVS107  
Approximately 50 hours of solo flight training as a private pilot in command to include cross-country flights, night flying, and precision maneuvers utilizing advanced radio navigation under basic VFR flight rules. Each flight is to be greater than 50 nautical miles with a landing at the destination airport. This course meets the cross-country requirement, PIC (pilot in command) for the instrument rating.  
Course restricted to Aviation Science Professional Pilot majors.

AVS107  2  Simulated Flight Training 1  
Pre: AVS101 and AVS103  
Co: AVS102 and AVS104  
Introduces the student to the fundamentals of the approved ground trainer (25 hours of dual simulated flight training). Under the supervision of a flight instructor, the student will be familiarized with attitude instrument flying, aerodynamics related to instrument flying, basic flight instruments and electronic aids to instrument flying.  
Course restricted to Aviation Science Professional Pilot majors.

AVS109  3  Simulated Instrument Flight Training  
Pre: AVS101 and AVS103  
Co: AVS102 and AVS104  
Introduces the student to the fundamentals of approved ground trainer, an Advanced Aviation Training Device (AATD). Under the supervision of a flight instructor, the student will become familiar with basic flight instruments, attitude instrument flying, and aerodynamics related to instrument flying. Additionally, the student will learn to master the use of electronic aids to instrument flight, navigation instruments, radio communication equipment, and communication procedures used in the IFR flight environment. Finally, the student will become familiar with air traffic control procedures/operations including enroute, approach, and emergency procedures. (40 hours of dual simulated flight training in an approved ground trainer)  
Course restricted to Aviation Science Professional Pilot majors.
AVS203  4  Instrument Pilot Ground School  
Pre: AVS102 and AVS103  
Co: AVS207, AVS208  
This FAA approved Part 141 ground school includes: study of the required instruments and their proper use, physiological problems, flight planning, departure, enroute, arrival, and emergency procedures. The course will include a review of weather, regulations, and aerodynamics. This course prepares students for the FAA Instrument written examination. (60 hours, 4 hours of lecture per week)  
Course restricted to Aviation Science Professional Pilot majors.

AVS204  4  Flight Instructor Ground School  
Pre: AVS203, AVS207, and AVS208  
Co: AVS205  
Topics include the fundamentals of instruction as well as review of general flight and ground operations, weather, navigation, instrument flying and appropriate regulations. Students will participate in lectures and demonstrations to gain teaching experience. This course prepares students for the FAA Fundamentals of Instruction and the Flight Instructor written examinations.  
Course restricted to Aviation Science Professional Pilot majors.

AVS205  3  Commercial Pilot Flight Training  
Pre: AVS203, AVS207 and AVS208  
Co: AVS204  
Includes approximately 50 hours of flight training including transition to complex aircraft and a review of all maneuvers pertinent to the FAA commercial practical test standards. Introduces chandelles, lazy 8’s, spirals, stalls, steep turns and emergency procedures. This course prepares students for the FAA commercial pilot practical flight test.  
Course restricted to Aviation Science Professional Pilot majors.

AVS207  2  Simulated Flight Training 2  
Pre: AVS203, AVS207  
Co: AVS203, AVS208  
Introduces advanced attitude instrument flying, the use of navigation instruments, radio communication equipment and procedures, air traffic control procedures and operation — including enroute and approach — and emergency procedures. (25 hours of dual simulated flight training in an approved ground trainer)  
Course restricted to Aviation Science Professional Pilot majors.

AVS208  3  Instrument Pilot Flight Training  
Pre: AVS203 and AVS207  
Co: AVS203, AVS207  
Approximately 50 hours of flight instruction including control and accurate maneuvering of an airplane solely by reference to instruments, IFR navigation by VOR and ADF systems including ATC instruction and procedures, instrument approaches to minimums using VOR, ADF, and ILS systems, holding procedures, cross-country flying in simulated or actual IFR conditions, simulated emergencies including recovery from unusual altitudes, equipment or instrument malfunctions, loss of communications and missed approach procedures. This course prepares students for the FAA Instrument Practical Flight test.  
Course restricted to Aviation Science Professional Pilot majors.

AVS212  3  Human Factors in Flight Operations  
Co: AVS101, AVS103  
This course introduces students to the concept of human factors and an understanding of the role humans play in contributing to aviation safety. Topics include safety management systems (SMS), components and physical limitations of the eye, ear, and brain, cockpit design of both traditional and technically advanced aircraft, the effect of body rhythms and sleep on humans, stress and fatigue, aeronautical decision making, situational awareness, risk management, and crew resource management. Each of these topics is examined with respect to how pilot judgment is impacted. Historic aviation accidents will be analyzed with respect to how human factors contributed to the accident.  
Course restricted to Aviation Science Professional Pilot and Aviation Management Majors.

AVS214  3  Aviation Law and Safety  
Pre: AVS101, AVS103  
A study of national and international aviation law, labor issues, conflict resolution, attributes and behavior of the aviation professional. This course will include a study of career planning, responsibilities of the aviation professional, substance abuse, discrimination in the workplace, environmental issues concerning aviation, aviation safety and changes in regulatory procedures.  
Course restricted to Aviation Science Professional Pilot and Aviation Management majors.

AVS222  3  Introduction to Technically Advanced Aircraft  
Pre: AVS203  
Co: AVS 205, AVS 208  
Provides an overview of Technically Advanced Aircraft (TAA) systems, including automation, GPS navigation and the use of an autopilot. The student will acquire the knowledge to successfully manage TAA risks and benefits, as well as practical skills required for piloting TAA. The student will learn to integrate TAA technology with traditional flight competencies by performing scenario-based training missions in the approved ground trainer, an Advanced Aviation Training Device (AATD). Course combines classroom instruction with additional 10 hours of dual simulated flight training in an AATD.  
Course restricted to Aviation Science Professional Pilot majors.

BIO - Biology

BIO101  4  Biology 1: The Basics of Life  
Pre: Communications and Mathematics Proficiencies  
An introduction to the basic principles of biology. The course covers the chemistry of the cell, cell structure and function, cell division, genetics and some evolution. The laboratory is designed to enhance lecture and to develop investigative skills. Fulfills open, liberal arts, and lab science sequence elective when taken with BIO102 or BIO128 and BIO130, or BIO140 or BIO142.  
(3 hours of lecture, 2 hours of lab per week)

BIO102  4  Biology 2: Diversity of Life  
Pre: Communications Proficiency and BIO101 or BIO124  
An evolutionary survey of living organisms. Topics include life’s beginnings, and unicellular organisms, fungi, plants, invertebrates and vertebrates and how they evolved. Laboratory includes dissection of selected species of the representative phyla. Fulfills open, liberal arts, and when taken with BIO101 or BIO124, the laboratory science sequence electives. (3 hours of lecture, 2 hours lab per week)
BIO103 4 Anatomy and Physiology 1
Pre: Communications & Mathematics proficiencies and BIO101 or BIO105 with a C or better. For pre-requisite equivalency information, please see below.
This is the first semester of a one-year course that studies the human body. It is primarily designed for those students pursuing majors in the health professions. Topics include tissues, and the skeletal, muscular, and nervous systems including the organs of special sense, and a review of basic chemistry and cellular structure and function. Laboratory work is designed to supplement the lecture material. Fulfills, open, liberal arts, and with BIO104, the laboratory science sequence electives. (3 hours of lecture and 2 hours of laboratory per week).
Pre-requisite equivalents for BIO103 include: TEAS version V only - Science section score of 50 or higher (no time limit), LPN Certificate (no time limit), CLEP test with a score of 50 or higher, High School Biology with a grade of C or better taken within 5 years, AP Biology Test with a score of 3 or better with the last 5 years, Bachelor’s degree or higher in Biological science or chemistry.

BIO104 4 Anatomy and Physiology 2
Pre: BIO103 with ‘C’ or better.
Continuation of Anatomy and Physiology 1. Topics include the digestive, respiratory, urogenital, and circulatory systems and the endocrines. Laboratory work is designed to supplement the lecture material and includes dissection of the fetal pig. Fulfills open, liberal arts, and with BIO103, laboratory science sequence electives (3 hours of lecture and 2 hours of lab per week).

BIO105 4 Biology 1: General Biology 1
Pre: Communications Proficiency; MAT092 with ‘C’ or better; placement exam score; or successful completion of MM12.
This is the first semester of a two-semester course which studies the basic principles of biology. It is designed for those students pursuing a major in the life sciences. This course examines the cellular basis of life from an evolutionary perspective. Topics include the chemistry, structure and function of the cell, genetics, as well as an introduction to genomes, proteomes and bioinformatics. An emphasis will be placed on the relationship between scientific principles and scientific process. Laboratory work enhances lectures and develops laboratory skills. Non-science majors and students pursuing entry into health profession programs should take BIO101. Fulfills open, liberal arts, and laboratory science sequence electives when taken with BIO106, or BIO102, or BIO128 and BIO130, or BIO140 or BIO142. (3 hours of lecture and 3 hours of lab per week)

BIO106 4 Biology 2: General Biology 2
Pre: BIO105
This is the second semester of a one-year course. The first half of the semester will concentrate on biodiversity through the evolution of unicellular organisms, fungi, plants, vertebrates, and invertebrates. The second half of the semester will involve the comparative study of physiological adaptations such as: circulation, digestion, nervous, and hormonal control of selected species. Laboratory work enhances lecture. This course is designed for students interested in a major in biology or other related science. Fulfills, open, liberal arts, science, and when taken with BIO105, the laboratory science sequence electives. (3 hours of lecture and 3 hours of lab each week)

BIO108 3 The Body in Health and Disease
Pre: Communications Proficiency
A study of the interrelationships of anatomy, physiology, and pathology with chemical and microbiological consideration for students in the health care field. Primarily for mental health technicians, medical assistants, medical secretaries and public and environmental health officers. Fulfills open and liberal arts electives. (3 hours of lecture per week)

BIO110 4 Introduction to Microbiology
Pre: BIO101 or 103 or 105, or BIO124 or CHE101, or 103
A study of viruses, bacteria, protozoans, and the lower fungi with special emphasis on their environmental and medical implications. The course considers the characteristics, ecology, control and impact on humans. The laboratory concentrates on the development of aseptic techniques and the culturing, enumerating, and identification of microorganisms. Fulfills open and liberal arts electives. (3 hours of lecture, 2 hours of lab per week)

BIO112 3 Conservation of Natural Resources
Pre: Communications Proficiency
An investigation into the nature and wise use of natural resources found on the North American continent. Promotes an understanding of the vital conservation issues of the times. Problems of efficient use of air, water, land, and biotic resources are considered in detail. Emphasis is on relating issues to North American population centers. Fulfills open and liberal arts electives. (3 hours of lecture per week)

BIO116 3 Biological Aspects of Aging
Pre: Communications Proficiency
Introduction to the theories of aging. The course surveys biological and physiological aspects of aging which will include the genetic, immunological, nutritional, as well as consideration of those aging factors which affect the integumentary, skeletal, dental, endocrine, and cardiovascular systems. Fulfills open and liberal arts electives. (3 hours of lecture per week)

BIO124 4 Introduction to the Cell
Pre: Co: CHE101 or CHE103 or CHE114
A study of eucaryotic procaryotic cell. Course emphasizes their similarities and their differences in regard to structure, metabolism, and reproduction. Material presented includes basic concepts upon which many of our biotechnology processes are based. Primarily for students interested in the Biotechnology program. Fulfills open, liberal arts, and with BIO102 or BIO142, laboratory science sequence electives. (3 hours of lecture, 2 hours of lab per week)

BIO128 3 Ecology of the Rainforest
Pre: Communications Proficiency
An introduction to the ecology of the rainforest. Both temperate and tropical forests are discussed, but the emphasis is on tropical forests. The concept of biodiversity is introduced and applied in the study of the Olympic Peninsula, Central America, Amazonia, Southeast Asia, Hawaii, and Australia. The course covers some of the environmental, social and economic problems associated with their use and destruction. Fulfills open, liberal arts, and with BIO101 and BIO130 or with BIO132, fulfills laboratory science sequence electives.

BIO130 3 Neotropical Ecology
Pre: Communications and Mathematics Proficiencies
A field study in the rainforests of Central America led by trained naturalists. The course will include hikes into different types of rainforests where the ecology of the area will be studied. The areas explored may be different each trip. Fulfills open, liberal arts, and with BIO101 and BIO128, fulfills laboratory science sequence electives. (92 hours of field study and 12 hours of seminar)
**BIO132 4 Rainforest Field Study**  
Pre: Communications and Math Proficiencies*  
This is an independent study course that is taken at the LaSuerte Biological Field Station in Costa Rica or the Ometepe Biological Field Station in Nicaragua. Students will live at the station for approximately 22 days where they will work with a University Professor. With help from the professor, students are expected to design and conduct an individualized research project. The areas of study offered vary from year to year. Fulfills open and liberal arts electives and when taken with BIO128 Ecology of the Rainforest, serves as a laboratory science sequence elective.  
*Instructor interview is a required prerequisite.  
(132 hours of field study)

**BIO140 4 Biology 2: Marine Biology**  
Pre: Communications and Math Proficiencies; BIO101  
An introduction to the marine environment with specific consideration given to ecological processes and adaptations. Special emphasis is placed on the New England area. Laboratory includes several field trips. Fulfills open and liberal arts electives and when taken with BIO101 serves as a laboratory science sequence elective. (3 hours lecture, 2 hours lab per week)

**BIO142 4 Introduction to Ecology**  
Pre: BIO101 or BIO124  
The course is an introduction to the basic principles of ecology. It includes population genetics, biodiversity, species interactions, energy cycles and a brief coverage of the major biomes. The laboratory is closely aligned with the lecture materials and includes some fieldwork. Fulfills open, liberal arts, and when taken with BIO101 or BIO124, fulfills laboratory science sequence electives. (3 hours of lecture, 2 hours of lab per week)

**BIO150 3 Introduction to Bird Biology**  
Pre: Communications Proficiency  
This course covers the basics of bird biology including anatomy, behavioral patterns and ecology with emphasis on the birds of North America, particularly the North Shore. The field trips emphasize bird identification and basic observation and identification techniques. They also present an opportunity to observe local birds in their natural habitats. Several field trips may require up to a mile of walking over mostly gently terrain. All walking will be slow paced. Fulfills open and liberal arts electives.

**BIO202 4 Molecular Biology**  
Pre: BIO105 with ‘C’ or better  
This course builds upon the cellular concepts acquired in General Biology 1. Subjects include Drosophila and yeast tetrad genetics, linkage and mapping studies, anatomy and function of a gene through mutational studies; the Human Genome Project, polymorphisms and positional cloning, systems biology and proteomics, and mitochondrial and chloroplast genomes. The laboratory will introduce the major techniques used in molecular biology. (3 lecture hours and 3 lab hours per week)

**BIO206 3 Human Diseases and Conditions**  
Pre: BIO103 or HLS102 with ‘C’ or better  
Co: BIO104  
This course presents the symptoms, etiology, diagnoses and treatment of many of the most frequently encountered diseases, conditions and disorders of the human body. Fulfills open, liberal arts electives.

**BTN - Biotechnology**

**BTN201 4 Basic Laboratory Applications**  
Pre: Com Prof and MAT091 with ‘C’ or better or successful completion of MM08  
Co: BIO105 or CHE101 or CHE103  
A course for students pursuing a technical career requiring basic laboratory skills. A hands-on approach to instrumentation use, care and maintenance is provided. Topics of study include evaluation and preparation of solutions, viscosity and pH measurements, spectroscopy, protein determination, and separation techniques such as filtration, centrifugation, chromatography, and electrophoresis. Documentation and quality assurance are stressed. (2 lecture hours and 4 lab hours per week)

**BTN202 4 Biotechnology Applications**  
Pre: BIO105 and BTN201 w/grade of ‘C’ or better  
Co: BTN211  
This course is designed to introduce the student to knowledge and skills of basic techniques relevant to the field of Biotechnology. Applications include basic cell culture, protein and nucleic acid separation techniques, transformation, and the use of restriction enzymes in recombinant DNA technology. (2 lecture hours and 4 lab hours per week)

**BTN211 1 Biotechnology Seminar**  
Pre: BTN201  
Co: BTN202  
This course presents an overview of the Biotechnology Industry. It will include discussions on: the specific fields encompassed by the industry; how a product is advanced from pipeline to market; regulatory agencies overseeing the industry; clinical trials; intellectual property and patents; and the different organizational structures of companies.

**BTN212 1 Biotechnology Seminar 2**  
Pre: BTN211  
Co: BIO110  
Continuation of Biotechnology Seminar 1. Designed to provide theory and background for techniques and applications basic to the Biotechnology industry. Content draws upon knowledge of introductory biology, chemistry, and microbiology coursework. (15 hours of seminar per semester)

**BUS - Business Sciences**

**BUS100 3 Introduction to Business**  
Pre: Communications and Mathematics Proficiencies  
Designed to introduce the student to the various aspects of the business world. Topics include economic systems, management principles, organizing concepts, motivation theory, production and quality, marketing principles, accounting concepts, financial management and contracts. Fulfills open and business elective.

**BUS101 3 Math for Business and Finance**  
Pre: Communications and Mathematics Proficiencies  
Utilizes mathematical operations to solve practical business problems. The topics include solving equations, percents with applications, cash and trade discounts, markups and markdowns, simple interest, compound interest, present value, annuities and sinking funds, installment buying and revolving credit cards, home ownership cost, and reading and analyzing financial statements. Other topics may be covered. Fulfills open and business electives.
BUS210 3 Introduction to International Business
Pre: Communications and Mathematics Proficiencies
Provides students with a multi-dimensional overview of international business trade including foreign investments, impact of world markets, international marketing and management, and the intricate operation of multinational corporations in a dynamic and ever-changing world setting. Fulfills open and business electives.

CAD - Computer-Aided Design

CAD101 4 Principles of Computer-Aided Design 1
Pre: Communications & Mathematics Proficiencies
Presents an introduction to computer aided drafting and design systems and their applications. Topics include point, line, arc and circle generation using a variety of techniques for positioning, moving and copying geometry. Commands are presented for the manipulation of the display and its contents to prepare multiple view part drawings with dimensions, annotations and borders. Laboratory work includes the use of a microcomputer workstation. AutoCAD software is used throughout the course.

CAD102 4 Principles of Computer-Aided Design 2
Pre: CAD 101
This course will expand upon the topics presented in CAD101. Symbols, diagrams, parts, assemblies, and standards are discussed. Working, assembly and/or pictorial drawings of objects are drawn with sections, revolutions, and breaks as required. Three dimensional models are drawn using solids and wireframe techniques. Models are rendered, complete with lighting and scenes. Models are prepared for export to CAD-related software products. The AutoCAD software is used throughout the course.

CFS - Culinary Arts and Food Service

CFS101 2 Basic Culinary Techniques
Pre: Communications & Mathematics Proficiencies
This five-week course is designed to introduce students to tool and equipment handling and the basic operations of cooking. Individual classes focus on the following techniques: braise/stew; broil/grill/roast; poach/boil/steam; and saute'/pan fry/deepfry.

CFS102 2 Meat/Poultry/Fish Fabrication & Production
Pre: Communications and Mathematics Proficiency and CFS 101
Students will learn to identify meat, poultry and fish structure, primal and sub-primal cuts, methods of cutting and grading, and the proper cooking methods for each.

CFS104 2 Introduction to Breads, Pastries, and Desserts
Pre: Communications and Mathematics Proficiencies
This five-week course introduces the student to the tools, machines, equipment and procedures commonly found in a commercial bakeshop. It covers weights and liquid measures and basic ingredients to produce bread dough, cookie dough and other basic bakery products. Emphasis will be placed on working with yeast-raised dough, as well as basic mixing procedures used in preparing cookies, cakes and other common dough.

CFS106 2 Baking Production and Merchandizing of Bakery Products
Pre: Communications and Mathematics Proficiency and CFS 104
This five-week course covers the fundamentals of producing bakeshop products for commercial purposes. Topics include application of timesaving steps in the production process and adjustments to formulas and temperatures to meet different product yields. Product arrangement, cross merchandizing, shelf life and spoilage will also be addressed.
CFS108  2  Table Service  
Pre: Communications and Mathematics Proficiencies  
This five-week course deals with the smooth and efficient management of the dining room. On-site instruction is provided as students take part in all aspects of running a dining room, including customer relations, table settings, napkin folding, seating, billing, etc.

CFS110  2  Introduction to Garde Manger  
Pre: CFS101  
Co: CFS102  
All areas of the cold kitchen are explored in this introductory course. These include salads, oils and vinegars, cheeses, pates, cold sauces, aspic, chaud foid, garnishes, and cold buffet presentation.

CFS114  3  Food Safety and Sanitation  
Pre: Communications and Mathematics Proficiencies  
This course is designed to expose students to areas of importance in food safety and sanitation. Material covered will help the students in solving individual problems concerning sanitation and public health. The students will be prepared for the ServSafe certification exam given by the Educational Foundation of the National Restaurant Association. This course is approved for the USDA Food Technology Training Program.

CFS116  2  Banquet and Function Management  
Pre: Communications and Mathematics Proficiencies  
This five-week course will cover the operation of a banquet style facility. It includes hands-on operation in areas of dealing directly with the public, running a dining room smoothly, and merging kitchen and dining room operations into a pleasing whole.

CFS118  2  Stocks, Soups, & Sauces  
Pre: Communications and Mathematics Proficiency and CFS101  
Co: CFS102  
This course focuses on the production of the basic building blocks used in the professional kitchen and their relationship to soups and sauces. Brown and white beef, veal, chicken, fish, and vegetable stocks are prepared from scratch. Various liaison or thickening agents are covered as well as the classical and petite sauces and their uses as well as a variety of hot and cold soups made from the initial stocks. Fresh herbs and vegetables are introduced as flavor enhancers to finished products. Students will use a variety of large and small kitchen equipment and utensils. Sanitation principles and basic knife skills are emphasized, in addition to weights, measures, accurate yields, and portion control.

CFS134  1  Wine in the Food Industry  
Pre: Communications and Mathematics Proficiencies  
This course will provide information about the wine producing regions of the world, the type of wine grapes grown in those regions and the wines produced from those grape varieties. In addition to table wines, the course will also cover the regions of the world that produce fortified wines. The importance of wines, both table and fortified, will be emphasized as a key component in the food industry. The cultural use of wines will be a topic for this course. Note: This is not a wine tasting class.

CFS202  2  Danish, Croissant, Choux, and Puff Pastry  
Pre: CFS104  
This course covers methods of producing various laminate dough including puff pastry, croissant and Danish dough. Students will acquire skills in performing the mixing, rollout process and unit preparation of pastry such as figure eights, snails and cream horns. Specialized mixing techniques involved with producing choux pastry for eclairs and cream puffs are also included.

CFS204  2  Classical Baking  
Pre: CFS104  
Co: CFS106  
Students will incorporate a variety of base products to produce a finished, marketable product line such as cheesecakes, artisan breads and rolls, tortes, mini pastries and specialized cakes that can be used by restaurants, caterers and food service institutions. Many classical and traditional holiday/seasonal items will be produced in class.

CFS206  2  A La Carte Restaurant Operations  
Pre: CFS102  
Students will run an a la carte restaurant operation that is open to the public. Each student will rotate through all stations, including sauteing, broiling, roasting, expediting, plating and cleaning.

CFS212  2  American Regional Cuisine  
Pre: CFS102  
Co: CFS118  
The regional foods, techniques, and seasonings of the U.S.A. are explored. Regions covered include New England, the South, the Southwest, the American Heartland, California, the Pacific Northwest, and Hawaii. Specialty areas such as Pennsylvania Dutch Country, southern Florida’s Caribbean connection, and New Orleans fall within these regions.

CFS214  2  Buffet & Specialty Food Preparation  
Pre: CFS102  
Topics include the planning, preparation, set up and break down of buffets. Domestic, international, holidays, and ethnic buffets will be prepared.

CFS216  2  International Cuisine  
Pre: CFS102  
Co: CFS118  
The foods, cooking techniques, flavors, and seasonings of selected cuisines from Asia, the Middle East, Africa, Italy, Spain, Portugal, France, the Caribbean, and Latin America are the focus.

CFS228  3  Food & Beverage Cost Control  
Pre: Communications and Mathematics Proficiencies  
This course will focus on management techniques, daily and monthly food costs, beverage costs, inventory control and the analysis of labor and overhead costs. Also includes an in-depth survey of modern management and control techniques utilized in the food service industry.

CFS234  1  Culinary Arts Workplace Seminar  
Pre: Communications and Mathematics Proficiencies  
Students will have the opportunity to gather first-hand knowledge of various career opportunities and workplace expectations as well as creating applicable tools for the job application process. Question-and-answer sessions with guest speakers from the field will present further opportunities to prepare students for entry into the workplace. Seminar topics will include developing job search skills, preparing cover letters and a resume, mock interviews, and identifying work ethic components needed for success in the workplace.
CHE - Chemistry

CHE101 4 Introductory Chemistry 1
Pre: Communications, MAT101 or 091 w/’C’ or better or successful completion of MM08
A survey of basic principles of inorganic chemistry designed for students with little or no previous preparation in chemistry. Topics include: atomic and molecular structure, bonding, chemical reactions, stoichiometry, solutions, acids and bases, pH, and nuclear chemistry. Laboratory work reinforces lecture concepts and deals primarily with introductory laboratory techniques. Fulfills open, liberal arts, and with CHE102 laboratory science sequence electives. (3 hours of lecture, 3 hours of lab per week)

CHE102 4 Introductory Chemistry 2
Pre: CHE101 or CHE103 or CHE114 with ‘C’ or better
Co: Continuation of Introductory Chemistry 1.
This course is a survey of organic and biological chemistry. Topics include: structure, nomenclature and reactions characteristic of various classes of organic compounds as they relate to the study of carbohydrates, lipids, proteins, and nucleic acids. Laboratory work reinforces lecture concepts. Fulfills open, liberal arts, and with CHE101 laboratory science sequence electives. (3 hours of lecture, 3 hours of lab per week)

CHE103 4 General Chemistry 1
Pre: Communications Proficiency, MAT092 w/’C’ or better or successful completion of MM12
An inorganic chemistry course designed for science and engineering majors. Topics include: atomic theory, equation writing, nomenclature, stoichiometry, structure and bonding, states of matter, and solutions. Laboratory work is coordinated with lecture and involves primarily quantitative methods. Fulfills open, liberal arts, and with CHE104, laboratory science sequence electives. (3 hours of lecture, 3 hours of lab per week)

CHE104 4 General Chemistry 2
Pre: CHE103 with grade of C or better
Co: Continuation of General Chemistry 1.
Topics include: kinetics, equilibrium gas phase, acid-base, solubility, thermodynamics, electrochemistry, metallurgy, chemistry of the non-metals, complex ions, and nuclear chemistry. Laboratory work is coordinated with lecture and involves primarily quantitative methods. This course fulfills open, liberal arts, and together with CHE103, laboratory science sequence electives. (3 hours of lecture, 3 hours of lab per week)

CHE201 4 Organic Chemistry 1
Pre: CHE 104 with grade of C or better
Designed for science and engineering majors. Topics include: nomenclature, structure, and properties including nuclear magnetic resonance and infrared absorbance of the common classes of organic compounds. The most generally useful among functional group transformations are discussed along with their major reaction mechanisms. Laboratory work involves practice in current techniques, selected functional group transformations as well as practical applications. Fulfills open, liberal arts, and with CHE202, laboratory science sequence electives. (3 hours of lecture, 3 hours of lab per week)

CHE202 4 Organic Chemistry 2
Pre: CHE201 with grade of C or better
Co: Continuation of Organic Chemistry 1.
Topics include: further discussion of functional group transformations in the light of their mechanisms and their application to longer and more complex organic synthesis sequences. Polymers and the important classes of biomolecules are also presented. Laboratory work involves practical applications of the presented topics. Fulfills open, liberal arts, and with CHE201, laboratory science sequence electives. (3 hours of lecture, 3 hours of lab per week)

CMP - Composition

CMP101 3 Composition 1
Pre: Placement exam score
Emphasis is on developing skills of writing, reading, analytical thinking, and research. Students are introduced to thought provoking ideas in readings from a variety of disciplines and learn to organize material, analyze ideas, and produce clear writing. Fulfills open and liberal arts electives.

CMP101H 3 Composition 1 - Honors
Pre: Placement exam score
Emphasis is on developing skills of writing, reading, analytical thinking, and research. Students are introduced to thought provoking ideas in readings from a variety of disciplines and learn to organize material, analyze ideas, and produce clear writing. Fulfills open and liberal arts electives. This is an Honors section emphasizing high level critical thinking skills. Students do not have to be in the Honors Program to enroll in this course.

CMP104 3 Composition 2: Introduction to Literature
Pre: CMP101
Emphasis is on analytical and researched writing based on an appreciation of fiction, poetry, and drama. Classic and contemporary authors will be studied. Fulfills open, liberal arts, composition 2, composition-LT, and humanities electives.

CMP104H 3 Composition 2: Introduction to Literature - Honors
Pre: CMP101
Emphasis is on analytical and researched writing based on an appreciation of fiction, poetry, and drama. Classic and contemporary authors will be studied. Fulfills open, liberal arts, composition 2, composition-LT, and humanities electives. This is an Honors section emphasizing high level critical thinking skills. Students do not have to be in the Honors Program to enroll in this course.

CMP106 3 Composition 2: Introduction to Journalism
Pre: CMP101
Emphasis is on the principles and practices of newspaper writing, editing and the publication of printed media, typography, copyfitting, headline writing, and photo journalism. Two lectures and one writing lab are scheduled each week. The work may include writing for college or community publications. Fulfills open, liberal arts, composition 2, and humanities electives.
**CMP108**  3  **Composition 2: Feature Writing**  
Pre: CMP101  
Emphasis is on journalistic writing for newspapers and magazines as practiced in weekly feature assignments for college and community publications. Fulfills open, liberal arts, composition 2, and humanities electives.

**CMP112**  3  **Composition 2: The Short Story**  
Pre: CMP101  
Emphasis is on analytic writing based upon characteristics and content of a variety of short stories. Among the authors whose works may be studied are Hawthorne, Joyce, Bellow, Mason, and Carver. Fulfills open, liberal arts, composition 2, composition-LT, and humanities electives.

**CMP120**  3  **Composition 2: Mass Media in Communications**  
Pre: CMP101  
Emphasis is on written reports about communication techniques used by the mass media in America, including newspapers, periodicals, radio, television, and films. Fulfills open, liberal arts, composition 2, and humanities electives.

**CMP122**  3  **Composition 2: Children's Literature**  
Pre: CMP 101  
Emphasis is on analytical writing based upon folktales, poetry, and fiction written for children. Among the authors whose works may be studied are Andersen, Carroll, Mother Goose, Clifton, Silverstein, and Stevenson. Fulfills open, liberal arts, composition 2, composition-LT, and humanities electives.

**CMP124**  3  **Composition 2: Film and Fiction**  
Pre: CMP 101  
Emphasis is on the comparative analyses of literary masterpieces and their film versions. Classic and contemporary novels, plays and short stories and their film counterparts will be studied. Fulfills open, liberal arts, composition 2, composition-LT, and humanities electives.

**CMP126**  3  **Composition 2: Film Studies**  
Pre: CMP101  
Emphasis is on critical writing about film. The course introduces students to the principles of film criticism and briefly covers the history of international cinema. Classes are devoted to viewing and analyzing specific films within this historical, aesthetic context. Fulfills open, liberal arts, composition 2, and humanities electives.

**CMP128**  3  **Composition 2: Criminals in Literature**  
Pre: CMP101  
Emphasis is on analytical writing based upon literary works of all genres which focus on characters who commit crimes. Among the authors whose works may be studied are Capote, Twain, and Dostoyevsky. Fulfills open, liberal arts, composition 2, composition-LT, and humanities electives.

**CMP138**  3  **Composition 2: Women Writers**  
Pre: CMP101  
Emphasis is on analytical writing based upon literature by and about women. Among the authors whose works may be studied are Cather, Brooks, Woolf, Gordiner, and Lessing. Fulfills open, liberal arts, composition 2, composition-LT, and humanities electives.

**CMP142**  3  **Composition 2: Life Stages**  
Pre: CMP101  
Emphasis is on analytical writing about literature that illuminates the different stages in a person's life. The course will examine poetry, short stories, and plays that explore the issues and challenges of childhood, adolescence, adulthood, old age, and death. Fulfills open, liberal arts, composition 2, composition 2-LT, and humanities electives.

**CMP148**  3  **Composition 2: Literature and the Environment**  
Pre: CMP101  
Emphasis is on analytical and experiential writing based on American literary works of all genres that focus on the relationship between humans and the natural world. Among the authors whose works may be studied are Thoreau, Muir, Leopold, Carson, Snyder, Lopex, Williams, Dillard, and Oliver. Fulfills open, liberal arts, humanities, composition 2, composition 2 - LT electives.

**CMP150**  3  **Composition II: Technical Writing**  
Pre: CMP101 with a ‘C’ or permission of instructor  
An intermediate to advanced writing course focusing on the types of writing frequently done in industry, science, and government, which stresses clear, concise wording and logical organization. Students write mechanical descriptions, letters, abstracts, reports, proposals, and instructions. Class time is divided between lecture/discussion on the writing process and writing workshop activities. Fulfills liberal arts, composition 2, and open electives.

**CMP154**  3  **Composition 2: African and African American Writers**  
Pre: CMP101  
Emphasis is on the experience of African-Americans as reflected in literature from the African tradition through the slave era, the Harlem Renaissance and its focus on the literary and cultural talents of African Americans, and the literary expression of the precolonial, colonial and postcolonial African experience. Fulfills humanities, liberal arts, composition 2, composition 2-LT, and open electives.

**CMP190**  3  **Creative Writing**  
Pre: CMP101  
Emphasis is on writing of short fiction, poetry, and drama for the beginning and experienced writer. The goal of the course is for writers to improve writing skills and to produce finished pieces for possible publication. Fulfills open, liberal arts, and humanities electives. Does not fulfill a CMP 2 elective.

**COM**  
**COM - Communication Skills**

**COM010**  3  **Practical Applications for College**  
Pre: ESL019 or ESL084 & 086 with C or C+, or placement exam  
Co: COM011 and COM013  
Provides students with a wide variety of group and individualized activities to develop basic academic and performance skills needed for success in college and on the job. Among topics discussed are: successful academic behaviors, orientation to college, career and life planning, and the development of study skills including time management, note-taking, reading/study systems, test preparation, and basic utilization of computers for class projects and assignments. Students identified through the College Assessment Program should enroll in this course in their first semester. This course satisfies no elective requirement.
COM011 3 College Writing 1
Pre: ESL019 or ESL084 & 086 with C or C+, or placement exam
Co: COM010 and COM013
Develops writing and critical thinking skills through a combination of reading, thinking, discussing, and writing on current topics. Instruction emphasizes the use of the writing process to develop both informal and formal paragraphs relevant to personal, academic, and career needs. Students identified through the College Assessment Program should enroll in this course in their first semester. This course fulfills no elective requirement.

COM012 3 College Writing 2
Pre: ESL019 or 122 & 124 w/B- or COM010, 011, 013 w/C
Co: COM014
Provides students with the opportunity to develop skill in expressing complex ideas using basic essay structure. Students will practice all steps of the writing process, develop skill in analyzing and integrating source material into thoughtful compositions in standard English and meet individual goals for writing improvement. Students identified through the College Assessment Program should enroll in this course in their first semester. This course fulfills no elective requirement.

COM012A 3 College Writing 2 - Health and Medical Careers
Pre: ESL019 or 122 & 124 w/B- or COM010, 011, 013 w/C
Co: COM014A
Designed for students interested in Health and Medical careers. This is a hybrid course which requires some online learning. Provides students with the opportunity to develop skill in expressing complex ideas using basic essay structure. Students will practice all steps of the writing process, develop skill in analyzing and integrating source material into thoughtful compositions in standard English and meet individual goals for writing improvement. Students identified through the College Assessment Program should enroll in this course in their first semester.

COM012B 3 College Writing 2 - Legal and Criminal Justice Careers
Pre: ESL019, 122, 124 with B- or COM010, 011, 013 with C
Co: COM014B
Designed for students interested in Legal and Criminal Justice careers. This is a hybrid course which requires some online learning. Provides students with the opportunity to develop skill in expressing complex ideas using basic essay structure. Students will practice all steps of the writing process, develop skill in analyzing and integrating source material into thoughtful compositions in standard English and meet individual goals for writing improvement. Students identified through the College Assessment Program should enroll in this course in their first semester.

COM013 3 College Reading 1
Pre: ESL019 or ESL084 & 086 with C or C+, or placement exam
Co: COM010 and COM011
Develops basic reading skills using a broad cross section of articles written in response to current issues or events. Students improve their ability to comprehend factual material, build confidence in their ability to learn independently, and gain new perspectives and broaden horizons. Students employ effective reading strategies to improve concentration, identify and resolve comprehension problems, analyze and organize author's ideas, evaluate them critically, and record them for future use. By meeting the academic and behavioral challenges of this course, students will develop the skills, habits, and attitudes necessary for success in college. Students identified through the College Assessment Program should enroll in this course in their first semester. This course fulfills no elective requirement.

COM014 3 College Reading 2
Pre: ESL019 or 122 & 124 w/B- or COM010, 011, 013 w/C
Co: COM012
Students will improve their literal comprehension and ability to learn from college textbooks by applying their critical reading skills to college level material. Through extensive practice, they will develop the ability to understand inference in literature, to synthesize ideas obtained from a variety of media, and use reading as a tool for independent learning. In meeting the academic and behavioral standards for this course, students will develop the skills, attitudes, and habits necessary for success in college. Students identified through the College Assessment Program should enroll in this course in their first semester. This course fulfills no elective requirement.

COM014A 3 College Reading 2 - Health and Medical Careers
Pre: ESL019 or 122 & 124 w/B- or COM010, 011, 013 w/C
Co: COM012A
Designed for students interested in Health and Medical careers. This is a hybrid course which requires some online learning. Students will improve their literal comprehension and ability to learn from college textbooks by applying their critical reading skills to college level material. Through extensive practice, they will develop the ability to understand inference in literature, to synthesize ideas obtained from a variety of media, and use reading as a tool for independent learning. In meeting the academic and behavioral standards for this course, students will develop the skills, attitudes, and habits necessary for success in college. Students identified through the College Assessment Program should enroll in this course in their first semester.

COM014B 3 College Reading 2 - Legal and Criminal Justice Careers
Pre: ESL019 or 122 & 124 w/B- or COM010, 011, 013 w/C
Co: COM014B
Designed for students interested in Legal and Criminal Justice careers. This is a hybrid course which requires some online learning. Provides students with the opportunity to develop skill in expressing complex ideas using basic essay structure. Students will practice all steps of the writing process, develop skill in analyzing and integrating source material into thoughtful compositions in standard English and meet individual goals for writing improvement. Students identified through the College Assessment Program should enroll in this course in their first semester.

COM099 3 Basic Communications
Pre: Placement exam score
Students acquire the ability to write a clear, unified, and grammatically correct essay. A review of basic writing fundamentals is emphasized. The course integrates reading and writing to enable students to develop and reinforce their communication skills. It helps students apply their skills to other writing activities so they may achieve success in college. Students identified through the College Assessment Program must enroll in this course in their first semester. This course fulfills no elective requirement.
COP - Cooperative Education/Internship

COP202  3  Cooperative Education/Internship
Pre: 2.0 CPQA, CMP101 & 27 credits in student’s program
Enhances career development and professional growth by
integrating classroom study and seminar sessions with a faculty
supervised 120 hour work experience in the student’s academic
major. Focuses on developing job search skills, work ethics, human
relations and communications skills needed for success in the
workplace. Course registration is subject to the availability of an
approved internship/cooperative education work site.

CPS - Computer Science

CPS095  0  Computer Literacy by Challenge Examination

CPS099  3  Basic Computing
This preparatory course integrates basic computer skills to enable
students to become more proficient at using the computer as a
tool within the student’s learning environment. Helps to integrate
basic reading, writing, and math skills to better attain success in
studies. Students learn how the computer functions, CAI software
and how to use an integrated software package including word
processing, spreadsheet and presentation software as well as
integrated functions. This course does not fulfill a computer literacy
prerequisite. This course satisfies no elective requirements.

CPS100  3  Information Technology and Its Applications
Pre: Communications and Mathematics Proficiencies
This course provides an introduction to the technical and social
aspect of IT. Topics include computer hardware, software,
telecommunications concepts, web applications, Internet services,
etical issues, data security, and privacy. IT applications in areas
such as business, education, and the arts will be examined. Course
projects using operating system, word processing, spreadsheet,
and presentation software will be integrated throughout
the course. CPS100 may be fulfilled by a challenge exam and
successfully completing a 3-credit liberal arts course. Credits are
not awarded for passing the challenge exam. Fullfills open, liberal
arts, and computer science electives. (3 lecture hours per week)

CPS101  4  Computer Science 1 (Java 1)
Pre: Communications and Math Proficiencies
This course is an introduction to computer programming through
the use of the Java programming language. The range of topics
includes fundamentals of Java, creation of Java programs,
the development and testing environments, Java application
programming, and applet programming with web applications,
data types, control structures, arrays single and multidimensional),
and an introduction to objects, classes and methods. Emphasis
will be on object- oriented design and programming skills. Topics
will be reinforced through exercises in writing programs for varied
applications. Fulfills open, liberal arts and computer language
electives. Students entering this course should be able to use the
Windows Interface to locate, create, and manipulate files, and
folders. (4 lecture hours per week)

CPS102  4  Computer Science 2 (Java 2)
Pre: CPS101
This course develops advanced computer programming skills
through the use of the Java programming language. Advanced
features of the Java language are studied. Topics include object-
oriented programming, polymorphism, inner class, interface
and abstract class, various string processing, graphics and
design strategies, exception handling, debugging, threading and
multithreading, files and streams, and the serialization of objects.

CPS104  3  Introduction to Fluency in Information Technology
Pre: CPS100
This course focuses on the impact of digital technologies on the
lives of individuals, society, and the world, with consideration
of related ethical issues. Throughout the course students use
technology tools to analyze data, further communication, gather
and share information, solve problems, and make informed
decisions.

CPS107  3  Programming Logic and Design
This course introduces the student to the essential logic concepts
that provide a foundation for computer programming. Topics
covered include problem solving and algorithm development using
flow charts and pseudo code, numbering system and memory
representations, control structures, data types and structures,
sorting and searching algorithms, array processing, comparing
and branching conditions, file processing, and interactive logic.
The student will be introduced to Graphical User Interface (GUI)
design and object-oriented and event-driven programming (OOP)
design. Fulfills open and liberal arts electives.

CPS114  4  Advanced Microsoft Office
Pre: CPS100
This hands-on course uses the advanced features of Microsoft
Office to create business documents, analyze data, and present
information. The in-depth coverage of Word, Excel, and PowerPoint
includes mail merging, templates, advanced graphics, linking
and embedding, forms, PivotTable reports, macros, custom
functions, Visual Basic for Applications, Lists, What-If Analysis,
data exchange between Office applications, collaboration,
sharing files, incorporating web information, customizing
Office, and XML features. Fulfills open and software electives.
(4 hours of lecture per week)

CPS122  4  Operating Systems
Pre: CPS100
A comprehensive study of current operating system (OS)
technology including the OS architecture, utilities and tools
of the OS, file system management and system optimization,
system processes, application support, system commands, system
documentation, customization, diagnostics, fault tolerance,
and features of different OS systems. Emphasis is placed on the
efficient use of the OS to monitor, manage and maximize use of
system resources, and troubleshooting. Fulfills open and software
electives. (4 hours of lecture per week)

CPS124  3  Web Fluency
Pre: Communications Proficiency
This hands-on course explores the features of the Internet
including the communications software and hardware required
to access the Internet. Internet Service Providers (ISP) and other
online services will be evaluated. Popular search tools will be
used to locate information online, and websites will be evaluated
for accuracy and authenticity. Tools such as audio and video
steaming programs, RSS blogs, user groups and listservs will be
used to search out and download information. HTML and webpage
creation software will be used to create a simple homepage.
Societal issues such as universal access, identity theft, and Fair Use
will be discussed and emerging technologies will be examined.
Fulfills open and software electives. (3 lecture hours per week)
CPS126 2  Web Page Design and Creation  
Pre: Communications Proficiency  
Provides a hands-on introduction to designing and developing web sites to offer information or business services online. Using web development tools and imaging software, students will create web sites that include graphics, tables and frames. A final project will be published using FTP software. (2 lecture hours per week)  
Fulfills open and software electives.

CPS130 3  Computer Hardware  
Pre: CPS100  
Examines the principles and skills required to understand and work with computer hardware. Topics include system architecture, CPU and system board, memory, I/O devices, disassembly and assembly, documentation, upgrades, system diagnostics and troubleshooting, and preventive maintenance. Instruction includes lectures, demonstrations and hands-on work. (3 hours of lecture per week)

CPS132 1  Essentials of UNIX  
Pre: CPS100  
An overview of the UNIX operating system. Topics include the origins of UNIX, multitasking, window managers, file systems, directories and sub-directories, UNIX shell, pipes and filters, the VI editor, networking, and shell scripts. Fulfills open, web development, and operating systems electives. (1 hour of lecture per week)

CPS134 2  Introduction to Computer Networks  
Pre: CPS100  
A solid introduction to computer networks including the internet infrastructure. Topics include network file systems, network models, the functions and features of network operating systems, and the essential management of computer networks. The installation and configuration of client/workstation operating system in the network are used to reinforce course content. Fulfills open, software and web development electives. (2 hours of lecture per week)

CPS136 4  Advanced Computer Networks  
Co: CPS134  
Advanced course in computer networks and internet infrastructure including client-server network, peer-to-peer network, OSI model, network protocols, network file system management, file system security, network administrations and policies, network server management, network services, network performance and fault tolerance. The configuration and administration of client-server networks are used to reinforce the course content. Fulfills open, software, and web development electives. (4 hours of lecture per week)

CPS138 4  Internet Networking and Security  
Pre: CPS100  
Students will examine the underlying network technologies behind the Internet and the World Wide Web and what is needed to allow remote machines to communicate with each other. Participants will also learn how to implement and strengthen security procedures on an Internetwork. Topics will include an overview of TCP/IP, HTTP, IP addressing, subnetting, routing, DNS, SSL, proxy servers, firewalls, password protection, and encryption. Students entering this course must be able to use the Windows interface to locate, create, and manipulate files and have a working knowledge of how to use a web browser to access information online. (4 lecture hours per week)

CPS140 4  HTML  
Pre: Communications Proficiency  
Focus is on using XHTML coding standards to create web pages that display tables, image maps, frames, and forms. CSS will be used throughout the course to create consistent pages in student web sites. Dynamic web pages will be created using JavaScript and DHTML. (3 lecture hours per week)

CPS142 4  Web Graphics  
Pre: Communications Proficiency  
Introduction to designing and preparing graphics for the web. File formats, file sizes, compression methods, cross-platform web color, typography in images, client-side image maps, scanning techniques, and browser-specific techniques will be covered. Photoshop and other graphic editor programs will be used to create and optimize graphics for a course project. Multimedia software will be used to produce web animations that will be incorporated into the overall design of the project web site. Students entering this course must be able to use the Windows interface to locate, create, and manipulate files and have a working knowledge of how to use a web browser to access information online. Fulfills open, software and web development electives. (4 lecture hours per week)

CPS144 4  Web Programming  
Pre: CPS140  
This course presents the basic topics in programming for the internet. The languages used are Java and Perl. This is a hands-on course which will be taught in a computer classroom. (4 hours of lecture per week)

CPS146 3  Web Site Seminar  
Pre: CPS140  
This course will use case studies to explore effective and usable web sites. Students will integrate current web technology into a project which will be evaluated on color usage, navigation elements, and design elements. Promotion of sites, cookies, site monitoring, commerce, and security issues will be examined. Fulfills open, software and web development electives.

CPS148 3  XML  
Co: CPS140  
This course will provide students with practical experience developing XML solutions, including writing well-formed XML documents, modeling business requirements using XML, coding XML reserved characters, validating an XML document with a DTD, using entities, capturing user requirements with XML Schemas, and writing XSL templates to transform XML documents into HTML. Fulfills open and software electives. (3 lecture hours per week)

CPS150 2  Web Development Using DHTML  
Pre: CPS140  
This course will cover the basic syntax of DHTML building upon HTML syntax. Topics will include JavaScript, Cascading Style Sheets, Java Applets, and other tools to make web pages dynamic. Fulfills open and software electives. (2 lecture hours per week)

CPS152 2  JavaScript  
Pre: CPS140  
This course will introduce advanced web authoring technologies. JavaScript will be used to add interactive features to web sites. Loops, Conditionals, Arrays, Windows, Frames, Objects, and Object handling will be covered. Students will create scripts that respond to user input and validate user data. Fulfills open and software electives. (2 lecture hours per week)
CPS158  3 Dreamweaver
Pre: Communications Proficiency
This hands-on course explores the design of web sites using Dreamweaver software. Students will define a web site, work with text and images, use Dreamweaver’s CSS tools, create and style tables, and work with templates and forms. Websites will be published to a server and evaluated as part of the course assignments and projects. Students enrolling in this course should be capable of using the Windows or Mac operating system and have an understanding of basic file management. Fulfills open and software electives. (3 lecture hours per week)

CPS160  3 Advanced Dreamweaver
Pre: CPS158
This hands-on course explores the design of web sites using advanced Dreamweaver features. Students will use Dreamweaver code tools, Spry widgets, and advanced templates. An in-depth coverage of advanced CSS will include using complex selectors and creating CSS layouts. Fulfills open and software electives.

CPS162  2 UltraDev
Pre: CPS160
This course will use UltraDev to link a website to a database where information will be inserted, updated, and deleted. Additionally, students will learn how to restrict access areas, track users, and create cookies. Fulfills open, software and web development electives.

CPS168  2 Introduction to Access
Pre: CPS100
Study of database concepts as applied to MS Access database. Topics include the basic models used by database systems, database design and implementation, relational operations, database reports, menu driven applications, programming, database administration, and database security. Fulfills open, business, and software electives. (2 hours of lecture per week)

CPS170  4 Database Theory and Applications
Pre: CPS100
This course is an introduction to database theory and applications. Topics will include Database design, foundation for the relational database model, Structured Query Language (SQL), Entity Relationship (E-R) Modeling, normalization, advanced database design and implementation, and file indexing. Fulfills open, web development and software electives.

CPS174  3 Introduction to Flash
Pre: Communications Proficiency
This course will cover the features of the Flash interface, including the drawing tools, layers, and scenes. Students will begin with creating frame-by-frame animations and advance to shape and motion tweened movies. The following topics will also be covered: creating and using library symbols, publishing Flash movies, optimization tips, buttons, movie clips, sound, and ActionScript. Fulfills open, software, and web development electives. (3 lecture hours per week)

CPS176  2 Advanced Flash
Pre: CPS174
This course will cover the use of actions and variables to create interactive pages including text, text fields, buttons, and links. Movie clips will be created and used to animate movies and buttons. Sound files will be imported and modified. Pre-loading of movies will be looked at and optimization techniques will be employed. Fulfills open, software and web development electives.

CPS178  2 Flash ActionScript
Pre: CPS1741
In this course, students will work with ActionScript to create preloaders, draggable movie clips and forms. Flash 5 movie elements will be dynamically controlled and updated. Variables will be established, evaluated and passed within a Flash movie. Fulfills open, software and web development electives.

CPS180  2 Introduction to Perl
Pre: CPS140
This course will use Perl to enhance web pages and create CGI scripts. The following topics will be covered: Collecting data from visitors to a web site, environment variables, scalars, arrays, conditionals, subroutines, and hashes. Fulfills open, software and web development electives.

CPS182  2 Information Systems Disaster Recovery
Pre: Communications Proficiency
An introduction to information systems disaster recovery principles, including preparation of a disaster recovery plan, appropriate countermeasures for information security, development of policies and procedures, implementation of the disaster recovery plan, and recovery from an information systems disaster. Fulfills software and open electives.

CPS186  4 ASP.NET
Pre: Basic Communications
This course uses the .NET framework to create ASP.NET applications including web forms, web services, interactive web sites, and distributed applications. The course will provide practical experience using web forms to create data-bound applications with Visual Basic .NET.

CPS190  3 Introduction to Computer Applications in Telecommunications
Pre: Communications and Mathematics Proficiencies
This course is an introductory course in basic computer orientation to hardware and implementation of software applications in telecommunications. Students will use various software packages to create documents, spreadsheets, graphs, databases, and presentations. The student will utilize this knowledge to solve problems and transfer information via electronic medium. Lectures, interactive learning and demonstrations will be employed. Laboratory exercises will be required.

CPS203  4 Data Structures
Pre: CPS 102
Co: MAT241 or MAT301
A study of data types and structures and the connection between algorithms and data structures. Emphasis is placed on developing problem solving techniques. Topics include: data abstractions, controlled access structures, algorithm design strategy, analysis techniques, searching, sorting, shortest path, matrix and polynomial operations. Fulfills open and liberal arts electives. (4 hours of lecture per week)

CPS210  4 Computer Systems Development
Pre: CPS100
Presents the principles and techniques used to study, design, and develop computer systems. The Systems Development Life Cycle is the major focus. Case studies of common business problems which use computerized solutions are presented. Students will use SDLC methods to create solutions to business problems. Hands on assignments will make use of Computer Aided Systems Engineering (CASE) tools. Fulfills open and business, electives. (4 hours of lecture per week)
CPS218  4  UNIX
Pre: CPS100
This course will teach the student how to use UNIX. It introduces the student to the fundamental concepts of the UNIX operating system. It provides the student with the basic tools necessary to use this operating system effectively. This course is intended for students who need to learn the basics of UNIX because the student may be working in a UNIX environment: be it a programming environment, a database system, a general business system, or a scientific environment operating under UNIX. Fulfills open and web development electives. (4 hours of lecture per week)

CPS222  4  Visual Basic 1
Pre: CPS100
Introduction to programming using Visual Basic.NET. Structured programming and development techniques will be studied. This language provides all the tools needed to create interactive programs for Microsoft Windows applications. Event-driven code will be created and evaluated. Concepts covered will include creation and use of controls, building the user interface, using variables and constants, using the selection structures, modifications of the properties of objects, mathematical functions. Extensive hands-on, independent work will be required. Fulfills open, liberal arts and computer language electives. (4 hours of lecture per week)

CPS223  4  Visual Basic 2
Pre: CPS222
Advanced features of the Visual Basic.NET programming language will be presented including the repetition structure, collections, sub procedures, sub functions, passing parameters, the listbox control, adding an existing form to a solution, string manipulation, the menu control, sequential access files, the datatimepicker control, the prindocument control, random access files, variable arrays, database access using a windows form, database access using a web form. Fulfills open, liberal arts and computer language electives. (4 hours of lecture per week)

CPS224  4  Object Oriented Programming in C++
Pre: CPS101 or CPS103
This is an advanced programming course using C++. Topics covered include functions, pointers, class objects, member functions, constructors, destructors, inheritance, class libraries, virtual functions, polymorphism, OOP and non OOP code, class hierarchies, friend classes, and overloading. Fulfills open, computer language, engineering, and liberal arts electives. (4 hours of lecture per week)

CPS226  4  Computer Organization and Architecture
Pre: CPS101 or CPS103
Introduction to computer organization and architecture. Both hardware and software concepts are considered. Emphasis is on the hardware/software interface. Topics include integrated circuits, machine/assembly language concepts, simple RISC and CISC computers, logic designs, processor design, pipelining, data paths, memory systems, and I/O. Fulfills liberal arts elective.

CPS240  4  Programming With PHP and MySQL
Pre: Communications and Mathematics Proficiencies
Co: CPS140
The fundamentals of PHP programming including some advanced features of the language such as database optimization, Object Oriented services, and Web Services support. Emphasis is on PHP applications that are portable across database engines.

CPS242  3  Ajax
Pre: CPS140 and CPS240
This course introduces students to creating interactive web pages using AJAX. Hands-on exercises will include programming in JavaScript to download XML from the server and manipulate the XML content. Many Ajax related technologies will be examined and Ajax Web applications will be built. (3 lecture hours per week)

CPS250  3  Advanced Network Security
Pre: Communications Proficiency; CPS138
Advanced topics in network and web security are presented including network security attacks and protections, advanced security mechanisms and models, symmetric encryption and message confidentiality, public-key cryptography and message authentication, advanced algorithms for the generation of security keys, encryption and decryption algorithms, digital certificates, advanced technology of email security, IP security, web security, network system security, and firewalls. Fulfills software and open electives.

CRJ - Criminal Justice

CRJ101  3  Introduction to Criminal Justice
Introduces students to the study of the criminal justice system. Three components of this system, the police, courts, and corrections, will be studied and interrelationships will be shown between components. Outside readings and guest speakers will combine the practical and academic aspects.

CRJ103  3  Criminal Law
Pre: Communications Proficiency
A study of criminal law, constitutional and statutory provisions, purposes of criminal law, classification of crimes, elements of crimes, defenses available to those accused of crime, and jurisdiction of the courts.

CRJ104  3  Principles of Evidence
Pre: CRJ101; CRJ103
A study of the law and the rule of evidence as they apply to law enforcement officers in the daily performance of their duties. Subject matter includes: nature of evidence, burden of proof, direct evidence, indirect evidence, judicial admission, judicial notice, courtroom presentation and procedure, direct and cross examination, opinion evidence, expert testimony, impeachment, competency, relevancy, privilege, hearsay, confessions, best evidence, secondary evidence, parol evidence, and real evidence.

CRJ105  3  Constitutional Interpretations of Criminal Procedures 1
Pre: Communications Proficiency
A study of leading U.S. Supreme Court decisions as they relate to the law of criminal procedure. Course work begins with an exploration of the 14th amendment as it applies to the states and continues with the laws of search, seizure, and arrest.

CRJ106  3  Constitutional Interpretations of Criminal Procedures 2
Pre: CRJ 105
The constitutional topics discussed include: double jeopardy, self-incrimination, the right to counsel, confessions, Miranda warnings, pretrial identification procedures, and rights to a fair trial. The course may also explore special issues of bail, plea bargaining, sentencing, and 8th amendment rights.
CRJ108  3  Crisis Intervention in the Field of Criminal Justice  
Pre: Communications Proficiency  
A course in assessing and handling the disturbance call crisis. Will cover issues such as family fights, rape calls, crime victimizations, suicide, adolescent problems, alcoholism, and drug abuse. In addition to communication and problem-solving skills, referral techniques will be covered, focusing on agency resources in the area.

CRJ110  3  Juvenile Justice System  
Pre: Communications Proficiency; CRJ 101  
This course traces the philosophy, history, and development of the juvenile justice system. Particular attention is paid to juvenile institutions and current treatment programs.

CRJ112  3  Civil Liability for Criminal Justice Professionals  
Pre: Communications and Mathematics Proficiencies; CRJ101  
Designed for criminal justice students and professionals to address principles of tort liability; common law concepts of duty; breach and injury; emergency acts; intentional torts; derivative liability and defenses.

CRJ114  3  Forensic Science (Crime Lab)  
Introduction to criminal justice students to the use of science in the examination of crime. The course will address, but not limit itself to: concepts and definitions in criminalistics, the composition of crime laboratories, and the scientific preservation of the crime scene.

CRJ116  3  Computers in Criminal Investigations  
Provides students with knowledge of methods of information gathering, management, and retrieval in criminal investigations. (Some of the information systems that will be explored include the Criminal Justice Information System; the Board of Probation System, and the NCIC 2000 National Crime Information System).

CRJ201  3  Law Enforcement Management and Planning  
Pre: Communications and Mathematics Proficiencies; CRJ 101  
Emphasizes personnel management, records and reports, public relations, budgets and business procedures employed by law enforcement.

CRJ202  3  Principles of Corrections  
Pre: Communications Proficiency  
The study of the development of correction, including the impact of incarceration on the offender and society.

CRJ204  3  Security Administration  
Pre: Communications & Mathematics Proficiencies; CRJ101  
Introduction to security administration, covering the historical and legal framework for security operations on both the private and governmental levels. Includes presentations of security processes and programs currently used to provide security in a democratic society.

CRJ206  3  Criminal Investigation  
Pre: Communications Proficiency  
Discusses the elements of crime, with emphasis on police duties, identification of persons and property, interview and interrogation, as well as case construction and presentation.

CRJ208  3  Critical Issues in Criminal Justice  
Pre: CRJ 101 and CMP 101  
In opportunity to reflect more deeply on those issues that challenge the criminal justice system. Of particular importance to Criminal Justice students is the need to give careful evaluation on moral values, and how these values can be challenged both on and off the job. This course, therefore, will focus on issues in criminal justice that often ask the professional to make value decisions.

CRJ210  3  Criminal Justice Internship  
Pre: Communication and Mathematics Proficiencies; CRJ student must have completed all first year courses  
With a supervised, 120 hour on-the-job work experience in a criminal justice agency, students should be able to: apply academic concepts in the field; gain knowledge of the structure and process of the Criminal Justice System; maintain constructive relationships with co-workers; and gain additional career information. Weekly faculty/student seminars and periodic site visits by the instructor are conducted to provide direction, reflection and problem solving opportunity. (120 hours of field work and 30 hours of seminar per semester)

DAN - Dance

DAN101  3  Creative Dance  
This introductory course will investigate how dance and physical movement integrates the whole body in a sense of awareness and structure. The art of dance and science of movement will bridge the mind-body-spirit connection to the human body in creative dance. The notion of why and how we move will be contemplated and explored; creative expression will be encouraged; and relationships between dance, music, art and drama will be personally looked at. Dance proficiency is not required to enroll in this course. Fulfills open, liberal arts, and humanities electives.

DDX - Dual Diagnosis

DDX102  3  Introduction to Dual Diagnosis  
Pre: CMP101  
This course will explore current models for identification, assessing and treating clients with coexisting psychiatric and addictive disorders. Assessment and clinical/case management skills will be reviewed in the context of DSM IV criteria. Treatment planning in the light of treatment matching and managed care models for psychiatric/substance dependence will be reviewed. The concepts of craft and professional training will be highlighted. Additionally, students’ attitudes and beliefs regarding this population will be discussed.

DDX104  3  Theories and Case Studies in Dual Diagnosis  
Pre: DDX102  
This course will utilize case studies and classroom treatment team replication in reviewing clinical/case management approaches in working with clients who are dually diagnosed. Specific treatment difficulties and interventions for clients with major mental illness and personality disorders/substance dependence will be reviewed. Emphasis will be placed upon case study discussions with clients at different levels of the treatment continuum. The role of families in mental health, addictive disorders will be reviewed.
DDX106  3  Group Skills for Dual Diagnosis Population  
Pre: DDX102  
This course will examine skills needed in facilitating group work with dually disordered clients. Role playing will be utilized in each class to enhance theoretical models reviewed. Various groups that are designated for divergent levels of service delivery will be discussed. Review of existing group work in the addictions and mental health fields and their applications to dually diagnosed clients will be highlighted. Additionally, self help group models and their relevance to dual diagnosis group work will be discussed. Behavioral management and psychoeducational approaches will also be presented.

DRA - Drama  
DRA102  3  Introduction to Theatre  
The art of modern theatre – its history, production, and artists. The course includes theatre workshops and attendance at live performances. Fulfills open, liberal arts, and humanities electives.

DRA104  3  Beginning Acting  
Acting for beginners and those who want to develop their skills. Through improvisation, rehearsal and presentation of a scripted scene, students learn to analyze roles and their own personalities. Fulfills open, liberal arts, and humanities electives.

DRA105  3  Acting, Performance, Production  
Students proceed through the casting, production and rehearsal process to the public performance of a play or series of scenes with emphasis on ensemble work. Each student learns how to analyze a role and develop a characterization. Individual meetings with the instructor supplement group work on scripts. Fulfills open, liberal arts and humanities electives.

DRG - Drug and Alcohol Rehabilitation  
DRG101  3  Substance Abuse and Society  
A sociological interpretation of the individual and groups in American society with respect to substance abuse and addiction. Emphasis is placed on prevailing attitudes and definitions and the impact of substance abuse upon professionals, women, minorities, and children. The role of the criminal justice system in substance abuse is introduced.

DRG104  3  Occupational Substance Abuse  
Instruction in planning, implementation, maintenance, and evaluation of employee assistance programs in business, industry, government, and organized labor.

DRG201  3  Substance Abuse Counseling for Individuals  
Pre: DRG101 or permission of instructor  
Covers a variety of skills and techniques at an intermediate level, which are used in individual counseling with a substance abuse client. Students will be taught intake and diagnostic skills, how to deal with denial and other defense mechanisms, the effective use of confrontation, treatment planning and goal setting and involvement of the client in problem solving. Skill building will be reinforced by role play in each session.

DRG202  3  Substance Abuse Counseling for Groups and Families  
Pre: DRG201 AND HUS102  
Covers basic group counseling skills in working with addictive personalities. Will cover the types of group treatment available, stages of group development, and the role of the leader. Group issues such as scapegoating and control struggles will be explored. The impact of an addictive family member on the family structure will be explored.

DRG204  3  Physiological and Medical Aspects of Substance Abuse  
Covers the anatomical, psycho-biological, pharmacological, nutritional, and disease treatment aspects of substance abuse.

DRG206  3  Prevention of Substance Abuse  
Course includes an overview of historical, substance abuse prevention methods; instruction in availability and use of substance abuse prevention literature; research in substance abuse prevention including school systems and business; primary, secondary, and tertiary prevention processes and practices will be learned.

DRG221  3  Field Placement & Seminar 1 in Drug & Alcoholism Rehab  
Pre: DRG101 and DRG201  
Co: DRG222  
An off campus learning experience of 120 hours of work in cooperating agencies under the supervision of agency personnel, with a 2-hour, once per week, on campus seminar to help develop skills as a substance abuse practitioner. Special emphasis will be put upon developing counseling and interpersonal competence.

DRG222  3  Field Placement and Seminar 2 in Drug & Alcoholism Rehab  
Pre: DRG101 and DRG201  
Co: DRG221  
A continuation of field placement learning which focuses upon competence in networking and case management in substance abuse. The student will be required to complete competencies 1 and 2 of the field placement package. (120 hours of field placement per semester and 2 hours of seminar per week)

DRG223  3  Field Placement & Seminar 3 in Drug & Alcoholism Rehab  
Pre: DRG221 and DRG222  
Co: DRG224  
An off-campus learning experience of 120 hours of work and 2 hours per week of on-campus seminar in a new substance abuse agency with the focus upon substance abuse case presentation competencies. The students will be expected to expand their self awareness as they deal with their work environment.

DRG224  3  Field Placement & Seminar 4 in Drug & Alcoholism Rehab  
Pre: DRG221 and DRG222  
Co: DRG223  
Field placement learning continues in the cooperating agency. The students will assess through their field work, all the skills learned in the drug and alcohol program and to develop a career plan which clearly looks at all types of employment this field offers. (120 field placement hours per semester and 2 seminar hours per week)
DTC - Nutritional Science and Diet Technology

DTC102  3  Nutrition for Healthy Living
Pre: Communication Proficiency
An introduction to the nutritional needs of the healthy human body. The course is designed to provide an understanding of nutrients essential for energy, growth and maintenance. Discussion will be promoted to develop conclusions concerning food additives, food facts, and food fads. The student will learn the facts necessary to plan well-balanced meals for himself/herself and others.

DTC104  4  Nutrition for the Life Cycle
Pre: DTC102
A nutrition education course to provide material for lifelong health maintenance. Nutritional needs for each of the life stages from pregnancy through senescence, nutrition and physical fitness will be discussed. The course will consist of lectures, discussions and audio-visual materials. This course includes an exciting community nutrition education program. (4 hours of lecture per week)

DTC202  3  Food Preparation
An introductory food preparation course designed to familiarize the student with basic cooking techniques. The food laboratory emphasizes knife handling, mise en place and various cookery methods. The course covers recipe modification for good health along with the application of basic food science with a focus on meats, poultry, eggs, fish, produce, grains and dairy. (1 hour of lecture, 4 hours of lab per week)

DTC204  3  Introduction to Dietary Management
Pre: DTC102
A general orientation to the fundamentals of Dietary Food Service. Special emphasis will be given to the methods and principles of food production as practiced by the food service industry. Field trips to various hospitals, nursing homes, and other related fields will be featured. Supervisory skills and techniques related to the operation of a dietary department will be developed.

DTC206  4  Medical Nutrition Therapy
Pre: DTC102
This course is designed to familiarize the student with nutritional management in disease. Emphasis is placed on diet as a therapeutic tool in the control and management of illness including nutritional intervention for metabolic diseases, disturbances of the gastrointestinal tract, cardiovascular disease, obesity, malnutrition, hepatic and renal disease. The student will also become familiar with basic anthropometrics as well as other therapeutic tools used within the clinical setting. (4 hours of lecture per week)

DTC212  1  Administrative Dietetic Supervised Practicum
Pre: Comm & Math Proficiencies, DTC102, 204, CFS114, MGT201
This course is designed to prepare the student for employment as an entry level Administrative Diet Technician by providing the student with an opportunity to develop essential skills within the workplace with supervised guidance from qualified professionals. Program participant will spend 150 hours in settings such as hospitals, nursing homes, retirement centers and schools.

DTC216  1  Community Dietetics Supervised Practicum
Pre: Communication & Mathematics Proficiencies, DTC102 & 104
This course is designed to prepare the student for employment as an entry level Community Diet Technician by providing the student with an opportunity to develop essential skills within the workplace and with supervised guidance from qualified professionals. Program participant will spend 150 hours in organizations such as Women and Infants and Head Start Programs, Councils on Aging.

DVD - Developmental Disabilities

DVD101  3  Introduction to Developmental Disabilities
Develops a sensitivity to individuals who have developmental disabilities. Explores major causes, current teaching techniques, and behavioral intervention strategies. Also focuses on the history of services, litigation and consent decrees, and the philosophy of inclusion, perspectives of treatment models, key roles litigation and the courts have played, and the current inclusionary philosophy. (Formerly MEH107)

DVD103  3  Developmental Disabilities: Special Topics
Develops a deeper understanding of people with developmental disabilities as creators of their own personal visions. Students will explore topics including person centered thinking, teaching and learning, human rights, sexuality, grief and loss, and families, and Human Rights Training. Students will explore how to balance the health and safety of the individual’s rights for choice and self-determination.

DVD105  3  Strategies for Challenging Behaviors
Explores the theory and practical implementation of behavior modification techniques including how to write behavioral treatment plans. Also heightens self-awareness regarding aggressive human behaviors and provides students with Potentially Aggressive Client PAC) Training emphasizing individual and collective responsibility in treating behaviorally involved individuals. (Formerly MEH212)

DVD121  3  Field Placement and Seminar 1 in Developmental Disabilities
Pre: Communications Proficiency
Professionally supervised field work with individuals of all ages with developmental disabilities such as mental retardation, autism, and fetal alcohol syndrome in residential, vocational, recreational, and educational settings and on-campus faculty guided seminars. The students will critically examine their own values and attitudes towards the individuals they serve, communicate effectively with co-workers, and apply skills and principles they have learned. (Formally MEH121)

DVD122  3  Field Placement and Seminar 2 in Developmental Disabilities
Pre: Communications Proficiency
Professionally supervised field work with individuals of all ages with developmental disabilities such as mental retardation, autism, and fetal alcohol syndrome in residential, vocational, recreational, and educational settings and on-campus faculty guided seminars. Students will critically examine their own values and attitudes towards the individuals they serve, communicate effectively with co-workers, and apply the skills and principles they have learned. (Formerly MEH122)
ECE - Early Childhood Education

ECE101  3  Child Growth and Development
Course material will be dealt with through lecture/discussions, workshops, observations, and field work and should enable the student to: observe and record children's behavior; describe stages children go through in the major areas of growth and discuss appropriate methods of guiding behavior at each stage; discuss major developmental and learning theories; defend the value of play and design play experiences to enhance growth at each developmental stage.

ECE102  3  Planning Programs for the Young Child
Pre: ECE101 and ECE202
Through participation in the workshops, classroom discussion, field trips and projects in the course, students should be able to: apply the principles of curriculum development to planning for young children i.e., defining objectives, selecting age-appropriate experiences for children in specific curriculum areas such as science, math, the arts, language arts, dramatic play; implement curriculum based on knowledge of how children learn, individuality in development, and special needs in children; design learning environments that enhance the growth and development of the whole child.

ECE104  3  Curriculum for Infants and Toddlers
Pre: ECE101
On completion of this course which utilizes lecture/discussion, observation, audio-visual materials, readings and field work as learning techniques, students should be able to: describe the stages of infant and toddler development and identify the factors that influence this development; discuss the responsibilities of the educator in assessing and responding to the developmental needs of infants and toddlers; select developmentally appropriate experiences and materials for infants and toddlers, and design learning environments for them that will enhance their growth and development.

ECE108  3  Issues in Infant and Toddler Daycare
Pre: ECE101
Examines the history of infant/toddler day care and considers its implications for the present and the future; identifies the elements of quality in very early childhood education and applies them to the development of infant/toddler day care programs; compares the different approaches to educational child care; defines the programming issues and problems in infant/toddler day care and proposes alternative solutions. Fulfills open elective only. (3 hours of lecture per week)

ECE110  3  Foundations of Early Childhood Education
Pre: Communications Proficiency
Field observation and research will augment classroom activities and enable students to: describe the role of teacher of young children and devise a plan for their own professional development; trace the historical traditions of ECE and describe their impact on current practice; identify issues and trends in the field and articulate a professional position; analyze and evaluate approaches to ECE using the principles of developmentally appropriate practice and construct a personal philosophy of ECE based on this analysis.

ECE116  3  Prosocial Guidance for the Young Child
This course is designed to assist preschool teachers and caregivers in understanding the importance of a prosocial approach to guiding children's behavior. We will address various behaviors of the young child with a focus on strategies to effectively help children develop self control and prosocial awareness.

ECE120  3  Intro to Child Development Associate (CDA)
Pre: ECE101
This course is designed to assist early childhood teachers and child care providers to gain a better understanding of developmentally appropriate practices in the field of early childhood education, with an emphasis on the 13 CDA Functional Areas. Students will gain confidence and competence in their work with young children as they reflect upon what works well and what practices they may need to change.

ECE122  3  CDA Professional Resource File Development
Pre: ECE101, ECE114
This course is designed to assist preschool teachers and family child care providers in the process of CDA credentialing, with a primary focus on the successful development and completion of a Professional Resource File. Emphasis will also be placed on each of the thirteen CDA Functional Areas and six Competency Goal areas to ensure a clear understanding of them. Attention will also be placed on oral interview and test taking strategies.

ECE201  3  Supporting the Young Child's Physical and Mental Health
Students completing this course should be able to: provide experience in nutrition, motor development, and health care for young children based on their knowledge of the young child's developmental needs and the principles of curriculum development; design accident free environments and experiences for young children based on their developmental needs; identify children under stress and utilize methods designed to promote their mental health during these life crises; knowledge of first aid procedures.

ECE202  3  Using the Expressive Arts With Young Children
Identifies the elements of the creative process and traces the development of this process within the student; develops expressive experiences that will guide young children in the discovery of their own creative potential; designs experiences appropriate for children in the specific expressive arts curriculum areas of music, body movement, art, storytelling, drama, and play for their own use both as creative outlets and as therapeutic tools. Fulfills open elective only. (3 hours of lecture per week)

ECE204  3  Children With Special Needs
Pre: ECE101
Students will learn to: identify criteria and describe procedures for early identification of children with diverse abilities; identify and describe special needs in the areas of sensory and communication impairments, developmental and physical disabilities, and emotional and behavioral disorders, and evaluate their impact on family and peers; plan for inclusion by designing environments and activities that enhance the strengths of individual children and reflect an awareness of each child's needs.

ECE206  3  Supervision & Administration of ECE Programs
Students completing this course should be able to: identify a director's responsibilities in various types of agencies serving children and plan strategies to meet them; design a program to meet the needs of children being served that is in compliance with the state's licensing rules and regulations; develop a system of communication involving the home, school, and community that makes use of effective interpersonal skills, and design a method for evaluating both staff and programs.
ECE208  3  Infants and Toddlers at Risk  
Pre: ECE101
Students will learn to: discuss the role of the day care educator as a member of an interdisciplinary team in identifying, planning for, and working with at-risk infants and toddlers; use observational methods of assessment; recognize the characteristics of infants and toddlers at-risk for intellectual deviations, sensory and communication impairments, physical disabilities, and emotional behavioral disorders; discuss the impact on the family and describe ways of interacting with and supporting parents.

ECE210  3  Strategies and Supports for Children with Special Needs  
Pre: Comm Prof; ECE101 or PSY114; ECE204 or ECE208
Co: ECE243
Introduction to a variety of evidence based applications and accommodations for children birth - 12 years with moderate special needs. Research based procedures and practices successful in meeting the needs of these students will be explored with emphasis on combining theory, research to develop curriculum, practical skills, and strategies promoting positive mental health.

ECE231  1  Professional Development Seminar In ECE: Community  
Pre: Communications Proficiency, ECE101, HUS101
Overview of the past, present and future methods and systems engaged in the delivery of early care and learning. The student, individually and in groups, will examine many of the roles of the professional early childhood educator, especially in their interactions with parents, families and the community. The course will research the role of other Human Services agencies and the services offered to families. The course content will also look at diversity in the field of Early Care and Learning.

ECE232  1  Professional Development Seminar in ECE: Technology  
Pre: Communications Proficiency, ECE101, HUS101
Overview of the past and future methods and systems engaged in the delivery of early care and learning. The student, individually and in groups, will examine many of the roles of the professional early childhood educator, especially in the area of new trends and technology. The course will explore the use of television, computers, software and web sites for Developmental Appropriateness. The course will also examine techniques that enrich literacy development in early care and learning.

ECE233  1  Professional Development Seminar In ECE: Advocacy  
Pre: Communications Proficiency, ECE101, HUS101
Overview of the past, present and future methods and systems engaged in the delivery of early care and learning. The student, individually and in groups, will examine many of the roles of the professional early childhood educator, especially in the area of advocacy and staff development. The course will explore the developmental process of an advocacy project based on an issue or topic of their choice. The course will also examine how to create a well organized and effective staff meeting.

ECE242  6  Field Placement and Seminar in Infant/Toddler Child Care  
Pre: ECE101
Co: ECE104
Through professionally supervised work with people working in Infant and Toddler child care agencies and on-campus faculty guided seminars, students as a result of their field placement experience should be able to interact with children from 0-3 years old, in a growth producing manner and guide them in their interaction with others, establish constructive relationships with other adults in settings for children from 0-3 years old, and plan experiences for children that show their understanding of infant and toddler development and how children from 0-3 years old learn best.

ECE243  6  Field Placement and Seminar in Special Education  
Pre: Comm Prof; ECE101 or PSY114; ECE204 or ECE208
Co: Math Prof; ECE210
Through 240 hours of professionally supervised work with children birth - 12 years of age with moderate special needs in educational settings and weekly on-campus, faculty guided seminars, students will learn to: interact with children in ways that enhance their mental health; formulate constructive relationships with adults; provide developmentally appropriate strategies and supports; and develop partnerships with parents.

ECE245  6  Field Placement & Seminar 1 in Early Childhood Education  
Pre: ECE101
Co: ECE202
Through 240 hours of professionally supervised work with children in preschool settings and weekly on-campus faculty guided seminars, students will learn to: critically examine their own values and personal attitudes toward young children; interact with children in ways that enhance their mental health; formulate constructive relationships with adults.

ECE246  6  Field Placement Seminar 2 in Early Childhood Education  
Pre: ECE245
Co: ECE102
Through 240 hours of professionally supervised work with children in preschool settings and weekly on-campus faculty guided seminars, students will learn to: interact with children in ways that enhance their mental health; formulate constructive relationships with adults; provide developmentally appropriate experiences for young children, and design experiences for parents.

ECE261  3  Early Childhood Practicum  
Pre: ECE101, 102, 110, and 202
Co: ECE204
Direct work with children mentored by early childhood professionals, faculty guided seminars, and on-going reflection, will enable students to: demonstrate a commitment to the profession and their on-going professional development including introduction to MTEL; use their knowledge of child growth and development to guide their interactions, curricular decisions, and instructional strategies; use a variety of approaches to assess children’s growth and learning; collaborate with other adults to achieve their own goals as well as developmental goals for children. (120 hours of fieldwork and 30 hours of seminar)
ECO - Economics

ECO103  3  Principles of Macroeconomics  
Pre: Communications Proficiency  
The study of the overall level of economic activity - output, employment, and prices - and the forces that shape that activity. Topics include: national income accounting; the role of consumption, saving, investment, and government spending; money and economic activity; the tools of public policy available which may be used to promote the macro goals of growth, full employment, and price stability; the different economic maps of reality that explain and shape our decisions about economic landscape. Fulfills open, liberal arts, and social science electives.

ECO104  3  Principles of Microeconomics  
Pre: Communications Proficiency  
A study of the economics of markets and market economies. This study of individual decision makers and their interaction in markets includes: the basic concepts of demand, supply, and the price mechanism; elasticity; the economics of the firm and market structures; the microeconomic role of government; the distribution of income; international trade and finance; the problems of economic development, and comparative economic systems. Fulfills open, liberal arts, and social science electives.

ECO108  1  Federal Reserve Bank Internship  
Pre: Mathematics Proficiency and ECO103 or ECO104 or HON208 and permission of the instructor  
This course provides students an internship at the Federal Reserve Bank of Boston, and offers the following experience: learning how the Federal Reserve Bank of Boston operates; assisting in the creation of a database of all Title One schools in Massachusetts; reviewing Bank and System economic education and personal finance web pages and resources; attending Economic Education Unit staff meetings; and attending the Global Education Forum on Personal Finance from a Global Perspective. Fulfills open, liberal arts, and social science electives.

EDU - Education

EDU102  3  Issues in Contemporary Education  
Includes: the role of the teacher as it fits into the school management system; effective interpersonal communication techniques; classroom and behavior management strategies that contribute to a positive learning environment; the teaching/learning process and instructional strategies utilized by effective classroom teachers; current trends and issues in field of education; and plan for their own professional development in pursuit of a career in teaching. Field observation and research will augment classroom activities.

EDU116  3  Teaching Language and Literacy  
Pre: Communications Proficiency  
Includes: developmental continuum of reading and writing; assessment of children's language and literacy learning; creation of literacy environments, experiences and teaching strategies that support language and literacy development; second language learning and its application to children's literacy development; a survey of children's literature as it relates to language and literacy development.

EGS - Engineering Science

EGS101  2  Introduction to Engineering  
Pre: MAT 151 w/C or better  
Co: CMP 101  
Investigates some of the various fields of engineering, examines the engineering design process, and provides an introduction to problem-solving techniques used in engineering and engineering studies. (2 hours of lecture per week)

EGS201  3  Statics  
Pre: PHY201; MAT252  
Analysis of static particles and rigid bodies under applied forces. Topics include vector composition and resolution of forces in two and three dimensional space, free body diagrams, equilibrium, force couples, centroids, centers of gravity, analysis of structures, friction, moments of inertia and work. (3 hours of lecture per week)

EGS202  3  Dynamics  
Pre: EGS201  
Analysis of moving particles and rigid bodies under applied forces. The principles of kinematics and kinetics are presented. Topics include rectilinear motion, curvilinear motion, forces, acceleration, work, energy, impulse, linear momentum, angular momentum, and mechanical vibrations. (3 hours of lecture per week)

EGS204  3  Strength of Materials  
Pre: EGS201  
Topics include concepts of stress and strain, axial loading, torsion, bending, transverse loading, transformations of stress and strain, and deflection of beams. Analysis of both determinate and indeterminate structural systems is presented. (3 hours of lecture per week)

EGS206  3  Materials Science  
Pre: PHY102 or 202, CHE102 or 104  
Introductory course in the science and application of common engineering materials. Emphasis is on the internal structures of metals, ceramics and high polymers and the way these structures influence mechanical and other physical properties. (3 hours of lecture per week)

EGS210  3  Engineering Internship  
Pre: Completion of 1st year of appropriate academic program  
This course is designed to further prepare a student for his/her technical career by combining classroom study with a faculty supervised, 120 hour, non-paid work experience in the student’s area of academic preparation. This employment opportunity will increase personal growth and professional development through a meaningful interaction of both the academic and work environments. This course is subject to the availability of an internship work site. Fulfills open elective.

EGS211  6  Introductory Circuit Theory 1 and Laboratory  
Pre: PHY201, MAT252  
Co: MAT301, PHY301  
Introductory course in electric circuit analysis intended for sophomores in Electrical or Computer Engineering. Topics include Ohm’s Law and Kirchhoff’s Laws, network topology, loop and nodal analysis Thevenin’s and Norton’s Theorems, inductance and capacitance, source-free RL and RC circuits, network response to unit step function and unit impulse, and second-order transients: RLC circuits, natural frequencies and the s-plane. Laboratory exercises include experiments on dc meters, bridges, and oscilloscopes. (5 hours of lecture, 2 hours of laboratory per week)
EGS212 6 Introductory Circuit Theory 2 and Laboratory
Pre: EGS 211
Co: MAT302
A continuation of Introductory Circuit Theory 1. Topics include the sinusoidal forcing function, complex numbers, phasors, real and reactive power, complex frequency and the s-plane, frequency response, real and ideal transformers, and one and two port networks. Laboratory exercises include waveform measurements with DC and AC meters and advanced use of the oscilloscope. (5 hours of lecture, 2 hours of laboratory per week)

EGS214 3 Thermodynamics
Pre: MAT252, PHY202
A detailed study of the First and Second Laws of Thermodynamics and their applications. Extensive problem-solving involving the basic state functions--internal energy, enthalpy, and entropy; Open and closed systems; Carnot, Otto, and Diesel cycles. Interpretation of the partial derivatives that arise in thermodynamics.

EGS216 4 Introduction to Digital Logic Design
Pre: EGS211 or PHY301 or permission
An introductory course covering the theory and practical applications of digital logic design. Topics include digital systems, basic Boolean operations and gates, variable function generators, combinatorial circuit design and minimization, design of counters, state assignments, number representation and computer arithmetic, shift registers, and digital computers. (3 hours of lecture and 2 hours of lab per week)

EGS229 3 Engineering Cooperative Education (120 hours)
Pre: Completion of 1st year of appropriate academic program
This course is designed to further prepare a student for his/her technical career by combining classroom study with a faculty supervised, 120 hour, paid work experience in the student’s area of academic preparation. This employment opportunity will increase personal growth and professional development through a meaningful interaction of both the academic and work environments. This course is subject to the availability of a Cooperative Education work site.

EMS - Emergency Medical Services
EMS102 3 Emergency Medical Care First Responder (First Responder Certification)
First Responder is a nationally recognized level of EMS training for those interested in learning advanced first aid skills. This course is well suited for students wishing to pursue employment as lifeguards, in a ski patrol, or for those considering careers in law enforcement, firefighting, or other occupations where advanced layperson medical care may be required. The course provides an overview of human anatomy, personal safety in emergency situations, legal considerations, and the care of sick and injured people, and teamwork techniques when dealing with emergency scenes. Upon successful completion of the course, tests, and skill stations, students earn First Responder certification (National DOT Guidelines) as well as an American Heart Association Healthcare Provider CPR card. Topics include bleeding, shock, wounds, fractures, seizures, scene safety and control, drug overdose, childbirth, sudden illness, poisoning, burns, airway management, infection control, sudden illness, and rescue.

EMS104 9 Emergency Medical Technician
EMT-Basic certification is the prerequisite for many EMS related careers including firefighting, paramedic programs, and involvement in college EMS squads. Upon successful completion of the course, tests, and skill stations, students will be prepared to take the Massachusetts State EMT exam for EMT-B certification. Topics include bleeding, shock, wounds, fractures, seizures, scene safety and control, drug overdose, childbirth, sudden illness, poisoning, burns, airway management, infection control, documentation, pre-hospital splinting, CPR, bandaging, defibrillation, oxygen administration, spine immobilization, and patient assessment will be taught. This course requires attendance for 95% of classes. Note: EMT-B certification requires passing a State exam within 12 months of completing the course. Exam fees are not included in the cost of the course. Students must be 18 years old to take the State exam.

ESL - English as a Second Language
ESL061 6 Intermediate ESL Grammar 1
Pre: ESL placement exam score
Students work on lower intermediate skills that connect them to concepts of English grammar used in the American setting. The focus is on basic sentences and subsentence grammar structures, both oral and written: basic verb tenses simple and continuous), basic modals, noun forms, comparative adjectives/adverbs. This course satisfies no elective requirements. (6 hours of lecture per week)

ESL062 6 Intermediate ESL Grammar 2
Pre: ESL061 with ‘C’ or better or placement exam score
In this course students will master basic verb tenses and other grammatical structures introduced in ESL061, and be introduced to more complex structures including perfect tenses, clauses, and determiners. Emphasis is on achieving grammatical accuracy and fluency in both oral and written communication through a variety of guided activities. This course fulfills no elective requirements. (6 hours of lecture per week)

ESL063 3 Intermediate ESL Reading and Vocabulary 1
Pre: ESL placement exam score
College-level selections focus on vocabulary building exercises and reading strategies to make reading easier and more enjoyable. Students work on getting the main idea, guessing meaning from context, recognizing reading structure, understanding details, learning to summarize, interpreting point of view, and skimming. The English language dictionary is introduced. This course fulfills no elective requirements. (3 hours of lecture per week)

ESL064 3 Intermediate ESL Reading and Vocabulary 2
Pre: ESL063 with ‘C’ or better or placement exam score
Students increase reading comprehension ability using a variety of materials and methods. Emphasis is on building vocabulary through learning “guessing material from context” skills, word analysis, and dictionary skills. Students also learn a variety of additional reading skills such as skimming for main idea and scanning for specific information. This course fulfills no elective requirements. (3 hours of lecture per week)
ESL065  3  Intermediate ESL Writing 1  
Pre: ESL placement exam score  
Students work on writing well-formed sentences with subjects, predicates, modifiers, and clauses. They also learn to use an organizational plan in developing clear and cohesive paragraphs. Emphasis is on topic sentences, supporting details, transition words, good mechanics, and relevant information. This course fulfills no elective requirements. (3 hours of lecture per week)  

ESL066  3  Intermediate ESL Writing 2  
Pre: ESL061, ESL063, ESL065 with ‘C’ or better or placement exam score.  
Students expand the range, accuracy, and fluency of their writing. Emphasis is on expressing ideas more clearly and completely through learning how to generate ideas, plan, organize, and edit. This course fulfills no elective requirements. (3 hours of lecture per week)  

ESL070  3  Pronunciation and Oral Practice  
Students learn to correct errors in English pronunciation, including stress and intonation, that might interfere with their being understood by native speakers of English. Oral practice includes short individual student presentations. This course is intended for students with a basic knowledge of English. This course fulfills no elective requirement.  

ESL071  3  Basic Conversational English  
Pre: ESL placement exam score  
Non-native speakers of English at high-beginning/low intermediate level) practice conversation to improve their oral fluency. Students engage in spoken activities to express requests, opinions, desires, feelings, and suggestions. Basic conversational skills are practiced through role-playing, pair work, and small group discussion involving everyday themes such as school, community, workplace, social situations, and health. This course fulfills no elective requirements. (3 hours of lecture per week)  

ESL072  3  Intermediate Conversational English  
Pre: ESL placement exam score  
Non-native speakers of English at an intermediate level of work on developing greater fluency in spoken English. The instructor introduces important elements necessary for conversational effectiveness including appropriate vocabulary for diverse topics and strategies for specific situations. Students practice these elements through guided small and large group discussions. This course fulfills no elective requirement.  

ESL075  3  Intermediate ESL Listening and Speaking 1  
Pre: ESL placement exam score  
Students develop their ability to comprehend and use English in both academic and conversational settings, including dialogues, recorded information, video clips, and oral instructions. Various language functions are explored and students use their own ideas and opinions to improve oral communication. Students work with partners and in small groups to practice and enhance their listening and speaking skills and feel more confident using English. This course fulfills no elective requirement. (3 hours of lecture per week)  

ESL076  3  Intermediate ESL Listening and Speaking 2  
Pre: ESL075 with ‘C’ or better or placement exam score.  
Using an interesting variety of materials, students develop and strengthen their listening and speaking skills for both academic and social situations. Materials include recorded naturally-occurring English such as conversations, lectures, and media presentations. Techniques and strategies for improving listening comprehension and effective communication are addressed. Students are provided opportunities to develop their language skills by working with partners and in small groups, and giving short oral presentations. Students are also introduced to note-taking. This course fulfills no elective requirement. (3 hours of lecture per week)  

ESL078  1  Language Skills for a Computerized Culture  
Pre: ESL075 with ‘C’ or better or placement exam score  
This course is appropriate for intermediate level non-native speakers of English. The focus is on gaining the language skills and the confidence necessary for using the computerized technology we interact with everyday. The pace of the course will allow non-native speakers to become comfortable with new language and skills.  

ESL096  3  Advanced Conversational English  
Pre: ESL placement exam score  
Prepares non-native speakers of English at an advanced level to participate in in-depth conversational exchanges around complex topics. Students use a variety of materials including newspapers and magazines to develop the cultural context and vocabulary needed to carry on a conversation about current topics with native speakers of English. In addition, students learn specific skills which will enable them to discuss sensitive topics in an appropriate manner. This course fulfills no elective requirements. (3 hours of lecture per week)  

ESL101  3  English as a Second Language as Modern Language 1  
Pre: ESL110 or ESL082 or ESL018 or ESL019  
A course designation for three credits which are awarded for successful completion of ESL081 or ESL082 or ESL018 or ESL019 or ESL094.  

ESL102  3  English as a Second Language as Modern Language 2  
Pre: ESL110 or ESL082 or ESL018 or ESL019  
A course designation for three credits, in addition to ESL101, which are awarded for successful completion of ESL081 or ESL082 or ESL018 or ESL019 or ESL094.  

ESL104  3  ESL for Business  
Pre: ESL112 and ESL114, or ESL018, or advanced proficiency  
Co: OFT120 or keyboarding proficiency by exam  
Students will refine their English language skills and their awareness of conceptual and cultural aspects of U.S. business. The course will enable students to develop linguistic and personal skills through reading and discussing business case studies; writing letters, memos, business reports and resumes; participating in business meetings and conducting negotiations; and making business telephone calls. Students will be required to spend one additional hour per week in the ESL Multimedia lab.  

ESL110  3  Advanced ESL Grammar 1  
Pre: ESL062 or ESL017 with ‘C’ or better or placement exam score  
Advanced ESL Grammar 1 is a continuation of skills introduced in ESL062. The emphasis is on advanced grammar, both oral and written, using complex modals, active vs. passive voice, a general review of verb tenses, and usage problems typical of ESL students. (Formerly ESL081)  

ESL112  3  Advanced ESL Reading and Vocabulary 1  
Pre: ESL064 or ESL017 with ‘C’ or better or placement exam score  
Students work on advanced reading comprehension while improving reading skills - finding the main idea, details, meaning in context, understanding inferences, and drawing conclusions. Readings include a variety of themes and current topics selected to motivate and interest adult students. (Formerly ESL083)
ESL114 3 Advanced ESL Writing 1
Pre: ESL062, ESL064 and ESL066 with ‘C’ or better or placement exam score
Students refine their paragraph writing skills and are introduced to the basic form of an essay. Emphasis is on moving from an outline, to multiple drafts, to a finished essay. Students learn to recognize and correct errors in their own writing. (Formerly ESL085)

ESL116 3 Advanced ESL Listening and Speaking 1
Pre: ESL076 with ‘C’ or better or placement exam score
Students begin to prepare for the academic challenges encountered in non-ESL classes by developing strategies for successful academic listening, including looking for key points, interpreting detail, recognizing organizational patterns and understanding emphasis in lectures. Students develop effective note-taking techniques to help them organize and understand the information presented to them. They also work on their pronunciation and practice their oral skills by discussing topics in pairs and small groups. Students are required to make short oral presentations, some of which may be videotaped.
(3 hours of lecture per week)

ESL122 3 Advanced ESL Reading and Vocabulary 2
Pre: ESL112 with ‘C’ or better or placement exam score
Students develop advanced reading skills through the use of academic reading material and literature, focusing on theme, author’s tone, and style.

ESL126 3 Advanced ESL Listening and Speaking 2
Pre: ESL097 with ‘C’ or better or ESL116 with ‘C’ or better or placement exam score
Students listen to a variety of authentic materials to help them prepare for college classes and other situations requiring extended listening. Materials may include lectures, dialogs, radio and TV excerpts, reports, and movies. Students evaluate the information they hear and continue to work on their note-taking skills, focusing especially on expanding their academic vocabulary. Frequent pair or group discussions are held and students will be required to make extended oral presentations, some of which may be videotaped.
(3 hours of lecture per week)

ESL128 6 Advanced ESL Writing and Grammar 2
Pre: ESL112, ESL114 and ESL110 with ‘C’ or better or placement exam score
Continuation and refinement of skills introduced in ESL110 and ESL114. Students learn how to organize and write four types of essays using all stages of the writing process. They focus on revising and editing their own writing and learn how to integrate source material into their compositions. Instruction in sentence structure and complex grammar used by native speakers will be given within the context of the writing assignments.

EUT - Energy Utility Technology

EUT102 4 Introduction to the Energy Utility Industry
Pre: Communications and Mathematics Proficiencies; permission of Program Coordinator required.
To provide participants with an overview of the energy utility industry and occupational opportunities, including but not limited to history of providing reliable service, regulatory influences, electric/gas energy flow and basic terminology, typical conditions for employment, and career opportunities.

EUT104 4 Generation, Transmission, and Distribution
Pre: IEL101; MAT135
Co: IEL102
This course will present an overview of the electrical generation process, and power plant systems and functions. Transmission lines will be analyzed for impedance, reflection and standing wave concepts. The operation and design of utility power distribution systems will be learned, including planning, load characteristics and the application of distribution transformers, substations, primary and secondary systems, and voltage regulation and voltage reductions. (3 hours lecture, 2 hours lab per week)

EUT106 3 Energy Industry Safety
Pre: Communications and Mathematics Proficiencies
Provides an introduction to the principles of safety, guidelines for the design of equipment, and explanations of the way certain practices should or should not be followed. This course will evaluate human reactions in normal and abnormal conditions. Features required for safe working conditions will be compared to industry standards.

EUT108 3 Energy Industry Practicum/Internship
Pre: IEL101; MAT135; EUT102; permission of Program Coordinator required.
Co: IEL102; EUT104
This course will introduce the student to the training labs of a major power generation company (National Grid). Students will work in a facility learning how to splice wires, connect fuses and transformers and learn the industry standard techniques. Students will become familiar and learn the safe use of the tools and equipments used in the power industry. This course is conducted in two locations and topics include: splicing, meters, underground, overhead lines, transformers, substations, circuit breakers, and regulators. (2 hours lecture, 2 hours lab per week)

FDC - Family Day Care

FDC101 3 Orientation to Family Day Care
Through projects, field trips, and classroom activities, students, upon completing this course should be able to: define the role of the Family Day Care provider and begin to refine their personal skills and qualities needed to fulfill this role; establish and manage a growth-producing physical environment and daily program for young children; interact with children in ways that enhance their mental health, as well as their intellectual, social and language competencies; and communicate effectively with the families of children in Family Day Care.

FDC102 3 Child Development/Family Day Care: Meeting Individual Needs
Through direct observation of children; projects and field work; lecture/discussion; and use of audio-visual materials; students should be able to: describe the development stages children go through in the major areas of growth (i.e., physical, emotional, social, cognitive, language); discuss appropriate methods of guiding behavior at each stage; identify potential special needs in young children; and provide activities that are appropriate to the developmental level of each individual child.
**FIN - Financial Services**

**FIN102** 3  **Introduction to Financial Services**  
Pre: Communication and Mathematics Proficiencies  
This course provides an introduction to the services provided by both depository and nondepository financial institutions. Topics include the services and regulations relating to commercial banks, insurance companies, investment and mutual fund firms, in addition to an overview of money, bond, and mortgage markets. Other topics may also be included.

**FLR - Floriculture**

**FLR101** 4  **Floral Design 1**  
This course includes a hands-on study of the basic elements of floral design. Students gain the skills required to create basic floral arrangements. Care and handling of flowers and other material used in floral design is included as well as an overview of the floral industry. (2 hours of lecture, 4 hours of lab per week)

**FLR102** 4  **Floral Design 2**  
Pre: FLR101  
A continuation of FLR101. Students will gain and refine additional skills emphasizing historical, contemporary, wedding, and sympathy designs. Self analysis of design work, professional technique, and establishing marketability and profitability will be stressed. Students will also examine current business trends affecting the floral industry. (2 hours of lecture, 4 hours of lab per week)

**FLR108** 3  **Plant Biology**  
A basic study of plant structure and function. Students learn the fundamental processes of plant growth and reproduction. Plant structures such as the stem, roots, leaves, flowers and seeds are examined in detail along with the important role of soil in providing plant nutrition. (2 hours of lecture, 2 hours of lab per week)

**FLR112** 3  **Visual Merchandising**  
The course provides basic design fundamentals and develops technical and creative skills to produce effective displays. Topics include: characteristics and development of display, merchandising techniques, types of window and interior displays, design elements and principles, display arrangements, props and fixtures, lighting, and signage. (2 hours of lecture, 2 hours of lab per week)

**FLR120** 3  **Floriculture Cooperative Education**  
Students enrolled in the Floriculture Program are required to successfully complete 120 hours of part-time, paid employment in an approved horticultural business during the Spring semester. The objective of the cooperative work experience is to develop on-the-job skills which complement the in-class experiences in floral design. Work experience is essential for the student who chooses professional floral design as a career goal. (120 hours of cooperative education, 10 hours of seminar per semester)

**FLR121** 3  **Floriculture Internship**  
Students enrolled in the Floriculture program are required to successfully complete 120 hours of part-time, unpaid employment in an approved horticultural business during the Spring semester. The objective of the internship is to develop on-the-job skills which complement the in-class experience in floral design. Work experience is essential for the student who chooses professional floral design as a career goal. (120 hours of internship, 10 hours of seminar per semester)

**FLR204** 3  **Plant Entomology**  
A basic consideration of the anatomy and physiology of insects with emphasis on those orders economically important in agriculture and environmental science. Students gain experience in identification of specific insect pests, recognition of infestation symptoms and current recommendations for control. A collection of various insect pests is required. (2 hours of lecture, 2 hours of lab per week)

**FLR210** 1  **Senior Floriculture Design Seminar**  
Pre: FLR101 and FLR102  
This course allows graduating seniors to explore the latest floral design practices, update design skills prior to entering the job market, survey the marketplace for employment opportunities, and develop a photo portfolio of their work. A laboratory fee for flowers is required. (3 hours of lab per week)

**FPS - Fire Protection and Safety**

**FPS101** 3  **Principles of Emergency Services**  
This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives.

**FPS103** 3  **Fundamentals of Fire Prevention**  
This course provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education.

**FPS106** 3  **Building Construction for Fire Protection**  
Pre: Communications Proficiency  
A study of the components of building construction that relate to fire and life safety. The focus of this course is on firefighter safety. The course discusses the key elements of construction and design of structures as factors when inspecting buildings, preplanning fire operations, and operating at emergencies.

**FPS112** 3  **Fire Behavior and Combustion**  
Pre: Communications Proficiency  
This course explores the theories and fundamentals of how and why fires start, spread, and how they are controlled.

**FPS126** 3  **Hazardous Materials: Awareness and Operations**  
Pre: Communications Proficiency  
This course is designed to assist emergency responders to meet the requirements of NFPA 472 Standard for Competence of Responders to Hazardous Materials/Weapons of Mass Destruction Incidents. Laws and regulations associated with hazardous materials response, recognition of various chemicals, reference material and protective actions will be covered in this course.
FPS134 3 Introduction to Hazardous Materials
Pre: Communications Proficiency
For individuals who are mandated by law or called upon by necessity to prepare for and respond to emergency incidents that involve hazardous materials. The course will provide first responders with information needed to take appropriate initial actions at WMD incidents and hazardous material spills or releases.

FPS148 3 Fundamentals of Firefighter Skills 1
Pre: Communications Proficiency
This course will provide students with an understanding of many of the interrelated principles and tasks in the fire service. The major focus of the course will revolve around the knowledge objectives that career and volunteer firefighters, whose duties are primarily structural in nature, have to meet to attain Fire Fighter 1 level of the National Fire Protection Association’s 1001, Standard for Fire Fighter Professional Qualifications. Fire Learn, an eLearning component, will provide the opportunity for students to reinforce knowledge and critical thinking skills online.

FPS150 3 Fire Officer: Principles and Practices
Pre: Communications and Mathematics Proficiencies
This course is designed to help fire fighters make a smooth transition to the fire officer level. This course provides information to meet standards of the National Fire Protection Association (NFPA) 1021, Standard for Fire Officer Professional Qualifications.

FPS152 3 Fundamentals of Firefighter Skills 2
Pre: FPS148 or permission of Program Coordinator
This course builds on the knowledge objectives covered in FPS148 Fundamentals of Firefighter Skills 1. Emphasis is placed on knowledge objectives at the Fire Fighter 2 level of the National Fire Protection’s 1001, Standard for the Fire Fighter Professional Qualifications. Fire Learn, an eLearning component, will provide opportunity for students to reinforce knowledge and critical thinking online. Fulfills fire science and open electives.

FPS154 3 Structural Firefighting: Strategy and Tactics
Pre: Communications Proficiency
This course will prepare the fire officer to take command at structure fires, fully utilizing available resources in a safe and effective manner. National Incident Management System (NIMS) and current applicable NFPA standards will be covered in detail.

FPS156 3 Leadership and Decision Making in the Fire Service
This course will assist current and future fire service officers implement enhanced leadership and decision making skills that impact a fire department’s internal and external functions. Fulfills fire science and open electives.

FPS158 3 Principles of Fire & Emergency Services, Safety & Survival
Pre: Communication Proficiency
This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavioral change throughout the emergency services.

FPS160 3 Fire Inspection: Principles of Code Enforcement
Pre: Communication and Mathematics Proficiency
This course provide students with the fundamental knowledge of the role of code enforcement in a comprehensive fire prevention program. The course will assist inspectors in understanding and implementing complex fire code and fire protection requirements and provide insight into practical approaches to improving response and recovery efforts in the community. Fulfills Open and Fire Protection electives.

FPS162 3 Fundamentals of Technical Rescue
Pre: Communication Proficiency
An introduction to technical rescue and progressing through discussions of tools and equipment, incident management, and conducting search operations. This course will introduce members of rescue organizations to all aspects of the rescue process and the various environments in which they may be responding. Fulfills Open and Fire Protection electives.

FPS202 3 Fire Protection Hydraulics and Water Supply
Pre: Communications and Mathematics Proficiencies
Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection. The application of hydraulic principles will be presented to analyze and solve water supply problems.

FPS204 3 Chemistry of Hazardous Materials
Pre: Communications Proficiency
A survey of basic chemistry emphasizing the nature and behavior of organic and inorganic chemicals, the incompatibility of chemicals, and fire chemistry. The course will provide basic chemistry relating to the categories of hazardous materials including recognition, identification, reactivity and health hazards encountered by emergency services.

FPS206 3 Fire Investigation
Pre: Communications Proficiency
This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security, motives of the fire setter, and types of fire causes.

FPS211 3 Fire Protection Systems and Equipment
Pre: Communications Proficiency
This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protections and portable fire extinguishers.

FPS217 3 Field Internship in Fire Protection & Safety
Pre: Communications Proficiency
Field practicum under the supervision of the staff of the Department of Fire Protection and Safety Technology. Students will be placed in a business or industry or in a municipal agency involved with the field of fire protection and safety. After an orientation, students will be required to perform a variety of tasks which are specified for the particular internship. Career goals will be a major consideration.

FPS240 3 Legal Aspects of the Fire Service
Pre: Communication Proficiency
This course introduces the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases.
FRE - French

FRE101 3 Elementary French 1
A communicative approach to the study of the French language through basic grammatical structures. Emphasis is placed on students' speaking, listening, reading, and writing skills as they engage and interact in a variety of contextual activities. Francophone culture is interwoven into classroom discussion and activities. Classroom activities are enhanced by interactive multimedia materials. Fulfills open, liberal arts, humanities, and modern language electives.

FRE102 3 Elementary French 2
Pre: FRE101
A continuation of the communicative approach to the study of the French language through advanced grammatical structures. Emphasis is placed on students' speaking, listening, reading, and writing skills as they engage and interact in a variety of contextual activities. Francophone culture is interwoven into classroom discussion and activities. Classroom activities are enhanced by interactive multimedia materials. Fulfills open, liberal arts, humanities, and modern language electives.

FRE201 3 Intermediate French 1
Pre: FRE102 or 3 years successful high school French
A structural review of the language through a continuation of audiolingual learning, with emphasis on improved speaking and writing skills. Appropriate reading materials are introduced at this level. Exercises in the Learning Resources Center Laboratory supplement the classroom texts. Fulfills open, liberal arts, humanities, and modern language electives. (3 hours of lecture per week and independent lab work)

FRE202 3 Intermediate French 2
Pre: FRE201
Brief literary works of French-speaking nations and periodical literature are discussed and summarized. Oral and written reports are required to further develop the students speaking, reading, and writing skills. This course presupposes language competency as developed in Intermediate French 1. Fulfills open, liberal arts, humanities, and modern language electives. (3 hours of lecture per week and independent lab work)

FSN - Food Science and Safety

FSN104 3 Technology of Food Processing
This course is designed to give students studying food science and nutrition an overview of methods currently used in food processing. Procedures, product development, quality assurance, packaging and labeling will be covered. Students will develop and process a canned (thermally processed), frozen, and freeze dried product. This course is approved for the USDA Food Technology Training Program.

FSN106 3 Introductory Dairy Science
Pre: CHE101 or CHE114 or CHE103
A course designed to insure the quality of milk and dairy products. Laboratory testing and pilot plant production of dairy products will be performed with lectures reinforcing the laboratory exercises. The student will be eligible to take the Babcock test administered by the director of Mass. Agricultural Experiment Station. Successful completion of this exam certifies the student to test milk and cream for butterfat content in Massachusetts. This course is approved for the U.S.D.A. Food Technology Training Program. (2 hours of lecture, 2 hours of lab per week)

FSN120 3 Introduction to Tissue Culture
Pre: Communications Proficiency
This course will teach each student the fundamentals of tissue culture as it applies to plants and horticultural crops. Basic laboratory skills will be stressed including the preparation and sterilization of media, the use of microscope, and the mastery of sterile technique in the maintenance, transfer, and propagation of full grown plants from tissue cultures. (2 hours of lecture, 2 hours of lab per week)

FSN122 1 Human Nutrition & Its Relation to Food Science & Technology
Pre: Communications Proficiency
The student must research current literature and write a paper stressing the importance of nutrition in all aspects of food science and technology. The aspects may include production, harvest, processing, packaging, storage, distribution, and preparation for service. (1 hour of lecture per week)

FSN124 3 HACCP-Establishing Hazard Analysis Critical Control Point Program
Pre: Communications Proficiency
HACCP is a preventative system for assuring the safe production of food products. Students will apply the system in the design of flowcharts, identification of critical control points, observation of employees, measuring times and temperatures, and correcting problems before food can become contaminated. This course is approved for the USDA Food Technology Training Program.

FSN202 4 Food Chemistry
Pre: CHE102 or CHE114
This course studies the major food constituents including water, proteins, lipids, carbohydrates, minerals ash). The lecture portion of the course integrates the importance of organic and biochemistry in food. In the laboratory section, students will learn current methods in food analysis and perform the tests on various food products. As a final project, an unknown food product will be given and students will perform a complete proximate analysis on it. This course is approved for the USDA Food Technology Training Program. (3 hours of lecture, 3 hours of lab per week)
FSN204 3 Food Quality Evaluation  
Pre: CHE102 or CHE114  
A course designed to assure quality control in a variety of food products. Aspects such as colorimetry, viscosity, refractometry, titrations, spectrophotometry, electrophoreses and chromatography will be covered in lab and accentuated in lecture. This course is approved for the U.S.D.A. Food Technology Training Program. (2 hours of lecture, 3 hours of lab per week)

FSN208 4 Microbiology of Foods  
Pre: FSN206 or BIO110  
Primarily a laboratory course designed to train students in the proper utilization of material and equipment, along with the manipulative skills associated with the operation of a microbiological laboratory. Emphasis is placed on the quality control and principles of quantitative operations as applied to food and water, along with the proper sanitary inspection procedures. The isolation and identification of micro-organisms by cultural, biochemical and serological techniques are involved. This course is approved for the U.S.D.A. Food Technology Training Program. (3 hours of lecture, 3 hours of lab per week)

FSN210 3 Brewing Science and Other Fermentations  
The course is designed to allow students to learn technology in the areas of fermentation, confectons, sugar concentrates, emulsions, freezing, dehydration, and curing. The application of this technology will be performed in food processing operations conducted in the pilot plant. The areas of product development, quality assurance, and sanitation good manufacturing practices) will be stressed. The skills necessary to monitor various process from initiation to completion will also be stressed. This course is approved for the U.S.D.A. Food Technology Training Program. (2 hours of lecture, 2 hours of lab per week)

FSN212 1 Food Seminar  
Students will be exposed to various food industries in the area. Each area will be chosen in class, and a field trip to each will be made to observe the actual operation at the industrial level. This exposure will give the student and industry alike an opportunity to observe the possibilities of future employment. (3 hours of lab per week)

FSN220 3 Special Projects in Food Science  
Students may choose one of two options. The first is conducting a special research project in a specific area of food science and technology. A second option involves working with one of the instructors in preparing and presenting lessons in food technology or nutrition to high school students studying food science. (1 hour of lecture, 4 hours of lab per week)

FSN222 3 Environmental Health Technology  
Pre: Communications Proficiency  
This course will examine the impact of the environment on human health in a broad context, covering critical interrelationships between and among the physical environment, human activities, food, and the health and well-being of the public - locally and globally. This course can also help to prepare students for the certification of Environmental Health Technicians (EHT) offered by the National Environmental Health Association (NEHA).

GEO - Geosciences

GEO101 4 Earth Science 1  
Pre: Communications Proficiency  
This course is an introduction to both physical and historical geology, with an emphasis on the former. Topics include minerals and rocks, weathering and the actions of glaciers, wind and water, volcanism and earthquakes as well as a study of the nature and origin of the Earth and the history of life on it. Lab reinforces the lecture materials. Fulfills open, liberal arts, and with GEO102, a laboratory science sequence elective. (3 hours of lecture, 2 hours of lab per week)

GEO102 4 Earth Science 2  
Pre: Communications Proficiency  
This course is an introduction to the areas of meteorology, oceanography, and astronomy. Topics covered include a study of the ocean floor and currents, our weather systems, atmospheric properties, our solar system and stars and galaxies. Fulfills open, liberal arts, and with GEO101, a laboratory science elective. (3 hours of lecture, 2 hours of lab per week)

GEO106 3 Contemporary Geography  
Pre: Communications Proficiency  
Designed to acquaint students with the principles of geography, emphasizing the interrelationships of people and nature. Special emphasis is placed on the geographic analysis of the economics and other parameters of cities and their growth. Consideration is given to crisis areas and an attempt is made to understand the current problems of the cities, such as transportation, energy, economics, boundary conflicts, and politics. Fulfills open, and liberal arts electives. (3 hours of lecture per week)

GEO108 3 Environmental Science  
Pre: Communications and Mathematics Proficiencies  
An introduction to the field of environmental science. Environmental relationships are studied with regards to the strengths and fragilities of natural systems. Among other topics, the course covers utilization of natural resources, biodiversity, ecosystems, and environmental economics and politics. Fulfills open and liberal arts electives. (3 hours of lecture per week)

GEO110 3 Meteorology  
Pre: Communications Proficiency  
Surveys the nature of weather conditions and the basic atmospheric processes which create the conditions. Radiation and heat balance, water phase changes, cloud formations, and wind systems are studied. Weather map interpretation and the analysis of violent weather are stressed, and a brief introduction to climatology is included. Fulfills open and liberal arts electives. (3 hours of lecture per week)

GEO116 3 World Regional Geography  
Pre: Communications and Mathematics Proficiencies  
Introduces the student to the many geographic regions of the world by studying the globe’s physiographic features, international economic and political systems as well as cultural realms. Students will also use maps, globes, and spatial data to explore geographic interrelationships. Special emphasis will be placed on how specific regions of the world are different and how they interrelate in global society. Fulfills open and liberal arts electives.
CREDIT COURSE DESCRIPTIONS

GOV - Government

GOV102 3 American National Government and Politics
Pre: Communications Proficiency
A comprehensive examination of American political institutions. Consideration is given to the heritage and structure of American government and politics as well as to the functions performed by the national government today. Such topics as the fundamental ideas of American constitutionalism, civil liberties, civil rights, and the changing role of the national government will receive emphasis. Fulfills open, liberal arts and social science electives.

GOV104 3 State and Local Government in America
Pre: Communications Proficiency
The study of the structure, process and policies of state and local government, with a focus on the Massachusetts political system. Emphasis is placed on the policies and problems of state and local government and their relationship to the federal government. Special attention is given to direct participation in the political process in addition to the study of public policies on issues such as spending and taxation, crime, education, housing, and welfare. Fulfills open, liberal arts, and social science electives.

GRA - Graphic Arts

GRA102 3 Graphic Production
Pre: Communications Proficiency
Provides an overview of the procedures required in the design of publications prepared for the print production process. Focuses on working with clients, planning and proofing jobs, and learning print terminology. Students will also learn about selecting paper, estimating print costs, and binding and finishing considerations. Design projects will be manually completed from the rough idea to the finished piece according to the design and production process.

GRA112 1 Introduction to Photoshop
Provides instruction in the basics of preparing electronic artwork using Photoshop. Emphasis is placed on understanding the tools and menus of this industry-standard program. File formats, scanning, and legal issues are addressed. Students entering this course must be able to locate, create, and manipulate files and have a working knowledge of how to use a web browser to access information online.

GRA116 3 Electronic Imaging
Pre: Communications & Mathematics Proficiencies
Provides hands-on skill development on preparing electronic images using Adobe Photoshop. Special emphasis will be on understanding the tools and menus of this sophisticated program. Scanning, image manipulation, filters, masking, exporting images, creating collages, and color editing and correction will be emphasized. Various legal, software, and hardware issues involved in preparing electronic images will be addressed. Students entering this course must be able to locate, create, and manipulate files and have a working knowledge of how to use a web browser to access information online.

GRA118 3 Digital Page Layout
Pre: Communications and Mathematics Proficiencies
Provides a hands-on introduction to Adobe InDesign, a desktop publishing software widely used in the graphic design industry. Topics covered include an introduction to the Macintosh operating system, design and page layout principles, and an overview of the publishing process. Projects completed include Corporate ID, brochures, flyers, and newsletters. (3 hours of lecture per week)

GRA130 3 Introduction to Digital Photography
Pre: Communications and Mathematics Proficiencies
Examine the use of sound photography principles, practices, terminology, digital camera components, lighting, scanning, image criteria, photo resources and purchasing of photography and ethics in image usage. Emphasize use of digital cameras in studios and on location. Investigation of B&W and color theory, usage of models and releases and successful photographers will be included. Producing a professional photography portfolio will be a goal to this course.

GRA140 3 Integrated Design Principles
Pre: Communications and Mathematics Proficiencies
This course introduces current design techniques, hardware options and software applications prominent in the growing field of integrated digital graphic design and marketing communications. Students will investigate new methodologies and offerings in print, web design, social media blogs, social networks, video sites), wikis, mobile media podcasts and Smartphone apps), webinars and email promotions. Emphasis is placed on marketing/design concepts, best practices and hands-on skills development associated with creative integrated media/promotional options. Fulfills open and business science electives.

GRA202 3 Digital Illustration
Pre: Communications & Mathematics Proficiencies
Co: ART110
Designed to familiarize students with using the computer to produce illustrations. Using Adobe Illustrator, students will learn to work with tools, palettes, objects, and type. Assignments include logos, illustrations, and single-page layouts. Special attention is given to visual design aspects exporting images, and related software and hardware issues. Students entering this course must be able to locate, create, and manipulate files and have a working knowledge of how to use a web browser to access information online.

GRA204 3 Typography
Pre: GRA118 & GRA202
Co: ART114
Provides hands-on experience with effective use of typogrophy in preparing graphic design projects. Lectures will cover the history of type, the development of major type families, identification/classification, nomenclature and the use of typographic contrast/emphasis. Students will prepare design solutions incorporating type and images manually and by using computer software. An appreciation of type as a graphical element is a key outcome of this course.

GRA212 3 Electronic Publishing Issues
Pre: GRA118 & GRA202
Co: GRA116
Provides hands-on experience with digital prepress requirements connected with print production. Covers effective placement of graphic, photographic, and text based images into page layout software. Advanced features for graphic design and photo-manipulation software programs will be explored. Other topics include use of service bureaus, trapping for spot color, four color process printing, legal issues associated with graphic and web page design, and freelance designer issues. (3 hours of lecture per week)

GRA216 3 Graphic Design Portfolio
Pre: GRA118 and GRA202
Co: GRA116 and GRA204
Students will apply creative and digital skills to create and fine-tune professional graphic design projects related to advertising, marketing, and promotional materials. Emphasis is placed on producing a diverse graphic design portfolio of visual designs and self-promotional materials, showcasing the student’s style.
These materials will demonstrate technical competencies, creative and conceptual abilities that may be required by a client. Students will also be required to prepare electronic versions of their portfolio. The course culminates with mock interviews, portfolio presentations, design justification and critiques.

### HIS - History

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Pre-Requisite</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIS101</td>
<td>History of Western Civilization 1</td>
<td>Communications Proficiency</td>
<td>Examines the economic, political, social and cultural development of Western Civilization to 1715 and considers the impact of this civilization on today's world. Fulfills open, liberal arts, history, social science, and with HIS102, history sequence electives.</td>
</tr>
<tr>
<td>HIS102</td>
<td>History of Western Civilization 2</td>
<td>Communications Proficiency</td>
<td>Examines the economic, political, social and cultural development of Western Civilization since 1715 and considers the impact of this civilization on today's world. Fulfills open, liberal arts, history, social science, and with HIS101, history sequence electives.</td>
</tr>
<tr>
<td>HIS103</td>
<td>United States History 1</td>
<td>Communications Proficiency</td>
<td>Examines the economic, political, social and cultural development of the United States to 1877 and its implications for the present. Also surveys the U.S. Constitution and important Supreme Court decisions through Reconstruction. Fulfills open, liberal arts, social science, and with HIS104, a history sequence elective.</td>
</tr>
<tr>
<td>HIS104</td>
<td>United States History 2</td>
<td>Communications Proficiency</td>
<td>Examines the economic, political, social and cultural development of the United States since 1877 and its implications for the present. Also surveys the U.S. Constitution and important Supreme Court decisions since Reconstruction. Fulfills open, liberal arts, social science, and with HIS103, a history sequence elective.</td>
</tr>
<tr>
<td>HIS110</td>
<td>Russia and the Soviet Union Since 1917</td>
<td>Communications Proficiency</td>
<td>An examination of Russian and Soviet history, politics and society since the Russian Revolution. This course will also analyze the fall of the Soviet Union and the emergence of post-Soviet society and politics. Fulfills open, liberal arts, and social science electives.</td>
</tr>
<tr>
<td>HIS112</td>
<td>National and International Issues</td>
<td>Communications Proficiency</td>
<td>Survey of 10 of the most important national, political, social, economic, and international issues confronting the United States at home and in world affairs such as climate change, U.S. Military interventions, intelligence gathering and global economic crises. Fulfills open, liberal arts, and social science elective.</td>
</tr>
<tr>
<td>HIS118</td>
<td>Islam, Revolution, and the Modern Middle East</td>
<td>Communications Proficiency</td>
<td>An overview of the major themes of modern Middle Eastern history since 1800. Topics may include: the confrontation between the Ottoman Empire and European imperialism in the 19th century; the rise of Arab nationalism in the 20th century; the formation of Turkey, new Arab nations and Israel before and after World War II; the Cold War; the Palestinian-Israeli Conflict; the Iranian Revolution of 1979 and the resurgence of Islam; the Arab Spring of 2011-2012. Fulfills open, liberal arts, social science and history electives.</td>
</tr>
<tr>
<td>HIS122</td>
<td>Women in American History</td>
<td>Communications Proficiency</td>
<td>This course explores women's roles in American history. It will provide a chronology of the role of women in society and the journey of women from chattel to citizens. Cultural phenomena including gender identity, economics, government and law, and mass media will be examined in relation to their impact on women. This course will provide students with valuable insight into the women's movement and provide them with a working definition of feminism and its goals. Fulfills open, liberal arts and social science electives.</td>
</tr>
<tr>
<td>HIS124</td>
<td>African-American History</td>
<td>Communications Proficiency</td>
<td>This course presents the history and culture of African-Americans from their roots in Africa, to the slave trade, to social, economic, and political factors during the period of slavery, the Civil War, and the century afterwards. It includes the various approaches taken to equality, assimilation, and separation by African-American leaders of the 20th century and stresses African-American contributions and successes in recent years. Fulfills open, liberal arts and social science electives.</td>
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<tr>
<td>HIS126</td>
<td>The World in the 20th Century</td>
<td>Communications Proficiency</td>
<td>A survey course that will focus on the political, economic, and ideological forces surrounding the most important events of the 20th century. Topics to be examined include the two world wars, the Holocaust, the Cold War, the Vietnam War, the disintegration of the Soviet Union, and the subsequent rearrangement of the world balance of power. We will examine the evolution of the United States' role in the world community. Fulfills open, liberal arts, and social science electives.</td>
</tr>
<tr>
<td>HIS131</td>
<td>World History 1</td>
<td>Communications Proficiency</td>
<td>An examination of the major themes and their legacies in world history from its origins until the era of global interaction. Attention will focus on a comparative analysis of various world societies. Fulfills open, liberal arts, social science, and with HIS132, history sequence electives.</td>
</tr>
<tr>
<td>HIS132</td>
<td>World History 2</td>
<td>Communications Proficiency</td>
<td>An examination of the major themes and their legacies in world history since the era of global interaction. Attention will focus on a comparative analysis of various world societies. Fulfills open, liberal arts, social science, and with HIS131, history sequence electives.</td>
</tr>
<tr>
<td>HIS134</td>
<td>European History Since 1789</td>
<td>Communications Proficiency</td>
<td>An introduction to the political, cultural and social history of Europe since 1789. Major topics include European political culture, genocide, history and memory and the construction of national identities. Fulfills liberal arts, social science, and open electives.</td>
</tr>
<tr>
<td>HIS140</td>
<td>American Environmental History</td>
<td>Communications Proficiency</td>
<td>American Environmental History examines through time the changing relationship between human beings and the natural world of North America. Emphasis will be placed on how Americans acted to shape their environment, how they perceived that environment, and how these interact with each other to determine who we are and shape what we might become. Fulfills history, liberal arts, and open electives.</td>
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</tbody>
</table>
HLS102 4  Anatomy & Physiology for Allied Health
Pre: Communication & Math Proficiencies
This course is designed to give the student a basic understanding of the structure and function of the human body. Particular emphasis is placed on the normal structure of the various systems and some of the conditions that affect them. (4 hours of lecture per week)

HLS104 1  Overview of Microbiology
Pre: Communication & Math Proficiencies
This course provides the student with a basic understanding of how microorganisms exist, grow, reproduce and cause disease. This is fundamental to an understanding of the facts and principles essential to safe allied health practice. This course is a necessary basis for all forms of nursing, both basic and advanced, as well as a basis for all surgical technicians. Every procedure performed has the ability to transfer infection and initiate some type of disease process. (1 hour of lecture per week)

HLS115 2  Human Development and Health Promotion
Pre: Communication & Math Proficiencies
Human Growth and Health Promotion is concerned with describing, explaining, and at times, modifying the changes that occur over the entire lifespan. This course allows the student to discover how people change and develop from conception through senescence with an emphasis on promoting healthy lifestyles.

HON - Honors

HON200 3  Honors Seminar
Pre: CMP101
Designed to challenge the research and academic skills of all students, with a minimum GPA of 3.5, who are matriculated in degree programs. The content is interdisciplinary and the theme, problem, or topic will vary, depending on the interest of students and faculty. This course fulfills an open elective and will be designed to fulfill at least liberal arts and humanities electives. Other electives will be determined each time the course is offered.

HON202 3  Future Studies
Pre: CMP101
Students will examine the interdisciplinary field of Future Studies which emphasizes our potential for creating alternative futures, i.e., possible futures, probable futures, and preferable futures, all contingent upon our decisions, or lack thereof, and their consequences. By focusing on historical and current social, economic, political, ecological, and technological trends, students will recognize that daily decisions in business, government, education, and everyday life are based on forecasts which assist decision-making and provide opportunities for creating mankind’s future. Students will be introduced to various methodologies for studying change, forecasting, and planning. Fulfills Humanities, Liberal Arts, Social Science, and open electives.

HON206 3  The Meaning of Life in Film, Fiction, and Philosophy
Pre: CMP101
Designed to challenge the academic skills of students in the Honors Program. The content is interdisciplinary and the theme, problem or topic will vary, depending on the interest of Honors Program students and faculty. This course fulfills an open elective and will be designed to fulfill at least a liberal arts and humanities elective. Other additional electives will be determined each time the course is offered. All degree students can take the seminar if they maintain a 3.5 GPA and have passed CMP101.

HON208 3  Honors Seminar: Economics Fed Challenge Course
Pre: Math Proficiency, ECO103 or 104 and permission of instructor
Co: Open only to students on NSCC Fed Challenge Team
A rigorous exploration of advanced macroeconomic and monetary economics concepts with a special emphasis on the conduct of monetary policy by the Federal Reserve. The culminating learning experience of the course may be participation in the Community College Fed Challenge (CCFC). Fulfills liberal arts, social science, and open electives.

HRT - Horticulture

HRT101 3  Introduction to Turf
This course is designed to familiarize students with opportunities in the turf industry and to begin discussion of the basic fundamentals of turf-grass management. Emphasis is placed on cool-season turf-grass identification, seeding, culture and maintenance. Identification and control of weed and insect pests is included.

HRT102 3  Turf Management
This course builds upon the basic principles established in HRT101. Topics considered in detail include fertilizers and turf fertilizing practices, disease control, turf pesticides and IPM practices, and associated environmental issues. The development of an annual turf maintenance calendar is included.

HRT104 3  Woody Ornamental Plants
The identification and use of woody ornamental plants. Students gain practical knowledge of a wide range of northern ornamental trees and shrubs. Plant form, habit, soil requirements, flower, fruit, ecological relationships, susceptibility to insects and diseases and horticultural usefulness are studied. (2 hours of lecture, 3 hours of lab per week)

HRT106 2  Landscape Installation and Maintenance
An introductory study of the techniques commonly used in the installation and maintenance of landscapes, both residential and commercial. Techniques used in the installation of turf, trees, shrubs, rain gardens, along with pruning, transplanting, mulching and fertilizing will be covered. Concepts relating to Permaculture and Sustainable Sites will also be introduced.

HRT108 3  Equipment Operation
Covers both large and small equipment. Students develop skills using landscape construction equipment including front-end loaders, backhoes, dump trucks, bulldozers and other machines. Routine maintenance and servicing skills are included. The care, maintenance and repair of small engines and small outdoor power equipment are also covered. (2 hours of lecture, 3 hours of lab per week)
HRT110  3  Plant and Soil Science
A study of the important interactions between soils and growing plants. Basic plant structure, growth, and reproduction are considered along with plant response to environmental conditions. Soil factors affecting plant growth are covered in depth, including texture, structure, organic matter, pH and nutrients. (2 hours of lecture, 2 hours of lab per week)

HRT112  3  Horticulture Business Management
This course examines the basic issues of small business management with special emphasis on the green industry. Topics addressed include mission statements, business plans, budgets, personnel management, marking, and advertising. Students will develop a complete business plan from the idea stage to a working enterprise. (Formerly FLR104)

HRT114  3  Indoor Plant Materials
A survey of horticultural plant materials useful for indoor plantings including flowering plants, foliage plants and succulents. Emphasis is placed on identification, cultural requirements and usefulness. (2 hours of lecture, 1 hour of lab per week) (Formerly FLR106)

HRT118  3  Interior Plantscaping
A study of the indoor plantscaping industry with emphasis on plant care and maintenance. Practical experience in design, site preparation, installation, and maintenance of indoor plantings is included. Field trips to local area indoor plantings are required. Students without previous experience with plant materials are encouraged to take HRT114 (Formerly FLR106) prior to enrolling in this course. (2 hours of lecture, 3 hours of lab per week) (Formerly FLR110)

HRT120  1  Pesticide Safety
A series of workshops designed to prepare industry employees for the core exam as part of the Massachusetts pesticide licensing process. The Pesticide Applicator Training Manual and application for the exam are required for class.

HRT122  3  Fundamentals of Plant Health
Pre: Communications Proficiency
An introduction to the nature, cause, transmission and control of plant pests and diseases. Identification of local plant diseases and pests through symptom observation will be covered. Control methods that are environmentally and economically sound will be discussed including the selection of the right plant for the right place, the importance of soil health, integrated pest management and the soil food web.

HRT201  3  Urban Tree Care
An introduction to modern arboricultural practices. Technical information regarding the care of ornamental trees and the trees of our urban forests will be presented. Students will expand on knowledge, skills and experience developed in the first year, including tree identification, tree risk management, arboricultural safety and Massachusetts law, disease and tree insect pest control, construction damage and pruning. (3 hours of lecture per week)

HRT202  3  Urban Tree Care 2
Arboriculture principles and practices for students planning to take the Massachusetts Arborist exam. Students expand on skills and knowledge developed in Arboriculture 1, including identification, cultural requirements, tree physiology, pest control and climbing techniques.

HRT204  3  Surveying
An introductory study of the methods used to obtain measurements by the landscaping industry essential in the planning, estimating and construction process. The course will include methods of obtaining linear, vertical, and angular measurements. The student will become proficient with the surveyor’s tape, builders level and transits. (2 hours of lecture, 3 hours of lab per week)

HRT206  3  Landscape Design
An introduction to landscape design including site analysis and site organization skills necessary for students to create inspired and sustainable landscapes. Students will practice skill building during studio time which will focus on the selection of design elements such as plant material, hardscapes, site furnishings and how they compliment the site analysis and stated site objectives. Lecture, discussions, demonstrations and individual critiques will be included.

HRT208  3  Plant Pathology
An introduction to the nature, cause, transmission and control of plant diseases. Emphasis is given to the major classes of plant parasites including fungi, bacteria, viruses and nematodes. Laboratories include inoculation experiments and follow up symptom identification and control. (2 hours of lecture, 2 hours of lab per week)

HRT210  3  Plants for the New England Landscape
A survey of horticultural plant materials suitable for the New England landscape. Emphasis is placed on identification, and plant cultural requirements. Plant form, habit, soil requirements, flowering and fruiting habit, ecological relationships and usefulness are also examined. Plant groups studied include woody trees, woody shrubs, garden biennials, perennials, bulbs, ground covers, vines, ferns, and native species.

HRT212  3  Greenhouse Operations and Equipment
Pre: Mathematics Proficiency
This course introduces the student to all aspects of the commercial greenhouse. Greenhouse construction styles, coverings, heat and ventilation, mechanization, irrigation and fertilizing systems are examined. Basic theories on growth regulation, fertilization, and commercial propagation methods and crop choices are introduced. (2 hours of lecture, 2 hours of lab per week) (Formerly FLR201)

HRT214  3  Greenhouse Crop Production 2
Pre: Mathematics Proficiency
This course is designed around the selection and marketing of annual Spring bedding plant crops and hanging baskets. Additional skills to be covered include IPM, crop scheduling and space allocation, pest identification and management, and retail marketing strategies. It is recommended but not necessary for students to have taken HRT212 (Formerly FLR201) prior to this class. (2 hours of lecture, 4 hours of lab per week) (Formerly FLR202)

HRT230  6  Field Placement and Seminar in Horticulture
Pre: Communications and Mathematics Proficiency
Co: HRT101, HRT106, HRT110, HRT122, HRT210 or by permission of instructor
Students enrolled in the Horticulture programs are required to successfully complete 240 hours of professionally supervised work in an approved horticultural business. The objective of the field placement is to assist in the development of on-the-job skills, which completes the in-class experience gained in the Horticulture Program. This field placement will also include on-campus, faculty guided seminars, site visits from faculty and employee performance evaluations.
HSP - Hospitality

HSP108  3  Hotel Operations
Pre: Communications Proficiency
Provides an overview of the development and growth of the hospitality/lodging industry including the classification of lodging establishments. Topics cover front desk operations, the housekeeping and engineering departments, guest safety and security issues, and the general manager’s responsibilities. Franchise agreements and management contracts will also be discussed.

HSP110  3  Planning Meetings, Conferences, and Special Events
Pre: Mathematics Proficiency
Co: TOU104
Introduces the various types of events and activities that can be planned for hotels and attractions. Students learn how to recruit speakers and performers, plan menus, deal with catering departments and talent companies, and plan special events to include such things as incentive programs, day trips, presentations, concerts, theme nights and guest activities. Negotiation skills, creativity, liability issues and risk management will be emphasized.

HSP114  3  Marketing the Tourism and Hospitality Industry
Co: TOU104
Focuses on how to market the services offered by the travel, tourism, and hospitality industries. Examines the concept of service marketing and how to be competitive when offering the intangible product. Students will learn basic marketing techniques such as conducting market research, designing a marketing plan, and advertising.

HSP214  3  Marketing and Sales for Professional Meeting Planners
Pre: HSP110 and HSP114
Provides an overview of meetings, conventions, and conference management from the perspective of a meeting planner and/or a hotel industry professional. Topics include site selection, contract negotiations, program design, budgets, registration, advertising, developing a marketing plan, and selling to associations, corporations, and other miscellaneous markets. Each student will be required to develop and present a marketing plan for a particular hotel.

HSP222  3  Hospitality and Travel Law
Pre: TOU104
Provides a basic understanding of the legal principles and precedents related to the travel, tourism, and hospitality industries. Topics include employee relations, compliance with the Americans with Disabilities Act, contracts, liability, negligence, health and safety issues, discrimination, questions of jurisdiction, competition and anti-trust issues. Case studies will be examined and the concept of ethics within the industry will be explored.

HUS - Human Services

HUS101  3  The Human Services Worker
Provides the instruments to explore and evaluate personal values, motives, feelings, needs, attitudes, interests and personality traits especially as they pertain to awarenesses which will help a Human Services worker; and explores personal and societal prejudices, stereotyping behaviors, and biases.

HUS102  3  Helping Skills in Human Services
Pre: HUS101
Designed to help develop individual and group interaction skills based on historical and contemporary models applicable in the field of Human Services work. Utilizing audio and video taping; role play; and active classroom participation in exercises designed to demonstrate competence in appropriate listening skills, problem solving, and decision making strategies.

HUS104  3  The Field of Human Services: An Overview
Pre: HUS 101 or permission of instructor
Overview of the past, present and possible future methods and systems engaged in the delivery of Human Services. The student individually, and in groups, will examine many of the roles of the human service workers, including exploration of computer usage in human service agencies.

HUS106A  1  Self Advocacy for Healthcare Consumers I
Pre: Communications Proficiency
A 15 hour professional development course for volunteers, frontline workers, and other professionals working to empower elders and people with chronic disease and disabilities. Topics to be covered are Strength Based philosophy, Motivational Interviewing, Options Counseling, Healthcare Advocacy, Cultural Sensitivity and Diversity Awareness. Fulfills open elective. (1 lecture hours per week)

HUS108  3  Pharmacology for Human Services
Introduces the human services care giver to the use and effects of medications in acute, chronic, and home care settings with patients/clients throughout their life span. Emphasis will be placed on the physiology, indications, contraindications, actions, side effects, and behavioral manifestations of the various medications.

HUS110  3  Orientation for Homemaker Home Health Aide
Designed to instruct aides in the concepts of homemaking/home health care. These concepts encourage patience toward self-care and contribute towards home stability, management maintenance. This course trains aides to deal with all aspects of home health care and homemaking including: home management, maintenance and safety, skill growth and development, the aging adult, rehabilitative services, mental health and illness, nutrition, and helping skills and techniques.

HUS112  3  Principles and Practices of School-Age Child Care Programs
Pre: Communications Proficiency
Participation in workshops, classroom discussions, self-reflections, field work and other assignments should enable students to: discuss developmentally appropriate practice in school-age child care settings; describe the developmental stages of school-age children in the social, emotional, physical and cognitive domains and apply these principles to the design and establishment of the physical environment, program scheduling, and health and safety practices for group management; utilize techniques for conflict resolution and for inclusion of children with special needs.
HUS114  3  Curriculum Planning for School-Age Child Care Programs
Pre: Communications & Mathematics Proficiencies; PSY118, or ECE101, or PSY114
Participation in workshops, classroom discussions, self-reflection, field work and other projects should enable students to: apply principles of curriculum development to planning for children ages 6-12 i.e., goal setting, design developmentally appropriate experiences and the teaching/learning contexts in which they occur, scheduling; select, plan, and carry out activities in all curricular areas in school-age child care; develop activities and environments based on knowledge of primary-age children’s needs and interests and of diverse populations including children with special needs; and discuss the role of the staff person in designing and implementing curriculum.

HUS114A  1  Curriculum Planning for School-Age Child Care Programs

HUS116  3  Families, Schools and the Community
Students completing this course should be able to: identify the goals and benefits of family-school partnerships and design techniques for their development; discuss variations in family configurations and backgrounds and related issues and how to include them in their children’s programs; develop strategies for linking programs with the community through advocacy and shared resources.

HUS118  3  Field Experience and Seminar in School-Age Child Care
Pre: Communications & Mathematics Proficiencies; PSY118
Direct, professionally supervised work with children and youth, faculty guided seminars, and personal reflection should enable students to: establish positive human relationships in the school-age setting; design and set up indoor and outdoor environments that meet the needs of all children; provide developmentally appropriate activities in all areas of the school-age curriculum; support children’s physical and psychological health and safety by responding to both group and individual needs; reflect on their own practice and develop a plan for continued professional growth.

HUS120  3  The Family Development 1
A 45-hour professional development course for frontline family workers to learn and practice strength based support with families. Topics to be explored are family development and healthy self-reliance, communication skills, taking good care of oneself, diversity, and strength based assessment.

HUS122  3  Family Development 2
Pre: HUS120
A 45-hour professional development course for frontline family workers to learn and practice strength based support with families. Topics to be explored are helping families set and reach goals, helping families access specialized services, home visiting, facilitation skills and collaboration.

HUS124  3  Supervision and Leadership in Human Services
This course is designed for current and potential supervisors who work in human services. Students will strengthen time management and conflict management skills; assess different forms of leadership and supervision; develop a stronger knowledge base of how each supervisor fits into an organization and promote the team process as an integral part of agency dynamics.

HUS130  3  Life Changes and Crisis: Adaptation and Intervention
Pre: Communications Proficiency
Examines key life events leading to increased insight, change, adaptation, growth, stress and/or crisis in the life of an individual. Concentration on interpersonal relationships, social cohesion and conflict. Coping behaviors, models and counseling approaches to stress and crisis intervention will be studied and practiced in class situations.

HUS132  3  Group Dynamics & Techniques
Pre: Communications & Mathematics Proficiencies
An introduction to the stages of group development and intervention strategies. This course will provide an overview of the various types of groups and the applicable counseling theories. Students will explore the contrast between the roles of a group member and facilitator through class simulations and practice.

HUS137  3  Field Placement & Seminar 1 for Human Services Practitioner
Pre: Communications Proficiency; MEH105 or PSY112, or permission of instructor
Through professionally supervised work with people in human service agencies and on-campus faculty guided seminars, students should be able to: critically examine their own values and personal attitudes toward the people they serve; communicate effectively with their fellow workers and the people they serve; utilize the skills they have learned by providing the appropriate support for the people they serve. (120 hours of field placement per semester and 2 hours of seminar per week.)

HUS138  3  Field Placement & Seminar 2 for the Human Services
Pre: Communications Proficiency; HUS137
Co: HUS139
Through professionally supervised work with people in human service agencies and on-campus faculty-guided seminars, students should be able to: critically examine their own values and personal attitudes toward the people they serve; communicate effectively with their fellow workers and the people they serve; utilize the skills they have learned by providing the appropriate support for the people they serve. (120 hours of field placement per semester and 2 hours of seminar per week.)

HUS139  3  Field Placement & Seminar 3 for the Human Services
Pre: Communications Proficiency; HUS137
Co: HUS138
Through professionally supervised work with people in human service agencies and on-campus faculty guided seminars, students should be able to: critically examine their own values and personal attitudes toward the people they serve; communicate effectively with their fellow workers and the people they serve; utilize the skills they have learned by providing the appropriate support for the people they serve. (120 hours of field placement per semester and 2 hours of seminar per week.)

HUS140  3  Introduction to Child & Adolescent Behavioral Health Care
Pre: Communications Proficiency
Co: PSY102
An overview of the development of the child and adolescent behavioral health care profession and an introduction to the treatment theories, models, methodologies perspectives and values, applied across a wide range of treatment spectrums serving children, adolescents, families and communities.
### CREDIT COURSE DESCRIPTIONS

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| HUS142   | Child and Adolescent Behavioral Health Care Practice with Families    | Pre: Communications Proficiency  
This course is designed to prepare students to work with families with children and adolescents who are experiencing behavioral health issues. The course will examine family practice theories, assessments, treatment modalities and prevention and intervention strategies for working with children, adolescents and their families. There is a strong emphasis on classroom presentations via video reviews, role plays, case studies and team observations to increase the student’s therapeutic awareness and observation skills for working with children, adolescents and their families. |

### IDS - Interdisciplinary Studies

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| IDS101   | Human Being: Being Human                                             | Pre: Communications Proficiency  
Explore fundamental questions of human existence: How do we construct our belief systems? Does love really exist? What happens to us when we die? The goal is to come to an individual understanding of just what being human truly means. Sources may include Ovid, the Dalai Lama, and various forms of art. Fulfills open, liberal arts, and humanities electives, IDS Humanities, IDS Social Science. |
| IDS102   | IDS Seminar                                                          | Pre: Communications Proficiency  
This course is designed to challenge the student to explore contemporary issues which can be approached from several different perspectives. Seminar sessions may consist of student panels, demonstrations, and guided student research. Previous topics have included: Violence in Our Lives, Inquiry into the Future of Humanity, School Violence, and the Utopian Society. Fulfills open, liberal arts, and humanitites electives, IDS Humanities, IDS Social Science. |
| IDS102B  | IDS Seminar: Women in Leadership                                      | Pre: Communications Proficiency  
This multi-disciplinary course seeks to draw connections between the student and the women who have played roles in shaping our history. Students will explore new possibilities for their roles as active agents in the family, workplace, local communities and the world. Classes will include video, stories, quest speakers, field trips and the arts. The course ends with a luncheon celebration of women leaders. |
| IDS102C  | IDS Seminar: Comics in American Culture                              | Pre: CMP101  
This course approaches comic art as a legitimate medium to be understood and appreciated. Students will learn about the history of comics from the late 19th century to the present and gain critical reading skills for deconstructing text/image based information and all other media. This course will help students identify and analyze symbolism, themes, styles, genres and cultural uses of comic art while improving their overall abilities as critical readers. Fulfills open and liberal arts electives. |
| IDS102D  | Popular Culture in the U.S.                                          | Pre: Communications Proficiency  
This course examines popular culture in its many forms and media in American culture both past and present. Students will learn to assess, explain, and analyze products of popular culture by connecting them with overall cultural values, norms, and ideologies. Issues related to popular culture such as consumerism, mass media, technology, and viewer participation will be explored. Students will learn to become better communicators and interpreters of cultural products. Fulfills open, liberal arts and humanity electives. |
| IDS102E  | Science in the Popular Novel                                         | Pre: Communications Proficiency  
This course explores and analyzes the relationship between science and pop culture through the lens of fiction and popular media. Writing style, historical significance and the popularity of various genres, including novels, short stories, popular magazines and newspapers will be examined. Science contained in the readings will be investigated, keeping in mind the unique history, people, objects, social contracts and experience shaping them. Fulfills interdisciplinary and liberal arts electives. |
| IDS106   | Understanding Nutrition                                               | Pre: Communications Proficiency  
This course presents an overview of human nutrition by exploring nutrients and how they function in the body. In addition, students will learn tools for planning adequate diets for individuals and groups. The role of foods and nutrients in health and disease is discussed throughout the course, underlining the use of research to validate nutrition claims. Prior course work in biology and/or chemistry is helpful, but not required. Fulfills open, liberal arts, social science and science elective. (3 hours of lecture per week) |
| IDS108   | Information Technology, Society and Culture                          | Pre: Communications proficiency  
A study of the continuing revolution in information technology and its effects on global culture. Includes an analysis of the social, cultural, and economic impact of computers and information technology and an examination of the psychological, ethical and philosophical implications of these new technologies. Various topics including online gaming culture, virtual reality and social media will be explored. Fulfills humanities, liberal arts, and open electives. |
| IDS112   | Artistic Vision                                                       | Pre: Communications Proficiency  
The emphasis of this introductory humanities course is on developing interest in and understanding of art, music, and literature by examining works from ancient to modern times. It includes a consideration of the role of the arts in heightening our awareness of ourselves and the world as well as how art can call attention to social issues such as threats to the environment. No background in the arts is required. Fulfills open, humanities, and liberal arts electives. |
| IDS122   | Music and Healing                                                     | Pre: Communications Proficiency  
Explores music’s relationship to psychological and physiological well being, the effect of noise pollution and the importance of early infancy and childhood familial environment for language acquisition. Recent scientific findings in cymatics, brain research, the electromagnetic properties of the body, hemispheric-synchronization and psycho-acoustics will be discussed. No prior knowledge of music is necessary. Fulfills open, liberal arts and humanities electives. |
| IDS126   | Exploring the Brain/Mind                                              | Pre: Communications Proficiency  
An interdisciplinary course which focuses on the understanding of the recent theories concerning brain/mind function. Implications for intellectual and creative abilities, education and learning, job performance, and the enjoyment of life will also be addressed. Fulfills open, liberal arts, social science, and IDS-science. |
IDS128  3  Environmental Law and Policy  
Pre: Communications Proficiency  
This interdisciplinary course is designed to introduce the philosophical, policy, statutory, regulatory and common law implications of protecting natural areas, public health, environmental justice, and related environmental concerns.  
(3 hours of lecture)

IDS130  1  Ethics and Holistic Health Practitioners  
Pre: Communications Proficiency  
Specific ethical considerations for holistic medicine form the basis for this course. Students will learn the ethical standards appropriate for careers in alternative and complementary medicine; these apply to individual practitioners as well as those working in organizations.

IDS136  3  Martin and Malcolm: Advocates for Human Rights  
Pre: Communications Proficiency  
This course seeks to critically examine the social context, the philosophical, and ideological framework of Martin Luther King Jr. and Malcolm X. Through biographical and historical analysis, students will develop a greater appreciation of the two historical figures. In addition, we will critically evaluate and relate the methods of each to contemporary U.S.A. and Third World racial social, political and economic problems. Fulfills open, liberal arts, social science, and history electives.

IDS138  3  Geo-Cultural Development of New England and the North Shore  
Pre: Communications Proficiency  
An introductory level geo-cultural history of the land, the people, and the unique role that New England and the North Shore area has played in the developing story of our country. This course will explore the evolution of common New England social institutions and cultural traditions using theory, discussion, and visits to key historic sites. The approach will be interdisciplinary utilizing concepts and methodologies from several of the social sciences and interactive as all students are expected to participate in a collective learning process. Fulfills open, liberal arts, and social science electives.

IDS140  3  Reiki 1 - Traditional Usui Method  
Pre: Communications Proficiency  
Reiki involves transfer of energy through the hands of the practitioner to another person. Its gentle hand patterns bring the body into relaxation and balance, enhancing the body's natural ability to heal itself. No special skills or belief systems are necessary. Students will learn the history of Reiki, the body's energy centers, and how to scan for general vitality. Students are required to attend site specific Reiki clinics, afternoons or evenings, twice during the semester. Fulfills Open, Liberal arts, and Humanities elective status.

IDS142  3  Global Conflicts and Human Behavior  
Pre: Communications Proficiency  
This course uses an interdisciplinary approach to shed light on the nature of war and conflict and how it shapes, and is shaped by, human behavior. A case study method highlights the problem of global conflict in areas such as Europe, Africa, Asia and Latin America in the twentieth and twenty-first centuries. Fulfills open, liberal arts, social science, and humanities electives.

IDS144  3  Theories of Healing  
Pre: Communications Proficiency  
This course provides a practical and theoretical understanding of wellness and healing, relying on a variety of views, from scientific medical theory and practice to holism, a paradigm that incorporates emotion and spirituality. Topics include osteopathic, chiropractic, homeopathic and naturopathic medicines; mind/body medicine; and East/West forms of energy medicine, including bodywork therapies, spiritual healing, traditional Chinese medicine and Ayurveda. Fulfills open and liberal arts electives.

IDS148  3  Yoga, Meditation, & Stress Management 1  
Pre: Communications Proficiency  
Through lecture, discussion, and experiential exercises, the student will learn physical skills and breathing techniques that help to revitalize and quiet the mind. Practical applications of a series of gentle yoga movements, meditative techniques, and non-verbal communication skills including listening to the mind/body and recognition of the body's various energetic/emotional levels will promote self awareness. An overview of different health systems will be offered to establish a common ground of understanding useful in one's professional and personal life. Designed for students of all ages and physical abilities. Fulfills open, liberal arts, and humanities electives.

IDS150  3  Herbal Pharmacology  
Pre: Communications and Mathematics Proficiencies  
This course is an introduction to traditional healing with herbs. The knowledge of herbs gained will permit some use for personal and family health plus preparing the student for more advanced study. The actions and composition of herbs as well as legal, political implications, and contraindications will be studied. Fulfills open, liberal arts, and IDS-Science electives.

IDS154  3  Literature of the Holocaust  
Pre: Communications Proficiency  
Provides a factual background, psychological insights and analyses of the responses to the Holocaust in diaries, memoirs, fiction, poetry, drama, film, music and art. Principles of social psychology will be applied to better understand the Holocaust from the perspective of the perpetrators, victims, witnesses, resisters, liberators, survivors and their descendants. Fulfills open, liberal arts, humanities, behavioral science, social science electives.

IDS156  3  Cultural History of Food  
Pre: Communications Proficiency  
This course examines the nature and evolution of the world's major cuisines from a historical and geographic perspective. It will include indigenous and foreign influences on cuisine, regional variations, the evolution of professional cooking and restaurants, and a segment on researching and updating foods and recipes from earlier times. Fulfills open, liberal arts, and humanities electives.

IDS158  3  Yoga, Meditation, & Stress Management 2  
Pre: Yoga, Meditation, & Stress Management 1  
An advanced application of stress management skills based on a modern western yoga philosophy. The emphasis is on learning various advanced breathing, stress management, and meditation techniques along with a consistent yoga and meditation practice to be academically understood and experientially applied. This course is designed for students of all ages with basic physical abilities. Fulfills humanities, liberal arts, and open electives.
**Credit Course Descriptions**

**IDS160  3 Approaches to Peace & Conflict Resolution**  
Pre: Communications Proficiency  
Students will explore various approaches to peace through history and will examine ways in which outstanding peacemakers have stood in opposition to violence. There will be opportunity to investigate interpersonal, local, national or international conflict and strategies for resolving it. Skill-building exercises will present a chance to practice negotiation and mediation. Fulfills open, liberal arts, behavioral science, history, and social science electives.

**IDS164  3 Negotiating: Searching for Common Ground**  
Pre: Communications Proficiency  
Designed to prepare students to understand the multi-faceted approaches to negotiation. Through readings, analyzing theories, guest speakers, case studies and interactive exercises, students gain valuable negotiating tools ranging from enhancing ones bargaining position to de-escalating negative emotions. Students will learn to negotiate anything from personal to business matters. This course fulfills open, liberal arts, behavioral science, and social science electives.

**IDS166  3 Introduction to Sustainable Living**  
Pre: Communications Proficiency, MAT091 with 'C' or better or successful completion of MM08  
Co: Composition 1  
This course provides an introduction to the concept and principles of sustainability. The course will examine major environmental issues and will challenge students to see themselves as part of a web of interactions connecting the environment, economy, and society. While offering both scientific and humanities perspectives on environmental problems, the course will stress personal and collective action as pathways to solutions for sustainable living. Fulfills liberal arts, social science and open electives.

**IDS168  3 Exploring the Landscape of Sustainability**  
Pre: Communications Proficiency  
This course examines a range of sustainability issues that affects us all. Students will be encouraged to think about how their various choices in life and careers can and do affect their local communities, the environment and future generations. Topics include calculating and reducing carbon footprints, green building design, green roof and wall technologies, water conservation, community gardens, composting and low impact sustainable landscapes. Students will also complete a service learning project. Fulfills liberal arts and open electives.

**IDS172  3 Nathaniel Hawthorne in Cultural Context**  
Pre: Communications Proficiency  
This course uses the Hawthorne in Salem Website to examine selected short stories and sketches by Nathaniel Hawthorne in their historical context and in relation to a wide variety of art works, original documents, and artifacts related to Hawthorne and his time from museums in Salem, MA and elsewhere. Fulfills open, liberal arts, and humanities electives.

**IDS174  3 School Violence**  
Pre: Communications Proficiency  
This course will study the problem of school violence, its causation and cures. The areas of focus will include: school violence that stems in large part from individual idiosyncratic personality traits, school violence that can be best understood in terms of societal structure, and school violence that can be traced to gang activity. Solutions and programs that have been attempted to fight this problem nationwide and in Massachusetts in particular, will be presented and evaluated. Fulfills open, liberal arts, social science, and behavioral science electives.

**IDS176  3 Discussing Terrorism**  
Pre: Communications Proficiency  
What makes a young twenty-year-old strap on a bomb and walk into a crowded market place? This course examines the history, root causes, modus operandi, life cycles, and group dynamics of terrorist organizations. Furthermore, contributions of political, religious ideologies and Nation State terrorism will be analyzed. Stages within the dehumanization process, influence of media and the challenges of negotiating with terrorists will be explored. Additionally, students will develop strong analytical, problem solving and communication skills, which will benefit them throughout their lives. Fulfills, behavioral science, liberal arts, social science, and open electives.

**IDS178  3 Hollywood and Holocaust**  
Pre: Communications proficiency  
Since the 1970’s, films have made the public aware of the facts of the Holocaust. This course examines the Holocaust by analyzing films. Students learn to utilize media to think critically about moral issues. They gain insight into their own behavior, leading them to become more aware and humane persons. Emotional and psychological responses by actors and witnesses to the Holocaust are analyzed. Fulfils behavioral science, humanities, liberal arts, social science, and open electives.

**IDS180  3 Facing Disasters: Mass Casualty and High-Impact Incidents**  
Pre: Communications Proficiency  
This course is designed to prepare students to understand the complexity and multi-faceted approach in responding to mass casualty and high-impact incidents such as the earthquake in Haiti or attacks of 9/11, addressing the questions raised regarding the effectiveness of the response. Students will gain valuable tools enabling them to provide specific crisis intervention services. Fulfils liberal arts, behavioral science, social science, humanities, and open electives.

**IDS182  3 Organic & Sustainable Food Production**  
Pre: Communications Proficiency  
An introduction to organic and sustainable food production in both urban and suburban communities. The three spheres model, embracing economic, social and environmental principles as they relate to the sustainable food movement will be examined. History of modern industrial agriculture and the consequences of that system will be explored. Students will gain experience in garden planning, plant culture, organic plant health, composting and building healthy soils as tools to build a more sustainable, secure and local food movement. Fulfils open and liberal arts electives.

**IDS202  4 Reiki 2-Traditional Usui Method**  
Pre: Communications Proficiency, IDS140  
Reiki 2, building on techniques learned in Reiki 1, addresses the use of Reiki to treat mental and emotional problems and perform absentee treatments. Through the assistance of the instructor, students will receive an increase in the strength of Reiki energy. After six weeks of instruction students will practice Reiki in a clinical setting under supervision. Occasional Monday evening and/ or Tuesday evening sessions may be required. Fulfills open and liberal arts electives.
IDS204  3  Ethics in Business  
Pre: CMP101  
Examines actual cases in which business practices raise moral issues in corporate America. Topics such as economic justice, bribery, discrimination, consumer rights, and preservation of the environment are covered. Fulfills open, liberal arts, humanities, and business electives.

IDS205  3  Community Problems and Social Issues  
Pre: Communications and Mathematics Proficiencies  
Explores the process of socialization and the relationship between the mental health delivery system and current social issues. Examines social issues from the functionalist, conflict and interactionist perspectives. Introduces students to the role local, state and federal governments play in responding to social issues and how students can become civically engaged in affecting public policy decisions and priorities. Fulfills open and liberal arts electives. (Formerly MEH205)

IEL - Industrial Electronics

IEL101  4  Electrical Principles 1  
Pre: Communications and Mathematics Proficiencies  
Co: MAT135  
 Presents the foundations of basic DC circuit analysis concepts. Topics include voltage and current sources, Ohm’s Law, Kirchhoff’s Laws, concept of resistance, conductance, capacitance, inductance, network topologies such as elements in series and parallel, Thevenin’s and Norton’s Theorems, and transient behavior of RC and RL circuits. Computer software tools and laboratory experiments are utilized to reinforce concepts. (4 hours of lecture, 2 hours of lab per week)

IEL102  4  Electrical Principles 2  
Pre: IEL101, MAT135  
Co: EUT104 & EUT106  
 Presents the foundations of basic AC circuit analysis. Topics include voltage and current sources, phase and phasor relations, resistance, inductance and capacitance in sinusoidal driven circuits and Bode plots. Thevenin’s, Norton’s, maximum power and superposition theorems will be applied. Transient behavior of networks, transformers and filters will be analyzed. Computer software tools and laboratory experience are utilized to reinforce concepts. (4 lecture hours, 2 lab hours per week)

IEL104  4  Electrical Circuits  
Pre: MAT135  
Co: CPS190  
This course will train students in the applications of Ohm’s Law, Kirchhoff’s Laws, Thevenin’s and Norton’s Theorems, and Superposition to the analysis of DC and AC passive circuits, including R-L-C circuits, impedances, phase angles, and transformers.

IEL204  4  Digital Circuit Theory  
The mathematics involved in digital computer design will be covered, including a study of the binary number system, mathematical logic, Boolean Algebra, and Karnaugh maps. The use of diode logic circuits and transistorized flip flop circuits in computer design will be discussed. Binary and decade counters, adders, subtractors, shift registers, shift registers, multipliers, and dividers will be discussed and designed in the laboratory. (3 lecture hours, 2 lab hours per week)

IEL205  4  Electronics 1  
Pre: IEL102  
Introduces the silicon diode and its characteristics along with the bipolar junction transistor, the junction transistor and metal-oxide-semiconductor (MOS) field effect transistor. The concept of DC bias and load line are explored to determine the quiescent operating points of these devices. Small signal incremental models are introduced if time permits. Computer software tools and laboratory experiments are utilized to reinforce concepts. (3 hours of lecture, 2 hours of lab per week)

IEL206  4  Electronics 2  
Pre: IEL205  
Introduces the concept of linear incremental AC models for the bipolar junction transistor (BJT), the junction field effect transistor (JFET) and the metal-oxide-semiconductor (MOS) field effect transistor. The concept of frequency response and Bode plot construction of amplifiers, operational amplifiers, oscillators and active filters will also be explored. Computer software tools and laboratory experiments are utilized to reinforce concepts. (3 hours of lecture, 2 hours of lab per week)

IEL209  4  Linear Electronics 1  
Pre: MAT135, CPS190, and IEL104  
Co: MAT136  
This course will train students in the physical principles underlying current carriers in semiconductor materials; static and dynamic characteristics of diodes and transistors; biasing methods and concepts of amplification; analysis of basic BJT and FET circuits, frequency response of one- and two-stage amplifiers; troubleshooting; analysis of computer simulation.

IEL210  4  Linear Electronics 2  
Pre: IEL209 and MAT136  
This course is designed to train students in the analysis and application of advanced electronic circuits. Topics include differential amplifiers, stage gain in decibels, input and output impedances, linear IC operational amplifiers, frequency response and Bode plots, active filters, D/A and A/D circuits, oscillators and high frequency amplifiers, troubleshooting of test circuits, and analysis by computer simulation.

IEL211  4  Introduction to Electronics  
Pre: Communications and Mathematics Proficiencies; IEL104, PHY100  
Students are taught the characteristics of amplifiers using opamps with respect to amplification, dB, frequency response, and input and output impedance. Opamp applications such as inverting and non-inverting amps, summing amps, averaging amps, and comparators are introduced with emphasis on the uses of these devices in the telecom industry. Electro-optical devices, such as LEDs, laser diodes, and photodiodes, are studied including uses in the telecom industry. Diodes and transistors are conceptually introduced. Transformers are introduced in connection with power supplies. Diodes are applied as switches in linear and switching power supplies. The frequency response of passive networks and amplifiers is measured. Cutoff frequencies, rolloff, bandwidth, and magnitude and phase are discussed and visualized via Bode plots. Troubleshooting and analysis by computer simulation software is stressed throughout.
IEL225 4 Electronic Systems for Telecommunications 1  
Pre: IEL104; PHY100  
Students practice the analysis and application of advanced electronic circuits as applied to the telecommunications industry. Topics include frequency response of filters, op-amps, oscillators, amplitude modulation, noise and LC circuits. Troubleshooting and analysis by computer simulation software is stressed throughout.

IEL226 4 Electronic Systems for Telecommunications 2  
Pre: IEL225  
Students practice the analysis and application of advanced electronic circuits as applied to the telecommunications industry. Topics include frequency modulation, communication: techniques, digital, wired, and wireless, transmission lines, antennas, and fiber optics. Troubleshooting and analysis by computer simulation software is stressed throughout.

IEL241 4 Industrial Control Electronics 1  
Pre: IEL 102  
Co: IEL204 AND IEL205  
Introduces the theory and practical application of industrial control elements including single and multi-phase power transformers, single and multi-phase AC motors, DC motors, stepper and servo motors. Theory and application of fiber optics with respect to signal transmission characteristics and interconnection techniques is presented. Hands-on applications are heavily emphasized for all topics covered. (3 hours of lecture, 2 hours of lab per week)

IEL242 4 Industrial Control Electronics 2  
Pre: IEL241  
Co: IEL206 AND IEL214  
Introduces the theory and practical application of industrial control elements including the theory and operation of programmable logic controllers (PLC) as applied to the industrial environment (Industrial, Factory, Production & Process). Fundamentals of industrial robots and robotics are also investigated. Hands-on applications are heavily emphasized for all topics covered. (3 hours of lecture, 2 hours of lab per week)

IEL250 4 Electricity and Instrumentation  
Pre: MAT132 and Communications Proficiency  
Introduces the theory and practical application of industrial control elements including the theory and operation of programmable logic controllers (PLC) as applied to the industrial environment (Industrial, Factory, Production & Process). Fundamentals of industrial robots and robotics are also investigated. Hands-on applications are heavily emphasized for all topics covered. (3 hours of lecture, 2 hours of lab per week)

IEL252 4 Electrical Wiring for Industry  
Pre: MET120 and IEL250  
This course presents methods, standards, and techniques associated with electrical wiring of equipment and lighting in a manufacturing facility. Power distribution systems are outlined and national safety standards are discussed. The tools and instruments used for the installation, maintenance, and testing of manufacturing equipment is presented. Topics include motor types, parts, assembly and disassembly; power distribution panels, wiring, connectors and testing; grounding; installation of single phase and multiphase power systems, and the safety concerns of these job types. Strict adherence to standards is stressed. (3 hours of lecture, 2 hours of lab per week)
IEL254 4  PC Systems Troubleshooting  
Pre: CPS130 and IEL250  
Co: IEL214  
Presents an in-depth coverage of the tools and techniques necessary to perform maintenance for a personal computer (i86 architecture). The student will replace or repair components, identify faults to the level of circuit boards, upgrade systems to meet performance characteristics for the CPU, memory requirements, input/output, power supplies, monitor adjustments and replacements, video cards, modems, and network cards. Students will develop a methodology for troubleshooting PC problems, use diagnostic software to isolate problems and assess performance, use a voltmeter to measure voltages for a power supply, test a cable for continuity, and assess heat and dust factors and other environmental problems affecting a PC. (2 hours of lecture and 4 hours of lab per week)

LIT - Literature

LIT202 3  British Literature 1:  
Eighth Century to Nineteenth  
Pre: 6 credits of Freshman Composition  
Students read, interpret and discuss works of major British writers from Beowulf to the nineteenth century. Among the authors whose works may be studied are Chaucer, Shakespeare, Milton, Pope, and Swift. Fulfills open, liberal arts, advanced literature, and humanities electives.

LIT204 3  British Literature 2:  
Nineteenth Century to Present  
Pre: 6 credits of Freshman Composition  
Students read, interpret, and discuss selected works of major British writers from the nineteenth century to the present. Among the authors whose works may be studied are Keats, Browning, Tennyson, Bronte, Woolf, and Yeats. Fulfills open, liberal arts, advanced literature, and humanities electives.

LIT206 3  World Literature 1:  
Ancient World to Eighteenth Century  
Pre: 6 credits of Freshman Composition  
Students read, interpret, and discuss selected works of major writers of the world from the Ancient World to the Eighteenth century. Among the authors whose works may be studied are Homer, Sophocles, Sappho, Dante, Cervantes, Shakespeare, and Lao Tzu. Fulfills open, liberal arts, advanced literature, and humanities electives.

LIT208 3  World Literature 2:  
Eighteenth Century to Present  
Pre: 6 credits of Freshman Composition  
Students read, interpret, and discuss selected works of major writers of the world from the Eighteenth century to the present. Among the authors whose works may be studied are Goethe, Chekhov, Voltaire, Ibsen, Lessing, Douglass, and Kafka. Fulfills open, liberal arts, advanced literature, and humanities electives.

LIT210 3  American Literature 1:  
Colonial Period to the Civil War  
Pre: 6 credits of Freshman Composition  
Students read, interpret and discuss selected works from the Age of Exploration to the Civil War. Among the authors whose works may be studied are Smith, Bradstreet, Franklin, Wheatley, Douglass, Thoreau, Poe, Hawthorne, Whitman, and Dickinson. Fulfills open, liberal arts, advanced literature, and humanities electives.

LIT212 3  American Literature 2:  
Civil War to the Modern Age  
Pre: 6 credits of Freshman Composition  
Students read, interpret, and discuss selected works from the Civil War to contemporary times. Among the authors whose works may be studied are Jewett, Twain, Chopin, Frost, Hughes, Hemingway, O'Neill, Morrison, Updike, and Erdrich. Fulfills open, liberal arts, advanced literature, and humanities electives.

LIT214 3  Lit of the American Peoples 1: American Indian Literature  
Pre: 6 credits of Freshman composition  
Students read, interpret, and discuss selected modern writing and traditional oral works created by American Indians. The literary forms to be studied include tales, songs, oratory, and memoirs, as well as fiction and poetry by contemporary authors such as Momaday, Silko, Harjo, Welch, and Erdrich. Fulfills open, liberal arts, humanities, and advanced literature electives.

LIT216 3  Lit of the American Peoples 2:  
Latin American Literature  
Pre: Composition 1 and 2 option  
Students will read, interpret, and discuss selected works of major Latin American writers of the twentieth century in English translations and bilingual texts. Among the authors whose works may be studied are Neruda, Valenzuela, Lispector, Cortazar, Borges, Garcia Marquez, and Vargas Llosa. Fulfills open, liberal arts, humanities, and advanced literature electives.

LSC - Library Science

LSC101 1  Research Methods  
Teaches students the skills necessary to access, evaluate, and use print, electronic, and Internet resources. Through exercises and a final research project, students will gain practical experience necessary for success in their college careers and beyond.

MAC - Medical Assisting

MAC142 3  Medical Assisting Clinical and Laboratory Procedures  
Pre: Communications and Mathematics Proficiencies  
Co: BIO108, CMP101, OFT101, and OFT116  
This course provides a foundation of clinical skills necessary to function as an entry level medical assistant in a variety of health specialties. Examples of topics include: the medical history; vital measurements; documentation; assisting with exams, special procedures, and office surgery; infection control; diagnostic lab tests, ECG, and phlebotomy; nutrition, and patient education. (2 hours of lecture and 2 hours of lab per week) (Formerly ALH142)

MAC144 4  Medical Assisting Practicum  
Pre: BIO108, CMP101, MAC142, OFT 101, and OFT116  
Co: ALH156, MAC146, OFT219, and PHI120  
This course is the clinical connection for principles learned in MAC142, Medical Assisting Clinical and Laboratory Procedures, MAC146, Advanced Medical Procedures and OFT219, Medical Office Procedures. It serves as a vehicle for the application of the clinical/office procedures introduced in the classroom/demonstration laboratory. Seminars allow for the discussing and sharing of practicum experiences based on journal presentations and for preparing students for employment through workshops on topics such as: healthcare law/ethics, business communications, professionalism, resume preparation and interviewing skills. (176 minimum unpaid hours of practicum in an ambulatory care setting and 12 hours of on campus seminar)
MAC146 3 Advanced Medical Assistant Procedures
Pre: BIO108, CMP101, MAC142, OFT101, and OFT116
Co: ALH156, MAC144, OFT219, PHI120
This course responds to the rapidly expanding clinical and administrative responsibilities of the medical assistant in the managed care environment. It is designed to expand the basic knowledge and skills in the area of diagnostic procedures, medical specialties, surgical procedures, patient education, and office management. Basic pharmacological principles and drug classifications will be covered, with an emphasis on commonly prescribed medications in the ambulatory healthcare setting.
(2 hours lecture and 2 hours lab per week) (Formerly ALH146)

MAT - Mathematics

MAT001 4 Preparation for College Mathematics 1
Utilizes a modularized approach to topics designed to prepare students for college level mathematics or to satisfy the mathematics requirements for their program of study. Topics are divided into twelve modules covering basic arithmetic through Elementary Algebra. Students use interactive software (MyMathLabPlus) in a self-paced format. This modularized approach within a shell structure is designed to allow students to progress through the modules as quickly as they are able to master topics. This course fulfills no elective requirements.

MAT001A 1 Mathematics Proficiency Completion
Pre: MAT001 with successful completion through Module 3
Students use interactive software (MyMathLabPlus) in a self-paced format to complete Module 4 of the Preparation for College Mathematics sequence. Students who successfully complete Module 4 will earn Mathematics Proficiency.

MAT002 4 Preparation for College Mathematics 2
Pre: MAT001 with a grade of C or better
A continuation of MAT001 for students who need to complete additional modules. This course utilizes a modularized approach to topics designed to prepare students for college level mathematics or to satisfy the mathematics requirements for their program of study. Topics are divided into twelve modules covering basic arithmetic through Elementary Algebra. Students use interactive software (MyMathLabPlus) in a self-paced format. This modularized approach within a shell structure is designed to allow students to progress through the modules as quickly as they are able to master topics. This course fulfills no elective requirements.

MAT003 4 Preparation for College Mathematics 3
Pre: MAT002 with a grade of C or better
A continuation of MAT002 for students who need to complete additional modules. This course utilizes a modularized approach to topics designed to prepare students for college level mathematics or to satisfy the mathematics requirements for their program of study. Topics are divided into twelve modules covering basic arithmetic through Elementary Algebra. Students use interactive software (MyMathLabPlus) in a self-paced format. This modularized approach within a shell structure is designed to allow students to progress through the modules as quickly as they are able to master topics. This course fulfills no elective requirements.

MAT004 4 Preparation for College Mathematics 4
Pre: MAT003 with a grade of C or better
A continuation of MAT003 for students who need to complete additional modules. This course utilizes a modularized approach to topics designed to prepare students for college level mathematics or to satisfy the mathematics requirements for their program of study. Topics are divided into twelve modules covering basic arithmetic through Elementary Algebra. Students use interactive software (MyMathLabPlus) in a self-paced format. This modularized approach within a shell structure is designed to allow students to progress through the modules as quickly as they are able to master topics. This course fulfills no elective requirements.

MAT092 3 Elementary Algebra 2
Pre: MAT091 or MAT101 with a grade of ‘C’ or better
A continuation of MAT091-Elementary Algebra 1. Topics include: factoring polynomials, fractional algebraic expressions and equations, systems of equations, radicals, and quadratic equations. This course fulfills no elective requirements.
(Formerly numbered MAT102)

MAT094 4 Intermediate Algebra
Pre: Placement Exam Score
Designed for students who have completed two years of high school algebra. Primary topics in MAT091-Elementary Algebra 1 and MAT092-Elementary Algebra 2 are covered in an intensive, rapid format. Topics include: algebraic operations, fractional algebraic expressions and equations, solution of linear, quadratic, and systems of equations, factoring, radicals, fractional and negative exponents, graphing linear and quadratic equations. This course fulfills no elective requirements. (4 hrs of lecture per week)
(Formerly numbered MAT104)

MAT131 4 Technical Mathematics 1
Pre: MAT091 or 101 with ‘C’ or better, or place exam score
Designed to provide the mathematics required for the electronic and mechanical technologies. Topics include: ratio, proportion and percent, basic algebraic principles, linear equations and inequalities, factoring, algebraic fractions, exponents, roots, radicals and quadratic equations. Calculator usage is stressed and a scientific calculator is required. Fulfills open and liberal arts electives. (4 hours of lecture per week)

MAT132 4 Technical Mathematics 2
Pre: MAT131 with ‘C’ or better
Continuation of MAT 131. Topics include: functions and graphing, right triangle trigonometry, oblique triangles and vectors, radian measure and graphs of the trigonometric functions, simultaneous linear equations and logarithms. Fulfills open and liberal arts electives. (4 hours of lecture per week)

MAT135 4 Applied Technical Mathematics 1
Pre: MAT092/094/102/104 w/ C or better, or placement exam score
The first course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics include units of measurement and approximate numbers, fundamental concepts of algebra, factoring and fractions, functions and graphs, the trigonometric functions, right triangle trigonometry and applications, vectors, graphs of sinusoidal curves, complex numbers, and quadratic equations. A scientific calculator and appropriate software will be used throughout the course. Fulfills open and liberal arts electives. (4 hours of lecture per week)

MAT136 4 Applied Technical Mathematics 2
Pre: MAT135 with C or better
The second course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics include oblique triangles, trigonometric equations, exponential and logarithmic functions, systems of linear equations, variation, and statistics. Optional topics may be selected from an introduction to calculus, plane analytic geometry, sequences, and the Binomial theorem. A scientific calculator and appropriate mathematical software will be used throughout the course. Fulfills open and Liberal Arts electives. (4 hours of lecture per week)
MAT140 3  Liberal Arts Mathematics  
Pre: MAT092, 094, 131 or 135 w/C or better, or place exam & comm prof  
A course consisting of mathematical topics chosen to provide an overview of a broad range of higher mathematics to aid students in interpreting and understanding current issues and to increase students’ ability to reason and think critically. Topics may include but are not limited to reasoning and problem solving, sets, logic, social choice, numeration systems, growth and symmetry, and fractals. MAT102 and 104 are equivalent to MAT092 and 094. Fulfills open, liberal arts, and mathematics electives.

MAT143 3  Introduction to Statistics  
Pre: MAT092, 094, 131 or 135 w/C or better, or place exam & comm prof  
This course is an introduction to descriptive and inferential statistics and the basic laws of probability as used in business, social science, or education. Topics examined are: frequency distributions, measures of central tendency, measures of dispersion, normal distributions, confidence intervals, sampling, introduction to hypothesis testing, correlation, and linear regression. Other topics such as chi-square distribution and F-distribution will be covered as time permits. The course emphasizes the practical understanding and use of concepts and procedures essential to statistical analysis (statistical software may be used at the instructor’s discretion for solving applied problems). Fulfills open, liberal arts and mathematics electives.

MAT144 3  Math for Elementary School Teachers 1  
Pre: Com & Math Prof, MAT092 or 094 w/c or bet or place exam  
This course is designed for prospective elementary school teachers. This course focuses on the group properties of the real number system as the foundation for computation algorithms in arithmetic, the basic conceptual underpinnings of algebra, and problem solving methods using either arithmetic or algebra. Numeration systems, divisibility properties, and problem solving in various contexts are stressed. This course is intended to provide students with an understanding and appreciation for learning and teaching mathematics as described in the NCTM Standards for School Mathematics. This course includes an exposure to relevant technology, calculators, and computers and how these can effectively be used in the instruction of mathematics to enhance the understanding and visualization of mathematics. This course fulfills liberal arts, math, and open electives.

MAT145 3  Math for Elementary School Teachers 2  
Pre: MAT092 or 094 with a ’C’ or better, or placement exam  
This course develops an understanding of the mathematical concepts of geometric figures and solids, congruence, similarity, constructions, measurement, geometric transformations, and descriptive statics. This course is intended to provide students with an understanding and appreciation for learning and teaching mathematics as described in the NCTM Standards for School Mathematics. This course includes an exposure to relevant technology, calculators, and computers and how these can effectively be used in the instruction of mathematics to enhance the understanding and visualization of mathematics. Fulfills liberal arts, math, and open electives.

MAT148 3  Finite Mathematics  
Pre: Communications proficiency and MAT092 or 094 or MM12 or by placement exam  
This course introduces the mathematical ideas and analysis techniques commonly used in solving practical problems encountered in business, social and life science. Topics covered are functions, linear functions, modeling, systems of equations, introductory linear programming and matrices, mathematics of finance, introductory combinatorics and probability, descriptive statistics and normal distributions. The use of technology will also be incorporated as a tool to aid computation, modeling and problem solving.

MAT151 3  Precalculus 1  
Pre: MAT092 or 094 or 131 or 135 w/C or better, or place exam score  
First of a two-course sequence which prepares students for the study of Calculus. A study of advanced topics in algebra including: equations, inequalities, circles, functions, properties of functions, zeros of polynomial functions and complex numbers, graphs of functions including polynomial and rational functions. Conic sections and advanced topics in systems of equations will be included as time permits. Fulfills open liberal arts, and mathematics electives. (Formerly titled College Algebra 1)

MAT152 3  Precalculus 2  
Pre: MAT151 with ’C’ or better or placement exam score  
Second of a two-course sequence which prepares students for the study of Calculus. Topics include exponential, logarithmic and trigonometric functions, graphs of trigonometric functions, trigonometric identities and equations, inverse trigonometric and applications of trigonometry. Complex numbers, sequences and series, and polar coordinates may be included as time permits. Fulfills open, liberal arts, and mathematics electives. (Formerly titled College Algebra 2)

MAT208 3  Calculus for Business, Social and Life Science  
Pre: Communications proficiency and MAT151 with ’C’ or better or by placement exam  
Provides a foundation for understanding and using the basic concepts of calculus to aid problem solving in the business, social and life sciences. Topics covered are limits, continuity, differential calculus of one variable to include polynomial, exponential and logarithmic functions, applications of differentials calculus, and an introduction to integral calculus and it applications. Technological tools will be used to aid effective problem solving.

MAT210 3  Linear Algebra  
Pre: MAT252 with ’C’ or better  
Basic concepts of linear algebra including matrices, determinants, systems of linear equations, vector spaces, linear transformations, and eigenvalues. Fulfills open, liberal arts, and mathematics electives.

MAT241 4  Discrete Structures  
Pre: MAT151 or higher w/’C’ or better or placement exam  
A study of topics in discrete mathematics including propositional logic, algebra of sets, relations of sets, equivalence relations, functions, permutation groups, mathematical reasoning, graphs, Hamiltonian and Euler paths, trees, spanning trees, decision trees, polynomial notation, Boolean algebra, logic gates, and modeling computation. Fulfills open, liberal arts, and mathematics electives.
American Cinema explores Hollywood film as art form, industry, and system of representation and communication. In one sense, American Cinema 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. Fulfills open, liberal arts, and humanities electives.

MDA110 3 Film and Popular Culture
Pre: Communications Proficiency
After an introduction to the film medium, students examine the relationship between American film and popular culture from 1940 to the present. For each decade, students examine representative films, historical events, and popular culture trends to discover how films and American popular culture influence each other. Fulfills open, liberal arts, and humanities electives.

MDA112 3 American Cinema
Pre: Communications Proficiency
American Cinema explores Hollywood film as art form, industry, and system of representation and communication. In one sense, American Cinema 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. Fulfills open, liberal arts, and humanities electives.

MDA120 3 Crime and the Media
Pre: CMP101
An analysis of the media's influence in defining what constitutes deviance and criminality in American society. The evolution of the news industry, the impact of technological advances and the role the media plays in influencing criminal proceedings will be examined. Fulfills humanities, liberal arts and open electives.

MEH - Mental Health

MEH105 3 Introduction to Mental Health Work
The field of mental health work will be examined, including the skills and abilities that a mental health worker needs to develop; the types of people needing help and where; basic theories of mental health and mental illness. Investigates the mental health field from a historical perspective and discusses current issues in this field. Upon completion of this course, students will know the basic areas of knowledge and practical applications this program encompasses.

MEH206 3 Advanced Helping Skills
Pre: HUS102
Builds upon the course, Helping Skills in Human Services, focusing on the different action steps used to deal with specific types of problems and people. Techniques of relaxation and shaping will be covered.

MET - Manufacturing Engineering

MET103 3 Introduction to Manufacturing
Pre: CPS 100 and MAT 131 with C or better
This course provides an introduction to manufacturing emphasizing the evolution of current manufacturing systems, including safety and environmental responsibility, quality systems, supply chain management, lean manufacturing and basic statistical concepts. Topics will be reinforced through industry examples, case studies and team-based problem-solving activities.

MET122 3 Materials
Pre: CMP 101
Co: MAT 132
This course provides a survey of the various materials used in advanced manufacturing, including ferrous and non-ferrous metals as well as non-metalic materials plastics, elastomers, ceramics). The course emphasizes the relationships among atomic structure, physical and mechanical properties, and performance characteristics of common industrial materials. Topics will be reinforced through industry examples, case studies, and team-based problem solving activities.

MET124 2 Basic Print Reading for Manufacturing
Pre: Communications and Mathematics Proficiencies
This course provides a guide for learning the interpretation of common manufacturing drawings, including dimensioning, linetypes, size and scale, fits and tolerances, projections and views. Topics include orthographic views, auxiliary and section views, visualization, determining dimension values from prints, reading dimensions from view to view and calculating dimension values. Fillets and rounds, holes, countersinks, counter bores and spotfaces are explained. Full, half, revolved and offset sections are described. American National Standards are used and reinforced throughout the course. Title blocks and revision blocks are described. An introduction to Geometric Dimensioning and Tolerancing is presented, explaining the use of these symbols in manufacturing drawings.
MET132  3  Manufacturing Processes
Pre: MET122
The course presents the theory of metal cutting as used in industry. Inspection, drilling, turning, shaping, planing, milling, broaching, sawing, abrasive cutting, and welding are discussed and the lessons reinforced by practical applications in the laboratory. Surface finishes, coatings, and the application of automation to the manufacturing process will be explored. (2 hours of lecture, 2 hours of lab per week)

MET214  3  Industrial Safety & Regulatory Requirements
Pre: MET103
This course presents an introduction to the principles of safely and safety management in a modern manufacturing environment. The course introduces the concept of safety as a shared responsibility and of all employees, at all levels, and in all functions of the organization. This course presents an overview of the history of industrial safety programs and regulations, describes current programs and regulatory compliance, and examines the elements of an effective safety program. Topics will be reinforced through industry examples, case studies, and team-based problem solving activities.

MET216  3  Pneumatics and Hydraulics
Pre: Communications Proficiency and MAT132
This course provides a solid understanding of the general concepts associated with hydraulic and pneumatic equipment as found in industry today. The course introduces the fundamentals of hydraulic and pneumatic principles, including a general understanding of the basic theory and science of fluids. Various types of equipment and seals used in industrial equipment will be discussed. Topics will be reinforced through industry examples and case studies.

MET220  3  Fundamentals of Computer-Aided Manufacturing
Pre: MET122, MET124 and MAT132
This first course in modern manufacturing machines covers computer numerical control systems and tools for two and three axis machines. Topics include identifying machine components, toll holders, cutting tools and operating controls. Participants will be introduced to simulation software and program generating software used to produce machined parts for lathes and milling centers. Preparatory codes including those for linear and circular interpolation are presented.

MET222  3  Quality
Pre: MET103, MAT132 and CMP101
This course provides an introduction to quality assurance and control, reviewing the historical development of quality in business from the industrial revolution to modern day practice. The course will survey manufacturing and on-manufacturing quality systems. Emphasis will be placed on modern day supply chain quality systems and practices, as well as the role of quality in the business model. Topics will be reinforced through industry examples, case studies, and team-based problem solving activities.

MET224  3  Operations Management
Pre: MET103 and CMP101
This course examines operations management concepts such as process mapping and process development, machine utilization, yields, and cycle time. The course introduces concepts surrounding demand planning and forecasting, decision making, cost reduction, innovation, supply and value chain management, and inventory management. Topics will be reinforced through industry examples, case studies, and team-based problem solving activities. (3 hours of lecture per week)

MET230  3  Tools and Measurement
Pre: MET220 and CAD101
This course presents basic designs for tool and holders in modern manufacturing. Emphasis is on tool entry and exit paths and chip removal. An introduction to metrology shows the construction and usage of tools for the inspection of machined parts. (3 hours of lecture per week)

MET232  3  Supply Chain Management
Pre: MET103 and CMP101
This course provides both an overview of the evolution of supply chain management and an in-depth study of current best practices in industry. The course emphasizes the integrative role of supply chain management within the advanced manufacturing environment, across all business functions and business processes. The course discusses the overall topic from the perspective of purchasing, operations, and logistics, and their interrelationships with customers, suppliers, and intermediaries. Topics will be reinforced through industry examples, case studies, and team-based problem solving activities. (3 hours of lecture per week)

MET240  3  Manufacturing Capstone Project
Pre: CMP101, completion of at least 45 credits in the MND program and GPA 2.0
This capstone course incorporates a variety of manufacturing concepts and analysis techniques to solve a manufacturing workplace problem. Students will use a team based, project approach to demonstrate mastery of the tools, theories, and knowledge gained from prior courses within the Advanced Manufacturing Technology degree program. Student teams will analyze and develop a solution to the specific manufacturing workplace problem using systematic problem solving techniques, including evaluation of alternatives and implementation of solutions.

MGT - Management

MGT102  3  Principles of Management
Pre: Communications and Mathematics Proficiencies
Covers the fundamentals of management including the functions of planning, organizing, influencing, and controlling in organizations. Prepares business students to better understand the management process.

MGT201  3  Human Resource Management
Pre: Communications and Mathematics Proficiencies
Analysis of policy and administrative functions involved in human resource management. Topics include manpower planning, selection, training, communication, methods of payment and motivation, employee welfare, and research. Selected cases are employed to develop student’s decision-making capability.

MGT202  3  Corporate Finance
Pre: ACC102 or ACC108
From a corporate perspective, covers organizational and administrative tools of finance including budgets, financial analysis, financial planning, the stock market, and the time value of money. Also covers short, intermediate, and long-term asset financing requirements of a business enterprise.
MKT206  3  Small Business Management/Entrepreneurship
Pre: BUS 100 or MGT 102
The course helps aspiring entrepreneurs learn what it takes to succeed on their own. The course shows how to investigate and evaluate business opportunities; how to establish the skill and knowledge needed to establish a new firm; how to market products and services; how to manage the human and fiscal demands of a business operation; and how to meet the organization's social responsibility to the community.

MKT208  3  Small Business Financial Management
Pre: Communications and Mathematics Proficiencies
This course helps small business owners and entrepreneurs use financial information to make informed business decisions. Topics include: basic accounting information and financial statements, personal financial planning, business and personal credit management, small business lending, budgeting, financial forecasting, and financial analysis involving cost-benefit, net present value, break-even, and ratios. The class incorporates the use of spreadsheets as it relates to small business financial management. Fulfills open and business electives.

MKT - Marketing

MKT101  3  Marketing
Pre: Communications and Mathematics Proficiencies
Introduces the role of marketing in business and other organizations. Basic theory and terminology are examined with emphasis on the major components of marketing: product, price, promotion, and distribution.

MKT110  3  Marketing of Services
Pre: Communications and Mathematics Proficiencies
This course focuses on the knowledge and skills required to understand consumers, respond to customer needs, and enhance customer relationships in service-producing industries. Topics include but are not limited to consumer behavior and expectations, building customer relationships, and both employees' and customers' roles in the service delivery. Business to business relationships will also be discussed. In addition, the course will examine how service quality affects profits, as well as acquiring and maintaining customers.

MKT203  3  Principles of Selling
Pre: MKT101
A study of the principles and techniques of personal selling with emphasis on the selling process. Prospecting for customers, pre-approach problems, types of approaches, effective demonstrations, handling of objections, types of closes, and follow-up will be covered. Other topics include buyer motivation, effective communication, territory management, differences between industrial and retail selling, and career opportunities.

MKT204  3  Advertising
Pre: MKT101
Introduction to the planning, creation, and use of advertising. Explores the role of advertising in our economy and its specific use in marketing a new product. Includes advertising appeals, copyrighting, layouts, printing processes, media selection, research techniques, dealer programs, national campaigns, retail and industrial advertising, and the advertising agency's function. Careers in advertising will also be surveyed.

MKT205  3  Principles of Retail Management
Pre: MKT101
Covers basic principles of retailing including store location and layout, merchandise planning, purchasing, pricing strategies, inventory management, retail bookkeeping, promotion and communication. Other topics include discussion of current trends and innovations, international retailing, the effects of a changing environment on the industry, and career opportunities in retailing.

MKT208  3  International Marketing
Pre: MKT101
Analyzes the complexities of the decision-making process involved with marketing products internationally. Focuses on market structure, product, pricing, distribution, and promotional strategies within the constraints of various cultural, economic, and political scenarios. Fulfills open and business electives.

MKT216  3  Internet Marketing
Pre: Mathematics Proficiency; BUS100 or MKT101
Presents an overview of the various Internet web sites and investigates recommended techniques, strategies, technology, channels and tools for marketing, selling, market researching, and distributing on the Internet. Examines site design and content, advertising, promotion, campaigning, site addressing, and search technology as well as marketing issues as they relate to customer privacy. Students entering this course must have a working knowledge of the World Wide Web. Fulfills open, business, and marketing electives.

MUS - Music

MUS104  3  Music Appreciation to 1810
A listening course designed for all students. No previous background in music is necessary. A study of various historically significant works which seeks to identify what to listen for in music and emphasizes the aesthetic experience. Follows the history and development of music up to 1810. Fulfills open, liberal arts and humanities electives.

MUS106  3  Music Appreciation from 1810
A listening course designed for all students which follows the history and development of music from 1810 to the present day. No previous background in music is necessary and MUS104 is not a prerequisite. A study of various historically significant works which seeks to identify what to listen for in music and emphasizes the aesthetic experience. Fulfills open, liberal arts, and humanities electives.

MUS111  3  Private Instrumental Instruction 1
Private instrumental and vocal lessons taught with beginner to advanced level classes in voice, piano, classical guitar and orchestral instruments by the Chopin Conservatory at the Danvers and Lynn campuses. Student must secure own instrument and place to practice. For further information, contact the Chopin Conservatory at (617) 436-9897. The student must apply for academic credit with the Center for Alternative Studies and Educational Testing in Lynn, E232, or Danvers, B213. The Conservatory also offers lessons on a non-credit basis. Fulfills open, liberal arts and humanities electives.

MUS111A  3  Private Instrumental Instruction 1 - Piano
Private applied music instruction in piano - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must secure own instrument and place to practice. For fee schedules, registration and credit, contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.
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MUS111B  3  Private Music Instruction 1 - Voice
Private applied music instruction in voice - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must secure own place to practice. For fee schedules, registration and academic credit, the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.

MUS112  3  Private Instrumental Instruction 2
Private instrumental and vocal lessons taught with beginner to advanced level classes in voice, piano, classical guitar and orchestral instruments by the Chopin Conservatory at the Danvers and Lynn campuses. Student must secure own instrument and place to practice. For further information, fee schedules, and registration call the Chopin Conservatory at (617) 436-9897. The student must apply for academic credit with the Center for Alternative Studies and Educational Testing in Lynn, E232, or Danvers, B213. The Chopin Conservatory also offers lessons on a non-credit basis. Fulfills open, liberal arts and humanities electives.

MUS112A  3  Private Instrumental Instruction 2 - Piano
Private applied music instruction in piano - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must secure own instrument and place to practice. For fee schedules, registration and academic credit, the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.

MUS112B  3  Private Music Instruction 2 - Voice
Private applied music instruction in voice - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must secure own place to practice. For fee schedules, registration and academic credit the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts, and humanities electives.

MUS126  3  Basic Concepts of Music
Pre: Communications Proficiency
This course focuses on the fundamentals of music such as rhythm, harmony, melody, and form. The course incorporates musical examples from Asia, Africa, Europe, and the Americas. Fulfills open, liberal arts, and humanities electives.

MUS211  3  Private Instrumental Instruction 3
Private instrumental and vocal lessons taught with beginner to advanced level classes in voice, piano, classical guitar and orchestral instruments by the Chopin Conservatory at the Danvers and Lynn campuses. Student must secure own instrument and place to practice. For further information, fee schedules, and registration call the Chopin Conservatory at (617) 436-9897. The student must apply for academic credit with the Center for Alternative Studies and Educational Testing in Lynn, E232, or Danvers, B213. The Chopin Conservatory also offers lessons on a non-credit basis. Fulfills open, liberal arts and humanities electives.

MUS211A  3  Private Instrumental Instruction 3 - Piano
Private applied music instruction in piano - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.

MUS211B  3  Private Music Instruction 3 - Voice
Private applied music instruction in voice - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must secure own place to practice. For fee schedules, registration and academic credit, the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.

MUS212  3  Private Instrumental Instruction 4
Private instrumental and vocal lessons taught with beginner to advanced level classes in voice, piano, classical guitar and orchestral instruments by the Chopin Conservatory at the Danvers and Lynn campuses. Student must secure own instrument and place to practice. For further information, fee schedules, and registration call the Chopin Conservatory at (617) 436-9897. The student must apply for academic credit with the Center for Alternative Studies and Educational Testing in Lynn, E232, or Danvers, B213. The Chopin Conservatory also offers lessons on a non-credit basis. Fulfills open, liberal arts and humanities electives.

MUS212A  3  Private Instrumental Instruction 4 - Piano
Private applied music instruction in piano - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must secure own instrument and place to practice. For fee schedules, registration and academic credit, the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.

MUS212B  3  Private Music Instruction 4 — Voice
Private applied music instruction in voice - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212 - and represent a sequential program. The student must secure own instrument and place to practice. For fee schedules, registration and academic credit, the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.

MUS231B  3  Private Music Instruction 5 — Voice
Private applied music instruction in voice - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212, 231, 232 - and represent a sequential program. The student must secure own place to practice. For fee schedules, registration and academic credit, the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.

MUS232B  3  Private Music Instruction 6 — Voice
Private applied music instruction in voice - beginner to advanced levels - on the Danvers campus. Levels of skill are denoted by course number - 111, 112, 211, 212, 231, 232 - and represent a sequential program. The student must secure own place to practice. For fee schedules, registration and academic credit, the student must contact the Center for Alternative Studies and Educational Testing on the Danvers campus in the Berry Building, room B213. Fulfills open, liberal arts and humanities electives.
MUS311 3 Private Instrumental Instruction 5
Private instrumental and vocal lessons taught with beginner to advanced levels classes in voice, piano, classical guitar and orchestral instruments by the Chopin Conservatory at the Danvers and Lynn campuses. Student must secure own instrument and place to practice. For further information, fee schedules, and registration call the Chopin Conservatory at (617) 436-9897. The student must apply for academic credit with the Center for Alternative Studies and Educational Testing in Lynn, E232, or Danvers, B213. The Chopin Conservatory also offers lessons on a non-credit basis. Fulfills open, liberal arts and humanities electives.

MUS312 3 Private Instrumental Instruction 6
Private instrumental and vocal lessons taught with beginner to advanced levels classes in voice, piano, classical guitar and orchestral instruments by the Chopin Conservatory at the Danvers and Lynn campuses. Student must secure own instrument and place to practice. For further information, fee schedules, and registration call the Chopin Conservatory at (617) 436-9897. The student must apply for academic credit with the Center for Alternative Studies and Educational Testing in Lynn, E232, or Danvers, B213. The Chopin Conservatory also offers lessons on a non-credit basis. Fulfills open, liberal arts and humanities electives.

NSG - Nurse Education

NSG101 8 Nursing 1
Pre: Communications and Mathematics Proficiencies
Co: BIO103 and PSY102 and CMP101
Prepares the student to view persons holistically using Maslow’s Human Needs Theory and the nursing process. Students are introduced to the Nurse of the Future Core Competencies for nursing practice. Didactic, laboratory and clinical practice experiences provide the framework for the student to assimilate the knowledge, skills and behaviors which are considered basic to nursing practice across the lifespan. Evidence based knowledge and sensitivity to age, gender, culture, race, health disparities, socioeconomic status and spirituality are introduced with special consideration given to the older adult. Content draws upon the knowledge from the biophysical and psychological sciences, which are taught concurrently. The Nursing Skills Laboratory is an integral part of learning, providing the student opportunities to observe, practice, plan and demonstrate clinical skills. Correlated clinical experiences are offered in diverse health care settings.

NSG102 8 Nursing 2
Pre: NSG101, BIO103, PSY102, and CMP101
Co: BIO104 AND PSY118
Prepares the student to become a provider of care to the childbearing and child rearing family. The student will perform a comprehensive health assessment guided by Maslow’s Human Needs Theory and the nursing process. The focus is on the biophysical, cultural, emotional and social factors involved in nursing practice across the lifespan. Didactic, laboratory and clinical practice experiences provide the basis to apply acquired knowledge, skills and behaviors. A family centered approach is emphasized with utilization of the nursing process and Nurse of the Future Competencies. Under the guidance of the faculty, students use evidence based knowledge with sensitivity to age, gender, culture, race, health, disparities, socioeconomic status and spirituality. Correlated clinical experiences are provided in diverse health care settings. Collaboration with members of the health care team is introduced.

NSG104 1 Introduction to Pharmacology
This course introduces basic principles of pharmacology identifying the legal and scientific principles of safe medication and immunization administration. Specific drug classifications will be studied including actions, indications and nursing interventions. The emphasis is on the use of the nursing process for safe medication administration. The student will participate in simulation medication administration experiences.

NSG105 2 Pharmacology and the Role of the Registered Nurse
Pre: NSG101 and BIO103
This course builds on the basic principles of pharmacology from Foundations of Nursing (NSG101). The emphasis will be on the drug classification system, pharmacodynamics and therapeutic actions of drugs and the use of the nursing process for the safe and effective administration of medications.

NSG140 1 Transition to the Role of the Registered Nurse
Pre: All first year nursing curriculum courses
Prepares Licensed Practical Nurses to make the transitions from the role of the licensed Practical Nurse to the role of the Associate Degree Registered Nurse utilizing the framework from Maslow’s Higher Needs Theory and the Nursing Process. Selected topics and skills are presented to provide a synthesis of prior learning with the philosophy and objectives of the Nurse Education curriculum.

NSG150 2 Basic Skills Practicum
Pre: NSG101, NSG102, BIO103 & 104, PSY102, PSY118
Optional clinical experience designed to strengthen basic nursing skills by caring for clients with Medical-Surgical conditions. The experience is provided in a local health care facility for a period of four weeks following the spring semester. Enrollment limited to students currently enrolled in the Division of Nurse Education.

NSG201 10 Nursing 3
Pre: All first year nursing curriculum courses
Co: SOC106 AND BIO110
Prepares the student to practice nursing within the legal, ethical and regulatory frameworks using Maslow’s Human Needs Theory and the nursing process. Didactic, laboratory and clinical practice experiences provide the framework for the student to develop the knowledge, skills and behaviors for nursing practice, guided by the Nurse of the Future Core Competencies. Emphasis is placed on the health care needs of the adult and older adult patient. Under the guidance of the faculty, students use evidence based knowledge with sensitivity to age, gender, culture, race, health disparities, socioeconomic status and spirituality to care for one to two patients in diverse health settings. Collaboration with members of the health care team is fostered.

NSG202 9 Nursing 4
Pre: NSG201
Co: NSG203 and Nurse Education Directed Elective
Prepares the student to practice nursing within the legal, ethical and regulatory frameworks using Maslow’s Human Needs Theory and the nursing process. Didactic, laboratory and clinical practice experiences provide the framework for the student to build on their knowledge, skills and behaviors for nursing practice, guided by the Nurse of the Future Core Competencies. Emphasis is placed on the care of the adult in the community and mental health setting. Nursing management, leadership and delegation skills are developed. Under the guidance of the faculty, students use evidence based knowledge with sensitivity to age, gender, culture, race, health disparities, socioeconomic status and spirituality to care for a patients or groups of patients in diverse health settings. The learner builds competence with leadership, management and delegation and collaboration with health care team members.
NSG203  2 The Registered Nurse in Contemporary Society  
Pre: NSG201  
Co: NSG202 and Nurse Education Directed Elective  
Prepares students to make the transition into the role of the professional nurse by critically examining issues and trends in Professional Nursing Practice. The professional role of the nurse is explored from a historical, economic and political perspective. Emphasis is placed on helping the student to make the transition to membership within the discipline of nursing. Students are expected to read critically and analytically on topics that impact nurses in contemporary practice settings. Topics include legal responsibilities for practice, ethical issues, leadership and the development of the professional role.

NSG229  2 Co-Operative Education Experience in Clinical Nursing  
Pre: NSG102  
This course is designed to enhance clinical practice skills from NSG101 and NSG102 with a supervised 120 hour paid work experience in a structured clinical setting. Students are guided by a Clinical Nurse mentor in the work setting. A web-based discussion forum assists students in the assimilation of knowledge and experience for nursing practice.

OFT - Office Technology

OFT095  1 Keyboarding Challenge Exam  
OFT101  3 Keyboarding and Word Processing  
Pre: Communications Proficiency  
This course will introduce and reinforce keyboarding techniques and speed and accuracy development. Basic word processing concepts will be introduced using the latest version of MS Word. Students will learn the word processing functions necessary to create and format business documents including letters, memos, tables, and reports. (3 hours of lecture per week)

OFT102  3 Advanced Keyboarding and Word Processing  
Pre: OFT 101 or Communications Proficiency and ability to Keyboard 35 wpm  
This course continues to develop keyboarding and word processing skills. Major emphasis is placed on increasing speed and accuracy skills and producing various business documents from arranged, unarranged, handwritten, and rough-draft sources using MS Word advanced features.

OFT103  3 Speed Writing 1  
Pre: Communications Proficiency  
Introduction to the principles of speed writing theory. Directed drills emphasize rapid writing of outlines, brief forms, phrases, and other abbreviating principles. Development of speed in reading and facility in writing shorthand are the main objectives. Time is available in the Office Technology laboratory for speed building practice. Fulfills open and office technology electives.

OFT104  3 Speed Writing 2  
Pre: OFT103; Ability to Keyboard 35 wpm  
Provides a continuing review of theory and pre-transcription training including attention to spelling, punctuation, and grammar. Dictation of new material is introduced. Fulfills open and office technology electives.

OFT110  1 Introduction to Microsoft Word  
Pre: Communications Proficiency & Ability to Keyboard 25 wpm  
Provides basic training in Microsoft Word for Windows. Students will learn the essentials of document creation, including text entry and editing, text and paragraph formatting, printing, saving and retrieving documents, spelling checker and thesaurus. Fulfills open and office technology electives.

OFT112  1 Introduction to PowerPoint  
Pre: Communications Proficiency  
This course provides basic training in Microsoft PowerPoint for Windows. Students will learn the essentials of designing presentation, including typing within title and body placeholders, selecting slide layouts, designs, editing, formatting, printing, saving, and retrieving presentations. Other topics include working with outlines, using the slide sorter, working with clip art, drawing objects, and working with animations. Both business and personal PowerPoint applications geared to class participants will be completed. Fulfills open and software electives.

OFT114  3 Business Communications  
Pre: Communications Proficiency  
Designed to give the student a firm grasp of the principles of English grammar and punctuation. Emphasis is on the composition of business correspondence and the ability to write clearly and concisely.

OFT116  3 Medical Terminology  
Pre: Communications Proficiency  
Designed to instruct the student in the most common word roots, prefixes, and suffixes in medical terminology. Emphasis is on spelling, word drills, pronunciation exercises, and definition of words. The student develops a broad medical vocabulary used by professionals in medical and allied health fields. Fulfills open and office technology electives.

OFT120  1 Basic Keyboarding  
Pre: Communications Proficiency & Knowledge of Medical Term  
Designed to teach basic keyboarding skills to students entering any field that utilizes a computer keyboard. Keyboarding speed should be developed to a minimum of 25 wpm. Credit for this course may be earned by challenge exam. Time will be needed in the computer lab to complete assignments. (1 hour of lecture per week)

OFT130  3 ICD-9-CM and CPT-4 Coding  
Pre: Communications Proficiency & Knowledge of Medical Term  
Provides basic understanding of medical coding including ICD-9-CM and CPT-4 coding procedures. Includes coding rules related to medical diagnoses, procedures, and reimbursement. Also covers the guidelines established by the Health Care Financing Administration. Fulfills open and office technology electives.

OFT134  3 ICD-9-CM Coding  
Pre: Communication and Math Proficiencies  
Co: OFT116  
Course provides a basic understanding of the ICD-9-CM coding classification system. ICD-9-CM coding conventions and instructions will be covered for each body system. Requirements for both diagnostic and procedural coding will be covered and include coding rules, guidelines and reimbursement established by the Centers for Medicare and Medicaid Services (CMS) and Prospective Payment System (PPS)
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OFT136 3  CPT-4 Coding  
Pre: OFT134  
Course provides a basic understanding of CPT-4/HCPCS procedural coding system with respect to professional and facility code assignment. Guidelines established by the Centers for Medicare and Medicaid Services (CMS) will be covered as well as the impact on the Prospective Payment System (PPS).

OFT138 1  Medical Coding Practicum  
Pre: OFT134 with ‘C’ or better  
Co: OFT136  
Course provides students with the opportunity to apply coding principles learned in the classroom environment in an actual on-site health care facility. Facilities will include either a hospital’s health-information department, physician’s practice, free-standing clinic, long-term care facility, or home-health agency. The practicum consists of thirty hours as arranged between the work site supervisor and the student.

OFT140 3  Medical Records Transcription  
Pre: Keyboard 35 wpm, OFT116, or knowledge of Medical Term  
Co: OFT114  
Introduces the student to the prepartation of medical records used in documenting patient care. Students will transcribe correspondence and medical reports using digital transcription software. Additional medical terminology relating to various specialties as well as pharmaceutical and laboratory terms and abbreviations will be introduced throughout the course. Fulfills open and office technology electives.

OFT150 3  Interpersonal Skills in the Workplace  
Pre: Communications Proficiency  
Course will emphasize soft skills - trust, confidence, empathy, adaptability and self-control - so necessary to be successful in the workplace today. Students will learn to communicate and collaborate effectively with others whose personalities, approaches, and work styles may differ from their own. Course will emphasize workplace readiness skills - time management, attendance, professional appearance, respecting confidentiality, adapting to change, working with others, and conflict management. Fulfills open and office technology electives.

OFT209 3  Information Transcription  
Pre: OFT101 or ability to keyboard 35 wpm; OFT114  
Provides the student with experience in transcribing business correspondence from taped dictation. Language arts skills, including spelling, punctuation, and grammar, are combined with advanced keyboarding and listening skills to develop transcription productivity of business documents. Emphasis is on business English, mailability, and production. Fulfills open and office technology electives.

OFT212 3  Administrative Office Procedures  
Pre: Communications Proficiency; Keyboard 35 wpm; OFT114  
Designed to develop professional work ethics, attitudes and techniques needed by the administrative assistant in a contemporary business environment. Course includes simulated office experiences with emphasis on communications, human relations, travel arrangements, office mail, and organizational techniques. Fulfills open and office technology electives.

OFT219 3  Medical Administrative Procedures  
Pre: Communication Proficiency; OFT101  
Co: OFT116 Medical Terminology  
Designed to introduce the medical assistant to the administrative aspects of the medical office including telephone etiquette and triage, appointment scheduling, patient intake, billing systems, insurance claims, medical records, and related professional activities. Emphasis is placed on high standards of ethics in relation to the patient and the medical profession. Fulfills open and office technology electives.

OFT220 4  Legal Office Procedures  
Pre: OFT101 or Communications Proficiency and ability to keyboard 35 wpm  
Legal document and correspondence formatting, production techniques, editing and organizational skills, and specialized law office procedures are developed for obtaining a financially rewarding position in a law office or legal environment. Emphasis is also on ethical and professional principles, communication, and human relations skills to enhance workplace performance expectations. Fulfills open and office technology electives.

OFT222 3  Spreadsheet and Presentation Applications  
Pre: Communications and Mathematics Proficiencies; OFT101 or ability to Keyboard 35 wpm  
This capstone course incorporates decision-making, communications, and proofreading skills in a variety of computer assignments. Includes hands-on training in computer applications utilizing Microsoft Excel and Microsoft PowerPoint. Also focuses on current issues in the automated office. Fulfills open, health care, and office technology electives.

OFT226 3  Records Management and Database Application  
Pre: OFT101 or Communications Proficiency and ability to Keyboard 35 wpm  
Prepares administrative assistants with the administrative and supervisory skills needed in today’s automated office. Focuses on basic management theories, the effects of automation in the office, utilization of human resources, and administration and control of office operations. Fulfills open and office technology electives.

OFT240 3  Administrative Office Management  
Pre: OFT101 or Communications Proficiency and ability to Keyboard 35 wpm  
Prepares administrative assistants with the administrative and supervisory skills needed in today’s automated office. Focuses on basic management theories, the effects of automation in the office, utilization of human resources, and administration and control of office operations. Fulfills open and office technology electives.

OFT252 3  Integrated Office Applications  
Pre: OFT102, OFT222 and OFT226  
This capstone course includes integrated, project-based office applications utilizing the latest version of Microsoft Word, Excel, PowerPoint, and Access. Students will produce a variety of business documents with an emphasis on efficiency and productivity required in the workplace. In addition, critical thinking and Internet research skills will be developed. Fulfills open and office technology electives.
OTA - Occupational Therapy Assistant

OTA101  4 Orientation to Occupational Therapy
Pre: Communications and Math Proficiencies
Introduction to the core concept of occupation as the foundation of Occupational Therapy. Theoretical frameworks and historical trends connecting past and present Occupational Therapy practice are discussed, emphasizing the use of occupation. The role of the Certifed Occupational Therapy Assistant (COTA), professional values, ethics, behavior and terminology are introduced and reinforced through fieldwork experience. (3 hours of lecture and 3 hours of field placement per week)

OTA103  4 Therapeutic Application of Modalities 1
Pre: Communications and Mathematics Proficiencies
Co: OTA101 & BIO103
A laboratory course to introduce and practice fundamental skills of occupational therapy intervention within the context of occupational performance. Osteology, arthrology, and myology in reference to movement and function, along with total activity analysis are emphasized as providing the foundation for selected interventions used by the occupational therapy assistant. (2 hours of lecture and 4 hours of lab per week)

OTA104  4 Therapeutic Application of Modalities 2
Pre: OTA103
Co: OTA108
A laboratory course expanding upon the approaches, skills and techniques used for evaluation and intervention within the aspects of occupational therapy’s domain and the role of the occupational therapy assistant. Emphasis of laboratory practice is on the application of occupation-based intervention, purposeful activity, and preparatory methods used within the context of human occupation and life role performance. (2 hours of lecture and 4 hours of lab per week)

OTA105  1 Therapeutic Group Process
Pre: Communications and Mathematics Proficiencies
Co: OTA101
An activity-based study of group dynamics and its application to occupational therapy, including types of therapeautical groups, group member roles, group development, and group leadership. Emphasis is placed on developing effective communication, therapeutic use of self, group leadership skills, and the appreciation for diversity and cultural factors that influence group interaction and function. (2 hours of lab per week)

OTA108  4 Medical Specialties
Pre: Communications and Mathematics Proficiencies
Co: OTA101
A basic course concerned with general medical, neurological and orthopedic conditions that lead to dysfunction in one’s occupational performance. Medical terminology and standards of practice in reference to medical management and OT intervention are emphasized. (60 hours of lecture)

OTA110  4 Planning & Implementation of Programs for Health & Wellbeing
Pre: Communications and Mathematics Proficiencies
Co: OTA105 and OTA108
A course concerned with the development and implementation of therapeutic programs for the elderly and for adults who have chronic conditions and developmental disabilities within institutional and community based settings. Designed to expose students to a variety of practice contexts and service delivery models with emphasis on activity programming, habilitation, health promotion and occupation-based intervention for the adult/older adult population. Through classroom and fieldwork assignments, students explore, assess, initiate, maintain and expand therapeutic programs for productive living and the promotion of health and wellbeing. (45 hours of lecture and 30 hours of fieldwork/service learning)

OTA112  2 Leadership and Management in Occupational Therapy
Pre: Communications and Mathematics Proficiencies
Co: OTA101 & OTA105
A course to reinforce the professional responsibilities of an occupational therapy practitioner in service delivery to clients, potential consumers, the occupational therapy profession, and society. Leadership roles and management operations will be applied to current and future practice expectations of the occupational therapy assistant within a variety of practice contexts.

OTA201  3 Therapeutic Application of Modalities 3
Pre: BIO104, OTA104 and 110
Co: OTA203 and OTA207
A culminating laboratory course that integrates knowledge and skills for clinical application of the occupational therapy process including evaluation, intervention, and outcomes. Case studies are utilized to facilitate clinical reasoning in the development of treatment plans, documentation, and clinical performance. (1 hour of lecture and 4 hours of lab per week)

OTA203  4 Mental Health Concepts in Occupational Therapy Practice
Pre: PSY102 and OTA101
An introduction to the major mental illnesses and their effect on occupational performance. Topics include schizophrenia, depression, anxiety, character disorders, and addictions. The assistant’s role in the promotion of mental health is explored in the classroom and reinforced through fieldwork experience in community and hospital based psychiatric care facilities. (45 hours of lecture and 30 hours of fieldwork)

OTA204  6 Level 2 Fieldwork Practice 1
Pre: OTA201, all general education courses required in OTA
Co: OTA206
This course provides a supervised 8-week in-depth fieldwork experience in an OT service setting designed to provide the student opportunity to carry out professional responsibilities within the role of an occupational therapy assistant. With the goal of developing entry level competency as a generalist OTA practitioner, student’s fieldwork experience may be within a variety of institutional or community based practice settings. (Total fieldwork hours equivalent to an 8-week full-time placement.)

OTA206  2 Seminar in Occupational Therapy
Co: OTA204 and OTA208
A faculty guided seminar course to aid in the assimilation of knowledge and experience for clinical practice and professional development as the student engages in Level II fieldwork. (30 semester hours of seminar)
OTA207 4 Occupational Therapy for Pediatric Populations
Co: OTA104
This course focuses on normal and atypical development from birth to young adulthood. The course is designed to promote discussion and investigation of current legislation that drives and guides practice within the most common pediatric settings: Early Intervention and Schools, which service children from ages birth to twenty-one. Students also study common pediatric diagnoses, performance assessment tools, evidence-based techniques and documentation for Early Intervention and School-based programs. Classroom knowledge and skills are reinforced with fieldwork experience in pediatric settings. (45 hours of lecture and 30 hours of fieldwork)

OTA208 6 Level 2 Fieldwork Practice 2
Pre: OTA201 and all general education courses in OTA program
Co: OTA206
A second in-depth fieldwork experience follows successful completion of the first Level 2 fieldwork in a setting that services a different population. Exposure to a variety of service delivery models and OT interventions is considered for this second fieldwork placement. (Total fieldwork hours equivalent to an 8-week full-time placement.)

OTA220 2 Current Topics in Occupational Therapy
Pre: OTA101 or earned degree in occupational therapy
Co: OTA104
A closer study of topics of special interest and demand in contemporary occupational therapy practice. Clinical reasoning is emphasized in the process of studying these topics. Topics may include but will not be limited to evidence-based practice, medical ethics, pharmacology, assistive technology, sensory integration, orthotics and prosthetics, business concepts for the occupational therapy practitioner, ergonomics and universal design, low vision, driver rehab and training, alternative therapies, and emerging areas of practice.

PER - Personal Development
PER102 1 Resume Writing and Job Interview Techniques
Intended to increase student awareness and develop the communications skills necessary in seeking and obtaining employment. Emphasis will be placed on self evaluation and skills identification in the resume writing and job interview process.

PER108 1 Chemical Use and Abuse
Designed to give students factual information about alcohol and drug use, abuse, and addiction. The effects of various drug and alcohol usage on the individual and the family will be discussed.

PER110 1 Career and Life Planning
Open to all students. This course is designed to develop the student’s awareness of personal values, needs, skills, and interests as they relate to careers. Students will participate in exercises designed to help them establish and plan for life goals.

PER112 1 Women’s Health and Sexuality
A group learning experience in which participants learn facts and discuss attitudes concerning sexual health. Areas discussed include physical development, maturation and aging of the female reproductive system, birth control and childbirth alternatives, attitudes toward prevention and treatment of diseases such as cancer and venereal disease, and organization of health care facilities.

PER114 1 Decision Making
Introduce students to a systematic decision-making process that will give them more freedom and control in their lives. Students will learn how to make decisions that will bring about more desirable outcomes, discover more about themselves and their environment, and increase the chances of achieving what they want in life.

PER118 1 Skills for Interpersonal Communication
Will enable students to enhance their personal development and life skills by increasing their ability to communicate. Students will explore their own and other’s communication styles and skills. Through discussion, structured experiences and the application of theoretical models such as Rogerian, active listening, and Transactional Analysis, students will gain insight into their own behavior and become better able to interact effectively with family, friends, and co-workers.

PER120 1 Stress Management
Deals with the effects of stress, distress, and anxiety on the individual. Students will explore coping strategies and relaxation techniques designed to effectively deal with stress and anxiety.

PER122 1 Personality Assessment and Self-Awareness
Using a variety of objective personality instruments, participants will examine the following components of personality: values, needs, interests, cognition and affective traits. Interpretation will be facilitated in a small group setting.

PER124 1 Researching the Job Market
Examines many of the concerns of the job hunter or job changer. The student will learn how to find the hidden job market, build personal career contacts, maintain career opportunity and mobility, and establish career alternatives. The course will provide practical aids and avenues of approach to these and related concerns.

PER126 1 Assertiveness Training
Designed to help one become aware of passive and/or aggressive behaviors that may be self-defeating, to communicate honestly, to direct one’s feelings and beliefs appropriately, and to stand up for one’s rights in such a way that the dignity and right of others are not violated.

PER128 1 Weight Control and Nutrition
Weight Control and Nutrition is an introductory health education group designed to increase awareness of eating behavior and knowledge of nutrition. The behavioral approach of this course is beneficial for students who desire to lose weight and to develop plans to maintain weight loss.

PER130 1 Separation and Divorce
Designed for those who experience separation and divorce in the family context. Ways of coping with changes in relationships, effects on children, financial and legal aspects and the transition to a new life are explored through both the theoretical and group process approaches.

PER132 1 Returning to School: Growth and Transition
Designed for the adult returning student. Emphasis will be on the students’ lifestyle as they integrate and balance the demands of academic, family and work experiences. The course will utilize didactic presentations, personal and career exploration and group dynamics.

PER134 3 Resilience and Coping Skills
This course will increase student resilience and coping abilities by providing opportunities for the study and application of communication skills, the examination and practice of stress management strategies and the exposure to and understanding of self awareness approaches.
PHI - Philosophy

PHI106  3  Introduction to Philosophy
Pre: Communications Proficiency
Introduction to philosophy as a specific way of thinking about human existence, the world, and God. It examines the arguments of philosophers concerning such topics as the existence of God, the problem of good and evil, free will and determinism, relationship of mind and body, and the limits of human knowledge. Fulfills open, liberal arts, and humanities electives.

PHI116  3  Ethics
Pre: Communications Proficiency
Study of the philosophical approach to moral experience. A systematic inquiry into human conduct with the purpose of discovering both the rules that ought to govern human action and the goods that are worth seeking in human life. Both classical and contemporary philosophers are studied. Fulfills open, liberal arts, and humanities electives.

PHI120  3  Medical Ethics
Pre: Communications Proficiency
Recent developments in the bio-medical fields have led to considerable moral perplexity about the rights and duties of patients, health professionals, research subjects, and researchers. This course presents a brief introduction to ethical theory and a set of diverse, carefully selected readings pro and con) on some of the most contemporary issues in bioethics. Some of these issues that will be analyzed and discussed are the following: abortion and infanticide, the problems of birth defects, euthanasia, psycho-surgery, behavior and genetic control, and the claim to health care. Fulfills open, liberal arts, and humanities electives.

PHI126  3  Environmental Ethics
Pre: Communications Proficiency
A philosophical approach to environmentalism examining the ethical presuppositions that underlie our conception of value, the diverse worldviews offered by environmentalists, and the potential responses to ecological degradation. Topics include animal liberation, deep ecology, ecofeminism and environmental activism, among others. Fulfills open, liberal arts, humanities, and green electives.

PHY - Physics

PHY100  4  Applied Physics
Pre: MAT132 or MAT135
An introductory course intended for students in the technology programs. Topics include kinematics, mechanics, thermodynamics, electromagnetics and optics. Lecture and assignments will emphasize the industrial applications of these topics. Class demonstrations will be used to reinforce lecture material. (3 hours of lecture, 2 hours of lab per week) Fulfills open and liberal arts electives.

PHY101  4  Introductory Physics 1
Pre: MAT132 or 152 with ‘C’ or better, and Comm Proficiency
Non-calculus physics course for technical and transfer programs. The general subject covered is mechanics. Specific topics include: vectors, rectilinear motion, dynamics, work, energy and power, momentum, rotational dynamics. Fulfills open, liberal arts, and with PHY102, laboratory science sequence electives. (3 hours of lecture, 2 hours of lab per week)

PHY102  4  Introductory Physics 2
Pre: PHY101
Continuation of Introductory Physics 1. General areas covered include: electricity, magnetism, and optics. Topics include: electrostatics, electrical currents, resistance, DC circuits, magnetism, electromagnetic radiation, light, mirrors, and lenses. Fulfills open, liberal arts, and with PHY101, laboratory science sequence electives. (3 hours of lecture, 2 hours of lab per week)

PHY201  4  Physics 1
Pre: COMM Prof, MAT152 w/’C’ or better, physics at hs or coll
Co: MAT251
Calculus-based physics course for students of science and engineering. The general subject covered is mechanics. Topics include: vectors, accelerated motion, Newton's laws of motion, work and energy, momentum, and rotational kinematics and dynamics. Fulfills open, liberal arts, and with PHY202 or PHY301 or PHY302, laboratory science sequence electives. (3 hours of lecture, 2 hours of lab per week)

PHY202  4  Physics 2
Pre: PHY201
Co: MAT252
Continuation of Physics 1. Topics include: simple harmonic motion, gravitation, fluid mechanics, waves, the kinetic theory of gases, and the first and second laws of thermodynamics. Fulfills open, liberal arts, and with PHY201 laboratory science sequence electives. (3 hours of lecture, 2 hours of lab per week)

PHY301  4  Physics 3
Pre: PHY201, MAT252 with grade of C or better
Continuation of Physics 2. The general subjects are electricity and magnetism. Topics include: Coulomb's Law, Gauss' Law, electric potential, capacitance, circuits, the magnetic field, electromagnetic induction, and inductance. Fulfills open, liberal arts, and with PHY201 laboratory science sequence electives. (3 hours of lecture, 2 hours of lab per week)

PHY302  4  Physics 4
Pre: PHY301
Continuation of Physics 3. The general subjects are optics and modern physics. Topics include: geometrical optics, wave optics, relativity, the quantum theory of radiation, atomic structure, and nuclear physics. (3 hours of lecture, 2 hours of lab per week)

PLG - Paralegal

PLG101  3  Introduction to Law and Paralegal Practice
Pre: Communications Proficiency
Introduction to the American legal system and the paralegal profession, including the functions of a paralegal, ethical principles, federal and state court structures, litigation, sources of law, legal research and reasoning, investigation and interviewing, law office management, employment strategies and career perspectives.

PLG102  3  Legal Research
Pre: Communications Proficiency
Introduction to legal research, methods and writing. Course will include the use of reporters, statutes, dees, citators, encyclopedias, legal periodicals and practice manuals. Emphasis placed on developing strategies for researching legal questions. Students will also learn the mechanics of writing case briefs and legal memoranda.
PLG104 3 Basic Criminal Law and Procedure
Pre: Communications Proficiency
A basic introduction for paralegals to criminal law and procedures which examines criminal case law and criminal statutes. In addition current constitutional criminal law issues are explored with an emphasis on developing analytical skills of the paralegal.

PLG106 3 Legal Writing
Pre: CMP101, PLG101, and PLG102
An introduction to the fundamentals of legal writing including legal reasoning and analysis, the writing process, proper citation form, and a review of grammar, punctuation, and style. Emphasis will be placed on development of the drafting skills necessary for pleadings, briefs, memoranda, and correspondence. This course will continue to refine legal research techniques.

PLG201 3 Estates and Trusts
Pre: PLG101, PLG102
Introduction to the law of wills and trusts. Includes the organization and function of the probate court, the laws of intestate succession, preparation and execution of wills, the most common forms of trusts, probate and administration of estates, tax considerations.

PLG202 3 Litigation
Pre: Communications Proficiency
Introduction to civil litigation. Includes the organization and jurisdiction of federal and state courts; preparation of pleadings, motions, interrogatories, depositions and trial notebooks; investigation, digesting documents, interviewing clients; trial and appellate procedures. The fundamental principles of the law of torts will also be presented since the course will focus on the trial and appeal of personal injury actions.

PLG203 3 Business Organizations
Pre: PLG101, PLG102
Study of the principles of law governing the formation and operation of sole proprietorships, partnerships, limited partnerships, business trusts and corporations. Includes the preparation of the documents necessary for the organization and maintenance of each business entity.

PLG204 3 Family Law
Pre: PLG101, PLG102
Introduces students to all areas of family law: divorce, separation, adoptions, guardianship, annulments, cohabitation, child custody, abuse and neglect. Emphasis will be placed on developing skills for working with clients and drafting the necessary legal documents.

PLG205 3 Computer Applications for the Law Office
Pre: Communications Proficiency; CPS100
Introduction to computer applications within the law firm. This course focuses on document preparation, timekeeping, docket control, litigation support, case management, email communications, internet and computer-assisted legal research. Review of word-processing, database management, and spreadsheet design is included.

PLG206 3 Field Placement for Paralegals
Pre: PLG201, PLG104, BUS102, and RES204
Co: PLG203, PLG204
Through professionally supervised work at law firms, government agencies, the courts, corporate offices or legal services, and faculty guided seminars, skills learned in the classroom will be applied to working situations. Each 3 credits of field placement involves 120 hours of on-site. Legal work and 2 hours in weekly on-campus seminar. Instructor will conduct periodic site visits.

PNR - Practical Nursing

PNR101 9 Fundamentals of Practical Nursing
Pre: Comm & Math Prof; Admission to PN Program
Fundamentals of Nursing is designed to provide the student with a clear perception of the many interrelated principles and tasks of nursing and a clear recognition of the effects of health and illness on a client's self concept and ability to function. The student also begins to assume the role of the health teacher in assisting the client to meet his/her basic health needs. (75 hours of lecture, 90 hours of lab, 104 hours of clinical practice)

PNR103 7 Medical-Surgical Nursing
Pre: PNR107; Com & Math Prof; Admission to PN Program
In keeping with the philosophy of the nursing program, Medical Surgical Nursing incorporates the basic concepts and skills acquired in the fall semester in studying the more common medical-surgical diseases and related nursing care utilizing the nursing process as a framework. (67.5 hours of lecture, 134 hours of clinical experience)

PNR105 7 Maternal Child Health
Pre: PNR107; Comm & Math Prof; Admission to PN Program
This course focuses on the role of the student practical nurse by providing theoretical knowledge and practical learning experiences in the care of the expectant family, the neonate, and developing child through adolescence. The course examines pregnancy, labor & delivery, the postpartal period, and the neonate from a normal developmental point of view. Common problems in women's health, pregnancy and infant care are explored, as well as care of the pediatric client and his/her family in health and illness. (67.5 hours of lecture, 136 hours of clinical experience)

PNR107 2 Life Continuum Nursing 1
Pre: Comm & Math Prof; Admission to the PN Program
Life Continuum Nursing 1 is designed to provide an overview of mental health concepts. Among the topics covered are anxiety, substance abuse, mood disorders, personality disorders, schizophrenia, and mental health treatment modalities. Clinical experience will provide opportunities to increase nursing skills and knowledge of psychotherapeutic medications when applicable. The student will apply the nursing process to develop a nursing care plan utilizing the Mini-Mental Health Exam tool. Concepts pertinent to nursing practice within the community milieu will also be presented. These concepts will prepare the student to understand the services provided to clients across the life-span and recognize the role of a multidisciplinary team functioning in culturally diverse communities.

PNR108 4 Life Continuum Nursing 2
Pre: PNR103, 105, 112, 130, HLS113, 114, Comm & Math Prof; Adm to PN Prog
Life Continuum Nursing 2 integrates theory and practice for the purpose of preparing the student for entry into practice. This course provides the opportunity for students to develop leadership skills in the extended care facility while the gerontological nursing segment places emphasis on care that meets the specialized needs of the elderly adult, sick or well, in the extended care facility and in the community-at-large. The student will identify the myriad resources available to the client in the community-at-large and observe the unique care being rendered at home by health-care-professionals.

PNR111 1 Nutrition 1
Pre: Comm & Math Prof; Admission to PN Program
A study of normal nutrition as it affects all age groups. The course is designed to provide the student with an understanding of the functions of food in promotion and maintenance of health. (1 hour of lecture per week)
PNR112  1  Nutrition 2  
Pre: PNR101, 111, Com & Math Prof, Admission to PN Program
PNR112 focuses both on the nutritional needs of each of the life stages from pregnancy through senescence and on Medical Nutrition Therapy. The nurse’s role in assisting patients and families to cooperate with the dietary regime is emphasized. This course is offered concurrently with clinical nursing courses. (1 hour of lecture per week)

PNR114  2  Pharmacology for Practical Nursing  
Pre: Comm & Math Prof; Admission to the PN Program
PNR114 introduces the student to the basic concepts and principles of pharmacology and the nurse’s role in drug therapy. Topics examined include pharmacokinetics, pharmacodynamics, and pharmacotherapeutics. Ethical tenets and issues along with legal regulations and standards governing drug manufacturing, distribution and use are also discussed. Emphasis is placed on drug calculations in conjunction with the nurse’s role in the delivery and maintenance of safe and efficient drug administration. (2 hours of lecture per week)

PNR130  2  Vocational Trends & Adjustments for Practical Nursing  
Pre: PNR101, 111, Comm & Math Prof; Adm to PN Program
PNR130 presents an overview of the nursing profession to help prepare the student practical nurse to understand her/his role in today’s complex healthcare system. The course is designed to examine historical, philosophical, and contemporary trends and issues. Other major topics presented include ethical and legal aspects of nursing practice, the health care delivery system, cultural competence, change, power and politics, and career management issues. The course will conclude with a panel of former graduates discussing the myriad challenges relevant to the new graduate and the transition from student to licensed practical nurse. (2 hours of lecture per week)

PSY - Psychology

PSY102  3  Introductory General Psychology  
Pre: Communications Proficiency
Systematic study of behavior including the development of psychology as a science, the biological basis of behavior, learning and memory, motivation, sensation and perception, personality development, cognitive processes, maturation and development, and adjustment. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY110  3  Organizational Psychology and the Workplace  
Pre: Communications Proficiency
This course examines how psychological principles are applied to the behaviors of people in work settings with such topics as: industrial/organizational psychology, personnel selection, performance appraisal, training, leadership, motivation, organizing the workplace, moral issues, safety and health, and stress. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY112  3  Introduction to Gerontology  
Pre: Communications Proficiency
Surveys major areas of concern in gerontology, including the physiological aspects of aging. Particular emphasis will be made in developmental tasks, role change in the family, community and the larger society, personal adjustment, facing death, economics, and societal responses to aging. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY114  3  Child Psychology  
Pre: PSY102
This course is an introduction to the field of child psychology with emphasis on the influence of society and culture on development from the prenatal period to adolescence. This course stresses the role of heredity, environment, family, and development of cognitive functioning. Salient research will be summarized and presented. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY118  3  Human Growth and Development  
Pre: PSY102
Study of the development sequences of growth from prenatal to death, including the methodological problems of developmental studies, individual differences, the interplay of heredity and environment and the development of language, motivation, and motor behavior. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY128  3  The Psychology of Women  
Pre: Comm Prof; 1 college level psychology course
An introduction to the psychological theories, research and practice that have affected women in the past and continue to affect women in contemporary society. It will examine psychological development from a feminist perspective and from the framework of gender. Attention will be given to gender roles, stereotypes, and identity development. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY136  3  Perspectives on Child Abuse  
Pre: Communications Proficiency
Considers the issue of childism, as an attitude of unthinking and automatic superiority of elders over children. Topics will include but not be limited to: psychological attitudes and behavior society has towards children, motivational and dynamic aspects of abuses, behavior, victim reactions, environmental and chance factors contributing to child abuse, the effects of child abuse on the physical, emotional, psychological, social, and intellectual development of the child. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY140  3  Death and Dying  
Pre: Communications Proficiency
Examines cognitive and affective level responses to death, dying people, and the social-psychological patterns surrounding them. It examines methods of working with loss and terminally ill individuals and their families. Fulfills open, liberal arts, social science, and behavioral science electives.

PSY142  3  Human Sexual Behavior  
Pre: Communications Proficiency
Human Sexual Behavior includes the diversity of topics necessary to obtain a holistic understanding of human sexual behavior. Aspects of sex and sexuality to be studied include: biological and developmental perspectives, clinical differentiation of sexual values; sexual physiology; sexual orientation; sexually transmitted diseases; contraception; sexual dysfunction; and sex therapy. Fulfills open, liberal arts, and social science electives.
PSY206  3  Social Psychology
Pre: PSY102 or SOC106
Study of an individual's influence on social groups and of various
group influences on the individual. Situations involving friendship,
work, and social organizations will be analyzed as well as the
influence of mass media and advertising. The course will involve
analysis or people's drive for power, aggression, prejudice,
leadership, and conformity from both the sociological and
psychological perspectives. Constructive alternatives to current
social problems will be presented. Fulfills open, liberal arts, social
science, and behavioral science electives.

PSY208  3  Theories of Personality
Pre: PSY102
This course explores the major theories in the field of personality
psychology, including Psychoanalytical, Trait, Biological, Humanistic,
Behavioral/Social Learning, and Cognitive approaches. Research
methods and relevant research are presented with the goal toward
understanding personality structure and its development, human
motives and traits, and their assessment. Fulfills open, liberal arts,
social science, and behavioral science electives. (Formerly PSY130)

PSY210  3  Abnormal Psychology
Pre: PSY102 or PSY118
This course is a study of the common forms of maladaptive
behavior. It concentrates on the major perspectives, classification,
and study of the various mental and emotional disorders,
illuminative cases, and concepts for prevention. Fulfills open, liberal
arts, social science, and behavioral science electives.

PTA - Physical Therapy Assistant

PTA101  3  Introduction to Physical Therapy
Pre: Communications Proficiency
History and development of the physical therapy profession and its
role in health care. An overview of the role, function, and skills of
the Physical Therapist and the Physical Therapist Assistant.
An introduction to the sub-fields of the profession, code of ethics,
legal issues, and the role of the third party payor.
Medical terminology for use in accurate documentation.

PTA103  1  Therapeutic Massage
Pre: Communications Proficiency
Offers the student an opportunity to practice traditional massage
and relaxation techniques with emphasis on the theory and ethics
involved with these techniques. (2 hours of lab per week)

PTA104  1  PTA Procedures Lab
Pre: All first semester PTA courses
Co: PTA105
Provides hands-on experience to support corresponding didactic
course materials. (2 hours of lab per week)

PTA105  2  Physical Therapist Assistant Procedures
Pre: All first semester PTA courses
Co: PTA104
Offers a theoretical and practical approach to functional activities
and patient management skills used in physical therapy treatments.
(2 hours of lecture per week)

PTA108  1  Kinesiology Lab
Pre: Communications Proficiency
Co: PTA109
Provides hands-on experience to support corresponding didactic
course material. (2 hours of lab per week)

PTA109  1  Kinesiology
Pre: Communications Proficiency
Co: PTA108
Study of the science of human motion. Presents the physical laws
of nature, forces acting on the body in motion, construction of
joints, prime mover muscles, and the techniques of manual muscle
testing.

PTA112  2  Clinical Experience 1
Pre: PTA104, 105, 114, 117, 118, 201, 202, 203, 204, and 205
Under the supervision of a licensed physical therapist and/or
physical therapist assistant, students complete 140-160 hours of
clinical internship while applying prior learned didactic and
laboratory information.

PTA113  2  Pathophysiologica l Conditions 1
Pre: Communications Proficiency
Offers a survey of medical, orthopedic, and sports-related
pathologies treated by physical therapy. Precautions, indications,
and contraindications are stressed. Introduces medical terminology
common to the conditions. (2 hours of lecture per week)

PTA114  2  Pathophysiologica l Conditions 2
Pre: All first semester PTA courses and BIO103
Offers a survey of medical and neurological conditions treated by
physical therapy. Precautions, indications, and contraindications
to treatments are stressed. Introduces medical terminology common
to the conditions. (2 hours of lecture per week)

PTA117  2  Therapeutic Exercise 1 Lab
Pre: All first semester PTA courses
Co: PTA118
Provides hands-on experience to support corresponding didactic
course material. (4 hours of lab per week)

PTA118  2  Therapeutic Exercise 1
Pre: All first semester PTA courses
Co: PTA117
Provides a foundation of exercise principles and techniques used
to restore and improve patient musculoskeletal and cardiovascular
well being. (2 hours of lecture per week)

PTA201  1  PTA Modalities Lab
Pre: Communications Proficiency
Co: PTA202
Provides hands-on experience to support corresponding didactic
material. (2 hours of lab per week)

PTA202  2  Modalities of Physical Therapy
Pre: Communications Proficiency
Co: PTA201
Offers theory and practice in the use of electrotherapeutic and
mechanical agents. (2 hours of lecture per week)

PTA203  2  Neurology for Physical Therapist Assistant
Pre: BIO103
An introduction to the concepts of anatomy and physiology of the
nervous system and how they relate to problems encountered in
clinical neurology. (2 hours of lecture per week)
PTA204  Clinical Anatomy 1 Lab
Pre: PTA109
Co: PTA205
Provides hands-on experience to support corresponding didactic course material. (2 hours of lab per week)

PTA205  Clinical Anatomy 1
Pre: PTA 109
Co: PTA204
The course focuses on application of biomechanical principles and analysis of human movement. Explores in detail the relationship of these principles to anatomy of the lower extremity and spine.

PTA206  Physical Therapist Assistant Seminar
Pre: All required PTA courses, all gen ed courses req in PT
Co: PTA210 and PTA208
A forum for discussion of clinical practice experiences presented by professionals in the field. Speakers with expertise in the following areas will give presentations: alternative treatment methods, licensure examination preparation, job-seeking skills (resumes, interview techniques, interpreting benefits package.) (1 hour of lecture per week)

PTA208  Clinical Experience 2
Pre: All prior PTA and general education courses
Under the supervision of a licensed physical therapist and/or physical therapist assistant, students complete 420-480 hours of clinical internship while applying all prior learned didactic and laboratory information.

PTA210  Case Studies in Physical Therapy
Pre: All prior PTA and general education courses
Offers an opportunity for the students to demonstrate proficiency in treatment skills by researching a selected disability and presenting appropriate treatment for that disability for review and critique by peers and faculty.

PTA212  Therapeutic Exercise 2 Lab
Pre: PTA112
Co: PTA213
Provides hands-on experience to support corresponding didactic course material. (2 hours of lab per week)

PTA213  Therapeutic Exercise 2
Pre: PTA112
Co: PTA212
Continues Therapeutic Exercise 1 and introduces more complex exercise techniques emphasizing treatments for the cardiac, pulmonary and neurologically impaired population. (2 hours of lecture per week)

PTA214  Clinical Anatomy 2 Lab
Pre: PTA109, 108, 204, 205
Co: PTA215
Provides hands-on experience to support corresponding didactic course material. (2 hours of lab per week)

PTA215  Clinical Anatomy 2
Pre: PTA 109, 108, 204, 205
Co: PTA214
This course focuses on application of biomechanical principles and analysis of human movement. Explores in detail the relationship of these principles to anatomy of the upper extremity and cervical spine.

PTA220  Current Topics in Physical Therapy
Pre: PTA112
A closer study of topics of special interest which may include but will not be limited to pediatrics, geriatrics, orthotics, burn therapy, aquatherapy, pharmacology, medical ethics, and wound care.

PYW - Physical Youth Worker

PYW101  Working With Youth
This course provides an overview of the history, ethics, professional standards, and the practical skills needed to be an effective Youth Worker. Recognized core competencies will be used as a foundation of learning to broaden student understanding. Topics include a strengths-based approach to youth development, intervention skills, violence and conflict resolution, and social systems. Students will be given an opportunity to explore how trauma and loss affect young people.

PYW222  Seminar and Practice of Youth Work
Pre: Communication Proficiency, PYW101
Co: PSY102
This course provides the opportunity for students to engage in the practical application of Youth Work. Through a 120 hour internship, students will work with youth in a number of youth service agencies. Through the process of thirty hours 2 hours per week) of group discussions, reflection and assigned activities, the students will demonstrate their mastery of established core competencies of youth work.

RAD - Radiologic Technology

RAD101  Principles of Radiologic Technology 1
Pre: Communications and Mathematics Proficiencies
This course provides an introduction to radiologic technology including the production of the radiographic image, explanation and application of exposure factors; integration of the photographic and geometric properties of radiographic image quality. Also includes an introduction to radiation safety; the effects of body habitus on image quality as well as mathematics pertinent to exposure factors.

RAD102  Principles of Radiologic Technology 2
Pre: RAD101
Investigates the means available for improving image quality. Examines various aspects of radiographic film, film construction, film processing and silver recovery. Examines the types and effects of intensifying screens and grids. Examines fluoroscopy, fluoroscopic units, image intensifiers, and tomography. Includes the principles of pharmacology, contrast media, cardiac and emergency medications.

RAD111  Radiography Clinical Experience 1
Pre: Communications and Mathematics Proficiencies
Provides a hands-on approach to developing positioning skills concerning the radiographic anatomy and positioning of the respiratory system, the abdomen, the upper extremities, and feet and ankles. Also includes an orientation to the hospital and departmental policies along with medico-legal ethics and medical terminology.
RAD112  2  Radiography Clinical Experience 2  
Pre: RAD111
Provides a hands-on approach to developing positioning skills concerning the anatomy of the digestive and biliary systems, the urinary system, the lower limbs, and the shoulder girdle. (16 hours of clinical per week)

RAD113  5  Radiography Summer Clinical  
Pre: RAD112
Provides a hands-on approach to radiographic positioning and technique of: portable radiography, operating room radiography, tomography, hysterosalpingography, myelography, venography, and arthrography and surveys for long bone measurement and bone age. Anatomy and positioning of the bony thorax and vertebral column will be included. A pediatric rotation will be done along with performance evaluations not completed during the spring semester. Attention will also be focused on film critique and pathology. (480 clinical hours)

RAD120  3  Radiologic Science  
Pre: Acceptance into Radiologic Technology Program
This course introduces the fundamental aspects of physics with an emphasis on the concepts and theories pertinent to the understanding of X-ray production and radiologic equipment. The course will cover the methods of X-ray production and X-ray interaction with matter. The X-ray tube and the X-ray circuit will be covered in detail.

RAD131  1  Radiographic Anatomy & Positioning Lab 1  
Pre: Communications and Mathematics Proficiencies
Covers patient care procedures, anatomy and positioning of the respiratory system, the upper extremities, feet and ankles, and the shoulder girdle.

RAD132  1  Radiographic Anatomy & Positioning Lab 2  
Pre: RAD131
Covers the anatomy and positioning of the following body parts: digestive and biliary systems, urinary system, lower limbs, bony thorax, pelvis and hips, and the vertebral column.

RAD201  3  Principles of Radiologic Technology 3  
Pre: RAD102
 Covers radiobiology, background radiation, effects of irradiation, responses to irradiation and radiation syndromes. Also covers the need for radiation protection, methods used for patient and personnel protection, and methods used to monitor exposures.

RAD202  3  Principles of Radiologic Technology 4  
Pre: RAD201
An advanced level course designed to keep abreast of the rapidly changing field of diagnostic imaging. Includes computerization in imaging and technology, digital vascular imaging, interventional radiology, magnetic resonance imaging, and quality assurance and control. Students write a research paper on a newer modality and create a resume, cover letter and thank you letter for their job search.

RAD204  3  Digital Radiography and PACS  
Pre: RAD102 with ‘C’ or better
This is an advanced and comprehensive course covering Computed Radiography, Digital Radiography and PACS. The student will review conventional imaging, computer concepts, networking and computer hardware. The course will introduce cassette-based and cassette-less digital imaging. The course will cover in detail image acquisition, image processing, image analysis, image storage including PACS, and quality assurance.

RAD206  3  CT and Cross-Sectional Anatomy  
Pre: BIO104
This course is designed to provide entry level radiography students with principles related to Computed Tomography (CT) imaging. The course will also provide information on cross-sectional anatomy of the head and neck, along with the organs and the vessels of the thorax and the abdomen.

RAD211  3  Radiography Clinical Experience 3  
Pre: RAD113
Provides a hands-on approach to developing positioning skills concerning the anatomy of the cranium, facial mass, and their contents. Includes clinical rotations through computerized tomography (CT). (24 hours of clinical per week)

RAD212  3  Radiography Clinical Experience 4  
Pre: RAD211
Provides a hands-on approach to procedures used in special examinations, vascular studies, and sialography. Includes clinical rotations through special procedures, magnetic resonance imaging and the cardiac catheterization lab. (24 hours of clinical per week)

RAD231  1  Radiographic Anatomy & Positioning Lab 3  
Pre: RAD132
An intermediate level laboratory involved with the anatomy and positioning of the following body parts: cranium, facial mass and their contents. Students will be introduced to basic mammographic anatomy and positioning techniques. (1 hour lecture, 1 hour lab per week)

RAD232  1  Radiographic Anatomy & Positioning Lab 4  
Pre: RAD231
An advanced anatomy and positioning laboratory to develop the information base needed to perform radiographic special procedures such as: venipuncture; angiographic studies of the heart, arteries and veins; and sialography. (1 hour lecture, 1 hour lab per week)

REC - Recreation Skills

REC102  1  Beginning Swimming and Water Safety  
Pre: REC102 or permission
Designed to meet the needs of the beginning swimmer or non-swimmer. Basic water skills will be covered with emphasis on swimming on front and back. Basic water safety is included.

REC104  1  Advanced Swimming  
Pre: REC102 or permission
Designed to meet the needs of students who have basic swimming skills and wish to improve. Emphasis will be on training techniques that will help students improve their swimming distance.

REC106  1  Recreational Swimming (Swimnastics)  
Pre: REC102 or permission
Encourages enjoyment of the water through physical activity. The focus of the course for non-swimmers will be on making them feel more secure in a foreign environment. All students will take part in a program of water exercises to gain and maintain physical fitness. Part of the program should help to develop stamina, endurance, coordination and flexibility.

REC110  1  Recreational Racquetball  
Pre: REC102 or permission
Focuses on the fundamental skills necessary for active participation in racquetball. Rules of the game will be covered as well as game strategies. Game participation is required.
Credit Course Descriptions

REC112 1 Recreational Running
Introduces the student to the concept of the extraordinary world of running and will focus on helping the student set up a program of recreational running that will meet individual student needs.

REC114 1 Recreational Basketball
Focuses on the fundamental skills of basketball as well as on rules and game strategies. Game participation is required.

REC116 1 Recreational Basketball
Focuses on the fundamental skills of basketball as well as on rules and game strategies. Game participation is required.

REC118 1 Recreational Canoeing
Introduction to canoeing covering canoeing nomenclature and techniques; safety and rescue procedures, maintenance of equipment and navigational principles. This course is designed to assist the student in becoming proficient in the skills necessary for flat water canoeing.

REC120 1 Beginner Golf Instruction
Designed to introduce the student to the fundamentals of golf its history, rules, etiquette, equipment selection, grips, stance, and swing. Practice sessions will include driving, long and short irons, and putting. Emphasis will be on developing an understanding and enjoyment of the game.

REC122 1 Beginner Tennis Instruction
Designed to meet the needs of the beginner. Areas covered include history, lore, equipment selection, rules, etiquette, grip, serve, movement while making shots, and basic strategy of the game. Students will be expected to participate in skill practice sessions with other members of the class.

REC124 1 Bicycling for Fun and Fitness
Designed to introduce the beginner cyclist to the techniques necessary to operate a bicycle in a safer manner so as to have fun, enjoy the outdoors and stay fit. Areas covered include proper bike selection, care and maintenance, rules of the road, safety, gear selection and endurance building. The student will be introduced to cycling organizations and travel opportunities. Course requirements include a field trip on a bicycle. Students will be required to supply their own bicycles.

REC126 1 Recreational Backpacking and Camping
Designed to introduce the student to the techniques necessary to plan, organize, and carry out a backpacking and camping trip in a safe and enjoyable manner for an individual or a group. Areas covered include equipment selection, use of maps and guidebooks, meal planning, campsite selection, camping etiquette, and pretrip conditioning. Course requirements include an overnight camping trip. Students are expected to supply their own sleeping gear and food as well as proper clothing for the camping trip.

REC128 1 Practical Self-Defense
Designed to introduce the student to the nature of violence in our society; to ways in which we can avoid violent situations; to the need for knowledge of self-defense and to practical self-defense techniques that may be used to defend against violent attack. Student participation in skills sessions is required.

REC130 1 Aerobic Dancing for Fitness
Focuses on the use of aerobic dancing as a program of physical fitness. Participation is required in a simple, vigorous dancing program that should improve health, heart and figure. This course is for dancers and non-dancers alike.

REC132 1 Orienteering
Introduces the student to the fascinating uses of map and compass for travel, recreation, and sports. It will present step-by-step instructions on how to read topographical maps, take bearings with a compass, plot interesting jaunts off the beaten trail, and most importantly, to use a map and compass to get the most out of hiking, backpacking, cross country skiing, fishing, and many other outdoor pastimes. Practical outdoor exercises will be included.

REC141 3 Introduction to Recreation and Leisure Studies
Designed to introduce the student to the areas of recreation and leisure studies. It will explore various recreational factors including the historical, economical, psychological, philosophical and social elements of recreation. It encompasses indoor, outdoor and therapeutic recreation and emphasizes trends in recreation and program offerings in different settings.

REC143 2 Games for Individual and Family Development
Introduces the student to various types of non-competitive games which help foster individual and family development. Students will also study various forms of leadership techniques, group dynamics techniques and problem solving techniques which would allow participants to become involved in the activity. Students will be expected to demonstrate their ability to teach participants to play various games through role play activities and classroom stimulation.

REC145 3 Organization and Management of Recreational Programs
Pre: REC 141
Introduction to the administration of public and private services. It will include personnel, budget, facility management and policy formation.

REL - Religion

REL102 3 Great Religions of the World
Examines the beliefs, practices and lifestyles of devout Hindus, Buddhists, Confucianists, Jews, Christians and Moslems. Among the topics covered are their views of God, morality, death, and the good life. Fulfills open, liberal arts and humanities electives.

REL104 3 Understanding Islamic Faith
Pre: Communications Proficiency
This course explores Islam through a lens of Religious Studies. We will engage the sacred sources in Islamic thought from our own perspectives, and try to understand how these have been experienced, interpreted, and understood by Muslims themselves. We will not attempt to define one Islam, but rather explore the diversity with which the life of Muhammad, and the Qur’an have been influencing religious life for the past 1400 some years. Fulfills open, humanities and liberal arts electives.

RES - Real Estate

RES201 3 Real Estate Principles and Practices
Pre: Communications and Mathematics Proficiencies
Provides information which prepares students for the Mass Real Estate Salesperson Examination and for entry-level positions in real estate sales. Topics include real property concepts, ownership rights, zoning, forms of ownership, real estate contracts, title transfer, types of mortgages, lending practices, sources of financing, real estate taxes, leases, appraisal, and real estate math. This course is licensed by the Massachusetts Board of Registration of Real Estate Brokers and Salespeople.
RES202  3  Real Estate Principles and Practices 2
Pre: RES201 or permission of instructor
Includes information pertinent to the Real Estate Brokers Examination which qualifies students for a position in real estate sales as a broker. Reviews topics covered in Real Estate Principles 1 as well as anti-trust law, subdivision land use, foreclosure, exchanges, property management, settlement process and an in-depth analysis of common real estate contracts. This course is licensed by the Massachusetts Board of Real Estate Brokers and Salespeople.

RES204  3  Real Estate Law
Pre: Communications and Mathematics Proficiencies
Study of the basic principles of modern real estate law with emphasis on the laws of Massachusetts. Stress is upon current real estate transactions.

RES206  3  Real Estate Appraising
Pre: Communications and Mathematics Proficiencies
Covers the elements involved in determining real estate values in residential and commercial properties. Methods include comparative market analysis, cost approach, gross rent multipliers, and the income approach. Market forces, use analysis, zoning implications, utility, property improvements, types of depreciation, transferability, obsolescence, income evaluation and capitalization related to appraising are also covered.

RSP - Respiratory Care

RSP101  4  Fundamentals of Respiratory Care 1
Pre: Communications Proficiency
Introduction to the Respiratory Care Program and the profession of respiratory care. Instruction in cardiopulmonary anatomy and physiology, patient assessment, therapeutic modalities, ethical decision making and introduction to respiratory diseases. (4 hours of lecture per week)

RSP102  4  Fundamentals of Respiratory Care 2
Pre: RSP101, 111, and 131, MAT091 w/C or better or placement exam score
Presents the principles of medical gas therapy, continuation of patient assessment techniques, ABG interpretation, incentive spirometry and ethical decision making.

RSP111  2  Respiratory Care Clinical Experience 1
Pre: Communications and Mathematics Proficiencies
The clinical correlation to Courses RSP101 and RSP131. Students spend 8 hours per week in the hospital learning to apply the principles introduced in the didactic and laboratory settings. (120 hours of clinical per semester)

RSP112  2  Respiratory Care Clinical Experience 2
Pre: RSP101, 111 and 131
The clinical correlation to courses RSP102 and RSP132. Students spend 8 hours per week in the hospital learning to apply the principles taught in the didactic and laboratory settings. (120 hours of clinical per semester)

RSP122  2  Physiology of Respiratory Care
Pre: RSP101, 111, and 131
A study of the physiology associated with current practices of respiratory and related care procedures and techniques.

RSP126  3  Respiratory Care Pharmacology
Pre: Communications Proficiency
Co: RSP101, RSP111, RSP131
Presents the general principles of pharmacology and action of the major drug groups that Respiratory Therapists should be familiar with. In addition, the anatomy and drugs, including the effect on the body as an integrated physiology of the autonomic nervous system and its role in drug action will be covered. Drugs will be studied as groups and individually for site and mechanism of action, indications, contraindications, side effects, and routes of administration. Dosage calculations will be included for drugs given via inhalational route.

RSP131  1  Respiratory Care Lab 1
Pre: Communications Proficiency
RSP101 and RSP111 Theory and development of skills associated with respiratory care procedures and equipment such as CPR, artificial airways, manual resuscitators, patient assessment, chest physical therapy and related medical terminology. (3 hours of lab per week)

RSP132  1  Respiratory Care Lab 2
Pre: RSP101, 111, 131 or Program Director’s consent
Co: RSP102, 112
Theory and development of skills associated with respiratory care procedures and equipment such as medical gas therapy, therapy, humidity and aerosol therapy, IPPB therapy, pulmonary function testing, and blood gas (ABG) sampling and analysis. (3 hours of lab per week)

RSP201  4  Fundamentals of Respiratory Care 3
Pre: RSP102, 112 and 132
Principles of mechanical ventilators and management of the ventilated patient and continuation of positive pressure therapies and ethical decision making. (4 hours of lecture per week)

RSP202  4  Fundamentals of Respiratory Care 4
Pre: RSP201, 211 and 231
Topics of hemodynamic monitoring, neonatal and pediatric respiratory care, invasive patient assessment procedures, rehabilitation of the pulmonary patient and ethical decision making. (4 hours of lecture per week)

RSP211  4  Respiratory Care Clinical Experience 3
Pre: RSP102, 112 and 132
The clinical correlation to courses RSP201 and RSP231. Students spend 16 hours per week in the hospital learning to apply the principles studied in the didactic and laboratory settings. (240 hours of clinical per semester)

RSP212  4  Respiratory Care Clinical Experience 4
Pre: RSP201, 211 and 231
The clinical correlation to courses RSP202 and RSP232. Students spend 16 hours per week in the hospital learning to apply the principles studied in the didactic and laboratory settings. (240 hours of clinical per semester)

RSP214  2  Respiratory Care Clinical Experience 5
Pre: RSP112 or Program Director’s consent
Participation in 160 clock hours of supervised clinical experience practicing respiratory care procedures and techniques. (160 hours of clinical per semester)
RSP215  2 Contemporary Topics in Respiratory Care  
Pre: Comm & Math Prof; RSP201, 211, 231  
Co: RSP202, 212, 232  
This course will examine contemporary issues and trends in Respiratory Care practice as well as prepare the student for entry into the profession and the licensure process. Topics will include, but not be limited to: disaster planning, alternative site practice, and clinical simulations. Instruction and practice will also be provided in the necessary techniques to take the advanced level National Board of Respiratory Care (NBRC) examinations.

RSP222  2 Introduction to Respiratory Disease  
This course will focus on the description, evaluation, manifestations, pathophysiology, treatments, and prognosis of major respiratory disorders.

SCI101  4 Integrated Science 1  
Pre: Communications and Mathematics Proficiencies  
Integrated Science I is the first in a two-course sequence designed to introduce the student to the basic concepts of physics, chemistry and astronomy. Using inquiry-based activities, the student will explore these principles as well as the technologies associated with them. Lectures and laboratory periods are closely integrated. Fulfills open, liberal arts, science electives and with SCI102, fulfills laboratory science sequence electives.

SCI102  4 Integrated Science 2  
Pre: Communications and Mathematics Proficiencies and SCI 101  
Integrated Science 2 is a continuation of Integrated Science 1. It introduces the student to the basic concepts of geology, meteorology and biology. Using inquiry-based activities, the student will explore these principles as well as the technologies associated with them. Lectures and laboratory periods are closely integrated. Fulfills open, liberal arts, science electives and with SCI101, fulfills laboratory science sequence electives.

SOC104  3 Criminology  
Pre: Communications Proficiency  
Study of criminal and delinquent behavior in the United States with emphasis on measures of preventive control and treatment. Crime and delinquency are examined as personal and social problems. Fulfills open, liberal arts and social science electives.

SOC106  3 Introduction to Sociology  
Pre: Communications Proficiency  
Introduction to the study of society, employing all the basic concepts of sociology, such as: the structure and functions of society, culture, norms, roles and status. Attention is given to the origins of sociology, its methods and its place as one of the social sciences. Fulfills open, liberal arts and social science electives.

SOC110  3 Juvenile Offenders  
Pre: Communications Proficiency  
Study of the problems of delinquency in youth. The course concentrates on the detection, prevention, control, and processes of rehabilitation of delinquency. The juvenile court system in the United States and Massachusetts, as well as the protective services of metropolitan Boston, will be discussed. Fulfills open, liberal arts and social science electives.

SCI102  4 Integrated Science 2  
Pre: Communications and Mathematics Proficiencies and SCI 101  
Integrated Science 2 is a continuation of Integrated Science 1. It introduces the student to the basic concepts of geology, meteorology and biology. Using inquiry-based activities, the student will explore these principles as well as the technologies associated with them. Lectures and laboratory periods are closely integrated. Fulfills open, liberal arts, science electives and with SCI101, fulfills laboratory science sequence electives.
SPE106 3 Interpersonal Communication
Pre: Communications Proficiency
This course explores how people communicate in relationship with one another. The class will engage concepts such as culture, gender, and identity from a Communication Studies perspective. Fulfills humanities, liberal arts, social science, and open electives.

SPL - Speech/Language Pathology

SPL102 3 Introduction to Communication Disorders
Pre: Communications Proficiency
An introduction to speech, language, and hearing as components of human communication; and a survey of the disorders of communication. The course focuses on the role speech and language plays in human existence and the psychosocial consequences associated with communication disorders. The course content is enhanced by 10 hours of observation as part of a Level I field placement. (3 hours of lecture per week and 10 hours of field observation per semester)

SPL104 3 Speech and Language Development
Pre: Communications Proficiency
A study of the biological, emotional, cognitive, and environmental factors underlying the acquisition and development of speech and language. Special attention is given to phonology, morphology, syntax, semantics, and stages of normal development. The course content is enhanced by 10 hours of observation as part of a Level I field placement. (3 hours of lecture per week and 10 hours of observation per semester)

SPL106 3 Audiology
Pre: Communications Proficiency
A study of the anatomy and physiology of the auditory system and the normal hearing mechanism. Special attention is given to common audiological disorders and the medical/surgical correction of these problems as well as audiometry and the interpretation of the audiogram.

SPL108 3 Phonetics
Pre: Communications Proficiency
A study of the perception and production of speech sounds in English. Students will analyze sound production through the in the analyses of the English language. (3 hours of lecture per week)

SPL110 3 Clinical Methods and Strategies in Communication Disorders
Pre: Communications Proficiency
A detailed study of the etiology, diagnosis, and treatment of communication disorders. Special attention is given to the significance of therapy goals, the practical application of appropriate clinical methods, and the importance of clinical observation/documentation skills. (3 hours of lecture per week)

SPL112 3 Speech and Language Pathology Assisting Field Placement
Pre: SPL102 and SPL104 and SPL110
The field placement allows the student to apply the principles, theories, and clinical methods introduced in the program. The student is required to complete a total of 120 hours of Level II field placement service in two venues one rehabilitation and one educational) under the supervision of a licensed/certified Speech/Language Pathologist. In conjunction with the field placement service, the student will complete 10 hours of seminar at the College. The seminars allow for the sharing of knowledge gained through the field placement experience. An emphasis will be placed upon the discussion of required journal entries and special topics such as ethics, interpersonal relations, written communications, and resume preparation. (120 hours of field placement and 10 hours of seminar per semester)

SPL114 3 Structure and Function of the Speech and Hearing Mechanism
Pre: Communications Proficiency
Co: SPL102
An introduction to the structure and function of the organs of speech and hearing. The anatomy and physiology is integrated with clinical information for students in speech and hearing sciences, and focuses on organ systems as they relate to the phonation, respiration, and articulation of speech production.

SPL116 1 Articulation and Phonological Disorders
Pre: Communications Proficiency
Co: SPL108
A functional study of articulatory and phonological disorders that affect children and adults. Areas of focus will include terminology, applying goals and objectives of therapy, and facilitative techniques for treatment. (15 hours of lecture)

SPL118 1 Neurogenic Communication Disorders and Rehabilitation
Pre: Communications Proficiency
Co: SPL110
A detailed study of communication disorders in adults related to neurological dysfunction. Medical terminology as it pertains to speech-language deficits will be applied. Special attention will be given to therapeutic and compensatory strategies in dysphasia and dysphagia. (15 hours of lecture)

SPA - Spanish

SPN100 3 Conversational Spanish
A basic course in conversational Spanish designed to enable students to begin to communicate effectively. Classroom activities are varied with practical vocabulary and language structure related to life/work situations. Language competency is promoted through speaking, reading, writing, interviewing for oral practice, listening comprehension using multi-media materials, and occasional online discussion. Fulfills open, liberal arts, humanities, and modern language electives.

SPN101 3 Elementary Spanish 1
Elementary Spanish 1 focuses on the acquisition of basic listening, speaking, reading, and writing skills through dialogues, role playing situations and open-ended speech. It prepares students to use basic grammatical structures correctly in a natural way for communication and enhances appreciation of cultural differences. Classroom activities are reinforced by assigned work using multimedia materials. Fulfills open, liberal arts, humanities, and modern language electives.

SPN101A 3 Elementary Spanish 1: for the Health Professional
Elementary Spanish 1 for the Health Professional focuses on the acquisition of essential medical vocabulary used by health professionals at work settings such as hospitals, emergency rooms, doctor’s offices and clinics when dealing with Spanish-speaking patients and personnel in the United States. It also discusses Hispanic customs and traditions relevant to healthcare. It prepares students to use basic grammatical structures correctly emphasizing in basic listening, speaking, reading, and writing skills. Classroom activities are reinforced by assigned work using multimedia materials. Fulfills open, liberal arts, humanities, and modern language electives.
**SPN102  3  Elementary Spanish 2**  
Pre: SPN101

Elementary Spanish 2 is a continuation of SPN101. This course continues its emphasis on listening, speaking, reading, and writing skills through dialogues, role playing situations and open-ended speech. Introduces new grammatical structures, increases the use of the language and enhances appreciation of cultural differences. Classroom activities are reinforced by assigned work using multimedia materials. Fulfills open, liberal arts, humanities, and modern language electives.

**SPN104  3  Language and Culture**  
Pre: By permission of the Instructor

Language & Culture takes a communicative and interactive approach to the teaching of Spanish. It stresses cultural competency and the ability to make connections as an invaluable component of language learning. It reinforces basic listening, speaking, reading, and writing skills through diverse formats: discussion topics, role-plays, interviews, oral presentations and the use of basic grammatical structures correctly. It connects to language through culture and promotes authentic communicative exchanges in which students provide, acquire, and interpret information, as well as express emotions and opinions. Students participate in a broader, richer Spanish-speaking community and develop further insight into the nature of language and culture beyond the classroom setting. A trip to a Spanish speaking country is part of this course.

**SPN201  3  Intermediate Spanish 1**  
Pre: SPN102 or 3 yrs of successful high school Spanish

Intermediate Spanish 1 focuses on communication in meaningful contexts that consolidate and strengthen student’s speaking, listening, reading and writing skills. It reviews basic grammar and introduces new grammar topics. It presents authentic literary selections while it develops cultural competency. Classroom activities are reinforced by assigned work using multimedia materials. The course combines class discussions, oral presentations, and compositions, analysis of literary pieces, articles and films. This course is conducted primarily in the target language. Fulfills open, liberal arts, humanities, and modern language electives.

**SPN202  3  Intermediate Spanish 2**  
Pre: SPN201

Intermediate Spanish 2 is the continuation of SPN201. It reviews and presents new grammar topics and develops an active vocabulary. Students attain an intermediate communicative competence and continue their awareness of the range of cultures in the Spanish-speaking countries. The course combines class discussions, oral presentations, compositions, analysis of literary pieces; articles and films are a part of this course. This course is conducted primarily in the target language. Fulfills open, liberal arts, humanities, and modern language electives.

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**SPT - Sterile Processing Technician**

**SPT101  4  Sterile Processing 1**  
Pre: Communications and Mathematics Proficiencies  
Co: BIO108

Presentation of basic principles related to sterilization; microbiology, decontamination, cleaning, and processing sterile instrumentation and supplies. Includes a history of the sterile processing and distribution profession (central service). Focus on inspection, assembly, distribution and maintenance of equipment. Provides overview of infection control, and safe working environments.

**SPT102  4  Sterile Processing 2**  
Pre: Communications and Mathematics Proficiencies

Introduction to basics of packaging and wrapping; biological monitoring; steam sterilization; ethylene oxide sterilization; and dry heat, chemical and alternative sterilization methods (low temperature gas plasma sterilization). Includes inventory of supplies and equipment; legal aspects; work simplification; and management. Includes updates on bio-safety, reprocessing methods, environmental aspects of viral hepatitis, and other infectious diseases.

**SPT103  5  Sterile Processing 3: Externship**  
Pre: Communications and Mathematics Proficiencies

This clinical externship will allow the student to have hands on experience in the skills needed to become a sterile processing technician with a preceptor assigned by the health care facility.

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**SRG - Surgical Technology**

**SRG100  2  Aseptic Technique Laboratory**  
Pre: Communications and Mathematics Proficiencies

The laboratory component of the Surgical Technology Program is used to integrate the knowledge and skills learned from the didactic portion of Aseptic Technique 101. This course provides students with the opportunity to practice skills in a practical setting utilizing surgical procedures. This course satisfies no elective requirement.

**SRG101  4  Principles of Aseptic Technique**  
Pre: Communications & Mathematics Proficiencies  
Co: SRG100, 104, HLS102, 104, 106

A comprehensive course to integrate the didactic portion of operating room knowledge and skill for clinical application of surgical technology. Theory for the various components of sterile technique and procedures are taught to maximize clinical performance. Sterility and the operating room environment are reviewed for preparedness into the operating room suite.

**SRG102  5  Surgical Procedures**  
Pre: Communications & Mathematics Proficiencies

This is a continuation of SRG101 and prepares students to handle surgical cases of the various specialties emphasizing their role in relation to the patient’s health while in the operating room.
SRG104 6 Patient Care in Surgery
Pre: Communications & Mathematics Proficiencies
This is a comprehensive study of the principles of asepsis and sterile techniques combined with laboratory practice. The role of the circulating nurse is introduced as well as proper transportation, preparation and handling of supplies, preoperative preparation of the skin and types of anesthetics in the operating room. The students study the variety of equipment and materials used and the specific duties and procedures of the technician including the care and safety of the patient. Also included are the care and handling of special equipment, septic case routines and preparation of the surgical specimens. (6 hours of lecture per week)

SRG106 2 Medical Terminology for Surgical Technology
Pre: Communications & Mathematics Proficiencies
This course is designed to provide the student with common prefixes, suffixes, and root words used in the medical field. Emphasis is placed upon surgical terminology. (2 hours of lecture per week)

SRG114 1 Basic Pharmacology
Pre: Communications & Mathematics Proficiencies
This is a study of the nomenclature, dosage, effects and measurement of drugs and medications specifically used during surgery. This course includes aseptic practice, proper drug identification, and clear labeling on the surgical field. (1 hour of lecture per week)

SRG116 2 Surgical Care for All Patient Ages
Pre: Comm & Math Pro; HLS102, 104; SRG100, 101, 104, 106, 114
Co: HLS113, 114; SRG102, 120, 131
This course will provide an overview of peri-operative care and how it applies to children, adolescents, and adults. It will describe and explain the accepted behavior that may occur within the life cycle as the patient undergoes surgery.

SRG120 8 Operating Room Externship
Pre: Communications & Mathematics Proficiencies
The student completes two rotations at accredited hospitals. During this time the student will gain supervised experience and will be exposed to many aspects of operating room procedures. The clinical experience consists of four days per week, without renumeration, for the last semester of the school year. 32 hours of clinical experience per week

SRG131 1 Vocational Trends for Surgical Technicians
Pre: Communications & Mathematics Proficiencies
Designed to teach the students the role of the surgical technologist and the code of ethics and legal issues associated with the operating room. It also provides students the knowledge of how an operating room is managed and reviews the inter-related departments and policies within the hospital. In addition, it prepares students to write a resume, cover letter and a research paper. 15 hours of lecture

SSC - Student Support Course

SSC090 1 College Orientation Seminar
Pre: Communications and Mathematics Proficiencies
This fifteen week seminar will aid NYNEX students in reaching their academic potential and help them to enjoy a successful educational experience at North Shore Community College. Emphasis will be on college environment and services, study/learning skills, and self-awareness, and self-development.

SSC091 1 Learning Support for Mathematics
Pre: MAT011 or placement exam
Co: Enrollment in a Mathematics Course
This course is designed as academic support for students enrolled in a mathematics course. Emphasis will be on the process of learning mathematics and the study skills specific to mathematics. Topics will include instruction on learning strategies, reading and writing mathematics, anxiety reduction, and test taking techniques. This course fulfills no elective requirements.

SSC101 3 College Success Seminar
Pre: COM011/013 or placement by assessment test
An exploration of the factors which determine academic, career, and personal success. Emphasis is on building the skills and awareness necessary to promote academic persistence and achievement.

SSC102 3 Achieving College Success With Excellence
Pre: Communications and Mathematics Proficiencies
A first-semester seminar for high achieving, academically motivated students, emphasizing appreciation of the learning process and the skills and awareness needed to excel in competitive educational environments. Students will develop their critical thinking and problem solving abilities, explore personal learning styles and creativity, refine their educational and career goals, build personal skills, and enhance their enjoyment and confidence as learners. Students who have taken SSC101 may not take this course.

SSC104 1 Introduction to Assistive Technology
Pre: Knowledge of computer keyboard
Designed for those who will be assisting people with disabilities to become independent and/or competitive in the workforce and for those who will be involved in physical and occupational rehabilitation. Students will utilize Assistive Technology such as scanners, reading machines and computers.

SWG - Social Welfare/Gerontology

SWG104 3 Nutritional and Health Aspects of Aging
Pre: Communications and Mathematics Proficiencies
The student will gain information and skills needed to assess and improve nutritional and health patterns of the older adult. Emphasis will be placed on preventative health maintenance. Additionally, this course will explore attitudes and thoughts which have led to both problems in these areas and solutions to health and nutritional deficits among the elderly.

SWG121 3 Modular Education for Activity Professionals 1, Part 1
Pre: Communications Proficiency
Co: PSY112
Provides students with fundamental skills and knowledge essential to the role of activities of professionals working with elderly. Covers client and program assessment, planning implementation and evaluation. Particular emphasis on documentation skills, quality of life issues for elders. Part 1 covers the history of the field, institutional types, the concept of elder needs, and the developmental aspects of need related to illness.

SWG122 3 Modular Education for Activity Professionals 1, Part 2
Pre: SWG121
Provides students with fundamental skills and knowledge essential to the role of activities of professionals working with elderly. Covers client and program assessment, planning, implementation and evaluation. Particular emphasis on documentation skills, quality of life issues for elders. Part II covers standards and ethics of practice, care planning, communication and management issues.
SWG123  3  Modular Education for Activity Professionals 2, Part 1  
Pre: SWG121, 122  
Provides students with skills needed to manage an Activities Program. Topics to be addressed include regulatory compliance, quality assurance legal and ethical issues, program development, leadership and supervision skills, management writing, marketing, volunteer recruitment and management and community relations. Part I covers regulatory concerns, individualization of care, and evaluation of care and programs.

SWG124  3  Modular Education for Activity Professionals 2, Part 2  
Pre: SWG123  
Provides students with skills needed to manage an Activities Program. Topics to be addressed include regulatory compliance, quality assurance legal and ethical issues, program development, leadership and supervision skills, management writing, marketing, volunteer recruitment and management, and community relations. Part II covers administrative and leadership issues, publicity and image development, community relations, and certification requirements.

SWG201  3  Social Welfare Methods  
Introduces methods used in social welfare such as case management, data collection, communication skills, problem solving, treatment plans, and group techniques of helping clients.

SWG203  3  Advocacy for Elders  
Pre: PSY112  
Designed to provide basic knowledge and techniques to use advocacy as a democratic process for change. Included in the course will be techniques for taking action with others to solve common problems. The course will provide an understanding of the legislative process in Massachusetts and practical ways of influencing representative government. Problems of Medicare, Medicaid, wills, fraud, and Social Security also will be presented.

TEL - Telecommunications  

TEL201  4  Telecommunications 1  
Pre: IEL220 and 104  
This course is designed to train students in the organization, architecture, setup, maintenance, hardware and software aspects of local area networks. Topics include: introduction to networks; types and characteristics of different network architectures and network topologies; intra and inter-network devices; network operating systems; peer-to-peer and client/server environments; LAN setup and maintenance, network printing; internal web server. A hands-on approach will be taken, with team projects throughout.

TEL202  4  Telecommunications 2  
Pre: TEL201  
This course will cover the basics of Voice over Internet Protocol (VoIP) systems. Topics include: an overview of TCP/IP networks with a focus on VoIP; and introduction to VoIP; Quality of Service (QoS); VoIP system components; VoIP protocols and VoIP protocol analysis, VoIP architecture and VoIP codes. A hands-on approach will be taken, with team projects throughout.

TEL203  4  Telecommunications 3  
Pre: TEL202  
This course covers the organization, architecture, setup, hardware and software aspects of networked video delivery systems. Topics include: video transport; compression; packet transport; multicasting; content ownership and security; transport security; IPTV-IP video to the home; video file transfer; VPN's and home-office video links. A hands-on approach will be taken, with team projects throughout.

TEL204  4  Telecommunications 4  
Pre: TEL203  
A survey of current and emerging technologies in telecommunications will be presented. Lectures, interactive learning and demonstrations and site visits will be employed.

TOU - Tourism  

TOU104  3  Introduction to Tourism and Hospitality  
Pre: Communications Proficiency  
Provides an introduction to the various components of the tourism and hospitality industry. Topics include industry specific supply and demand issues; customer service; the relationship between the travel, tourism, and hospitality industries; the development of technology and its impact on tourism and hospitality; trade associations; and career opportunities. The status and function of profit and non-profit tourism agencies will also be discussed.

TOU210  3  Tour Management  
Pre: Math Proficiency; TOU104  
Covers customer-service training and how it relates to today's traveler. Management of incoming and outgoing groups and visitors will be studied. Focuses primarily on the role of the tour manager as it relates to costing a tour, planning personalized itineraries for groups of individuals, processing industry forms (i.e. RFP's, check requests, travel vouchers, evaluation forms, manifests), and implementing quality control measures for handling customer inquiries and complaints.

TOU216  3  Tourism Development and Management  
Pre: TOU104  
Covers local, regional, and international tourism. The topics include planning, development, implementation, and evaluation of tourist destinations and services primarily in the New England region. The operations of convention and visitors bureaus and tourism offices will also be examined.

TRV - Travel  

TRV103  3  Automated Systems for the Travel Industry  
Pre: Communications Proficiency  
Co: TOU104  
Introduces the principles of airline and hotel automation systems. Topics include the five primary components of a passenger name record, determining flight availability, selling airline seats, plus interfacing software programs such as point of sale systems and property management systems used in the hotel industry. This course will also examine the internet as an essential reference tool.
Major emphasis is given to freshwater recirculating systems, including physical facilities, water quality monitoring and control. A 14-week course combining lecture, laboratory, and hands-on experience in our new fish barn. Students gain exposure to major aspects of marine and freshwater aquaculture production, including physical facilities, water quality monitoring and control, finfish anatomy/physiology, grow-out operations and reproduction. Major emphasis is given to freshwater recirculating systems.

UCF - Urban and Community Forestry

UCF101 4 Urban Forestry 1
Pre: Communications and Mathematics Proficiencies
Introduction to integrated management of the urban forest. Students are acquainted with the fundamental principles, tools and techniques for inventory and value assessment of forested and associated open land in the urban environment. Special emphasis is given to identification of forest resources important in rapidly developing areas. (2 hours of lecture, 4 hours of lab per week)

UCF102 4 Urban Forestry 2
Pre: UCF101
Management of forested and associated open land in the urban environment. Students examine the ecological, social, and economic significance of land-use decision based on sound resource assessment. Management principles important in integrated land-use options such as watershed protection, timber production, recreation, wildlife enhancement and wetland protection are included. (2 hours of lecture, 4 hours of lab per week)

UCF104 4 Dendrology
Pre: Communications and Mathematics Proficiencies
Identification of native and naturalized woody plants of the Northeast, principally by winter characteristics. Tree structure and growth as well as the ecology of the forest community is emphasized. (2 hours of lecture, 4 hours of lab per week)

UCF106 1 Urban and Community Forestry Occupational Seminar
A one-credit course designed to introduce students to the wide range of employment opportunities available in the Urban Forestry career area. Methods of instruction include discussion, field trips, and guest speakers representing various career possibilities. (3 hours of lab per week)

UCF108 3 Forestry Surveying
An elementary course designed to familiarize the student or reacquaint the forester with the fundamentals of surveying encountered in their normal professional forestry activities. Methods of obtaining distance measurement by steel tape, pacing and electronic equipment, vertical distances and angular measurements with levels and electronic theodolites are emphasized. Knowledge of topographic maps both the interpretation and preparation are included. (2 hours of lecture, 3 hours of lab per week)

UCF120 3 Aquaculture: An Applied Overview
A 14-week course combining lecture, laboratory, and hands-on experience in our new fish barn. Students gain exposure to major aspects of marine and freshwater aquaculture production, including physical facilities, water quality monitoring and control, finfish anatomy/physiology, grow-out operations and reproduction. Major emphasis is given to freshwater recirculating systems.

UCF204 4 Park and Estate Management
Offers the fundamental knowledge and skills associated with the maintenance management of municipal park and estate grounds. The principles of turf and ornamental plant care are presented in a practical manner. The selection and use of maintenance equipment in parks and estates is included. (2 hours of lecture, 4 hours of lab per week)

UCF206 3 Wetland Law Enforcement
Pre: Mathematics Proficiency
Designed to provide students with practical skills relating to administration of the Massachusetts Wetlands Protection Act. Students gain an understanding of the important ecological role of coastal and freshwater wetlands, skill in identifying wetland indicator plants, delineating wetland areas and procedures followed by local conservation commissions responsible for administration of the Act. (2 hours of lecture, 3 hours of lab per week)

UCF208 4 Recreation Resource Management
A study of the recreation industry in modern society. Active and passive recreation program planning and leadership is emphasized through practical experiences. Outdoor skills and survival techniques required to manage recreation programs in a forested setting are included. (2 hours of lecture, 4 hours of lab per week)

UCF210 3 Silviculture
Classical presentation of principles and practices of controlling establishment, composition, age, arrangement, and quality of forest stands. Urban, social and economic objectives are emphasized. (2 hours of lecture, 3 hours of lab per week)

UCF212 4 Aerial Photogrammetry and Mapping
Principles and techniques of photography including geometry, measurements, interpretation and mapping for land managers. A mapping project is required. (2 hours of lecture, 4 hours of lab per week)

VET - Veterinary Technology

VET102 2 Veterinary Parasitology
Pre: Communications & Mathematics Proficiencies
This course will introduce freshman students to the variety of internal and external parasites that affect domestic animals. Students will learn Latin names and classifications, diagnostic techniques, life cycles, treatment and prevention strategies for a wide range of parasites that are commonly encountered in veterinary practice. (2 hours of lecture per week)

VET104 2 Veterinary Hospital Procedures
Pre: Communications Proficiency, MAT091 w/’C’ or successful completion of MM08
This course has both a laboratory and lecture portion. Students will learn skills utilized in routine medical procedures in a small animal practice. This will include: immunizations, ear cleaning, physical exams, nail trimming as well as other activities. As part of this course students will handle animals brought to the school clinic for these routine procedures. (1 hour of lecture, 2 hours of lab per week)
VET106 2 Surgical Nursing and Anesthesia
Pre: VET104
This course has both a laboratory and lecture portion. It is designed to familiarize students with the wide variety of skills needed to assist in a veterinary surgery. Principles of aseptic technique, instrumentation, and anesthesia monitoring will be covered. Students will assist the veterinarian in routine surgical and dental procedures as a component of this course. (1 hour of lecture, 2 hours of lab per week)

VET108 3 Basic Clinical Laboratory Procedures
Pre: VET102
This course has been designed to introduce students to the more common procedures performed in the veterinary hospital clinical laboratory. Areas covered: correct sample collection procedures, anticoagulants, specimen handling, manual and semi-automated procedures in hematology and chemistry, and urinalysis. Emphasis is placed upon accuracy and reproducibility of test results while performing the common diagnostic procedures. A ‘C’ or better grade is required for graduation. (1 hour of lecture, 2 hours of lab per week)

VET120 3 Veterinary Technology Summer Work Experience
Pre: Math Proficiency; VET104, 106 108
Students in the Veterinary Technology program are required to participate in 240 hours of clinical field experience. Students are expected to involve themselves in a small animal clinical setting in order to fulfill this requirement. (240 hours of work experience)

VET201 4 Anatomy and Physiology of Domestic Animals 1
Pre: Communications and Mathematics Proficiencies
An introductory course in the comparative anatomy of the mammalian body to include domestic animals and man. Emphasis is placed upon the normal anatomy and physiology with references made to deviation from the norm which might constitute a disease state. (3 hours of lecture, 2 hours of lab per week)

VET202 4 Anatomy and Physiology of Domestic Animals 2
Pre: VET201
This course is a continuation of VET201. Emphasis is placed on normal mammalian anatomy and basic physiology with references made to deviation from the norm which might constitute a disease state. (3 hours of lecture, 2 hours of lab per week)

VET203 3 Animal Disease 1
Pre: VET106
These sequential courses are designed to introduce the veterinary technician to the nature of disease as encountered in veterinary practice. A systems approach is used and students are encouraged to bring questions from the work experience to class. Within each system, congenital, infectious, traumatic, and other disease processes are explored as are the diagnostic and therapeutic approaches appropriate to each system. A ‘C’ or better grade is required for graduation.

VET204 3 Animal Diseases 2
Pre: VET203
This course is a continuation of VET203. In it students will continue their exploration of commonly occurring disease processes in small domestic animals. A systems approach is utilized. Students are expected to be familiar with symptoms, diagnostics, and treatment protocols for varied diseases upon completion of this two part course.

VET212 2 Veterinary Office Management
This course is designed to teach students the fundamental skill involved in running a veterinary office. Client communication skills, legalities, and computer skills will be emphasized. Students will also be introduced to inventory and ordering protocols. (2 hours of lecture per week)

VET214 4 Clinical Microbiology
Pre: Communications and Mathematics Proficiencies
An introductory course in microbiology for the animal health technology student. Emphasis is placed upon those areas that are important within veterinary hospital laboratory: specimen handling, culture techniques, selective culturing techniques, staining, and sensitivity testing. (2 hours of lecture, 4 hours of lab per week)

VET216 3 Veterinary Pharmacology
Pre: CHE101
This is an introduction to the science of pharmacology as applied in veterinary medicine. Basic principles of pharmacology are covered as are commonly used pharmaceuticals, their uses and side effects. In addition, the role of the veterinary technician is explored in terms of dosing and treatment protocols in the veterinary setting. A ‘C’ or better grade is required for graduation.

VET219 3 Theriogenology
Pre: Communications and Mathematics Proficiencies
Theriogenology is the study of animal reproduction and genetics. This course is designed to provide the student with an understanding of reproductive systems, cycles, reproductive organs and hormones, estrus cycles, mating habits and birthing of dogs and cats. The student will learn how to handle the breeding, delivery, prenatal and postnatal care of both a bitch and her puppies and a queen and her kittens. Management of the stud dog and cat will also be covered. Students will also develop a basic knowledge of the science of genetics, with an emphasis on the genetics of dogs. Areas to be discussed include: basic genetics vocabulary, Mendelian genetics, modern genetic theories, polygenic inheritance, desirable and undesirable traits and breeding systems.

VET220 2 Large Animal and Equine Science
Pre: Communications and Mathematics Proficiencies
Students are provided with an introduction to the care and management of large domestic animals. Herd health as applied to dairy and beef cattle, horses, sheep, and swine will be discussed as well as the common diseases that affect these animals. Nutrition and feeding is included as it applies to the rearing of healthy animals. (1 hour of lecture, 2 hours of lab per week)

VET222 2 Exotic Animal Medicine for the Veterinary Technician
Pre: Math and Communication competencies
This course is designed to introduce the veterinary technology student to less common species of animals that they may encounter in their work lives. The biology, husbandry, anatomical and medical issues specific to birds, reptiles, amphibians, and small mammals are the primary focus.
Clock Hour Course Descriptions

COS801  11.67  Intro & Practice of Cosmetology  
350 hrs
Encompasses the following subjects in theory, practical and clinical areas: shampooing, hair shaping, manicuring, finger waving, pin curl/roller construction, scalp treatment, facials, chemical services, blow-drying and thermal curling. This course also stresses merchandising, inventory control, buying and selling techniques, personal hygiene, ethics and visual poise. Includes an introduction to salon services and record keeping procedures.

COS802  4.4  Practice of Cosmetology  
132 hours
Encompasses principles of hair design, creating harmony between hairstyles and facial structure, special perming techniques, special effects in highlighting, dimensional and corrective hair color. Includes chemical hair relaxing, soft curl permanent, thermal hair straightening, styling wigs, pedicure and removal of unwanted hair. Salon operations are also covered.

COS803  1.8  Theory and Science of Cosmetology 1  
54 Hours
This course emphasizes sanitation and sterilization as it applies to the beauty salon. Covers the normal structure and functions of the scalp, skin, hair and nails, as well as those conditions affecting these structures that may be encountered by the cosmetologist. Bones, muscles, and nerves of the head, face, shoulders, arms and hands, are also covered. This course includes a study of basic chemistry of cosmetics and hair preparations.

COS804  1.4  Theory and Science of Cosmetology 2  
42 Hours
This course includes a basic study of the functions of human cells, a basic knowledge of modern chemistry, skin and nail disorders, electricity and light therapy. A project related to opening and managing a beauty salon is also included.

COS811  3.2  Cosmetology Practicum  
96 hours
Instruction in a salon environment designed to allow students to develop his/her skills in all phases of beauty culture. Emphasis is placed on good work habits, and the ability to deal rapidly, efficiently and congenially with patrons.

COS812  10.87  Advanced Cosmetology Practicum  
326 hours
A laboratory course in a beauty salon setting. Allows the student to practice and develop his/her skills on clients 3 days a week under close supervision and guidance. Students will consult with clients to determine their needs and preferences. Also trains students to manage their time to provide efficient client service, to practice marketing professional salon products, and to maintain business records related to client services.
Academic Information

Course Credits and Clock Hours

Definitions and Award Policy

1. Credit Hour Definition: One credit hour is equal to 50 minutes of structured instructional activities delivered in the classroom or through alternative delivery modes (e.g. online, hybrid, directed study) and a minimum of 2 hours of additional student work each week for approximately 15 weeks or the equivalent.

2. Credit Award Policy: The number of credits awarded for individual courses will be determined by the academic department originating the course. When determining credit, departments/programs should consider the goals and competencies/learning outcomes of the course, professional judgment and external certification requirements (e.g. field placement, clinical experience).

   A. Most liberal arts courses are awarded one credit for each hour of structured instructional activities (lecture, recitation, discussion, exam, etc.), and one credit for two or three hours of laboratory work.

   B. In the non-liberal arts areas, courses are awarded one credit for each hour of structured instructional activities (lecture, recitation, discussion, exam, etc.), but there is a much wider variation in the awarding of credit for labs. Awarding of credit for non-liberal arts lab time is determined according to professional standards.

   C. External Experiential Learning includes site work, structured instructional activities, and additional student work. A minimum of 45 contact hours or equivalent is required for one (1) credit. (Note: Experiential Learning includes internship, cooperative education, practicum, field work, field placement, and clinical experience.)

   D. Prior Learning through professional/life experience or licensure requires evaluation of learning outcomes, based upon criteria set by academic departments, which are comparable in depth, breadth and quality to successful completion of classroom courses. A minimum of 45 contact hours or equivalent is required for one (1) credit. (Note: Prior Learning assessments are based on review of documentation that may include portfolios, professional certificates/licenses, transcripts of military training or courses completed at non-accredited institutions, or some combination of documents that verifies achievement of college-level learning outcomes.)

3. Clock Hour Policy: One 60-minute class or lab equals one clock hour. The total number of clock hours will be governed by licensing regulations.

Program Requirements

Students are judged for graduation on any set of active program requirements that were in effect at the time of or subsequent to their matriculation during the pursuit of their degree or certificate, whichever set best facilitates their graduation.

In all programs, career and transfer, students should follow the suggested course order as closely as possible. Students are advised to complete those courses designated as “first year” before undertaking second-year courses, and should make special note of prerequisites for advanced courses before each registration. If questions exist, students should always check with an academic counselor in the Student Support and Advising Center, an enrollment center staff member or advisor before registering for a course.

Elective Classifications

No Elective Status: Preparatory Courses (i.e., those courses with numbers beginning with a 0 zero) satisfy no elective requirement {CHE099, COM010, 011, 012, 013, 014, 099, CPS099, ESL*, MAT001, 002, 003, 004, 011, 013, 091, 092, 094, and SSC090, 091}.

Open Electives: are all credit courses whose numbers do NOT begin with a 0 zero. Open electives are classified into Liberal Arts and Non-Liberal Arts electives.

I. Liberal Arts Electives include the following:

A. Allied Health - ALH 120, 150

B. Computer Science - CPS100, 104, 107, 203, 222, 226

1. Computer Language: CPS101, 102, 223, 224, 226

C. Humanities - ART, DAN, DRA, MDA, MUS, PHI, REL, SPE, CMP190, HON200, 200A, 200B, 202, 206, 210

1. Advanced Literature: LIT

2. Literature Sequence: LIT202-204; 206-208; 210-212; 214-216

3. Composition 2: CMP (except CMP101 and CMP190)


5. Modern Language: ASL, ESL101, 102, FRE, SPN

D. Interdisciplinary Studies - IDS (except IDS102A, 102B, and IDS130)

E. Technical Writing - CMP150

F. Math - MAT (except MAT001, 002, 003, 004, 011, 013, 091, 092, 094)

G. Science - BIO, CHE (except CHE099), GEO, IDS106, 126, 150, PHY, SCI

Integrated Science Sequence: SCI101-102

Laboratory Science Sequences are:

1. BIO101-102; 101-142; 103-104; 105-106; 124-102; 105-102; 105-128-130; 105-140; 101-128-130; 124-142; 128-132; 101-140; 101-144

2. CHE101-102; 103-104; 201-202

3. GEO101-102

4. PHY101-102; 201-202/301/302

5. SCI101-102
H. Social Science - ECO, GOV
3. History Sequence: HIS101-102; 103-104; 131-132

II. Non-Liberal Arts Electives include all of the following:
AGM, ANS, ALH, ALT, AVS, BTN, CAD, CFS, COP, CRJ, DDX, DRG, DTC, ECE, EDU, EGS, EMS, EUT, FDC, FLR, FPS, FSN, GRA, HLS, HPF, HRT, HSP, HUS, IEL, LIB, LSC, MAC, MEH, MET, NSG, OFT, OTA, PER, PLG, PNR, PTA, RAD, REC, RSP, SPL, SPT, SGR, SSC, SWG, TEA, TEL, TOU, TRV, UCF, VET, WPR

A. Business: ACC, BUS, IDS204, MGT, MKT, RES, CPS210, 212, GRA 140

*Six credits of Advanced Level 1 or 2 ESL courses may fulfill a maximum of 6 open electives.

PREREQUISITES: requirements that must be completed prior to enrolling in a specific course.

COREQUISITES: requirements either must be completed, or are recommended to be completed, prior to or concurrently with a specific course.

Please check catalog for pre/corequisites of courses you wish to take.

RESTRICTED COURSES are not available to all students. Courses in the following discipline codes are restricted to ONLY those students matriculated in those programs: AES, AGM, ANS, AVS, COS, DTC (partial), ECE (partial), MAC NSG, OTA, PNR, PTA, RAD, OFT, OFT112, SPT, SGR, and VET. Field placement courses in MEH and SWG are restricted to ONLY students matriculated in those programs.

Please note: It may not be possible to take all courses in the order listed on the program of study sheet. It may be necessary to choose courses out of sequence where appropriate. All required courses and total number of elective credits per category must be taken.

**Developmental Courses**

In order to succeed in college level courses and programs of study, students may need to improve their skills in English and in Mathematics. All students are assessed when they come to the college to determine if they need developmental coursework to help them prepare for college-level reading and writing, or mathematics and achieve communications or mathematics proficiency. These courses may extend the time it takes a student to complete his or her academic program. In addition, these pre-college classes bear academic credit, and credits earned from these courses may count when computing credits for satisfactory academic progress, financial aid, and veterans’ benefits. However, credits earned in these classes do not count toward a credit certificate or associate degree; they are at a pre-college level.

**English as a Second Language**

Students whose first language is not English may need specific courses in ESL. Students are tested to determine their level of proficiency in reading, writing, listening, and speaking. Those who are beginning to learn English will qualify for several levels of noncredit Basic ESL classes. Others may place into course in Intermediate or Advanced ESL. Students are not required to take all courses in a sequence if they demonstrate required proficiency in that skill.

Professional educators are available in the ESL Multimedia Lab to help students study independently outside of class so that they can progress as quickly as possibly through ESL classes. The lab is open every day and evening, Monday through Thursday, and Friday during the daytime only.

**Communications Skills**

Students with developmental needs may test into Communication Skills courses. These courses are designed to increase the student’s ability to read critically, increase vocabulary, and to write better paragraphs and essays.

Students may test into Level 1 and will take three linked courses in College Reading 1, College Writing 1, and Practical Applications. Students who test into Level 2 will take two linked courses, College Reading 2 and College Writing 2; students are encouraged to enroll in SSO 101 College Success Seminar as well. Students who have strong reading skills but need to strengthen their writing skills will qualify for COM 099 Basic Communications.

**Mathematics**

Students must exhibit proficiency in basic mathematic concepts prior to graduation. The content of many courses at NSCC assumes that students have mastered these basic concepts. When initially registering for courses at NSCC, students will be assessed for their knowledge of basic mathematic concepts and arithmetic, algebraic, and other college-level mathematic operations. Based on the results of this assessment, students may be placed into mathematics courses which build on the skills required for successful completion of college-level mathematics courses.
Communications Proficiency

Communications Proficiency may be achieved in the following ways:

Test

- A score of 68 or higher on the Reading section of the Computerized Placement Test plus a score of 7 or higher on the 12-point WritePlacer or a score of 4 or higher on the 8-point WritePlacer section of the Computerized Placement Test.
- A score of 500 or higher on the Reading portion of the SAT plus a score of 500 or higher on the Writing portion of the SAT. If students achieve a 500 or better in Reading but not Writing, they need to pass the WritePlacer Section of the Computerized Placement Test with a score of 7 or higher on the 12-point WritePlacer or a score of 4 or higher on the 8-point WritePlacer section of the Computerized Placement Test. If they achieve a 500 or better in Writing but not the Reading, they need to achieve a score of 68 or higher on the Reading section of the Computerized Placement Test.
- A score of 80 percent correct or higher on the entry level Massachusetts Firefighters’ Exam.
- A score of 56 or higher on the Arithmetic Skills section of the Computerized Placement Test.
- A score of 72 or higher on the Elementary Algebra section of the Computerized Placement Test.
- A score of 510 or higher on the mathematics SAT. (This score can be used for placement into Liberal Arts Math, Introduction to Statistics, or Intermediate Algebra and a score of 530 or higher can be used for placement into Precalculus.)
- A score of 80 percent or higher on the entry level Massachusetts Firefighters’ Exam.
- A score of 44.4 percent or higher on the Mathematics section of TEAS (Test of Essential Academic Skills) version 3.0/4.0.
- A score of 60 percent or higher on the Mathematics section of TEAS (Test of Essential Academic Skills) version V.
- A score of 8 or above on Part A of the Numerical Ability portion of the CNET (Center for Nursing Education and Testing) Exam.
- A score of 77 percent correct on the Reading Comprehension portion of TEAS (Test of Essential Academic Skills) version V plus a score of 7 or higher on the 12-point WritePlacer or a score of 4 or higher on the 8-point WritePlacer section of the Computerized Placement Test.
- A score at or above 54 percent correct on the Reading/Reasoning section of the CNET (Center for Nursing Education and Testing) Exam.
- A score of 3 or higher on the Advanced Placement English Test.

Course

- Completing NSCC’s COM010, COM011, and COM013 with grades of B+ or better.
- Completing NSCC’s COM012 and COM 014 with C or better.
- Completing NSCC’s ESL 122 and ESL 128 with A’s.
- Transferring courses and grades equivalent to the above or higher.

Degree

- An Associate degree from a U.S. college or university will be accepted as demonstrated communications proficiency.
- A Bachelor’s Degree from a U.S. college or university will be accepted as demonstrated communications proficiency.
- A Master’s Degree from a U.S. college or university will be accepted as demonstrated communications proficiency.

Mathematics Proficiency

Mathematics Proficiency may be achieved in the following ways:

Test

- A score of 56 or higher on the Arithmetic Skills section of the Computerized Placement Test.
- A score of 72 or higher on the Elementary Algebra section of the Computerized Placement Test.
- A score of 510 or higher on the mathematics SAT. (This score can be used for placement into Liberal Arts Math, Introduction to Statistics, or Intermediate Algebra and a score of 530 or higher can be used for placement into Precalculus.)
- A score of 80 percent or higher on the entry level Massachusetts Firefighters’ Exam.
- A score of 44.4 percent or higher on the Mathematics section of TEAS (Test of Essential Academic Skills) version 3.0/4.0.
- A score of 60 percent or higher on the Mathematics section of TEAS (Test of Essential Academic Skills) version V.
- A score of 8 or above on Part A of the Numerical Ability portion of the CNET (Center for Nursing Education and Testing) Exam.
- A score of 77 percent correct on the Reading Comprehension portion of TEAS (Test of Essential Academic Skills) version V plus a score of 7 or higher on the 12-point WritePlacer or a score of 4 or higher on the 8-point WritePlacer section of the Computerized Placement Test.
- A score of 60 percent or higher on the Mathematics section of TEAS (Test of Essential Academic Skills) version V.
- A score of 8 or above on Part A of the Numerical Ability portion of the CNET (Center for Nursing Education and Testing) Exam.
- A score of 3 or higher on either the Advanced Placement Calculus Exam or Advanced Placement Statistics Exam.

Mathematics Modules

- Completing the required number of Mathematics Modules through NSCC’s Preparation for College Mathematics courses.
- Transferring the equivalent of NSCC’s Mathematics Modules.

Course

- Completing NSCC’s MAT013 Prealgebra or any higher level mathematics with a grade of C or higher.
- Transferring any physics course (PHY) to NSCC.

Degree

- A Bachelor’s Degree will be accepted as demonstrated mathematics proficiency.
- A Master’s Degree will be accepted as demonstrated mathematics proficiency.

NOTE: Documentation may include a copy of grade reports from colleges, an unofficial or official transcript, a copy of an SAT report, an Associate’s (communications only proficiency), Bachelor’s or Master’s degree.

For more information, please contact CAS@northshore.edu
Course Classification Codes

ACC - Accounting
AES - Aesthetics
AGM - Animal Grooming
ALH - Allied Health
ALT - Alternative Studies
ANS - Animal Science
ANT - Anthropology
ART - Art
ASL - American Sign Language
AVS - Aviation Science
BIO - Biology
BTN - Biotechnology
BUS - Business Sciences
CAD - Computer-Aided Design
CFS - Culinary Arts and Food Service
CHE - Chemistry
CMP - Composition
COM - Communications Skills
COP - Cooperative Education/Internship
COS - Cosmetology
CPS - Computer Science
CRI - Criminal Justice
CSA - Career Development
CSL - American Management Association
CSM - Center for the Arts
CSP - Computers
DAN - Dance
DDX - Dual Diagnosis
DRA - Drama
DRG - Drug and Alcohol Rehabilitation
DTC - Nutritional Science and Diet Technology
DVD - Developmental Disabilities
ECE - Early Childhood Education
ECO - Economics
EDU - Education
EGS - Engineering Science
EMS - Emergency Medical Services
ESL - English as a Second Language
EUT - Energy Utility Technology
FLR - Floriculture
FPS - Fire Protection and Safety
FRE - French
FSN - Food Science and Safety
GEO - Geosciences
GOV - Government
GRA - Graphic Arts
HIS - History
HLS - Health Support
HON - Honors
HRT - Horticulture
HSP - Hospitality
HUS - Human Services
IDS - Interdisciplinary Studies
IEL - Industrial Electronics
INT - International Studies
LIB - Liberal Arts
LIT - Literature
LSC - Library Science
MAC - Medical Assisting
MAT - Mathematics
MDA - Media
MEH - Mental Health
MET - Manufacturing Engineering
MGT - Management
MKT - Marketing
MUS - Music
NSG - Nurse Education
OFT - Office Technology
OTA - Occupational Therapy Assistant
PER - Personal Development
PHI - Philosophy
PHY - Physics
PLG - Paralegal
PNR - Practical Nursing
PSY - Psychology
PTA - Physical Therapist Assistant
PYW - Youth Worker
RAD - Radiologic Technology
REC - Recreation Skills
REL - Religion
RES - Real Estate
RSP - Respiratory Care
SCI - Science
SOC - Sociology
SPE - Speech
SPL - Speech/Language Pathology
SPN - Spanish
SPT - Sterile Processing Technician
SRG - Surgical Technology
SSC - Student Support Course
SWG - Social Welfare/Continuation
SRG - Surgical Technology
TEA - Technical Writing
TEA - Teacher Aid
TEL - Telecommunications
TOU - Tourism
TRV - Travel
UCF - Urban and Community Forestry
VET - Veterinary Technology
WPR - Word Processing

Mass Transfer
MassTransfer integrates and replaces Joint Admissions, Transfer Compact, and the Tuition Advantage Program. For full details about the MassTransfer policy, please see the Transfer Advisor or go to www.mass.edu.

Students planning to transfer to one of the state-supported universities or colleges in Massachusetts are eligible for MassTransfer. MassTransfer provides community college graduates who complete designated associate degrees with the benefits of the full transfer and applicability of credit, guaranteed admission (2.5 college-level GPA or higher), and a tuition discount 3.0 college-level GPA or higher). MassTransfer also provides students in the Massachusetts public higher education system the intermediate goal of completing a portable general education transfer block which will satisfy the general education/distribution/core requirements across institutions.

I. Students completing an associate degree program under MassTransfer will graduate with a minimum of 60 credit hours and complete the following 34-credit general education transfer block, exclusive of development coursework:
Academic Policies

for Credit Programs

Coursework Policies

Course Load
All matriculated, full-time students must enroll in courses totaling at least 12 credits in a given semester to fulfill degree requirements. Students contemplating a reduced course load should be aware that such a reduction may alter their financial aid and/or veteran’s benefits status. Beyond a minimum of 12 credit hours, students have a choice of course load. While many choose to take five courses or 15 credits each semester to finish in two years, others may prefer to take four courses and work toward maintaining a higher average than if they were to take five. On the other hand, some students feel they can accelerate their program by taking over five courses and/or attending summer semesters. In planning course loads, students should consider the maximum number of credits allowed each semester, the number of credits required for graduation, the sequence of courses, and the number of semesters they plan to attend the College.

Academic Honesty
Members of the North Shore Community College community are expected to act within the standards of academic honesty. Any willfully dishonest behavior is subject to disciplinary action, which may range from that which the instructor imposes relative to the specific course to dismissal from the College, depending on the seriousness of the act.

Dishonest academic behavior includes, but is not limited to:

Cheating - Use of unauthorized notes during an examination; giving or receiving unauthorized assistance on an examination; copying from someone else’s examination, term paper, homework, or report; theft of examination materials; falsification of works or records.

Plagiarism - Defined as the use, by paraphrase or direct quotation, of the published or unpublished work of another person without full and clear acknowledgement. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials; taking credit for work done by another person; doing work for which another person will receive credit; copying or purchasing other’s work or arranging for others to do work under a false name.

The college considers plagiarism to be an act of academic dishonesty and can and will take disciplinary action against students who plagiarize the work of others. The course instructor has the right to take action as appropriate up to and including failing the student. Additionally or alternatively, a faculty member may file a complaint against the student under the College’s Code of Conduct alleging academic dishonesty. The complaint will be handled by the College’s Code of Conduct Officer pursuant to the Code of Conduct. If a faculty member issues a failing grade, the student shall have the right to file a grievance under the Grade Appeal Process of the Student Grievance Procedure.

General Education Transfer Block

<table>
<thead>
<tr>
<th>Course Category</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Composition/Writing</td>
<td>6</td>
</tr>
<tr>
<td>Behavioral and Social Sciences</td>
<td>9</td>
</tr>
<tr>
<td>Humanities and Fine Arts</td>
<td>9</td>
</tr>
<tr>
<td>Natural or Physical Science</td>
<td>7</td>
</tr>
<tr>
<td>Mathematics/Quantitative Reasoning</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total credits</strong></td>
<td><strong>34</strong></td>
</tr>
</tbody>
</table>

**Benefits** for students who complete associate degrees under MassTransfer are:

**Minimal Final GPA**

2.0 GPA
- No admission fee or essay
- Guaranteed full transfer of a minimum of 60 credits applied to the bachelor’s degree, if admitted

2.5 GPA
- Guaranteed admission, plus all of the above benefits

3.0 GPA
- A 33% tuition waiver, plus all of the above benefits

**Stipulations:** If students change their major or if the linked baccalaureate program requires a higher grade point average or specific courses which are required of native students, MassTransfer students must meet these requirements. If, because of space or fiscal limitations, the receiving institution does not admit all qualified applicants to a given major or program, the receiving institution will use the same criteria for MassTransfer applicants as it does for its native students.

Il. Students completing the general education transfer block (without earning a degree) at any Massachusetts higher education institution with a 2.0 or higher grade point average will earn the 34 credit hours outlined above, exclusive of developmental coursework.

General Education Transfer Block

**Benefits** for students who complete associate degrees under MassTransfer are:

**Minimal Final GPA**

2.0 GPA
- Automatic satisfaction of the general education/distribution/core requirements at the receiving institution, with the receiving institution able to add no more than six additional credits/two courses, if admitted

**Stipulation:** Students enrolled in a specific major or degree program may be required to take additional courses if these courses are specifically required for their major or program and are required of native students.

Additional Transfer Opportunities
North Shore Community College has developed articulation agreements designed to ease the transfer process. Four year colleges and universities review NSCC curriculum and agree to accept a program in its entirety (or a major portion of a specific program) into a comparable Bachelor degree. NSCC has a number of agreements that enable our graduates to transfer seamlessly into Bachelor Programs, both in public and private institutions. Please contact our Transfer Counselor, or visit our website www.northshore.edu/transfer_services/, for current articulation agreements and transfer information.
Pre and Corequisites
Prerequisites are requirements that must be completed prior to enrolling in a specific course. At North Shore Community College, the prerequisites are enforced, and students are restricted from registering for courses for which they have not met the prerequisites. Corequisites are requirements that either must be completed, or are recommended to be completed, prior to or concurrently with a specific course. Check each course description for the required pre and corequisites.

Add/Drop
Adding or dropping a 15-week semester course will be permitted according to the start date of each semester. Add/Drop dates for courses with unique start and end dates vary. For more information, please check the Academic Calendar page on our website at www.northshore.edu/calendar.

Course Withdrawal
Course withdrawal may take place after the Add/Drop period but before the end of the twelfth week in a fifteen-week semester. The exact date of the deadline for withdrawal can be found in the official academic calendar for each semester. Courses that run outside of a traditional 15-week semester have course-specific add/drop dates and withdrawal dates. Those dates should be confirmed with the instructor or by calling the Enrollment Center.

The grade for a course that is dropped after the Add/Drop period but before the withdrawal deadline will appear on the student’s transcript as a “W” grade. Withdrawal may affect academic standing and financial aid. Failure to officially withdraw may result in an “F” grade.

Students wishing to withdraw from a course must initiate the process. Notifying the instructor or ceasing to attend class does not constitute official withdrawal. Students may withdraw from a class online or forms are available in the Enrollment Center or in the Student Support Center.

Audit
Students may audit a course or courses provided they meet the required prerequisites for that course. To audit a course is to attend class in accordance with the instructor’s attendance policy as designated in the course syllabus. Credits are not awarded for audited courses. Audited courses are not recorded as “credits attempted.” If a student does not meet minimum attendance requirements as set forth in the course syllabus, the student will receive a ‘K’ grade.

A change from credit to audit or audit to credit status in a course may be made before the end of the third week of the semester or before the end of the second week of the summer session. After these dates, such changes will not be allowed.

Repeating a Course
If a student repeats a course the higher grade becomes the official grade and will be used to recompute the Cumulative Grade Point Average (CGPA). Students receiving financial aid should check with the Office of Student Financial Services since policies differ on the funding of repeated courses.

Attendance Policy
At the beginning of each term, faculty members will give their students a written attendance policy, which includes an explanation of the basis and reason for the policy. Instructors may lower grades for excessive absences, as mentioned in the policy. An attendance requirement, if prescribed by an instructor, becomes a course requirement. Instructors who make attendance requirements affecting grades must maintain accurate attendance records.

Students have the right to petition grievances about the justifiability of an instructor’s attendance policy (copies of the Grievance Policy are in the Office of the Vice President for Student and Enrollment Services as well as the Student Handbook). If you plan to petition an attendance grievance, do so as soon as possible. If illness, accident, or similar problems make it impossible for you to attend classes for three or more class meetings, notify the Office of Academic Affairs, so that your instructors will be informed.

Waiver with Substitution Policy
I. Required courses may be waived with substitutions if approved by the department in which the course is offered and the department in which the Degree/Program is offered, for the following reasons:

A. The material has been covered by a course transferred from another institution, another course taken at North Shore Community College (NSCC), by experience credit processed through the Center for Alternative Studies and Educational Testing, or as demonstrated by examination. Transfer courses or courses taken at NSCC that are substituted for existing program requirements must capture, to the greatest extent possible, the nature and intent of the course required. That is, they must provide the student with 1) an appropriate depth of understanding of the subject matter, and 2) benefits similar to those that would have been otherwise acquired.

B. The college curriculum has been revised in a way that makes it impossible for the course to be taken at NSCC.

II. A reasonable accommodation for students with documented disabilities may include a course waiver with substitution under the policy for students with disabilities. See NSCC Accommodation Policy for Students with Disabilities (on file at Student Support and Advising Center).

III. Waivers with substitutions will not be granted because of dissatisfaction with a course or instructor, failure of a course one or more times, improper course selection, or inability to graduate without a waiver with substitution.

IV. Waivers with substitutions will not reduce the number of credits required in the program of study.

V. Students wishing to request a waiver with substitution should pick up the appropriate form at the Enrollment Center.

Withdrawal from the College
Students are considered enrolled until they officially withdraw from the College. Notifying the instructor or ceasing to attend class does not constitute official withdrawal. Students who do not formally withdraw will receive all “F” grades for enrolled courses, which will result in a change of status for the following semester (see Academic Standing Policy for additional information). Students are strongly encouraged to meet with an academic advisor and/or financial aid counselor prior to withdrawing.
Grading Policies

Grading System
Faculty members will award the following grades to students.
Grade points are listed below. The raw score range is a guideline for faculty.

A 4.0 93-100
A- 3.7 90-92
B+ 3.3 87-89
B 3.0 83-86
B- 2.7 80-82
C+ 2.3 77-79
C 2.0 73-76
C- 1.7 70-72
D+ 1.3 67-69
D 1.0 63-66
D- .7 60-62
F 0 Below 60

F - No credit due to failure to meet course requirements as indicated by raw score guidelines. The grade will be calculated into the Cumulative Grade Point Average (CGPA) as 0 quality points. An “F Report” must be filed by faculty for each student receiving an ‘F’ grade. The purpose of this report is to provide information to Review Boards, advisors, and support office staff on the academic performance and status of the student.

Other grades will be awarded as follows:

P - Awarded to only those predetermined and designated Pass-Fail courses. A ‘P’ grade for a credit course receives no quality points and is not used in computing a student’s CGPA. An ‘F’ grade will be assigned for performance below minimum standards.

PC - Awarded in alternative credentialing courses or other specifically designated courses where PC is only awarded if the competencies are demonstrated at the grade level of C or above; A “PC” grade for a credit course receives no quality points and is not used in computing a student’s GPA.

AU - Audit grade; no credits earned. The deadline to audit a course is no later than the end of the third week of classes or by the second week of summer session. The withdrawal date for courses that run on an alternative schedule should be confirmed with the instructor or the Enrollment Center.

IP - In Progress; awarded to students who have contracted with the course instructor to complete course requirements by an agreed date or, at the latest, by the 12th week of the next 15-week semester. If the requirements are not completed by the agreed date or by the end of the 12th week of the following semester, the ‘IP’ will be changed to an ‘F.’ It is the responsibility of the student to initiate contact with the instructor toward the end of a semester to request an “IP Contract.” An “IP Contract” form must be filled out by both student and faculty member and each party must keep a copy.

Request to Waive an ‘F’ Grade

An ‘F’ grade earned during the first 30 credits attempted at North Shore Community College may be waived any time before graduation upon written application to the Enrollment Center. A maximum of three ‘F’ grades may be waived. It is required that you discuss fully the option to waive an ‘F’ grade with your faculty advisor or an Academic Counselor in the Student Support and Advising Center. When an ‘F’ grade is waived, the record of taking the course will remain on the transcript and the grade will be noted as “FN.” No credit will be received and the grade will not be calculated into the Cumulative Grade Point Average (CGPA). For the purpose of determining honors eligibility, ‘FN’ grades will be calculated into the honors CGPA as 0 quality points. After graduation an ‘F’ grade may not be waived.

Mid-Semester Progress Report

Faculty will provide progress reports to all students at midterm. The report will indicate an estimate of each student’s current status. You should discuss your report with your faculty advisor or an Academic Counselor in the Student Support and Advising Center.

Credit Hours Earned

The term “credit hours earned” means the total number of credits received from any or all of the following: Courses completed at the College with a grade of ‘A,’ ‘B,’ ‘C,’ ‘D,’ ‘P,’ or ‘PC’; acceptable transfer credits from other institutions; credit by examination (including CLEP and Departmental Exams). The total credit hours earned figure is used to determine whether a student has met the total number of credits required for a degree.

Credit Hours Completed

Credit received from courses completed at the College with a grade of ‘A,’ ‘B,’ ‘C,’ ‘D,’ or ‘F’ is noted as credits completed on the transcript. The credits completed figure is used to compute the Grade Point Average (GPA) and to determine whether a student has met the CGPA requirement of 2.0 for a degree.

Certain courses and programs (e.g., Health Professions programs) may have specific minimum grade requirements for successful completion and/or graduation.
VALOR Act Academic Credit Evaluation Policy

Guiding Philosophy

North Shore Community College proudly supports a comprehensive Academic Credit Evaluation Policy for our military students. NSCC recognizes the value of the many foundational training and leadership learning experiences provided by the United States Army, Air Force, Navy, Marine Corps and Coast Guard. Veteran and active-duty students often receive academic credit for these experiences, which can shorten the time it takes to complete a degree and prepare them for a smooth military-to-workforce transition.

Policy

NSCC’s single point of contact for student veterans who has responsibility for decisions regarding the award of academic credit for a student’s military experience, training coursework, and occupation/s will be housed in the Center for Alternative Studies and Educational Testing. This individual’s contact information will be made readily available to students.

Eligible students will receive accurate and complete academic counseling from said individual in regards to this policy. This policy will be made readily available to students.

In order to be considered for credit evaluation, a student’s military experience, training, coursework, and/or occupation/s must be listed on official military documents, i.e. the Joint Services Transcript. Other official military documents may be used as a basis for evaluation in accordance with the Center for Alternative Studies and Educational Testing’s approved credit evaluation procedures.

NSCC will consider prior learning attained in non-credit or experiential military settings. Credit will be awarded for prior learning that is evaluated as college-level learning as it applies to a student’s chosen program of study or as an elective. Evaluation for such credit may take place by standardized examination, challenge examination portfolio review, evaluation by certification or license, and the ACE Guide to the Evaluation of Educational Experience in the Armed Forces.

Non-college learning through formal military training, and/or a military occupational rating or specialty that has been evaluated for college credit by the American Council on Education (ACE) will be accepted by NSCC as an elective or direct course credit based on ACE Recommendations. If the course to which the non-college learning is equivalent to general education, elective, or NSCC program requirements, the credit will meet that requirement and count towards graduation. This policy conforms to the Board of Higher Education’s directive re the VALOR Act Academic Credit.

NSCC will maintain a list of military equivalencies for direct course credit on the Center for Alternative Studies & Educational Testing webpages. This list will include numbers of credits that may be awarded and course equivalents and will be made readily available to students.

Based on ACE recommendations and where no military equivalencies for direct NSCC course credit exist, the Center for Alternative Studies & Educational Testing may propose a Special Topics course in adherence to NSCC’s Curriculum Committee policies and procedures. If approved, credit may be applied to a student’s chosen program of study or awarded as elective.

College level knowledge demonstrated by scores on standardized examinations may be applied to NSCC’s programs as transfer credit. NSCC accepts scores from the following national examination programs: CLEP, DSST, AP, DILPT, SOLT, BYU, and NYU.

Duplicated military experience, training, and coursework will not be posted. The determination of duplication will be based on the ACE guide number for the course.

Honors

Dean’s List Honors

Dean’s List Honors will be awarded to students who have earned six or more semester hours of academic credit with a Grade Point Average (GPA) of 3.30 or higher. Dean’s List will be published at the conclusion of each academic session.

Commencement Honors

Commencement Honors are awarded to students who have completed degree or certificate requirements with a cumulative college-Level GPA of 3.30 or higher according to the following scale:

- 3.30 - 3.69 qualifies a student for honors
- 3.70 - 3.89 qualifies a student for high honors
- 3.90 - 4.00 qualifies a student for highest honors

In addition, those graduating with honors are required to have earned at least 50% of their required credits in residence at North Shore Community College. Grades of ‘FN’ will be calculated into the College-Level GPA for purposes of determining honors eligibility.

Academic Standing Policy

Criteria for Good Academic Standing and Satisfactory Progress

To be considered in good academic standing and to be making satisfactory academic progress toward a degree or certificate, a matriculated student must:

1. Maintain a Cumulative Grade Point Average (CGPA) of 2.0 OR ABOVE, and
2. Successfully earn 60% of credits attempted each semester. (Credits attempted are defined as credits enrolled at the end of the Add-Drop period.)

Academic Probation

A student who does not meet the above standards of a Cumulative Grade Point Average (CGPA) of 2.0 or above and successfully earn 60% of credits attempted at the end of a semester will be placed on academic probation and will receive a letter of notification. Academic Probation directs a student to meet with an advisor to review the student’s academic progress and to discuss use of the College’s student support and advising services in order to improve academic performance.

Academic Suspension

A student who does not meet the above requirements of a Cumulative Grade Point Average (CGPA) of 2.0 or above and successfully earn 60 percent of credits attempted for two consecutive semesters will be placed on academic suspension. Suspension means that a student is prohibited from enrolling in the College until he/she has met with an Academic Review Board to discuss academic progress and to receive permission to re-enroll. The Academic Review Board may make re-enrollment contingent on a student taking specific steps to help ensure future academic success. A student must fulfill all requirements set by the Board.

Academic Review Board

A suspended student must appear in person before an Academic Review Board in order to receive permission to re-enroll. The College recognizes that special or unusual circumstances can affect academic performance. These mitigating circumstances will be considered by the Review Board in granting a student permission to re-enroll. Therefore, a student is required to bring a written...
Certificates
Associate in Applied Science - Completion of at least 16 credits
Associate in Science degree - Completion of at least 20 credits
Associate in Arts degree - Completion of at least 33 credits

General Education Credit Requirements
or higher. At least 25% of the college-level coursework must be in the applicable active program (including specific grading requirements); met all other College requirements, including achieving communications and mathematics proficiencies and general education requirements.

Certificate Requirements
To be eligible for a certificate, a student must have: earned at least 60 hours of credit with Cumulative College Level Grade Point Average (CCLGPA) of 2.00 or higher; completed at least 15 semester hours of college level work at North Shore; fulfilled all requirements in the applicable active program (including specific grading requirements); met all other College requirements, including achieving communications and mathematics proficiencies and general education requirements.

General Education Credit Requirements
for Degrees & Certificates

Degrees
Associate in Arts degree - Completion of at least 33 credits
Associate in Science degree - Completion of at least 20 credits
Associate in Applied Science - Completion of at least 16 credits

Certificates
30 credits or more - minimum of 6 credits
24-29 credits - minimum of 3 credits

Graduation Policies

Graduation Requirements
The above Associate Degree and/or Certificate requirements must be met and students must demonstrate proficiency in communications and mathematics in order to graduate.
A graduation application form must be submitted to the Enrollment Center in advance. This should be done after the completion of 45 college level credit hours for degrees, or 25% of the required college level credits for certificates. Forms are available in the Student Support and Advising Centers.

Commencement
Formal commencement (graduation) ceremonies are conducted once a year in late May or early June. Specific details are announced each spring.

Academic Services

Center for Alternative Studies and Educational Testing (CAS)
The Center for Alternative Studies and Educational Testing (CAS) provides services for students who are seeking admission to North Shore Community College (NSCC) and those who wish to accelerate their progress toward a degree or certificate. Educational Testing options include General Educational Development (GED) testing and Health Entrance Exams, as well the College Level Examinations Program (CLEP), the Defense Activity for Non-traditional Education Support (DANTES) exams and faculty-generated testing.
Alternative Studies options, designed to support the diverse needs of adult learners with family and professional responsibilities, include Evaluation Credit for prior learning, Directed Study and Contract Learning. CAS is also overseer of the NSCC International Study program. Current and prospective students are invited to consult with CAS personnel throughout the year about eligibility, policies, procedures, schedules, and fees. Visit www.northshore.edu/cas/ for more information.

Contract Learning
Qualified students may propose independent study for non-catalog courses. A faculty supervisor and the student discuss the feasibility of the specialized course and the viability of a learning plan utilizing research, technology, volunteer, work, and international settings. Once the formal learning plan is approved by CAS and the Vice President for Academic Affairs or designee, the student is registered by CAS for the contracted course. Faculty supervise, monitor, and evaluate the individualized activities, assuring that required course objectives are met.

Directed Study
Qualified students may apply for faculty-supervised independent study for catalog courses. This study method is available for approved courses that are required for graduation from North Shore Community College. The program is designed to enable highly skilled students who meet eligibility criteria to study according to a specified learning plan. Faculty supervise, monitor, and evaluate the individualized activities, assuring that required course objectives are met.
Credit for Prior Learning–Evaluation Credit by Certificate/License
Students with a professional training certificate or license may be eligible for credits toward a degree or certificate. Students seeking credit submit original documentation for evaluation by faculty experts, complete an application, and pay a fee. Credit awards are supervised and documented by CAS.

Evaluation Credit by Portfolio
Students may earn course credit toward a degree or certificate by submitting written documentation of college-level learning acquired through work, education, or personal experiences. CAS personnel assist eligible students to prepare portfolios, which describe and document competencies that are equivalent to those that a specific course is designed to teach. CAS and a Faculty Review Committee evaluate student-prepared portfolios. If a written presentation is not appropriate, CAS staff advise students of other options. Students may prepare portfolios for personal growth or to earn credit for required or elective courses in their programs of study. Credit awards are supervised and documented by CAS.

Examination Credit - National Exams
Students may earn credits toward their degrees by passing national standardized examinations. North Shore Community College faculty have evaluated specific test content to determine course equivalencies and cut-off scores for credit. CAS is an official test center for College Level Examination Program (CLEP) and Defense Activity for Non-Traditional Education Support Exams (DANTES). Credit may also be awarded for Advanced Placement (AP) Examinations and New York University/Brigham Young University Language Proficiency Examinations.

Evaluation of Military Experience and Education for Academic Credit
North Shore Community College proudly supports its comprehensive VALOR Act Academic Credit Evaluation Policy for our veteran and active-duty military students. We recognize the value of the many foundational training and leadership learning experiences provided by the United States Army, Air Force, Navy, Marine Corps and Coast Guard. Veteran and active-duty students may be eligible to receive academic credit for these experiences through CAS. Military Education and experience is evaluated as college-level learning as it applies to a student’s chosen program of study or as an elective. See VALOR Act Policy on page 194 or visit www.northshore.edu/CAS/veterans for more information.

Examination Credit - Challenge and Departmental Exams
Students may petition to take North Shore Community College faculty-prepared examinations for courses that are not included in national examination programs. Standardized Challenge Exams for academic credit or course waiver are offered for a grade of PC. Departmental Examinations may be arranged with the approval of specific academic departments. Prospective testers request approval to test and meet with the faculty member who will administer the test to learn about content and format.

GED (General Educational Development) Testing
A GED credential documents high school equivalency. The 7+ hour test is administered in five sections: Language Arts/Writing, Science, Social Studies, Mathematics, Language Arts/Reading. Prospective testers register for scheduled test sessions and pay fees in advance through the Center for Alternative Studies and Educational Testing. Please note that the 2002 GED Series expires at the end of 2013.

Entrance Exams for Health Programs
Satisfactory achievement on an entrance examination is required for admission to many North Shore Community College health programs. Candidates for special admissions health program may arrange to take the Test of Essential Academic Skills (TEAS) entrance examinations through the Center for Alternative Studies and Educational Testing. These tests assess reading comprehension, English, science and mathematics skills to determine potential success in these programs.

North Shore Community College Course-Related Testing
The Center for Alternative Studies and Educational Testing (CAS) provides for make-up and accommodated testing for classroom courses, online and distance learning testing, and nurse education unit tests. Faculty members provide CAS staff with the tests and direction on test administration. CAS staff proctor student testers and return the completed tests to the faculty member.

Testing for Other Colleges or Agencies
NSCC is a member of the National College Testing Association (NCTA). As part of its overall function as a testing center, the Center for Alternative Studies and Educational Testing (CAS) provides supervision of exams from external agencies or institutions. Students make arrangements for CAS testing personnel to receive information about test administration requirements. CAS makes a contractual agreement to receive, administer, and return the completed test to the originating agency.

International Study
Students interested in study abroad opportunities receive direction and connections to North Shore Community College affiliated programs that provide short-term and semester credit or noncredit experiences at academic institutions throughout the world.

Lynn Campus
300 Broad Street
Room LE232
Lynn, MA 01902
781-477-2135

Danvers Campus
1 Ferncroft Road
Room DB213
Danvers, MA 01923
978-739-5428

Email: CAS@northshore.edu (for Alternative Studies),
testing@northshore.edu (for Testing)

Academic Services for Students

Academic Advising
Academic Advising is an integral part of every student's educational experience. The advising process at North Shore Community College promotes relationships between students and faculty/staff that foster student empowerment. A faculty or staff member meets with the student throughout his or her college experience to assess the student's educational plans and goals, to discuss possible connections between academic options and co-curricular interests, to plan for future directions of study and profession, and to encourage the student to make thoughtful decisions that will help him/her make the most out of the undergraduate experience. Students are assigned to a faculty advisor in his/her academic program of study, an online advisor, or to the Student Support and Advising Center.
Academic Computing Labs
The Academic Computing Labs serve a dual purpose: to provide hands-on practice for students enrolled in computer-based courses and to provide computers and Internet access to students enrolled in any North Shore Community College course. Located on the Lynn and Danvers Campuses, the Labs are equipped with state-of-the-art Personal Computers (PCs) and Macintosh computers. Qualified lab assistants are available to help students. For hours, available software, and other information, visit www.northshore.edu/labs.

Adjustment to College Services
For eligible students, the Student Support Services program offers assistance in the following areas: personal adjustment, academic advising, college survival strategies, including peer support groups, career and life planning, degree transfer options, and financial aid advising.

Student Support & Advising Center Courses
The Student Support and Advising Center (SSC) offers specialized instruction designed to improve students’ performance and persistence in college. A varied curriculum of seminar-based credit courses helps students develop their personal and academic effectiveness, make fuller use of the College’s resources, and become more confident, satisfied, and successful learners. Specific SSC courses are listed in the Course Descriptions section under Student Support Courses.

Tutoring
Tutoring services are located at Danvers and Lynn Campuses. Individual and small group tutoring is provided by professional and peer tutors in subjects, including math, business, science, composition, and most other academic courses. Day and evening hours are advertised each semester. Students may make appointments, drop in, or use the areas for quiet study. Tutoring centers are equipped with supplementary texts, computers with related software, math videos, and reference books. Tutoring schedules and locations are listed each semester in the student newspaper, on bulletin boards at each campus location, and Student Support & Advising Center locations, as well as online at www.northshore.edu/tutoring. Online tutoring is available through the etutoring login located under the “My Courses” tab in Pipeline.

Unique Educational Opportunities
Challenges, Choices, and Change
Challenges, Choices, and Change is a transitional program that provides a safe and supportive learning environment for students as they complete their first year of college. Participants may have survived or be living with challenging life experiences such as: losses, low income, being a single parent, health issues, homelessness, trauma, or substance abuse issues. As part of a learning community, students work together taking academic courses and build self-esteem and confidence through personal development classes. Students also gain work readiness and employment skills developed through courses and participation in an internship. For more information, contact the coordinator, 781-593-6722, x6241.

Cooperative Education/Internship
The Cooperative Education/Internship program provides an opportunity for students to enhance personal growth and professional development through a meaningful interaction between their academic program and related work environment. Students are required to complete a 120-hour work experience as well as class work assigned in the weekly seminar sessions. Class participation is a mandatory part of the program. A faculty coordinator supervises and evaluates the student’s academic work and employer documentation of a 120-hour work experience. Upon completion of the 120-hour work experience and the academic components, a letter grade and 3 credits are awarded.

The following programs of study require a Cooperative Education/Internship experience: Accounting, Digital Graphic Design, Marketing, Management, Culinary Arts and Food Service, Hotel Management, Travel, Tourism and Hospitality, Computer Applications, Computer Programming, Executive Administrative Assistant, Legal Administrative Assistant and Medical Administrative Assistant. The following disciplines have an elective Cooperative Education/Internship experience: Business Administration, Liberal Arts, Health Science.

Participation in this program is subject to the student securing an appropriate work placement. For additional information or assistance call the Office of Cooperative Education, 978-739-5511 or 781-593-6722 x5511.

Distance Learning
Distance Learning is a flexible and convenient alternative that allows students to complete courses, certificates, and degrees off campus. Instead of attending traditional classroom instruction, students complete requirements at home, use various media and the Internet, and interact with faculty and each other online. Designed for self-motivated students, Distance Learning overcomes the barriers of time and space with courses in over 20 disciplines, online associate degrees in Liberal Arts and Business Administration, Fire Protection and Safety, and online certificates in Web Development and Office Support. For more information, visit www.northshore.edu/distance.

Early College High School Program
North Shore Community College, in partnership with the Lynn Public Schools, offers Early College High School (ECHS) programming at Lynn Classical High School. This initiative is funded by the Race to the Top grant received by Lynn Public Schools and by a state Vision Project grant, as well as private funding, awarded to North Shore Community College. Early College High School programming provides an accelerated pathway to college for first generation, low income students, a group that has been underrepresented in postsecondary institutions. Early College High School programming is based on a very successful national model that motivates students facing economic and other challenges to earn a substantial amount of college credit while in high school.

The goal for the Early College High School initiative is to ensure that a wider range of students can meet the demands of college and complete a degree. With the help of a dedicated Achievement coach, who provides intrusive advising, tutoring, career and college information, students are able to earn 12 college credits by the time they graduate from high school. A major focus of the program is to develop students’ strengths and interest in science, technology, engineering, and mathematics (STEM). Students take college courses on campus at North Shore Community College during the summer and at Classical High School during the academic year.
English as a Second Language
The English as a Second Language Department offers day, weekend, and evening classes at the Intermediate and the Advanced level for students who need to improve their skills in English for college-level courses in certificate and in degree programs. Students are not required to take all courses in a sequence if they demonstrate required proficiency through assessment or class performance. Students may earn a Certificate in English as a Second Language (ESOL) if they wish to learn English to apply employment skills they bring from other countries. Program requirements are listed with the Credit Programs of Study in this catalog.

Students who need instruction in Basic English as a Second Language may take Basic ESL courses through the division of Corporate and Community Education. Students may choose courses offered in the afternoon, evening, or weekends. These courses do not earn college credit, but will prepare students to communicate well at home and at work.

The College has a modern digital language lab to enhance language learning, and all ESL students are encouraged to use the lab to accelerate their learning.

Students are placed into basic, intermediate, or advanced ESL classes based upon the results of an ESL assessment. For more information, call the Center for Alternative Studies and Educational Testing at 781-477-2136.

Honors Program
The Honors Program offers a stimulating, challenging, and enriching educational experience through curriculum requirements, social events, and cultural activities. It provides highly motivated students opportunities to reach their full academic potential. The Honors Program is accredited as a Commonwealth Honors Program by the Massachusetts Board of Higher Education; this means that graduates of the North Shore Community College Honors Program can transfer their Honors credits directly into Honors Programs at any University of Massachusetts campus, continuing in an Honors Program for their bachelor’s degree.

Students interested in applying to the Honors Program must be matriculated in a degree program, have completed a minimum of 9 credit hours, and maintained a GPA of 3.5 or better. In addition, two letters of recommendation from college professors or administrators must be submitted with the application. Students applying directly from high school must provide their most recent transcript and two letters of recommendation from teachers, guidance counselors, or principal. In addition, students must score at an honors level on the required CPT placement exams offered through the Center for Alternative Studies and Educational Testing on either the Lynn or Danvers Campus. For more information, call the Honors Program Coordinator, 978-762-4000 x2151 or 781-477-2151.

Massachusetts Colleges Online (MCO)
North Shore Community College (NSCC) is a member of Massachusetts Colleges Online, a consortium of community and state colleges. NSCC students can expand their academic opportunities through cross registration in online courses and programs at participating colleges. For more information, visit www.mco.mass.edu.

Personal Development
Students approach a community college education not only for training in a career but with a variety of goals that address the development of the total individual. In meeting their goals of personal development, students look to learn about whom they are, what is important to them, where they are going with their lives, and what it will take to get them there. With this realization, the Division of Human Services offers a series of courses designed to assist students in personal development and change. In the courses students set goals and make contracts to work to change aspects of their psychological and behavioral functioning. The small group orientation of the courses allows students to work on their goals in a confidential, supportive atmosphere. Students benefit from the experiences and contributions of other students and the group skills of the leader.

A primary outcome of the courses is the development of skills that allow each student greater control over their functioning and an increase in their ability to meet life goals.

Private Music Instruction
Students may apply to earn academic credit for private music lessons through the Center for Alternative Studies and Educational Testing (CAS). Piano lessons are offered each semester to enhance theory and music appreciation classroom options. Other instruments are offered based upon requests and availability of instructors. Information about Directed Study credit awards is available through the CAS Coordinator of Alternative Studies at 978-762-4000 x6238. CAS offices are in Lynn, Room LE232, and in Danvers, Room DB213.

Project Access
Project Access provides college classes to adults with developmental disabilities in order to enrich and enhance their lives with new opportunities for learning, personal growth, and community integration. This program offers noncredit, high interest, and enjoyable classes in the fall and spring semesters at the Lynn, Danvers, and Beverly campuses of NSCC at low cost to the students. Some of the classes that have been offered are: yoga, acting, photography, singing, cooking, healthy living, computer, life skills, and workforce preparation. Classes are scheduled Monday through Friday in the late afternoons and evenings. For more information call the Project Access Coordinator at 781-593-6722 x2158.

Project Access: Bridge to the Future
Project Access: Bridge to the Future is a one-year transition program for students with intellectual disabilities 18 to 26 years of age, who would like a college experience but do not meet entrance criteria for North Shore Community College. This noncredit program, housed at the Lynn Campus, offers cohort courses to prepare students for meaningful employment and/or independent living. Students are included in college life through access to college facilities and participation in student activities. Classes focus on two main areas: Communication Skills and Independent Living/Workforce Skills. The course of study is comprised of vocational skill building and intellectual challenges such as Reading and Writing Poetry, Personal Success Seminar, Current Events and Career Planning. An initial four-week orientation prepares students in using necessary computer technology, accessing public transportation, and navigating a college campus and the community. For more information call the Project Access: Bridge to the Future Director at 281-593-6722 x2195.
Project Enable
Project Enable is a part-time college entry program offered Tuesday and Thursday evenings at the Lynn Campus. It is intended for students who have earned their General Educational Development (GED) diploma. Project Enable helps students make the transition to college in a very supportive atmosphere. Students earn 9 credits in this one-semester program, which enrolls students every fall and spring semester. Students take a writing course (English Composition or Basic Communications), the College Success Seminar, and seminars addressing issues that enhance personal and academic growth. Students participate in social and cultural events designed to enhance their educational experience. This combination of small classes, personal attention, and cultural experiences prepares the students to emerge from the program as confident, successful learners. For more information, call the Project Enable Coordinator, 978-762-4000 x2185 or 781477-2185.

Project Y.E.S.
Project Y.E.S. (Youth Empowerment and Success) is an after-school program for at-risk middle school youth to empower them with the developmental assets they need to succeed academically, behave responsibly, make positive choices, and take a leadership role for social change. This program is a collaboration between North Shore Community College and Thurgood Marshall Middle School in Lynn, with support from U.S. Department of Justice, Office of Juvenile Justice and Delinquency Prevention. Program components include homework support, MCAS prep, sports, recreational activities, career exploration, community service, social skills and youth development. North Shore Community College students serve as mentors in the program. For more information call Project Y.E.S. Director at 781-593-6722 x2178.

Service-Learning
The Service-Learning program at North Shore Community College offers an educational opportunity for students to combine community service with course objectives and requirements. In addition, students focus on critical, reflective thinking as well as personal and civic responsibility. Service-Learning experiences involve students in activities that address local needs while developing academic and career skills. Service-Learning opportunities are offered in courses, often as optional components, in several departments and programs throughout the college. The number of service hours required as well as the classroom assignment varies from course to course. The Service-Learning program is supported by the Center for Teaching, Learning, and Assessment. For more information, contact the Coordinator of Service-Learning at 978-739-5571.

Technology Supported Courses
North Shore Community College is a leader in technology within the State’s community college system offering students a broad spectrum of course-related technology services. All students have a Campus Pipeline account through which they can get up-to-the-minute course information and materials as well as communicate via email with their professors and fellow students. (See section on Campus Pipeline.) Students may also enroll in courses where faculty have integrated technology into their courses by redesigning curricula to include new software, the Internet, and multimedia to enrich teaching and learning. Redesigned curricula include fully online courses that have no onsite requirements; CAT (Classroom and Technology) courses that blend the traditional classroom setting with online instruction where students might meet once a week in a college classroom and complete the rest of their weekly work online; and courses that include a variety of multimedia presentations and assignments.

TRiO Linked Learning
TRiO Linked Learning (TLL) is a unique collaboration between faculty and TRiO staff. Students become part of a small, supportive learning community, taking foundation courses (Composition 1 and Speech are offered in the fall; Composition 2 and Psychology in the spring) in classes that are limited to 15 students. Advisors will assist students in selecting and registering for additional courses to complement their TLL courses. TLL faculty and TRiO staff meet several times each semester to review student progress and ensure that students have the help they need to be successful in their courses. Students must first qualify for participation in TRiO/Student Support Services (see Student Support Services).

TRiO/Student Support Services
TRiO/SSS is a federally-funded program offering academic advising and enrichment services to 350 eligible NSCC students each year. Students selected for TRiO must be full-time, day students who are motivated to be successful and graduate from NSCC; willing to work hard; and interested in giving back to others through community service. They must meet federal guidelines (low-income, first-generation-to-college, or documented disability) to be eligible. TRiO students receive an extensive summer orientation, meet regularly with their TRiO academic advisor, and have access to dedicated tutors, opportunities for study groups, free cultural activities, visits to 4-year colleges, opportunities for community service, and much more. Most students enter TRiO in the fall through TRiO Linked Learning (see TRiO Linked Learning). Interested students should complete an interest form and return it to one of the TRiO offices. An advisor will then contact them to with more information.

For more information visit www.northshore.edu/trio.
Danvers: DB104, x5439
Lynn: LW165, x6626
Monday-Friday, 8am-4pm

Women in Transition
The Women in Transition program is a strength-based supportive learning community of mature students, which is dedicated to easing the transitions to college, career, and life-changing possibilities. The program faculty and staff guide the women within the comfort and safety of a small learning cohort. Women of diverse life experiences discover and develop academic skills and competencies, college success strategies, and life skills. The program faculty and staff specifically encourage and assist in building the self-esteem and confidence needed to examine the students’ attitudes, values, thoughts, beliefs, and feelings related to creating a unique life plan. Upon completion of this one-year, part-time program, each student will move on to pursue her educational, professional, personal goals.

For more information, contact the coordinator at 978-739-5515.

Writing-Supported Courses
Writing-supported courses give students an opportunity to strengthen thinking and writing skills while studying various fields of knowledge. In these courses, instructors and students will discuss how to approach writing assignments by using the writing process. Students will learn course material through graded and ungraded writing assignments and will receive assistance from their instructors while working on their writing.
Library

The North Shore Community College Libraries are located at the Danvers and Lynn Campuses and provide a wide array of services dedicated to the teaching/learning process.

NSCC Libraries fill the information needs of students, faculty, and staff with a variety of electronic and print resources. Our automated circulation system and online catalog allow users to select items from the ten academic and seventeen public libraries in NOBLE, the North of Boston Library Exchange. Items requested from the NOBLE catalog can be delivered to the most convenient NSCC or NOBLE library for pickup.

Patrons can access the NOBLE catalog and all of the databases from off-campus using our website library.northshore.edu and their student IDs, which function as library cards after being activated in one of the libraries. Patrons are also given a PIN that enables them to access their library accounts online. These resources, plus the excellent collection of databases, print volumes, e-books, audiobooks, as well as print and online journals, ensure the Library's ability to meet current classroom and curriculum needs.

Our multimedia collection contains streaming videos and DVDs. Media stations are located on both campuses for viewing these resources. Both libraries provide specialized workstations for students who need adaptive technologies.

Students wishing to conduct research should begin in the NSCC Libraries. Reference librarians are available to help with questions and research during our hours of service. Reference assistance is also available via chat and email, accessed through our website at library.northshore.edu.

Faculty are encouraged to reserve time to bring classes to the library for reference instruction and for help with specific assignments. An information literacy tutorial, complete with quizzes and automated grading, is available and can be used as a class assignment or as a requirement by faculty members.

For more information, please contact the Danvers Campus Library at x5525 or the Lynn Campus.

Instructional Media Services

Instructional Media Services (IMS) supports the College and the community it serves by providing the following services: video and photography from pre- through post-production; installation and maintenance of equipment in Smart classrooms, lecture halls, and videoconference rooms; and ensuring computer equipment and multimedia equipment is delivered and set up in general purpose classrooms upon request through the online Media Request System. IMS production areas respond to College and faculty needs for classroom and presentation materials. A priority of IMS is to ensure that classroom equipment is operating smoothly, enabling students and faculty access to educational resources beyond the walls of NSCC. In addition, IMS supports College-sponsored events requiring technological solutions and assistance.

Student Services

The Student Support & Advising Center

Danvers and Lynn Campuses

The Student Support and Advising Center is dedicated to helping all students realize their fullest academic and personal potential. Comprehensive services are available to help students clarify goals, identify career interests and learning styles, build confidence and academic skills, overcome obstacles to personal development, and promote academic success. Hours are posted at each campus location and on the web at www.northshore.edu/support_center/.

Advising

The Student Support and Advising Center is the hub of a comprehensive advising program, integrated within the college community, which supports students as they strive to succeed. The Center is an information source for students and members of the college community regarding programs and majors, course selection, transfer procedures, Joint Admissions, career exploration, learning styles, services for students with disabilities, and educational tutoring.

For information on academic advising, see the Academic Services section.

Career Exploration

Focusing on a specific career goal often provides the necessary focus for a student to be successful. Several career exploration services are available. The Student Support and Advising Center has a computerized career exploration system called DISCOVER. Students use this program to explore career options and meet with an academic counselor throughout the process to set flexible educational and career goals. A variety of career interest surveys and assessments are employed along with DISCOVER. Students receive individual career counseling as well as classroom workshops to guide them in establishing a career direction.

For more information, visit the Student Support & Advising Center on the Lynn and Danvers Campuses.

Career Placement

The staff in the Career Placement Office offers a professional approach to achieving job and career goals. Students and alumni are offered assistance with competitive resume preparation and cover letters, techniques for successful interviewing, and handling workplace challenges and situations. In addition, access to local, regional and national jobs are available. Students or alumni looking for additional information are encouraged to set up an appointment at the Career Placement Office.

For more information, call the Career Placement Coordinator, 978-762-4000 x2167 / x5565 or 781-477-2167.

Counseling

Counseling services provide students with the support they need to set and achieve realistic and satisfying educational and life goals. Students may schedule individual appointments at the Student Support and Advising Center to determine appropriate support and planning strategies, to gain information about themselves as learners, and about handling the stresses of adjusting to college. A range of group sessions and workshops are conducted on issues relating to learning, job preparation, and personal management. Referral for in-depth counseling is also available on request.
North Shore Community College 2014–2016

Disability Services
Students with disabilities who anticipate the need for accommodations are encouraged to visit www.northshore.edu/disability_services and follow the outlined procedure to request services at least six weeks prior to the start of the semester for which you expect to receive disability services. Disability Services provides academic accommodations and services for students with disabilities so that these individuals have equal access to programs and activities. Through collaboration, Disability Services works toward assisting students in maximizing their academic potential, while also promoting self-awareness, self-advocacy, and ultimately, personal responsibility and independence.

Adaptive Computer Labs
Assistive technology is available for students with documented disabilities at the College’s adaptive computer labs. Lab Specialists assist students in using hardware and software that is programmed to increase, maintain, or improve capabilities and ensure equal access.

Danvers DH106 x4415
Lynn W121 x6608
TTY: Danvers Campus 978-762-4140
Lynn Campus 781-477-2136

Please visit www.northshore.edu/disability for more information on Disability Services.

Health Services
Health Services promotes a student’s optimal health and well-being. Confidential, respectful care and assistance with health concerns, insurance questions, and immunization requirements are offered to all students. A comprehensive approach is facilitated through close communication with the Student Support and Advising Center, TRIO/Student Support Services, area health providers, and the utilization of resources and referrals. A full range of educational programs is offered throughout the academic year in order to encourage health promotion and the prevention of injury and disease.

Immunization Status
In accordance with Chapter 76 Section C of the General Laws of the Commonwealth of Massachusetts, College immunization requirements for measles, mumps, rubella, hepatitis B, tetanus, diphtheria, pertussis, and varicella apply to:

- All full-time credit students matriculating into a credit or clock-hour program.
- All full-time and part-time health science students.
- All full-time and part-time students on a student or other visa, including foreign students attending or visiting classes as part of formal academic visitation exchange program.

Confirmation of immunization must be submitted to Health Services on the NSCC Immunization Record form prior to the first day of classes.

Students accepted into the Nurse Education and Allied Health programs must provide evidence of good physical and emotional health by completing the Health Evaluation Packet supplied by the Enrollment and Student Records Office. This information, including all immunization documentation, must be submitted to the respective Health Professions Division Office.

New Student Orientation, Advising, and Registration and Parent Orientation
All accepted new students are strongly encouraged to attend New Student Orientation. Students are invited to attend New Student Orientation after acceptance to the College and after completion of proficiency testing. A list of New Student Orientation dates are sent with the acceptance letter.

The Student Orientation portion includes: information about adjustment to college, NSCC resources, policies and procedures, and student life at NSCC. The advisement portion includes clarification of mathematics and communications proficiency results, instruction and assistance with reading the College’s schedule, assistance with program selection, and schedule building from an academic advisor.

Parent Orientations run separately from the student program and focus on a variety of topics of interest to parents of new students. We encourage parents to attend and learn about the College and explore the various experiences and challenges their son or daughter may experience during their first year. The support and encouragement students receive from parents often contribute to their success.

Veterans Services
North Shore Community College has a long tradition of providing education and training to veterans and current members of the armed forces who are seeking to learn new skills to add to their military experience. It is a privilege to have service members among NSCC’s student body. We embrace the diversity of our military students and value the strength and character this diversity has contributed to this institution. NSCC honors its commitment to our veteran and military students by providing quality services, resources, and programs to meet the unique needs of individuals currently serving or who have served. Veterans Services can assist students in selecting and applying for benefits, mapping out academic goals, assisting with transfer, and identifying support services useful throughout the student’s academic career.

For more information regarding veteran services, visit www.northshore.edu/veterans.

Student Life, Recreation and Wellness

Student Life
All students enrolled in credit courses are automatically members of the Student Association. There are numerous unique and exciting opportunities available for members to become involved in cocurricular activities, including:

- The Student Government Association (SGA), also known as the Student Senate, is the governing body of the Association, comprising representatives from all academic divisions, student organizations, and the Student Trustee. The SGA also plays a vital role in promoting student involvement in college decision making by appointing student members for college committees.
- The Pennon, the student college newspaper, offers students an opportunity for hands-on experience in managing, editing, writing and developing other essential skills to good journalistic practice.
- The Performing Arts Council (PAC) conducts theatrical productions and workshops. PAC enables students to develop theatrical technique, stagecraft, and stage presence through performance, as well as attending and networking with local production companies.
The Program Council provides a wide range of social, cultural, and recreational entertainment activities. Students are provided the opportunity to learn more about teamwork, budgets, and advertising. As a member of the National Association of Campus Activities (NACA), students can attend regional and national conferences to enhance or increase their programming skills and, as a member of the Community Colleges Student Leadership Association (CCSLA), students are given the opportunity to network, collaborate, and develop cohesive partnerships with other community colleges in the area.

Clubs organized around a special interest or particular academic program are formally recognized by the SGA and are eligible for Student Association Funds.

Student Life supports and complements the academic experience of students by providing opportunities for students to develop intellectually and socially through active involvement in leadership positions, group membership, and event planning.

The Student Association and the administrative advisory staff encourage and recognize student involvement in these and other activities as an important vehicle for growth and development. The Student Association and College are cognizant of Massachusetts’s laws prohibiting the practice of hazing, and offenders will be subject to disciplinary action within the context of due process guidelines established by the College. The policy prohibiting the use of drugs and alcohol at any college function on or off campus applies to all student organizations and activities.

An overview of the relationship between student organizations and the SGA and the eligibility criteria for participation in either can be gained through examination of the Student Association Constitution, available from the Student Life Office LW171 or DB132.

Recreation and Wellness

North Shore Community College supports the belief that cocurricular activities are an integral part of college life. In keeping with this philosophy, there are various recreation and fitness activities available for students.

The College’s Lynn Campus gymnasium and fitness room are open throughout the school year. The fitness room features the latest in strength and cardiovascular training equipment. Designed to help anyone reach his or her fitness goals, the room consists of a variety of machines, free weights, and other cardiovascular exercise equipment.

Located within the gymnasium are a variety of recreational activities such as basketball, bumper pool, ping-pong, and chess. Various intramural sports and contests are offered to students, staff, and faculty on a regular basis over the course of each semester, as well as free exercise and yoga classes.

Recreational activities are also available at the Danvers Campus within the Student Life area in DB129. Here students may take a break, meet up with peers, or get involved with the various programs that are offered. The Department of Recreation and Wellness encourages all members of the College community to visit these facilities and to take advantage of their many offerings.

Corporate and Community Education

Community Education

Through the Division of Corporate and Community Education, North Shore Community College (NSCC) offers a host of interesting and educational courses for all ages. Career-oriented and community education classes are available in areas such as Accounting and Bookkeeping, Culinary Arts, Landscape and Garden Maintenance, Interior Design, and Real Estate. Technical training certification programs to help individuals learn new skills or increase their existing skills are offered in our state-of-the-art computer labs. NSCC also offers many courses in the arts and special courses for youth, including the renowned “Kids to College” programs. A catalog with hundreds of courses is regularly mailed to area homes and businesses and our website is constantly updated with new courses. Customized training in any of these subject areas can be made available for groups.

The division also offers noncredit programs in a wide variety of career opportunities. These programs are designed to serve the educational needs of both full-time and part-time students and the training needs of business and industry on the North Shore. Noncredit programs lead to industry certification, licensure, or a college certificate of completion.

For more information, call 978-236-1200 or check out our website at www.northshore.edu.

Institute for Corporate Training & Technology is now Corporate Training Solutions®

Corporate Training Solutions at North Shore Community College is a leader in providing customized workforce training solutions required for today’s competitive workplace. NSCC’s Corporate Training Solutions serves North Shore communities with highly acclaimed corporate training, tailored to companies’ specific learning objectives, goals, and budgets.

NSCC is a partner for access to a network of expert trainers and high quality programs to develop workforce development skills. Programs include leadership skills, communications, English for Speakers of Other Languages, Microsoft Office, Customer Service, Human Resources related topics, and many more. In addition, NSCC is one of only four community colleges in the state to offer the American Management Association “University Certificate in Management Program.”

We provide training at companies’ sites or at our state-of-the-art corporate training facility located at the award-winning Cummings Center in Beverly. This training site houses a full range of corporate and technical training space that features high-tech computer laboratories, executive meeting rooms for training seminars and workshops, and multi-purpose classrooms, all with a host of business amenities within a pleasant learning environment. Dollars are available through the Workforce Training Fund to assist businesses with their training needs.

For more information on Corporate Training Solutions for your businesses, visit us at corporate.northshore.edu or call 978-236-1206 or 978-236-1207.
Community Outreach

Educational Opportunity Center

The Lynn Educational Opportunity Center (EOC) is a grant program funded by the U.S. Department of Education. The Center, located in the “T” Building at the corner of Market and Broad Streets in Lynn, was established in 1974 as one of the six regional educational counseling centers located throughout Massachusetts. Its mission is to help low-income, first-generation potential college or technical school students gain access to higher education. Services include admissions and financial aid information and application assistance as well as career advising.

For more information, call 781-477-2114 or visit our website at www.lynneoc.org.

High School Equivalency and Adult Literacy Service

HiSET® (High School Equivalency Testing)

Individuals who seek a State High School Equivalency Credentials in order to enter college, begin an educational training program, or qualify for employment may arrange to register for the HiSET® examination at the HiSET® website, choosing NSCC as the test center. The HiSET® examination program is under the jurisdiction of ETS (Education Testing Service) and the Massachusetts Department of Education. After the official registration process is completed, HiSET® applicants are scheduled for the battery of five examinations at either the Lynn or Danvers Campus. The examinations, which are designed to measure attainment of high school competencies, include: Language Arts/Writing (with essay); Social Studies; Science; Language Arts/Reading; and Mathematics. Examinations are administered throughout the calendar year. Individuals with documented disabilities are encouraged to apply to HiSET® for special testing accommodations. Please note that the 2002 GED Series expired at the end of 2013.

More information about the HiSET® examination is available through the official HiSET® website, hiset.ets.org or by contacting the CAS at hiset@northshore.edu.

Adult Learning Center

The Adult Learning Center is a grant program funded by the Massachusetts Department of Elementary and Secondary Education. Individuals who are planning to take the High School Equivalency Test (HiSET®) examination or who need to develop literacy skills are encouraged to make an appointment to meet with a counselor at the Adult Learning Center (ALC) in Beverly at the Cummings Center Campus. An assessment tool is administered and learning options are discussed prior to referral to HiSET® examinations, preparation programs, or general area services.

Individuals who have been assessed may be eligible for free HiSET® preparation classes in mathematics, reading, and writing. Eligible students are placed in one of three levels of classes that meet both Fall and Spring Semesters. All class levels run three mornings per week, and an additional advanced level class is offered two evenings per week – all held at the Cummings Center Campus in Beverly. Students placed in classes are required to demonstrate continued progress and sign an attendance commitment.

In addition to classroom instruction, individual tutoring is available within the classes through community volunteers.

For information about pre-HISET® assessments and preparation classes, call the Coordinator of the Adult Learning Center, 978-236-1227, or email: ALC@northshore.edu.

Alumni and Friends

NSCC Foundation

North Shore Community College Foundation, Inc.

Founded by a group of North Shore business and community leaders in 1983, the NSCC Foundation, Inc. works to raise funds and provide critical support to further develop a quality educational experience at North Shore Community College. The NSCC Foundation is registered with the Commonwealth of Massachusetts as a charitable organization and a qualified 501(c)3 corporation enabling all gifts to be tax deductible to the extent allowed by current law.

The NSCC currently administers a $5.5 million endowment, named scholarship accounts, and general purpose grants. Since 1985, the NSCC Foundation, Inc., has raised and distributed over $2.4 million in scholarships to more than 3,000 NSCC new and continuing students. Donors can impact the community by supporting academic excellence in a variety of ways:

Endowment Gifts. Unrestricted gifts can help meet the challenge of new and emerging priorities. Restricted gifts can create or support a program or scholarship reflecting specific interests.

Educational Assistance. An endowed scholarship is established with a minimum principal gift of $15,000 to be invested by the NSCC Foundation. Interest earned on the fund is awarded as a scholarship. Other named scholarships are established with a minimum of $750 and are funded on an annual basis - donors agree to contribute a specific amount each year to be awarded as a scholarship. One-time scholarship gifts may also be made, to be distributed as awards until the fund is depleted.

Memorial Gifts. Gifts may be directed to NSCC by family recommendation at the time of death. Appropriate tributes may establish a scholarship, endow a faculty chair, augment the Library collection, or expand other educational programs at the College. Unrestricted bequests, specific, and residuary gifts may be made by individual will. In addition, donors may create charitable bequests creating a living legacy to NSCC as well as providing current personal tax benefits.

Instructional Facilities. Gifts from individuals, corporations, and businesses can assure a trained workforce by providing the high-tech equipment, laboratories, and facilities essential to maintain academic excellence.

Gifts may be made in cash or through pledges, in real or personal property, in stocks or bonds, by donations or bequests.

For more information, contact the Director of Development (x5527), 1 Ferncroft Road, Danvers, MA 01923.

NSCC Alumni Association

The North Shore Community College Alumni Association was founded in 1981 by NSCC alumni to promote a spirit of fellowship among graduates, to strengthen the relationship of alumni to the College and to serve the interests of the North Shore Community College community. It is a self-governing organization composed entirely of volunteers.
All graduates with degrees or certificates are members of the NSCC Alumni Association. If you would like to become an active Alumni Board member, contact the Alumni Office (x5481) or visit the Alumni Office at the Danvers Campus, DB330.

Each year, the Alumni Association sponsors a variety of educational, cultural, and social programs for all members of the NSCC community. The NSCC Alumni Association raises money through events and projects to fund Alumni Scholarships. All graduates of NSCC who are attending or planning to attend four-year institutions are eligible to apply for scholarship assistance in completing their bachelor’s degree. Details of scholarship eligibility requirements and applications are available at the Alumni Office, x5481 as well as online.

Each year, the Alumni Association presents the Distinguished Alumnus Award at commencement. This award recognizes a graduate of North Shore Community College whose exceptional achievements or service to the community or college deserve recognition. Anyone can nominate an NSCC grad for this award. For more information about the NSCC Alumni Association, scholarships, the Distinguished Alumnus Award criteria and nomination form, please go to www.northshore.edu/alumni.

Administration and Policies

Institutional Policies

Alcohol and Drug Policy
The use of alcohol in any form and the illegal use of drugs at any College-sponsored activity is strictly forbidden, regardless of location. Violators will be subject to disciplinary action by the appropriate governing body.

Drug-Free Workplace
North Shore Community College is committed to maintaining a drug-free workplace in accordance with the requirements of the U.S. Drug-Free Workplace Act of 1988, Appendix C to 45 C.F.R. part 620, Subpart F-Certification Regarding Drug-Free Workplace Requirements, and the Drug-Free Schools and Communities Act of 1989.

Pursuant to the ACT, the unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited in the workplace. The law further requires notification to the College within five (5) days if convicted of any criminal drug statute for violations occurring in the workplace. Conviction of a criminal drug statute for violations occurring in the workplace shall result in the imposition of appropriate workplace sanctions up to and including discharge upon the employee and/or required participation in a drug abuse or rehabilitation program.

In addition, the U.S. Department of Education requires that students applying for Pell Grants must complete a drug-free certification prior to receipt of the award.

For information regarding the availability of drug use and abuse education and/or rehabilitation programs, contact Thanh Giddarie, Director of Human Resource Development, Danvers Campus, x5470.

Children on Campus Policy
The administration at NSCC understands that in some circumstances it may be necessary to bring children on campus. The College does not generally prohibit you from bringing your children on campus as long as they are under your supervision at all times; or if it is not possible for them to be under your direct supervision, then an adult friend or adult guardian should be designated to ensure their supervision. Be aware, however, that College staff and faculty members responsible for specific college areas reserve the right to exclude infants and children from that area when, in their best judgment, it is in the interest of health, safety or the educational process.

NSCC cannot be responsible for the care and supervision of unattended children. Campus Police will be asked to locate and return to the custody of the parent any unattended children.

College Policy Regarding Requests to Locate Students
Requests to locate students are received by Student Services during their operating hours and the Campus Police at all other times. Student Services/the Campus Police evaluates the nature of the request and emergency messages (for example, sick child, family crisis) are then forwarded to/delivered by the Campus Police. Students should consider providing a copy of their class schedule to family members, day care providers, and others who may need to contact them in an emergency. Only messages of an emergency nature shall be delivered. Information regarding whether you’re on campus and your location shall not be provided to anyone. Emergency calls should be directed to the College Switchboard at: 978-762-4000 or 781-593-6722.

Community Notification of Where to Access Sex Offender Information
In accordance with federal law, the College is required to advise the campus community where information concerning registered sex offenders may be obtained. Information concerning Level 2 and Level 3 offenders is available to the general public by contacting the Commonwealth of Massachusetts’ Sex Offender Registry Board: P.O. Box 4547, Salem, MA 01970-4547, 978-740-6400, or the following Police Departments:

- Lynn Police Department: 300 Washington St., Lynn, MA 01902
- Danvers Police Department: 120 Ash St., Danvers, MA 01923
- Beverly Police Department: 193 Cabot St., Beverly, MA 01915

Level 3 offender information is also available online at www.mass.gov/sorb.

If you have any questions regarding access to sex offender information, please feel free to contact the College’s Chief of Police, Douglas P. Puska, at 781-593-7032.

Computer Use Policy
Computers at North Shore Community College are made available to students, faculty, staff, and when appropriate, to the community at large. Use is devoted exclusively to educational purposes, including scholarly and institutional communication, information gathering, and computing instruction. It is understood that all users agree to abide by the following rules and regulations.
1. All computers are used only as permitted by the College in accordance with NSCC policies and procedures designed to further educational objectives. Illegal or unethical use which violates those policies will not be tolerated. NSCC networks are public networks, and NSCC Information Systems reserves the right to monitor remotely, or in person, any/all College computers. Acceptable use of the College's computing and networking resources includes usage for academic, educational, or professional purposes which are directly related to official College business and in support of the College's mission.

2. Illegal or unethical computer use will not be tolerated and is subject to legal/disciplinary action. This includes but is not limited to: 1) any attempt to breach system security, propagate viruses, damage files, or otherwise disrupt services; 2) unauthorized copying and sending of software; 3) disregard of copyright and proprietary restrictions; 4) misrepresentation or use of another's work; 5) utilizing material or communication which constitutes sexual harassment, obscenity, child pornography, or creates a hostile or intimidating environment; 6) intentionally hindering others' ability to utilize any networks accessed from NSCC; and 7) unauthorized use of the name or logos or graphical representation of NSCC without the express permission of College authorities.

3. Computer users must respect the privacy of others. No network user shall intentionally seek information on, obtain copies of, or modify files, data, or passwords belonging to another person.

4. Computer users must keep their passwords confidential, use only their own accounts, and identify themselves accurately when online.

5. Computer users may not use computing resources for commercial venture, personal profit, or political purposes.

6. To ensure fair access for all, computer users must respect NSCC limitations on computer use such as time limits, age appropriate limits, storage space or amount of resources consumed, game playing, MUDDs, chain letters. A user is prohibited from wasting computer resources: placing a program in an endless loop, printing excessive amounts of paper, distributing chain letters, game playing, chat rooms, etc.

7. Users of the College's Computer Network for electronic mail purposes should have no expectation of privacy. The College reserves the right to access or interrupt e-mail communications or transmissions for routine system maintenance, technical problems, criminal investigations, or in response to, and in compliance with, a request made under the Commonwealth's Public Records Laws. E-mail and files related to coursework are the sole occasions on which students may download files.

8. With North Shore's College website, it is possible that personal and commercial Web pages are linked to it. It is understood that the College is neither responsible for, nor maintains control over, any pages linked to its website.

9. Unauthorized use of accounts and any other complaints should be reported to the Vice President of Student and Enrollment Services or designee for student violations) or to the Vice President for Academic Affairs or designee.

10. NSCC network users agree to waive any claim and release North Shore Community College, its employees and agents, from any claim, demand, liability, cause of action, or suit for damages arising out of their use of NSCC network(s), including but not limited to: loss of data, equipment failure, or consequences resulting from the preceding.

Violations
Violations of this policy may result in disciplinary action, up to and including dismissal, as well as civil liability and/or criminal prosecution. Unacceptable uses may also constitute a violation of the Electronic Communications Privacy Act of 1986, the Family Educational Rights and Privacy Act, Massachusetts Wiretap and/or Privacy Laws, defamation, copyright and/or trademark infringement laws, and state or federal sexual harassment or discrimination laws.

Conduct, Disciplinary Procedures, Due Process
The College considers students as mature and responsible individuals, and as adults they are held accountable for their actions at all times. Rules and regulations are kept to a minimum and students are advised to use good judgment.

The College recognizes its obligation to guarantee rights of its students and will protect its community from persons who violate its own rules and regulations and those of the Federal Government, the Commonwealth of Massachusetts, and the Board of Higher Education. It also extends due process to persons alleged to have violated rules and regulations.

The College may apply sanctions when student conduct directly and significantly interferes with the College's primary educational responsibility of ensuring all members of the College community's attainment of educational objectives; or directly and significantly interferes with the College's responsibility for protecting the health and safety of persons in the College community; or violates local, state, or federal criminal statutes while on College premises or during participation in a College activity. For a detailed description of proscribed conduct and disciplinary/due process policies and procedures, see the Student Rights and Responsibilities section of the Student Handbook, available from the Student Life and Student Support and Advising Center Offices.

Note: Certain academic programs or student organizations have behavior guidelines and related policies and procedures that apply to their students.

For further information, contact the Academic Division Deans or Director of Student Life.

Equal Opportunity and Affirmative Action
North Shore Community College is an affirmative action equal opportunity employer and does not discriminate on the basis of race, color, national origin, sex, or disability status in its education programs or in admission to, access to, treatment in or employment in its programs or activities as required by Title VI, Civil Rights Act of 1964, Title IX, Education Amendments of 1972, and Section 504, Rehabilitation Act of 1973 and regulations promulgated thereunder, 34 C.F.R. Part 100 (Title IV), Part 106 Title (IX) and Part 104 (Section 504) and the Americans with Disabilities Act of 1990. All inquiries concerning application of the above should be directed to the College's Affirmative Action Officer, who is also the Title IX and Section 504 Coordinator. The Affirmative Action Officer is the Director of Human Resource Development, Danvers Campus, x5470. Copies of the Affirmative Action Policy are available in the Human Resource Development Office, are on reserve in the libraries on both the Lynn and Danvers Campuses, and online via Pipeline.
For information on disability accommodations for students, please refer to the Student Guide to Disability Services, available from Disabilities Services or by visiting www.northshore.edu/disability_services.

TTY phones for deaf/hard of hearing student and staff use are located at each campus.
Danvers, Disability Services Lynn, Disability Services Lynn, Campus Police for emergencies) Beverly

Grievance Procedures
Complaints related to discrimination as discussed in the Equal Opportunity/Affirmative Action Section, and complaints relating to Sexual Harassment, should be resolved through the Affirmative Action Grievance procedure, available from the Affirmative Action Officer, the Director of Human Resources, x5470. All other student grievances follow the Community College Grievance procedure as outlined in the Student Handbook. Inquiries should be directed to the Dean of Students, x6614.

Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act
North Shore Community College is committed to assisting all the members of the college community in providing for their own safety and security. The annual security compliance document is available on the North Shore Community College website at www.northshore.edu/safety/police/.

If you would like to receive a booklet called the “Jeanne Clery Disclosure of Campus Security Policy and Crime Statistics Act,” which contains this information, you can stop by the Campus Police Desk at our Lynn Campus or you can request a copy be mailed to you by calling 978-762-4090.

The website contains information on campus security and personal safety, including crime prevention, college police law-enforcement authority, crime reporting policies, disciplinary procedures, and other important matters about security on campus. It also contains statistics for the three previous calendar years on reported crimes that occurred on campus and certain off-campus buildings or property owned or controlled by North Shore Community College, and on public property within or immediately adjacent to and accessible from the campus.

This information is required by law and provided by the Campus Police Department.

Policy and Procedures Relative to Students with Disabilities

Section I
Policy on Nondiscrimination
North Shore Community College is a public, open admission, comprehensive institution. The College affirms the principles of equal access and academic accommodations for students with disabilities as stated in Section 504 of the Rehabilitation Act of 1973. The College will strive to maintain and extend its barrier-free environment; the College will practice non-discrimination in its academic and non-academic components; the College will seek to ensure that a student’s level of achievement will be measured in ways that assess learning and minimize the interference of disabilityrelated factors.

Section II
Definitions of Students with Disabilities and Academic Accommodations
Students with disabilities are those who meet the following eligibility criteria outlined under Section 504 of the Rehabilitation Act of 1973 and reaffirmed in the Americans with Disabilities Act:
1. have a physical or mental impairment that substantially limits one or more major life functions; or
2. have a history of such impairment; or
3. are regarded as having such an impairment; and
4. are deemed to be otherwise qualified despite the disability.

Academic accommodations are alternative courses of action, which will ensure that students with disabilities receive:
1. opportunities to participate in and meet the stated essential requirements of courses and programs for which they are otherwise qualified and
2. evaluations which measure their levels of achievement of those essential requirements and are not impacted negatively by disabilityrelated factors.

Academic accommodations are provided in a manner that does not compromise the academic standards of the course or program and is reasonable in light of the public nature of the community college setting.

Section III
Procedure for Establishing Eligibility for Accommodations
Students seeking support services and/or accommodations on the basis of a disability are required to verify eligibility in accordance with Section 504 of the Rehabilitation Act of 1973:

Student’s Responsibilities:
1. FIRST, students must self-identify by following the published procedure to request services. In order to adequately meet your educational and academic needs we kindly ask that you complete and return the requested documents at least six weeks prior to the start of the semester for which you expect to receive disability services.
2. SECOND, upon Disability Services receiving the request for services along with the appropriate documentation, the student will be contacted for an Intake Interview. The Disability Counselor, in consultation with the student, develop reasonable accommodations, adjustments, auxiliary aids and/or services which will then be reviewed by the Disability Team.

Documentation Requirements for Students with Specific Learning Disabilities:
1. Testing must be comprehensive especially regarding specific learning disabilities. It is not acceptable to administer only one test for the purpose of diagnosis. Minimally, testing must include but is not limited to:
  a. Aptitude: The Wechsler Intelligence Scale Revised (WAIS-R) with subtest scores is the preferred instrument. The Woodcock-Johnson Psycho-Educational Battery: Revised or the Stanford-Binet is acceptable.
  b. Achievement: Current levels of functioning in reading, math, and written language are required. Acceptable instruments include the Woodcock-Johnson Psycho-Educational Battery: Revised; Tests of Achievement; Stanford Test of Academic Skills (TAS); Scholastic Abilities Test for Adults; or specific achievement tests Acceptable to the Disability Services. Note: The Wide Range Achievement Test is NOT a comprehensive measure of achievement and therefore is not suitable.
The Disability Team, which is made up of several Disability Professionals conducting assessment and rendering diagnosis of specific learning disabilities must be qualified to do so. Trained and certified and/or licensed psychologists, learning disabilities specialists, and educational therapists are typically involved in the process of assessment. Experience diagnosing an adult population is essential.

Assessment instruments used must be suitable (i.e., reliable and valid) for use with an adult population. Diagnostic reports must include the names and titles of the evaluators as well as the date(s) of testing.

Please visit www.northshore.edu/disability_services for disability documentation guidelines for all disabilities.

All documentation is confidential and should be submitted as published for review at least six weeks prior to the start of the semester for which you expect to receive disability services.

Section IV
Procedure for Implementing Accommodations for Students with Disabilities

The entire North Shore Community College community is responsible for implementing the spirit and requirements of Section 504 of the Rehabilitation Act of 1973 as published in the May 4, 1977 Federal Register, p.22684:

No qualified handicapped student shall, on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any...postsecondary education program or activity... [84.43(a)]

(An institution)...shall make such modifications to its academic requirements as are necessary to ensure that such requirements do not discriminate or have the effect of discriminating, on the basis of handicap, against a qualified handicapped applicant or student...

Modifications may include changes in the length of time permitted for the completion of degree requirements, substitutions of specific courses required for the completion of degree requirements, and the adaptation of the manner in which specific courses are conducted. [84.44(a)]

The Disability Services is the central office responsible for coordinating services and academic accommodations. The Disability Services Team reviews the student’s current and appropriate documentation and approves, defers, or denies the requested academic accommodation(s) with full attention to the student’s disability needs, the course standards, and program integrity. With regard to learning disabilities, no accommodations will be recommended unless the documentation clearly states that a learning disability exists. Terminology such as “learning difference” or “learning problem” does not constitute a learning disability. The Disability Team, which is made up of several Disability Counselors and related health professionals, also recommends the nature of the accommodations in instruction and testing that might be required for a student consistent with policies developed by the NSCC Academic Accommodations Policy Board (AAPB) and approved by the President. The student and (if requested by the student) a Disability Counselor explain the nature and purpose of the accommodations to the student’s instructor(s) at the beginning of each semester (or as soon after evaluation as is possible) so that the accommodations can be implemented in a timely manner. Accommodations approved by the Disability Team are communicated to the students and instructors via letters by a Disability Counselor on the Disability Team.

Faculty is responsible for conducting classes and developing examinations and procedures for evaluating students’ academic achievement as outlined in the “AGREEMENT between the Massachusetts Higher Education Coordinating Council for the Massachusetts Community Colleges and the Massachusetts Community College Council/Massachusetts Teachers Association.”

In so doing, they must follow federal regulations which require that methods be provided to best ensure that the results of the evaluations represent the student’s achievement in the course rather than reflecting the student’s impaired sensory, physical, or speaking skills (except where such skills are the factors the test purports to measure). The right to academic freedom does not supersede the student’s right to accommodations. The types of accommodations will vary depending on the type of disability and course content. A student may benefit from an oral exam in one area but not in another. The record of past success with accommodations is the best predictor. There may be an initial trial-and-error period as the faculty member, student, and Disability Counselor work as a team to continuously improve the manner in which to evaluate the student’s mastery of course material.

Section V
Responsibilities for Ensuring Legal Compliance

President: The President is the senior administrative officer who is responsible for campus policies and services affecting students with disabilities. With the advice of the NSCC AAPB, the President ensures that these policies are educationally sound and responsive to students with disabilities.

Deans: The administrative heads of the divisions are responsible for ensuring that the instructional staff of their units understands North Shore Community College’s full commitment to implementing federal law and College policy assuring nondiscrimination for students on the basis of disability. If an instructor requests a review of or fails to provide an academic accommodation that has been determined to be appropriate for a student by an Disability Counselor from the Disability Services, the instructor’s division Dean in consultation with the Vice President of Academic Affairs and the Campus 504 Coordinator is responsible for ensuring that the accommodation is provided in a timely manner until the matter has been reviewed by the NSCC AAPB and a final decision reached by the President.

Campus 504 Coordinator: The Campus 504 Coordinator serves as a resource to College faculty, administration, and staff in meeting their obligation to provide appropriate academic accommodations to students with disabilities. The Campus 504 Coordinator advises about the requirements of federal law and College policy and works to resolve informally any disagreement about accommodations for students with disabilities. The Campus 504 Coordinator also serves as a member of the NSCC AAPB and has responsibility, in consultation with the College’s legal advisor, for ensuring that the policies and procedures comply with federal, state, and College requirements. The Campus 504 Coordinator also serves as a resource to students who feel they are not receiving appropriate accommodations or that they are being treated in a discriminatory manner.
NSCC Academic Accommodations Policy Board: The NSCC AAPB has three primary functions:

1. to advise the President about policies and procedures related to the provision of academic accommodations for students with disabilities;
2. to develop methods for increasing faculty understanding of disabilities and their accommodations in an academic setting; and
3. to assist the President in resolving any disagreements that might arise concerning particular accommodations.

The NSCC AAPB is composed of seven College members. The board consists of several faculty members and a professional staff member, a Disability Services staff member, and the 504 Coordinator. The term of service is 2 years except for the 504 Coordinator, which is a permanent position.

The faculty members who are knowledgeable in the area of learning and disabilities are appointed by the Vice President of Academic Affairs. The board will elect a chairperson from among its members. Any faculty board member who requests a review of an accommodation will not participate in the board's review of that accommodation but will be replaced by another faculty appointed by the Vice President of Academic Affairs.

The Disability Services member is also knowledgeable in the above areas and appointed by the Vice President of Student and Enrollment Services. Any staff member who determined an accommodation for a particular student will not participate in the board's review of that accommodation but will be replaced by another Disability Services member appointed by the Vice President of Student and Enrollment Services.

The Campus 504 Coordinator has responsibility for ensuring that the policies and procedures developed comply with federal and state requirements.

Section VI Procedure for Resolving Disagreements over Accommodations for Students with Disabilities

If an instructor has questions about or disagrees with an accommodation that the Disability Team has determined is appropriate for a particular student with disabilities, the instructor should immediately contact the Disability Counselor who signed the accommodation notice. Following this consultation, if the instructor still disagrees with the accommodation, she/he may request a review of the accommodation by contacting the Campus 504 Coordinator within five days of having been notified of the accommodation by the student or the Disability Counselor. This appeal to the Campus 504 Coordinator should include a written description of the proposed accommodation and his/her specific disagreement with the appropriateness of the accommodation.

If the instructor does not provide the accommodation, the Vice President of Academic Affairs and the Vice President of Student and Enrollment Services are jointly responsible for ensuring that the accommodation is provided in a timely manner and that appropriate administrative sanctions are pursued in accordance with established policy and procedure.

After consultation with the Vice President of Academic Affairs, the Section 504 Coordinator will respond in writing to the instructor’s appeal within five days of receiving it. This decision of the Section 504 Coordinator is appealable to the AAPB, which is advisory to the President, whose decision is final.

Policy Concerning Sexual Harassment

Sexual harassment of a student, an employee, or any other person in the College is unlawful, unacceptable, impermissible, and intolerable. Sexual harassment is a form of sex discrimination. It occurs in a variety of situations which share a common element: the inappropriate introduction of sexual activities or comments into the work or learning environment. Often, sexual harassment involves relationships of unequal power and contains elements of coerced compliance with requests for sexual favors becomes a criterion for granting work, study, or grading benefits. However, sexual harassment may also involve relationships among equals, as when repeated sexual advances or demeaning verbal behaviors have a harmful effect on a person's ability to study or work in the academic setting.

For general purposes, sexual harassment may be described as unwelcome advances, requests for sexual favors, and other physical conduct and expressive behavior of a sexual nature when 1) submission to such conduct is made either explicitly or implicitly a term or condition of an individual's employment or education; 2) submission to or rejection of such conduct by an individual is used as the basis for academic or employment decisions affecting that individual; or 3) such conduct has the purpose or effect of substantially interfering with an individual's academic or professional performance and creating an intimidating, hostile, or demeaning employment or educational environment. Examples of conduct which may, depending on the circumstances, constitute sexual harassment, include:

- Repeated offensive sexual flirtations, advances, or propositions.
- Continued or repeated verbal abuse or innuendo of a sexual nature.
- Uninvited physical contact such as touching, hugging, patting, or pinching.
- Display of sexually suggestive objects or pictures.
- Jokes or remarks of a sexual nature in front of people who find them offensive.
- Making obscene gestures or suggestions or insulting sounds.
- Indecent exposure.
- The demand for sexual favors accompanied by an implied or overt threat concerning an individual's employment, or student status, or promises of preferential treatment.
- In addition to sexual harassment being unlawful, it is also unlawful to retaliate against a student, employee, or any other person in the College for filing a complaint of sexual harassment or for cooperating in an investigation of sexual harassment.
A student, employee, or any other person in the College who is found to have engaged in sexual harassment is subject to discipline up to and including termination of employment or expulsion. All disciplinary proceedings will be conducted in accordance with applicable collective bargaining agreements and/or personnel policies.

When a student, employee, or any other person in the College believes he/she has been the subject of sexual harassment, the grievance process is a mechanism for redress. A grievant may seek recourse through informal efforts or by filing a formal grievance in writing. In the latter case, a grievant may obtain an Affirmative Action Grievance Form from the College’s Affirmative Action Officer within thirty (30) days from when the grievant knew or should have known of the alleged discriminatory action. In either case, all grievants must contact the College’s Affirmative Action Officer before proceeding under the Affirmative Action Policy’s Grievance and Hearing Procedure. If, however, the Affirmative Action Officer is the subject of the sexual harassment complaint, the grievant may report his/her complaint to the supervisor of the Affirmative Action Officer. All reasonable efforts will be made to maintain confidentiality during the grievance process.

The Massachusetts Commission Against Discrimination (MCAD) is responsible for investigating and handling complaints of sexual harassment filed in the Commonwealth. The MCAD is located at 1 Ashburton Place, Boston, MA 02108-1518, and can be reached at 617-994-6000. At the federal level, the Equal Employment Opportunity Commission (EEOC) is charged with investigating and handling complaints of sexual harassment filed under Title VII of the 1964 Civil Rights Act and Title IX of the 1972 Educational Amendments. The EEOC is located at JFK Federal Building, Government Center, 4th Floor, Room 475, Boston, MA 02203, and can be reached at 617-565-3200.

In keeping with these regulations, a concerted effort will be made to protect employees, students, and others from sexual harassment as defined. The final authority and ultimate responsibility for the prevention of sexual harassment will rest with the President of each Community College. The President or his/her designee will take reasonable measures to prevent sexual harassment and will act positively to investigate alleged harassment and to effect a remedy when an allegation is determined to be valid, whether or not a formal grievance has been filed. However, the Affirmative Action Officer will have the responsibility for the overall development, administration, and monitoring of all programs, policies, procedures, and regulations related to sexual harassment.

The College’s policies and procedures on sexual harassment shall be distributed to all College community members. In addition to formal procedures, the College shall ensure that appropriate opportunities are available to students and employees to obtain counseling concerning their rights under the law and effective means of informally resolving grievances.

Social Media Guidelines
The College uses social media to support the college’s mission, goals and overall communication strategy, and to provide students, staff and followers the opportunity to communicate interactively. To support the College’s social media efforts, guidelines apply to social media accounts created by staff or students for official business purposes of the College, and establish acceptable practices and procedures on how official NSCC sites will be created, administered and utilized. These guidelines were developed to ensure that information published electronically follows the same high standards as other forms of published college information. Guidelines are available at www.northshore.edu/legal/social-media-guidelines.html

Smoke-Free Campus Policy
Smoking is prohibited within the confines of all college grounds, buildings and property. Smoking will only be permitted in private vehicles lawfully parked on campus lots. Effective implementation of the policy depends on the courtesy, respect and cooperation of all members of the campus community. Complaints concerning employees of the College should be brought to the attention of the employee’s immediate supervisor, or in the alternative to the Vice President of Human Resource Development or the Director of Human Resource Development. Complaints concerning students should be brought to the attention of a campus police officer, who may refer the matter to the Dean of Students, and any official actions taken will be in accordance with the Student Code of Conduct. It is anticipated that violators would first be reminded and provided with educational literature. Disciplinary measures would be expected to be reserved for repeat infractions or infractions that interfere with the College’s academic or workplace needs or responsibilities. Visitors who fail to comply with the policy may be prohibited from remaining on or returning to campus.
Governance and Administration

Commonwealth of Massachusetts Department of Higher Education
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Louis Ricciardi, Vice Chair
David J. Barron
C. Bernard Fulp
Nancy Hoffman, Ph.D.
Mathew Malone
Kathy Matson
Dani Monroe
Keith J. Peden
Fernando M. Reimers
Tina Sbrega
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Sandra B. Edwards, J.D., Vice President for Institutional Advancement
Janice M. Forssstrom, Vice President for Administration & Finance
Maureen O’Neill, Interim Vice President for Academic Affairs
Donna L. Richemond, Vice President for Student & Enrollment Services
Madeline P. Wallis, Vice President for Human Resource Development

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George Traicoff, Emeritus Honorary, NSCC
Stephen Vesey, Vice President
Richard Yagjian

NSCC Alumni Association Council
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Luz Garay, ’08
Judith Gentleman ’96, President
Julie Howland ’91, ’04, Secretary
Robert Kohn, ’79
Kimberly Marino, ’09
Mary Ann Murray, ’90
Lesley Peters ’97, Alumni Trustee
Donna Rosato, ’03
Gerard Sullivan ’97, Vice President
Faculty and Staff

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President
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M.B.A., University of Pennsylvania
Ed.D., University of Nebraska - Lincoln

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B.S., Salem State College

Jacqueline Sakamoto (1980)
Staff Assistant

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A.S., Tech. University of Santiago
B.S., Salem State College

Educational Opportunity Center

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M.Ed., Salem State University

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M.A., Boston University
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Alexander Vasquez (2012)
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B.A., Boston College

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B.A., Northeastern University

Upward Bound
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M.S., Salem State College

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M.S., Salem State University

Peter Toeung (2008)
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Justine Morse (2002)
Administrative Assistant I
A.S., Endicott College

June Speliotis (1997)
Administrative Assistant I
A.S., Mount Ida College

Center for Teaching, Learning and Assessment
Andrea Defusco-Sullivan (2014)
Director
B.A., Merrimack College
M.A., English with Teaching Excellence, Boston College

Cate Kaluzny (2007)
Coordinator, Service Learning
B.A., University of Michigan
M.Ed., Ph.D., Stockholm University

Saradah Ramesh (2011)
Sr. Special Programs Coordinator
Ph.D., Pennsylvania State University

Rebecca Twalipo (2006)
Administrative Assistant I
B.A., University of Massachusetts Amherst

ACADEMIC TECHNOLOGY AND DISTANCE LEARNING
Michael Badolato (2012)
Dean
B.A., Rowan University
M.Ed., University of Massachusetts Boston
Ed. D., Boston University

Andrea Milligan (2010)
Director, Instructional Technology and Design
B.A., Lycoming College
M.L.I.S., Simmons College

James Harrington (2007)
Director, Instructional Media and Production
B.S., Boston College
M.A., Endicott College

Lance Eaton (2011)
Coordinator, Academic Computing
A.S., North Shore Community College
B.A., Salem State College
M.A., University of Massachusetts Boston
M.P.A., Suffolk University

Cora Martinez-Diaz (2013)
Programmer, Instructional Technology
M.Ed., Lesley University
B.A., Simmons College

David B. Houle (1987)
Coordinator, Instructional Technology
B.A., M.Ed., Worcester State College

Darren Thompson (1985)
Media Coordinator
B.G.S., Endicott College
M.Ed., University of Massachusetts

Susan J. Downey (1982)
Clerk IV
A.S., A.A., Greenfield Community College

Kurt Eddy (1988)
Audio Visual Equipment Technician II
A.A., North Shore Community College
B.A., Salem State College

Faith Hocter (2008)
Audio Visual Equipment Technician II

Patricia Lavoie (1990)
Instructional Technology Assistant
A.S., North Shore Community College
B.S., Salem State College

Michelle Mabee (1999)
Administrative Assistant I
A.S., North Shore Community College

Georgia Panagopoulos (1996)
Administrative Assistant I
A.S., North Shore Community College

Kent Williams (1998)
Audio Visual Technician II
A.S., North Shore Community College

LIBRARY
Karen Pangallo (1992)
Director
B.S., Salem State College
M.L.S., Simmons College

Kathryn Sullivan (1997)
Administrative Assistant I
A.S., North Shore Community College
C.A. Certificate, NY Chiropractic College
Graphic Design Certificate, North Shore Community College
B.S., Endicott College

Public Service Danvers Campus
William J. Meunier (1978)
Coordinator of Library Services
B.A., Salem State College
M.L.S., University of Rhode Island

Christine Goodchild (2007)
Reference Librarian
B.A., University of Colorado
M.L.S., Simmons College

Kerrie Mangione (1987)
Librarian I
B.S., Salem State College

Edith Saranteas (2003)
Library Assistant III

Public Service Lynn Campus
Dava Davainis (2013)
Coordinator of Library Services
B.A., Clark University
M.S.W, Boston University
M.L.I.S., Simmons College
L.I.C.S.W

Phanary Auk (2004)
Library Assistant III

Torrey Dukes (2003)
Reference Librarian
B.A., University of Massachusetts Amherst
M.L.I.S., University of Southern Mississippi

Indira Leisba (2009)
Library Assistant II

Technical Services
John Koza (1998)
Coordinator, Technical Services/Automated Systems
B.M., University of Massachusetts Lowell
M.L.S., Simmons College

Judith A. Schena (1987)
Library Assistant II
B.A., University of Lowell
ACADEMIC DIVISIONS

For a listing of current adjunct faculty, please refer to the College’s website, www.northshore.edu. Full-time faculty are included in this section.

BUSINESS SCIENCES

Patricia Brown Viall (1986)
Dean
B.S., Salem State College
M.S., Suffolk University

Cathy Washnock (2004)
Administrative Assistant I

Aviation Science

John Kreeft (2011)
Program Coordinator, Assistant Professor
B.A., Boston College
M.S., Embry-Riddle Aeronautical University

Business

Mary Beth Nelson (2004)
Department Chairperson, Professor
B.S., Salem State College
M.B.A., Babson College

Ulises Arcos-Castrejon (2005)
Professor
M.S., University of Texas
M.B.A., B.A., ITESM, Mexico

John Bosco (2006)
Associate Professor
A.S., North Shore Community College
B.S., Merrimack College
M.B.A., Suffolk University

Betty Kelly (1996)
Professor
B.S., Salem State College
M.S., Rochester Institute of Technology

Arthur J. Neuner (1979)
Professor
A.S., North Shore Community College
B.S., Salem State College
M.B.A., Suffolk University

Yelenna Rondon (2008)
Assistant Professor
B.S., B.A., Florida International University
M.S.I.M., Boston University
Chartered Financial Analyst (CFA)

Cooperative Education/Internships

Matthew Qualter (2012)
Coordinator
B.A., Salem State College
M.B.A., Southern New Hampshire University

Cosmetology

Kathy Champlain (2004)
Program Coordinator, Associate Professor
A.S., Endicott College
B.S., Fitchburg State College

Ella Gannon (1999)
Associate Professor
Mansfield School of Cosmetology

Patricia M. Pappas (2009)
Instructor
B.A., University of Massachusetts Boston

Culinary Arts and Food Service

Loreen Tirrell (2007)
Department Chairperson, Associate Professor
B.A., Temple University
M.B.A., Salem State University

Kristine Demchenko (2013)
Instructor
A.O.S., Culinary Institute of America
B.A., Le Cordon Bleu

Charles Naffah (1999)
Associate Professor
Teacher Certification, Fitchburg State College

Graphic Design

Sandra Fuhs (2004)
Program Coordinator, Professor
B.S., Fitchburg State College
M.S., Rochester Institute of Technology

Office Technology

Madeleine McAuliffe (2011)
Associate Professor
A.S., Massachusetts Bay Community College
B.S., Salem State College
M.Ed., Suffolk University

Professor
A.S., Endicott College
B.S., M.Ed., Boston University
C.A.G.S., University of Massachusetts

Tourism and Hospitality

Betty Kelly (1996)
Program Coordinator, Professor
B.S., Salem State College
M.S., Rochester Institute of Technology

HEALTH PROFESSIONS

Maryanne Atkinson (1999)
Dean
A.S., North Shore Community College
B.S.N., M.Ed., University of Massachusetts Boston

Analee Solis (1999)
Health Simulation Coordinator
A.A., North Shore Community College
B.A., University of Massachusetts Boston

Karynn Mason (2000)
Administrative Assistant I
A.S., North Shore Community College

Animal Technology

Lelia King (2013)
Department Chairperson, Assistant Professor
B.S., DVM, Tufts University

Sheila Magesky (2007)
Associate Professor
A.A., Essex Agricultural and Technical Institute
A.S., B.S., Mt. Ida College

Emergency Medical Services Training Program

Greg West (2005)
Program Coordinator (P/T)
B.S., Stonehill College
M.Ed., Tufts University

Medical Assisting

Program Coordinator
A.S., North Shore Community College

Nurse Education

Susan Maciewicz (1987)
Department Chairperson, Professor
B.S.N., Northeastern University
M.S.N., Salem State College
C.N.E., National League of Nursing

P. Starr Williams (1986)
Assistant Program Chairperson, Professor
B.S.N., University of Connecticut
M.S.N., Boston University
C.N.E., National League of Nursing
Joanne Barber (1995)
Instructor
B.S.N., M.S.N., Boston University

Marianne Barker (2012)
Instructor
A.S., North Shore Community College
B.S., Merrimack College
M.S.N., Salem State University

Antonina Eramo (2008)
Assistant Professor
B.S.N., M.S.N., Salem State College

Norene Gachignard (2000)
Professor
B.S.N., Saint Anselm College
M.S.N., Salem State College

Linda Goodale (2005)
Professor
B.S.N., Northeastern University
M.S., Boston College

Kathleen Govostes (1983)
Professor
B.S.N., M.S.N., Boston University

Corinne Hunter (2004)
Professor
Diploma in Nursing,
Lawrence Memorial of Medford
B.S.N., Fitchburg State College
M.S., University of Massachusetts Lowell

Lorinda Latva (1995)
Professor
B.S., University of Massachusetts Amherst
M.S., University of Massachusetts Lowell

Mary McKenna-Dailey (2001)
Professor
B.S.N., Salem State College
M.S., University of Lowell

Professor
Diploma in Nursing,
Melrose-Wakefield Hospital
B.S.N., Massachusetts College of Pharmacy and Allied Health
M.S., University of Massachusetts Lowell

Orquidea Umana (2008)
Assistant Professor
B.S.N., Salem State College
M.S.N. Ed., University of Phoenix

Occupational Therapy Assistant

Maureen S. Nardella (1992)
Department Chairperson, Professor
B.S., Louisiana State University
M.S., University of New Hampshire

Kim Bushey (2010)
Academic Fieldwork Coordinator
A.A. Endicott College
B.S., Tufts University

Anne Jerome (2013)
Assistant Professor
B.S., Southern Connecticut State University
M.S., Boston University

Mary M. Malone (1995)
Professor
A.S., North Shore Community College
B.S., Emmanuel College
M.S., Tufts University,
Boston School of Occupational Therapy

Physical Therapist Assistant

Mary Meng (2001)
Department Chairperson, Professor
B.S.C., Dalhousie University
M.P.H., Boston University

Michael Fritz (2004)
Professor
A.S., North Shore Community College
B.S., Salem State College
M.S., California University of Pennsylvania
C.A.G.S., California University of Pennsylvania

Diane Caruso (2013)
Academic Coordinator of Clinical Education
B.S., Salem State University

Practical Nursing

Donna Lampman (1999)
Department Chairperson, Professor
B.S.N., Washington State University
M.S.N., Salem State College

Ellen Bussone (1999)
Professor
R.N., Worcester City Hospital
B.S.N., Worcester State College
M.S.N., Anna Maria College

Shirley Kears (2007)
Associate Professor
B.S.N., Salem State College

Pamela Quinlan (1999)
Professor
B.S.N., Fitchburg State College
M.S.N., Salem State College

Margaret Rowe (2002)
Professor
B.S.N., Boston College
M.S.N., Salem State College

Radiologic Technology

Christine E. Wiley (1988)
Department Chairperson, Professor
A.S., R.T., North Shore Community College
B.S., M.Ed., Salem State College

Christine E. Salvanelli (1979)
Clinical Coordinator, Professor
A.S., R.T., North Shore Community College
B.A., Almeda University

Respiratory Care

Geraldine Twomey (1997)
Department Chairperson, Professor
B.S., Boston State College
R.N., Regis College
M.Ed., Boston University
Respiratory Care Certificate,
Northeastern University
R.R.T., National Board of Respiratory Care

Jane Schweizer (1987)
Assistant Professor
A.S., North Shore Community College

Surgical Technology

Jennifer Forte
Department Chairperson, Instructor
Surgical Technology Certificate,
North Shore Community College
HUMAN SERVICES DIVISION

Dean
B.A., University of Windsor
M.A., Boston College
J.D., Boston College Law School
Cheryl Gebhardt (1996)
Administrative Assistant I

Academic/Career Mapping

Kristin Hunt (2011)
Staff Associate
B.A., Brown University
M.A., Ph.D., Boston College

Challenges, Choices, Change

Christina Hansen (2004)
Program Coordinator
B.S., Lesley College
M.A., Boston Graduate School of Psychoanalysis

Criminal Justice

Ann Koshivas (2000)
Program Coordinator/Professor
B.A., University of Connecticut
J.D., Pace University School of Law

Frank D’Agostino (2011)
Assistant Professor
B.A., Harvard University
J.D., Suffolk University

Rachel Roesler (2012)
Instructor
B.A., University of Vermont
M.A., Boston University

Developmental Disabilities

Maggie LaBella (1991)
Program Coordinator, Professor
B.S., Boston University
M.Ed., Antioch University

Drug and Alcohol Rehabilitation

Steven Chisholm (2013)
Program Coordinator, Assistant Professor
A.S., Middlesex Community College
B.S., M.A., Lesley University

Early Childhood Development

Gina Pelletier (2004)
Program Coordinator, Professor
B.S., M.S., Wheelock College

Early Childhood Education

Susan W. Ferrante (1984)
Program Coordinator, Professor
B.S., M.S., Wheelock College

Early Education and Care Professional Development Region 3 Partnership

Kathryn A. Gallo (1999)
Director
B.S., M.Ed., Salem State College

Mercedes Villar (2012)
Staff Assistant
B.A., M.A., University of Massachusetts Boston

Environmental Horticulture

Barbara Heath (1999)
Professor
A.A.S., Thompson School
B.S., University of New Hampshire

Human Services Career Training

Cynthia O’Donnell (2011)
Program Coordinator
B.A., College of the Holy Cross
M.S.W., Boston University

Human Services Core

Troy Smith (1992)
Professor
B.A., Bates College
M.Ed., Harvard University
M.A., University of Michigan

Human Services Practitioner

Bruce Ciaramella (2008)
Associate Professor
B.S., Suffolk University
M.Ed., Salem State College

Paralegal

Kathleen Hirbour (2005)
Program Coordinator, Professor
B.A., University of Massachusetts Boston
J.D., Suffolk University Law School

Jane Leary Levesque (1993)
Professor
B.S., Salem State College
J.D., Suffolk University Law School

Women in Transition

Margaret Figgins-Hill (2006)
Program Coordinator, Professor
B.S., Boston College
M.P.A., Northeastern University
Ed.D, Nova Southeastern University

LIBERAL STUDIES

Stuart T. Blacklaw (2013)
Dean
B.A., Olivet College
M.A., University of Michigan
Ph.D., Capella University

Laurel Messina (2003)
Assistant Dean
B.S., Tufts University
M.S.W., Boston University
Ed.D., Johnson and Wales University

Carmen Ciprian (2003)
Administrative Assistant I
A.S., North Shore Community College

Behavioral Science

Lori Azzara (1999)
Department Chairperson, Professor
B.S., Boston University
M.Ed., Boston State College
Psy.D., Antioch University

Richard Adelman (1999)
Professor
A.A., Arizona Western College
B.A., Colorado State University
M.A.T., Salem State College

Sheldon S. Brown (1966)
Professor
B.A., Roosevelt University
B.H.L., Spertus Institute of Jewish Studies
M.A., Northwestern University
Ph.D., Dropsie University

Kristin Erbeta (2009)
Assistant Professor
B.A., M.S.W., Simmons College

Jennifer Harris (1997)
Professor
B.A., State University of New York at Geneseo
M.A., Ph.D., Southern Illinois University at Carbondale

Carlos Marin (2012)
Assistant Professor
B.A., St. Universidad Pontificia Bolivariana
M.A., Ph.D., Clark University

Communication Skills

Kathleen Yanchus (2001)
Department Chairperson, Professor
B.S., Salem State College
M.Ed., Cambridge College

Denise Cady-Arbeau (2012)
Assistant Professor
B.A., University of Massachusetts Lowell
M.A.T., Emmanuel College
M.A., University of Massachusetts Boston
Christian Bednar (2011)
Instructor
B.A., St Anselm College
M.A., Boston University
M.A., University of Massachusetts Boston

Jeremy Branstad (2012)
Instructor
B.A., Chaminade University, Honolulu, HI
M.A., Boise State University

Russell Green (2011)
Assistant Professor
B.A., Rutgers College
M.F.A., Emerson College

Cultural Arts
James Robinson (2001)
Department Chairperson, Professor
B.S., University of New Hampshire
M.Ed., Ed.D., Harvard University
Diploma in Drama Education, University of Newcastle Upon Tyne

Frederick J. Altieri (2006)
Professor
B.S., Northeastern University
M.A., Ph.D., University of Miami

James Chisholm (2003)
Professor
B.S., Northeastern University
M.S., Massachusetts College of Art
C.A.G.S., School of Museum of Fine Arts

Irene Fernandez-Palacios (2004)
Professor
B.A., Major University of San Andreas, Bolivia
M.Ed., Framingham State College

Professor
A.A., Santa Rosa Jr. College
B.A., Humboldt State University
M.A., San Francisco State University

Professor
B.A., Wichita State University
M.A., University of Connecticut
Ph.D., Ohio State University

English
Department Chairperson, Professor
B.A., Purchase College
M.A., Ph.D., New York University

Nicole Buscemi (2012)
Assistant Professor
B.A., Illinois Wesleyan
M.A., University of Illinois
Ph.D., University of Iowa

Laurie Carlson (2011)
Assistant Professor
B.A., Worcester State College
M.A., Fitchburg State College
Ph.D., University of Rhode Island

Lynd C. Clarkson (1985)
Professor
B.A., Antioch College
M.Ed., Harvard University

Sean Hanlon (2007)
Associate Professor
A.A., Cerritos Community College
B.A., M.A., California State University
Dominguez Hills

Carl Jean (2011)
Assistant Professor
M.A., University of Haiti
Ph.D., Bowling Green University

Kari Keebaugh (2011)
Assistant Professor
B.S., M.A., Ph.D., University of Florida

Tiffany Magnolia (2004)
Professor
B.A., St. Michael's College
M.A., Ph.D., Tufts University

Marcella Marold (1998)
Professor
A.A., North Shore Community College
B.A., Tufts University
M.A., University of Massachusetts

Professor
B.A., Salem State College
M.A., Boston College

Mark Sherf (2004)
Professor
A.A., North Shore Community College
B.A., Brandeis University
M.A., Salem State College
Ph.D., Drew University

Janis Soferr (1983)
Professor
B.A., University of Florida
M.A., Tufts University

Teresa L. Whitney (1970)
Professor
B.A., Duke University
M.A., Simmons College

Donald R. Williams, Jr. (1979)
Professor
A.A., North Shore Community College
B.A., Salem State College
M.A., University of New Hampshire

John Zamparelli (2010)
Assistant Professor
B.A., New York University
M.F.A., Emerson College

English as a Second Language
Teresa Cheung (2006)
Department Chairperson, Associate Professor
B.A., State University of New York
M.A., Adelphi University
M.Ed., Salem State University

Kathleen Gerecke (1996)
Professor
B.A., Trinity College
M.A.T., School for International Training

Thomas Justice (2004)
Learning Specialist
B.S., M.A., Lesley College
M.A., University of Massachusetts Boston

Caroline Schwarzwald (1990)
Professor
B.S., Miami University
M.S., Bank Street College of Education

History/Government/Economics
Lawrence H. Davis (2004)
Department Chairperson, Professor
B.A., Salem State College
M.A., Ph.D., University of Connecticut

Jessica Burt (2009)
Assistant Professor
B.A., Tulane University
M.A., Salem State College

Nathaniel Chio (2011)
Instructor
B.A., University of Illinois at Chicago
M.A., University of Illinois at Urbana-Champaign

Kara Kaufman (2011)
Assistant Professor
M.S., M.A., Salem State College
Ph.D., Tilburg University

Moonsu Han (2004)
Professor
B.A., M.A., Korea University
A.B.D., University of Minnesota - Minneapolis
Interdisciplinary Studies

Bernadette Lucas (1999)
Department Chairperson, Professor
B.S., University of Rhode Island
M.S., Boston University
Dietetic Internship, Mass. General Hospital

Lori Azzara (1999)
Professor
B.S., Boston University
M.Ed., Boston State College
Psy.D., Antioch University

Christian Bednar (2011)
Instructor
B.A., St. Anselm College
M.A., Boston University
M.A., University of Massachusetts Boston

Sheldon Brown (1966)
Professor
B.A., Roosevelt University
B.H.L., Spertus Institute of Jewish Studies
M.A., Northwestern University
M.A., Northwestern University
Ph.D., Dropsie University

Lawrence H. Davis (2004)
Professor
B.A., Salem State College
M.A., Ph.D., University of Connecticut

Barbara Heath (1999)
Professor
A.A.S., Thompson School
B.S., University of New Hampshire

Professor
B.A., Salem State College
M.A., Boston College
M.A., University of Michigan

Gregory Reppucci (1999)
Professor
A.A.S., Stockbridge School of Agriculture
B.S., Framingham State College
M.S., University of Massachusetts Boston

Wellness and the Healing Arts

Kristen Webb
Program Coordinator (P/T)
B.M., M.M., North Texas State University

Project Enable

Babo Edwards (2001)
Coordinator, Project Enable
B.A., B.S., McGill University
M.F.A., Warren Wilson College
M.S.W., SUNY Albany

Project GRAD

Kelly Sullivan (2010)
Project Director, FIPSE and MCCWDTA grants
B.A., Framingham State College
M.A., Boston College
J.D., Massachusetts School of Law

Lorin Buksa (2012)
Navigator, MCCWDTA grant
B.A., University of North Carolina
M.S., Lesley University
M.Ed., Cambridge College

SCIENCES AND MATHEMATICS

Nancy M. Alberto (1986)
Dean
B.S., University of Massachusetts
Ph.D., University of New Hampshire

Laura Rubin (2013)
Assistant Dean
B.S., Lafayette College
Ph.D., University of Texas

Lucille Malone (2008)
Administrative Assistant I
A.S., Marian Court College

Biotechnology

Debra Bedell (2004)
Program Coordinator, Associate Professor
A.S., Southern Maine Technical College
B.S., M.S., University of Massachusetts Boston

Food Science and Safety

Gregory Reppucci (1999)
Professor
A.A.S., Stockbridge School of Agriculture
B.S., Framingham State College
M.S., University of Massachusetts Boston

Environment Studies

Department Co-Chair/Professor
B.A., Salem State College
M.A., Boston College
M.A., University of Michigan

Gregory Reppucci (1999)
Department Co-Chair/Professor
A.A.S., Stockbridge School of Agriculture
B.S., Framingham State College
M.S., University of Massachusetts Boston

Engineering Science/Industrial Technology

Joyce C. Jeong (1990)
Professor
M.S., University of South Carolina
M.S., M.E., Lehigh University

MaryBeth Steigerwald (2004)
Associate Professor
M.S., Boston University
B.A., Potsdam State University

Scott Stimpson (1988)
Professor
B.S., Boston College
M.S.E.E., Boston University

George H. Walsh, Jr. (1981)
Professor
A.S.E.E., North Shore Community College
B.S., Equivalent, Boston University
B.S., Salem State College

Fire Protection and Safety Technology

Francis M. Ryan (1971)
Program Coordinator, Professor
A.S., North Shore Community College
A.A.S., New York City Community College
B.S., M.S., John Jay College of Criminal Justice, CUNY

Computer and Information Science

Patricia L. Wermers (1984)
Department Chairperson, Professor
B.S., B.A., Merrimack College
M.S., University of Massachusetts Lowell

Huawei Guan (2001)
Professor
B.S., Shanghai University
M.S., China Textile University
Ph.D., Shanghai Jiao Tong University

North Shore Community College 2014–2016
Mathematics
Suchitra Amritkumar (2010)
Department Chair, Assistant Professor
B.Sc., University of Madras, India
M.Sc., Anna University, India

Judith Carter (1985)
Professor
B.A., Pennsylvania State University
M.S., University of Massachusetts Lowell

Abdellah Dakhama (2012)
Assistant Professor
B.S. University Hassan II
M.S., Ph.D., Northeastern University

Patricia Dube (2013)
Assistant Professor
B.S., University of Hartford
M.S., Salem State College

Warland R. Hersey (1965)
Professor
B.A., Harvard University
M.A., Columbia University

William Jackson (2012)
Instructor
B.A., Westfield State College
M.A., Salem State University

Elizabeth Lucas (1999)
Professor
B.A., Gettysburg College
M.S., University of Massachusetts Lowell

Anne O’Shea (2004)
Professor
B.A., University of Massachusetts Amherst
M.S., University of Massachusetts Lowell

Marsha Pease (2006)
Professor
B.S., Bates College
M.A.S., Boston University
Ed.D., University of Massachusetts Lowell

Richard Ponticelli (1978)
Professor
B.A., University of Massachusetts
M.Ed., Tufts University
M.S., University of Massachusetts Lowell

Kathleen Sessa-Federico (2012)
Instructor
B.S., Tufts University
M.S., Salem State University

Professor
B.A., Boston College
M.S., University of New Hampshire
Ed.D., Boston University

David Timmons (2012)
Instructor
B.S., M.S., Cornell University

Preparation for College Mathematics
Catherine Maglio (2013)
Special Program Coordinator
B.A., Salem State College
M.Ed., Lesley University

Natural Sciences
Kathleen Gorczyca (1987)
Department Chairperson, Professor
B.S., University of Massachusetts Amherst
M.S., University of Massachusetts Lowell

Debra Bedell (2004)
Assistant Professor
A.S., Southern Maine Technical College
B.S., M.S., University of Massachusetts Boston

Annette Busch (2009)
Professor
B.A., M.Sc., Florida Atlantic University
Ph.D., University of Hamburg Medical School, Germany

Andrea Cutone (2008)
Assistant Professor
B.A., College of the Holy Cross
M.S., Colorado State University

Diana Davis (2011)
Instructor
B.S., North Carolina State University
M.S., UCLA

Frank B. Day (1965)
Professor
A.B., M.S., Middlebury College

Andrea Dodge (2004)
Professor
B.A., Ithaca College
M.S., California State University
Ph.D., Boston University

Alex Eisen-Cuadra (2013)
Assistant Professor
B.S., Stony Brook University
Ph.D., University of Massachusetts Boston

Michael Pietrantonio (1997)
Laboratory Technician I
B.A., Merrimack College

Margo R. Skwark (1986)
Laboratory Technician I
B.S., University of Vermont

Rebecca Westphal (2011)
Instructor
B.S., Roger Williams University
Ph.D., Northeastern University

CORPORATE AND COMMUNITY EDUCATION
Dianne Palter Gill (2001)
Dean
B.A., University of Massachusetts Amherst
M.Ed., Lesley College
A.B.D., University of Massachusetts Boston

Lorainne Boyd (2004)
Programming Assistant
A.S., North Shore Community College

Elaine Champagne (2002)
Sales and Corporate Programming

Janet del Valle (2011)
Staff Associate
B.A., Dickinson College

Lisa Higgins (1999)
Clerk III
A.S., North Shore Community College

Cheryl Hines (2007)
Staff Associate, Community Outreach
B.S., California State University

Clerk IV

Nancy Tracy (2011)
Staff Assistant
B.A., Salem State College

Helene VanDernoot (2002)
Staff Associate, Business and Industry Liaison
B.S., Boston University
M.B.A., Northeastern University

Erica Kennedy (2012)
Operations Manager
B.S., M.P.H., Northeastern University
ADMINISTRATION
AND FINANCE

Janice M. Forsstrom (1974)
Vice President
B.A., Regis College
M.A., Boston University

Mariflor Maulit-Uva (2012)
Assistant Vice President for Budget and Planning
B.A., Boston College
M.B.A., University of Phoenix

Susan Mulvey (1996)
Staff Assistant

Auxiliary Services
Scott Hughey (1994)
Staff Associate

William Chez (2007)
Storekeeper IV

George Craig, Jr. (1978)
Reproduction Services Supervisor
A.S., North Shore Community College

Alan Koziol (1997)
Administrative Assistant I

Tony Tiggs (2013)
Storekeeper III

Bookstore
Shawn Cronin (2009)
Director
B.A., Anna Maria College

Paul Donahue (2002)
Clerk III

Accountant II

Helen Lee (1988)
Buyer II

Carol Mangino (1996)
Clerk III

Holly Muldoon (1991)
Buyer I

Campus Police
Douglas Puska (1985)
Campus Police Chief, Director
MA Criminal Justice Training Academy
Emergency Medical Technician

David Cook (2011)
Staff Associate/Lieutenant
A.S., North Shore Community College

Stephen Claudino (2010)
Campus Police Officer I

Nicholas DeFelice (1988)
Campus Police Officer I
A.S., CJ, North Shore Community College
Mass. Criminal Justice Training Academy
Emergency Medical Technician

David Dumont (2012)
Campus Police Officer I
B.S., Fitchburg State College

Sokhen Eam (2006)
Campus Police Officer II
Special State Police Academy

Keith Gaudenzi (2007)
Campus Police Officer II
B.S. CJ, Salem State College
Mass. Criminal Justice Training Academy

Daniel Jenkins (2012)
Campus Police Officer I
B.A., Salem State College

Piseth Khoun (1992)
Campus Police Officer I
A.A., North Shore Community College

Wayne A. Knight, Sr. (2000)
Communications Dispatcher I
A.S., North Shore Community College
Emergency Medical Technician

Christopher Matton (1988)
Campus Police Officer I
Mass. Criminal Justice Training Academy

Glen McKenna (2013)
Campus Police Officer I

Bryan Moynihan (2013)
Campus Police Officer I

Salvatore Paci (2013)
Campus Police Officer I

Deborah Parillo (2013)
Communications Dispatcher I

Jessie Thomas (1988)
Campus Police Officer I
Mass. Criminal Justice Training Academy

Robert Vaccaro (1994)
Campus Police Officer III – Detective
MA Criminal Justice Training Academy
Emergency Medical Technician
Special State Police Academy

Erick Ventura (2008)
Campus Police Officer I

Frank Wolverton (2013)
Campus Police Officer III

Facilities Management
Assistant Vice President
B.S., University of Rhode Island

Pamela R. Accomando (1996)
Administrative Assistant I

Cheryl Blundell (2000)
Accountant III
A.S., Bunker Hill Community College

Qazi Ehtishamuddin (2012)
Staff Associate
B.F.A., National College of Arts, Lahore
Pakistan

Vedd Konjic (2001)
Staff Associate
B.S., Salem State College
M.S., Massachusetts Maritime Academy

George Neunaber (1999)
Engineer
B.S., Tufts University
M.S., Northeastern University

Caitlyn Perkins (2006)
Accountant I

Facilities Custodial
Jacqueline Kern (2013)
Staff Assistant
B.S., University of Charleston

James Amirault (1985)
Maintenance Working Foreman

Fadil Babic (1999)
Maintainer I

Richard Belanger (1982)
Maintainer II

Robert Belanger (1987)
Maintainer I

Shelley Bryson (2008)
Maintainer I

Thomas Burke (1994)
Maintainer I

William Burns (1999)
Maintainer I

George Cavanaugh (2008)
Maintainer I

Jeffrey Colon (2011)
Maintainer I
Richard Colon (2007)
  Maintainer I

Ronald Duval (1993)
  Maintenance Working Foreman

Luis Francisco (2000)
  Maintenance Working Foreman

David Japa (2004)
  Maintainer I

Karl Kasprzak (2005)
  Maintainer I

Angel Lugo (2000)
  Maintainer I

Eric Morin (1997)
  Maintenance Working Foreman

Ivo Palavra (2002)
  Maintainer I

Lawrence Reynolds (2007)
  Maintainer I

Mirillo Rojas (2008)
  Maintainer I

Sooem San (2003)
  Maintainer I

Kim Selecky (2010)
  Maintainer I

Stephen Speliottis (1998)
  Maintainer I

Juan Velez (2005)
  Maintainer I

Leonard Viera (2005)
  Maintainer I

Jeffrey Zayac (2011)
  Maintainer I

Facilities Maintenance

John Edwards (1993)
  Staff Associate

Peter Antonuccio (2012)
  Plumber & Steamfitter II

John Clarke (1994)
  Utility Plant Operator

Robert Girard (1992)
  Carpenter II

Ratana Iv (2004)
  Painter I

Bryan Muse (2009)
  Electrician II

Joseph Richardson (1994)
  Painter II

Fiscal Affairs

Patricia Callahan (2008)
  Comptroller
  B.S., University of Massachusetts
  M.B.A., University of Massachusetts

Patricia Bourgeois (1995)
  Accountant IV
  A.S., North Shore Community College

Diane Chatigny (1987)
  Accountant I

Olivia Countie (2005)
  Buyer I

Stephanie Frontiera (2012)
  Staff Assistant
  B.S., Westfield State College

Lorraine Jones (2012)
  Accountant I
  A.S., North Shore Community College

Linda LeColst (1998)
  Accountant III

Reynaldo Ramos (2010)
  Staff Assistant
  A.S., University of Santo Domingo

Donna Toles (1987)
  Accountant II
  B.A., Salem State College

Information Systems

Gary Ham (1998)
  Sungard Higher Education
  Chief Information Officer
  B.S., Wentworth Institute of Technology

Patrick Thomas (1999)
  Sungard Higher Education
  Assistant to the Chief Information Officer
  B.A., Stonehill College

Brian Mcdonald (2011)
  Sungard Higher Education
  Director, Networking & User Services

  EDP Systems Analyst I

Mario Cabrera (2011)
  Academic Lab Coordinator
  B.S., Salem State University

Linda Day (1994)
  Staff Associate
  A.S., North Shore Community College

John Driscoll (2005)
  EDP Entry Operator II
  B.A., Curry College

Christopher DuFort (2008)
  Staff Associate/Web and Portal Administrator
  B.S., M.S., University of New Hampshire

Jean Fernald (2004)
  Telephone Operator II

Michael R. LeClerc (1979)
  EDP Systems Analyst III
  A.S., C.C.A.D., A.S.,
  North Shore Community College

Tabatha Lord (1998)
  Staff Associate/Banner Systems Administrator
  A.S., North Shore Community College

Thomas Mayne (1995)
  Staff Associate/Database Administrator
  B.S., North Shore Community College

Robert Murphy (1999)
  EDP Systems Analyst III
  A.A., North Shore Community College
  A+ Certified, PC Technician Program Certificate

John Perotti (2012)
  EDP Systems Analyst IV
  B.A., Cornell University

Anne M. Pesaturo (1985)
  EDP Systems Analyst IV
  B.A., North Shore Community College

Patricia Radici (1988)
  EDP Systems Analyst II
  B.S., North Shore Community College

Blair Robinson (2005)
  EDP Systems Analyst II
  A.A., New Hampshire Technical Institute A+ and Net + Certified
  MS Certified Professional

Nancy Sherwood (1985)
  Director of Administrative Systems
  A.S., North Shore Community College

Krzysztof Suchcicki (1987)
  EDP Systems Analyst IV/Network Administrator
  A.A., North Shore Community College

Michael Sullivan (2012)
  Sr. Business Intelligence Analyst
  B.A., Boston College
  M.A., Vanderbilt University
John Sun (2006)
Web and Systems Developer
B.A., Renmin University, Beijing, China
M.S., University of Mississippi

Jeffrey Wardwell (2007)
User Services Administrator and Network Supervisor
B.A., Fitchburg State College

Stephan Wilczek (2007)
Electronic Computer Operator II

Institutional Planning and Research

Laurie LaChapelle (2000)
Director
B.A., Regis College

Katherine Faulkner (1995)
Research Analyst
A.S., North Shore Community College

Sue Klemer (2005)
Staff Assistant
B.S., University of Connecticut

HUMAN RESOURCE DEVELOPMENT

Madeline Wallis (2001)
Vice President
B.S., Bridgewater State College
M.Ed., Northeastern University

Ngoc-Thanh Giddarie (2011)
Director, Human Resources/Payroll
B.A., M.B.A., St. Joseph’s University

Kimberley Bevan (2006)
Staff Assistant
B.S., M.B.A., Salem State University

Patricia Bradford (2013)
Staff Assistant
B.A., Salem State College

Tryntje Bumgardner (2010)
Staff Associate
A.A., Broome Community College

Ryan Casey (2012)
Accountant II
A.A., North Shore Community College

Patricia DePamphilis (2000)
Staff Associate
B.A., Merrimack College

Jessenia Marquez (2011)
Administrative Assistant I
A.S., North Shore Community College

Tammy Nguyen (2004)
EDP Systems Analyst I
B.S., University of Massachusetts

INSTITUTIONAL ADVANCEMENT

Sandra B. Edwards (1992)
Vice President
B.A., University of Illinois
J.D., University of Illinois College of Law

Staff Assistant
A.S., North Shore Community College

Resource Development

Susan A. Anderson (1999)
Assistant Vice President,
Resource Development
A.B., Smith College
M.S.W., Boston University

Sandra Rochon (2006)
Staff Associate/Alumni Coordinator
A.S., Northern Essex Community College
B.S., Salem State University

Joanne Sullivan (2010)
Staff Associate/Grants Developer
B.A., Simmons College
M.A., Brown University

Development

Tatiana Burgos Espinal (2008)
Director
A.A., North Shore Community College
B.S., Salem State College
M.S., Emmanuel College

Marketing Communications

Director
B.A., Boston University
M.P.A., University of Massachusetts

Tracy Callahan (2005)
Staff Assistant, Web Marketing
A.S., North Shore Community College
B.S., Salem State College
Certificate in Web Design, North Shore Community College

Erin Field (2007)
Staff Assistant, Graphics
A.S., The Art Institute of Fort Lauderdale

Ejyo Katagiri (2012)
Staff Assistant, Marketing
B.S., Tufts University

Public Relations and New Media

Linda Brantley (2010)
Director
B.S., Syracuse University

Nancy Barker (2001)
Staff Assistant
A.S., North Shore Community College

Public Policy Institute

Diana Kerry (2006)
Director
B.A., Smith College
M.A., Tufts University
M.A., King’s College, London
STUDENT AND ENROLLMENT SERVICES

Vice President
B.A., University of Delaware
M.Ed., Temple University
M.A., Ph.D. (A.B.D.),
Fielding Graduate University

Julianne Howland (1984)
Staff Assistant
A.A., A.S., North Shore Community College

Nicholas Roberts (2012)
Staff Assistant/Database Analyst
B.S., Western Washington University
M.P.A., Northeastern University

ENROLLMENT SERVICES

John Duff (2002)
Dean
B.A., Ithaca College
M.A., University of Massachusetts Boston

Admissions and Recruitment Outreach

Jennifer Kirk (2000)
Director
B.A., University of Colorado
M.Ed., Lesley College

Lisa Barrett (1995)
Academic Counselor
B.A., University of New Hampshire
M.A., Boston College

Kathy Blakeman (2003)
Clerk IV
A.S., North Shore Community College

Shannon Cormier (2011)
Administrative Assistant I
B.S., Salem State College

Sheila Girard (2003)
Clerk IV
A.S., North Shore Community College

Michele Harris (2005)
Academic Counselor
B.S., Lesley College
M.Ed., Cambridge College

Kei Tiggs (2004)
Academic Counselor
A.S., North Shore Community College
B.S., M.Ed., Salem State College

Enrollment and Student Records

Eileen Andrade (2012)
Administrative Assistant I
A.A., North Shore Community College
B.A., University of Massachusetts Boston

Kristine Babcock (2011)
Coordinator, Veterans Services
B.A., Salem State University

Leanne Barry (1987)
Administrative Assistant I

Donna Deorio (1999)
Clerk IV
A.A., A.S., North Shore Community College
B.S., Salem State College
M.Ed., Salem State University

Graeme Griffith (2011)
Admissions Coordinator
B.F.A., Mass College of Art
M.Ed., Cambridge College

Gloria Gutierrez (1991)
Clerk IV
A.S., North Shore Community College

Maryellen Hunt (1984)
Administrative Assistant II

Joyce Muse (1999)
Administrative Assistant
A.S., Dean College

Marion (Mel) Potoczak (1996)
Associate Registrar
A.A., North Shore Community College
B.S., Endicott College
M.Ed., University of Massachusetts Boston

Austria Santana (1998)
Administrative Assistant I
A.S., North Shore Community College

Gissel Lopez (2011)
Clerk IV
A.A., B.A., Fisher College

Jean Michaud (2011)
Clerk IV
A.S., North Shore Community College

Christen Spacer (2011)
Clerk IV
A.A., North Shore Community College

RETENTION AND STUDENT SUCCESS

Martha A. Brine (2007)
Dean
A.B., Regis College
M.A., University of Wisconsin
M.Ed., Salem State College
C.A.E.S., Boston College
Ed.D., Boston University

Thomas Mahoney (2007)
Coordinator, Learning Resources
B.A., M.Ed., Boston College

Donna Toulouse (1990)
Administrative Assistant I

Cheryl Vervates (2004)
Administrative Assistant I
A.A., A.S., North Shore Community College
B.A., Merrimack College

Disability Services

Susan Graham (1994)
Director
A.S., North Shore Community College
B.A., M.S., Salem State College
L.M.H.C.

Michele Almeida (2011)
Disability Counselor
B.S., M.A., Bridgewater State College

Lucy Bayard (2010)
Disability Counselor
B.A. University of Massachusetts Amherst
M.Ed., Lesley University

Aillie McKeever (2007)
Disability Counselor
B.A., Bard College
M.F.A., Emerson College

Student Support and Advising

Daniel P. O’Neill (2007)
Director
B.A., University of Massachusetts Amherst
M.A.T., Boston College

Donna Davis (2000)
Academic Counselor
B.S., Boston College
M.S., Salem State College
L.M.H.C.

Breanna Edwards (2012)
Career Exploration Counselor
B.A., Simmons College
M.Ed., American International College
Arlene Amato-Hanson (2012)
Career Development Counselor
B.S., M.Ed., Salem State College

Esperanza Herrera (1995)
Multicultural Counselor
A.A., North Shore Community College
LCSW

Nathaniel Manderson (2011)
Academic Counselor
B.S., University of Massachusetts Dartmouth
M.Div., Gordon-Conwell Theological Seminary

Betsy Mariere (2008)
Academic Coordinator
B.A., Ohio Wesleyan University
M.Ed., University of Houston

Peter Monaco (1979)
Senior Academic Counselor
B.A., Merrimack College
M.Ed., Northeastern University

Ray D. Parker (1994)
Senior Academic Counselor
B.A., San Francisco State University
M.Ed., Cambridge College Graduate School

Quentin Robinson-Seidi (2008)
Academic Counselor
B.S., Virginia State University
M.S., Northeastern University

Martha Rodweller (1994)
Senior Academic Counselor
B.S., Russell Sage College
M.Ed., Springfield College

Nancy Tufo (1995)
Senior Academic Counselor
B.A., Salem State College
M.Ed., Boston University

Gary Williams (2001)
Senior Academic Counselor
M.Ed., Cambridge College

Student Support Services Program (TRIO)

Diane Dickerson (2010)
Director
B.A., M.B.A., Simmons College

Vanessa Bates (2009)
Academic Counselor
B.S.W., Wheelock College
M.S.W., Simmons College

Jean Lendall (2009)
Academic Counselor
B.A., Bradford College
M.Ed., Salem State College

Ina Resnikoff (2010)
Learning Specialist
B.A. Boston University
M.Ed., Harvard University
J.D., Suffolk University

Doninee Sanethong (2011)
Administrative Assistant I

STUDENT FINANCIAL SERVICES

Stephen Creamer (2008)
Dean
B.A., Saint Michael's College
M.A., Suffolk University

Susan Sullivan (2007)
Director of Financial
B.S., Salem State College
M.Ed., Suffolk University

Brenda Allen (1994)
Academic Counselor
A.A., North Shore Community College
B.A., Bowdoin College

Sarah Beauparlant (2004)
Clerk IV
A.A., North Shore Community College

Minerva Betancourt-Rodriquez (1993)
Academic Counselor
A.S., North Shore Community College

Joanna Daniel (2007)
Staff Associate, Student Accounts
B.S., M.S., Boston University

Alex Reinoso (2012)
Clerk IV
A.A., North Shore Community College

Courtney Hatch-Blauvelt (2011)
Academic Counselor
B.A. Gettysburg College
M.Ed., University of Massachusetts Boston

Janet Hogan (2012)
Clerk IV
B.S. Fitchburg State College

Sean Latimer (2012)
Academic Counselor
B.A., M.A., Ohio University

Carol Leighton (1996)
Accountant III
B.A., B.S., Salem State College

Kathleen Lyth (2005)
Clerk IV
A.A., Essex Agricultural and Technical Institute

Margaret Miles (2002)
Administrative Assistant I
A.A., North Shore Community College

Jane Millar (2012)
Accountant I

Accountant II
A.S., Pitt Community College
B.S., Chinese Cultural College

Charlene Random (1994)
Academic Counselor
B.S., Salem State College

DEAN OF STUDENTS

Lloyd Holmes (2008)
Dean
A.A., Itawamba Community College
B.A., M.Ed., Ph.D., University of Mississippi

Marianne Connolly (2000)
Administrative Assistant I

Health Services

Brianne Duff (1998)
Coordinator
B.S.N., Salve Regina College
M.S.N., Salem State College

Elissa Al-Chokhachy (2001)
Health Care Counselor
B.S.N., Boston College
M.A., Hood College

Elsy Quintero (2006)
Clerk IV
A.S., North Shore Community College

Anne Tabet (2010)
Clerk IV

Student Activities

Victoria Pasciuto (2005)
Coordinator
B.A., Gordon College
M.Ed., Salem State College

Student Life

Lisa Milso (1987)
Director
B.A., Regis College
M.Ed., Northeastern University

Archford Bandera (2012)
Clerk IV

Laurie Duberry (2006)
Clerk IV

Matthew Woods (2012)
Special Program Coordinator
B.A., Hamilton College
Institute for Advanced Theater Training, Harvard University
Advisory Committees

ANIMAL CARE
Lisa Geis, Owner, Beauty and in the Beast; Kristine Giles, Owner, A Better Companion; Pat Hogan, Animal Control Officer, Medford; Carol Watkins, Trainer, Canine University; Maryanne Atkinson, RT(R), RN, BSN, Dean Health Professions, NSCC.

AVIATION
Michael V. Hirsch, Northwest Airlines; Paul A. Vitale, Vitale Properties, LLC.; Paul W. Devlin, WSI; Walter F. Sorenson, Jr., American Airlines; Todd Deinstadt, Raytheon Company; Phillip E. Steeves, Winchester Hospital; Ken Robinson, Beverly Muni Airport/West Side; Paul Barnico, North Atlantic Air; Adam Donofrio; Jonathan Coste, Cape Air/Nantucket Airlines; Tim Perry, NetJets; Michael Bratt; Pinnacle Airlines/Colgan Air, Inc.; Gary Gobeille, Beverly Flight Center; Jonathan Prohaska, Daniel Webster College; Andrew Struppa; Josh Sim; Greg Woo; Tom Stuart, Jet Blue Airways.

BIOTECHNOLOGY
Suzanne Sweeney, Product Manager New England Biolabs; Jeremy Fisher, Research Associate, Cell Signaling Technology; Deborah Moore-Lai, PhD, Group Leader, Cell Signaling Technology; Mark Levine, Research Scientist, Genzyme Corporation

BUSINESS
Kevin Cignetti, Morgan Stanley Smith Barney, LLC.; Peter Colarusso, S.C.O.R.E; Kimberly Feeney Zollo, Maloy Financial Services NSCC Instructor; Nancy Gerardi, Gerardi & Associates LLC NSCC Instructor; Linda Gustafson, Salem Five Bank; Paula Murphy-Roux, Eastern Bank; Fred Santino, NSCC Instructor; Robert K. Shaw; Linsey DevVincentis-Wyman, Minuteman Press; Susan Dodge, Pearse Street Consulting, Inc.; Sandra Fuhs, North Shore Community College; Jennifer Fukuda; Samantha McGilloway, North Shore Community College; Fred Santino; Katy Shea; Michelle Whelan, Appleseeds/The Tog Shop

CHALLENGES, CHOICES AND CHANGE, WOMEN IN TRANSITION
Lynn Clarkson, Professor, North Shore Community College; Sandra Efrageou, Disability Program Navigator, North Shore Career Center; Margaret Figgins-Hill, Coordinator, Women in Transition, North Shore Community College; Pamela Freeman, Program Director, Lynn Community Connections; Ellen Garvey, Cisco Systems, Software Manager; Christina Hansen, Coordinator, Challenges, Choices and Change, North Shore Community College; Jennifer McCarthy, Disability Services/Student Support, North Shore Community College; Judy Putnam, Adjunct Faculty, North Shore Community College; Jeannine Robbins-Murphy, Business Manager, BMDS Program/Deployable Collection Programs, National & Theater Security Programs; Carol Paige Rodrigue, Business Development Manager, NHSA; Rose Mary Sargent, Constituent Representative; U.S. Representative John Tierney, 6th District; Kathryn A. Sullivan, Administrative Assistant, North Shore Community College Library; Ms. Patricia Walsh, WIT student; Patricia Wolfe, EOC Director, Educational Opportunities Center/ North Shore Community College

COMPUTER AND INFORMATION SCIENCES
Greg Bunn, Operations Manager, North Shore Career Center of Lynn; Mark Hatch, CEO, mBLAST, Inc.; Laurie LaBrie, President, Integrated Human Resources, Inc.; Kimberly Rowe-Cummings, Training Manager, North Shore Career Center of Salem; Phyllis A. Smith, Project Manager, IBM

COOPERATIVE EDUCATION/INTERNSHIP
Jim Nentwig, ENERGI; Fernando Pena, Pena’s Accounting; Mary Weiler, MC Weiler; Jessica Ihle, MC Weiler; Ven Chari, Advanced Research & Development; Neil Costa, HireClix; Nancy Parshley, Infinite Media; Rosa Feliz, Punta Cara Multiservices; Victoria Dune, Boston Children’s North; Vini Kurti, The Adriatic Restaurant; Steven Pierce, Witch City Segway; Michael Bissonette, Residence Inn

COSMETOLOGY
Marilyn Bessom, North Shore Technical High School; Cassia Gilroy, North Shore Technical High School; Shelly Butler, SUPERCUTS; Katy Sherry, SUPERCUTS; Gina Shafman, SUPERCUTS; Rhonda Cummings, Face Forward, Inc.; Jessica Cummings, Face Forward, Inc.; Kim Cutting, Bliss Salon; Rich Cutting, Bliss Salon; Diane Dancewics, Abrie Salon; Jessica Englehardt, Bella Hair Studio; Steve Moore, Moore & Moore Hairdressing Carol O’Connell, Skin Serenity; Jess Peabody, Cosmo Preps; Beth Rigol, Beachcombers; Paula McCarthy, Paula’s Salon & Day Spa; Shirley Sarpi, Sarpi Salon Spa; Janelle Palladino, Backstage Salon and Spa

CRIMINAL JUSTICE
Joseph Aiello, Lt. Gloucester Police Department; Frank Cousins, Sheriff, Essex County Correctional Facility; Mary Doyle, Esq., Assistant District Attorney-Salem; Genieve Gibbons, State Police Officer; Elizabeth Hogan, Esq., Executive Director North Shore Community Action Programs; Ann Koshivas, Esq., Coordinator, Criminal Justice Program, NSCC; Jane Levesque, Esq., NSCC Faculty; Sheila McDaid, Sgt. Peabody Police Department; Honorable Richard Mori, Judge Massachusetts Trial Court Essex County; Neil Ouellette, Chief, Danvers Police Department; Maurice Regan, NSCC Faculty; Eric Ryan, Police Officer, Groveland; Constantine Souris, Adjunct Faculty, NSCC; Paul Tucker, Chief, Salem Police Department
CULINARY ARTS
Dan DeLorenzo, Danversport Yacht Club; Phil Devlin, Boston Yacht Club; Ernest Tremblay, Sylvan Street Grille; Ann Steriti, Perwinkle’s Food Shoppe; Nick Jonjevic, The Blue Stove; Nordstrom’s; Linda Bassett, NSCC; Jan Pelligrini; Leslie Lamb, Gordon Fine Wines; Denise Baron Herrera, Burton’s Grille; Denise Graffeo, Epicurean Club of Boston

DEVELOPMENTAL DISABILITIES
Andre Bennett, Project Access-NSCC; Gail Borish, Bass River Inc., Mandy Chalmers, Director, Northeast Region DDS-Hogan Regional Center; Jackie Clark, Shore Education Collaborative; Pat Cronin, Director of Staff Development, Northeast Region DDS-Hogan Regional Center; Peg Fredrickson, Director Human Resources, Turning Point; Kristen Janjar, North Suffolk Mental Health Association; Maggie LaBella, Coordinator, Developmental Disabilities Program, NSCC; Lisa Leo, Heritage Industries; Wendy Nemec, Seven Hills Community Services; Joanne Plourde, Heritage Industries; Gina Sacco, NSCC; Sandy Silva, Director of Vocational Services, Community Enterprises; Bonnie Smarsh, Bridgewell; Patricia Smock, North Suffolk Mental Health Association; Gerard Sullivan, Adjunct Faculty, NSCC; Joann Wahl, Director of Regional Services, Northeast ARC

DIGITAL GRAPHIC DESIGN
Nicole Aucone, Graphic Designer, Mullen, Inc.; Carol Brunaccini, Graphic Communication Department, North Shore Technical High School; Gina Deschamps, Deschamps Printing; Aron Fine, President, Magicomm; Donna Murphy, Designer, Harmonious Concepts; Cliff Garber, Freelance Web Designer; Leslie Marandola Dinanno, Principle, The DreamPix Studio; Aron Fine, Graphic Design Associate, Wilson Language; Barry Pollock, Sales, Cricket Press; Brian Wolfenden, Marketing Communications Manager, Presstek; Nicole Aucone Stetson, Graphic Designer, Appleseeds; Kim Pickard, Photographer/Instructor; Nazia Haque, Talent Manager, Digital People; Mark Blanchette, Graphic Communications Department, North Shore Technical High School; Gina Deschamps, Business Development Manager, Deschamps Printing; Beth Mercaldi, Lynn Vocational Technical High School; Colleen Bertolino, Freelance Designer

EARLY CHILDHOOD DEVELOPMENT
Nancy Amorello, Lesley University; Virginia Auffrey, Director, Ocean Breeze Nursery School; Cathy Carmody, North Reading Public Schools, Adjunct Faculty, NSCC; Claire Crane, Ed.D., Principal, Ford Elementary School, Lynn, Adjunct Faculty, NSCC; Susan Ferrante, Coordinator, Early Childhood Education, NSCC; Clarke Fowler, Ph.D., Coordinator, Early Childhood Education, Salem State College; Ellie Friedland, Wheelock College; Kathryn Gallo, Lynn Community Partnerships, NSCC; Jennifer Hogan-Caley, Early Childhood Special Educator, Adjunct Faculty, NSCC; Marie Grant, Director, LEO Headstart; Mary Beth Lawton, Faculty, Lesley University; Jan McLanahan Retired), Early Childhood Development, NSCC Faculty; Mary Mindess, Program Coordinator, Lesley University; Gina Pelletier, Coordinator, Early Childhood Development, NSCC; Jan Plourde, Learning Tree Store; Sandy Waddell, Director, North Shore Head Start; Susan Atkins, Early Childhood Education Coordinator, Salem High School; Susan Belski, Infant/Toddler Program Director, Salem High School Teen Parent Program; Marilyn Mahoney, Lynn Public Schools

DRUG/ALCOHOL REHABILITATION
Steven Chisholm, C.A.B. Health and Recovery Services; Daniel Ellis, Salvation Army; Lisa Foley, M.S., Director of Programming, Division of Children and Family Services; John Griffin, M.S., Unit Supervisor, Massachusetts Rehabilitation Commission; Joanne Swindell, LICSW, Director of Detox Services, C.A.B. Health and Recovery Services; Howard Sylvetsky, M.Ed., Coordinator, Drug and Alcohol Rehabilitation Program, NSCC

DIET TECHNOLOGY
Hope Davenport, RD, LPN, Director, Northern Essex WIC; Doreen Lovanna, LDN, Education Specialist, Massachusetts Department of Education; Maureen O’Neill, Ph.D., Dean of Liberal Studies, North Shore Community College; Kathy Lawrence, RD, Director of Food Service, Essex County Correctional Facility; Bernadette Lucas, M.S., RD, Program Coordinator, North Shore Community College; Karen Springer, Alumni; Janice Walper, RD, Chief Clinical RD, Northshore Medical Center; Ursula Whitney, RD, Consultant, Northshore Nutrition Consultant; Cindy Woodman, M.S., RD, Consultant, Risk Management

DIGITAL GRAPHIC DESIGN
Nicole Aucone, Graphic Designer, Mullen, Inc.; Carol Brunaccini, Graphic Communication Department, North Shore Technical High School; Gina Deschamps, Deschamps Printing; Aron Fine, former NSCC Digital Graphic Design student; Nazia Haque, Talent Manager, Digital People; Jerrie Hildebrand, NSCC Adjunct Faculty, Graphic Designer, Kishgraphics; Kim Pickard, Photographer/NSCC Adjunct Faculty; Barry Pollock, Sales, Cricket Press; Samantha Seguin, Graphic Designer, NSCC; Brian Wolfenden, Marketing Communication Manager, Cricket Press; Robin Wrighton, current NSCC student
ELEMENTARY EDUCATION
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