QUALITY SERVICE

QUALITY SERVICE FOR STUDENTS, EMPLOYEES AND CUSTOMERS AT NEW ENGLAND INSTITUTE OF TECHNOLOGY IS KNOWLEDGEABLE AND INFORMED EMPLOYEES WORKING AS A TEAM TO PROVIDE MORE ASSISTANCE AND INFORMATION THAN EXPECTED, IN A CARING AND PROFESSIONAL MANNER, IN ORDER TO EMPOWER THE STUDENTS TO ACHIEVE THEIR GOALS.

Nondiscrimination Statement

New England Institute of Technology admits qualified students of any race, color, religion, sex, age, disability or national and ethnic origin to all the rights and privileges, programs and activities generally accorded or made available to students at the school. New England Institute of Technology does not discriminate on the basis of race, color, religion, sex, sexual orientation, disability, age, or national and ethnic origin in administration of its educational policies, admissions policies, scholarship and loan programs, and other school-administered programs nor does New England Institute of Technology discriminate on the basis of race, color, religion, sex, sexual orientation, gender identity or expression, age, disability or national and ethnic origin in any phase of its employment process.

The college has designated Seth Kurn, Executive Vice President, to coordinate the college’s efforts to comply with Title IX of the Educational Amendments of 1972, Section 504 of the Rehabilitation Act of 1973 and other laws, orders and regulations governing discrimination. Any questions or concerns regarding Title IX, Section 504 or other state or local federal laws related to discrimination should be directed to Seth Kurn, Executive Vice President, New England Institute of Technology, One New England Tech Boulevard, East Greenwich, Rhode Island 02818.
# TABLE OF CONTENTS

- Message from The President ........................................... 3
- General Information ..................................................... 5
- Admission Policy .......................................................... 8
- Tuition and Fees ........................................................... 12
- Financial Assistance ....................................................... 14
- Student Services ........................................................... 18
- The Office of Teaching and Learning ................................. 21
- Academic Regulations .................................................... 22
- Programs of Study .......................................................... 27
- Curriculum (Program of Study) ........................................ 31
- Course Descriptions ....................................................... 120
- College Directories ......................................................... 190
- College Calendar ........................................................... 203
- List of Employers ........................................................... 204
- Maps ............................................................................. 206
- Index ............................................................................. 208

The College reserves the right to change, without notice, any information in this catalog including the rate of tuition or fees, course offerings, programs of study, admissions, registration and graduation requirements, calendar, and rules, and to change any other regulations concerning the student body. Although every effort has been made to ensure the accuracy of this catalog, its contents are subject to change without prior notice.

Copyright©2012 by New England Institute of Technology. All rights reserved.
Welcome to New England Institute of Technology!

We are pleased that you have chosen New England Tech to pursue your college education. As a college of technology, we are dedicated to providing you a balanced curriculum with hands-on learning and theoretical knowledge in your technical major, combined with an integrated core of liberal arts courses. Upon completion of your associate degree, you have the opportunity of pursuing a bachelor of science degree or master of science degree.

New England Tech places a high priority on student success and academic excellence in all of its programs. As a result, our graduates have been very successful in their chosen fields of study.

Your education at New England Tech will prepare you for the world of work and provide you with the skills and knowledge necessary to pursue your career. I encourage you to take full advantage of the services and opportunities the College provides.

We welcome many of you to our new 220-acre East Greenwich Campus which we are sure you will agree represents your College’s commitment to the highest quality educational experience.

Congratulations on your decision to attend the New England Institute of Technology.

Richard I. Gouse
President

Published December 2012
For over seventy years, New England Institute of Technology has met the challenge of preparing its graduates to enter an increasingly competitive workplace. Founded in 1940 as the New England Technical Institute, the present college began as a certificate-granting trade school. In 1971, a new administration, under the leadership of President Richard I. Gouse, envisioned a degree-granting institution that would not only be better qualified to meet industry’s need for technically-trained workers, but would also become one of the top technical colleges in the nation.

When the Board of Regents of the State of Rhode Island granted the institution the authority to offer associate degrees in 1977, its name was changed to New England Institute of Technology (NEIT). In 1982, NEIT was accredited by the New England Association of Schools and Colleges, Inc. (NEASC). Two years later, in addition to associate degrees, the State of Rhode Island authorized NEIT to confer baccalaureate degrees and such other degrees, earned and honorary, as are usually conferred by colleges and universities in addition to its associate degree programs. By 1990, four new bachelor’s programs had been added to the College’s offerings. In 1995, the New England Association of Schools and Colleges’ Commission on Technical and Career Institutions awarded accreditation to NEIT as a baccalaureate-granting institution. In 2005, the New England Association of Schools and Colleges continued NEIT’s accreditation through its Commission on Institutions of Higher Education. In 2010, the College began enrolling students for its first master of science degree program.

Today, enrollment has grown to approximately 2,800 students from the 70 students enrolled in 1971. The original educational programs have increased to over 40 associate, bachelor’s and master’s degree programs in such diverse fields as automotive technology, business management, criminal justice, information technology, electronics systems engineering technology, mechanical engineering technology, nursing, occupational therapy, surgical technology, and video and audio production. The campus that started in an older mill-style building in Providence, Rhode Island, now encompasses three locations: two in Warwick and one in East Greenwich, Rhode Island, consisting of seven buildings with approximately 500,000 square feet of classroom, laboratory, faculty and administrative office space.

These dynamic changes to its program offerings and physical plant symbolize NEIT’s vanguard journey into the 21st century and its response to the radical transformation that new technologies have brought to the workplace. The needs of tomorrow’s students demand access to those technological resources that will enable them to realize technology’s full potential to change their education and their lives. As it has since its beginning, NEIT has chosen to meet that challenge: the success of the College will continue to be measured by its graduates’ accomplishments in the world they are entering both as workers and citizens.
Statement of Mission and Objectives

The mission of New England Institute of Technology (NEIT) is to provide specialized associate, bachelor’s, and master’s degree programs which prepare students for professional and technical careers. Through the combination of professional and technical courses and an integrated liberal arts core, academic programs emphasize the relevance of continuous learning to personal and professional growth. Upon successful completion, graduates are prepared to enter the workforce or to continue their education. As an extension of the primary mission, NEIT offers the opportunity to pursue professional and technological studies to satisfy personal interests.

As an institution primarily devoted to teaching and through its open admission policy, NEIT provides opportunities for students from diverse educational backgrounds and with varying levels of ability to study in a variety of technological fields.

NEIT’s objectives are to:
1. offer technology programs that meet the career-oriented needs of students and to assist each student in identifying and developing a career path of interest.
2. stress the relationship between theoretical knowledge and practical application.
3. provide a laboratory approach, which prepares students for business and industry.
4. enable students to develop skills in writing, oral communication, and team building.
5. use innovative learning approaches to help each student realize his or her academic potential.
6. help students to develop skills in problem solving and in thinking logically, flexibly, and critically.
7. foster the student’s potential to contribute to and participate in a rapidly changing technological society.
8. provide a campus climate where students are encouraged to respect the value of all people and to deal with the social problems and responsibilities they face as members of society.
9. encourage students to develop pride in the quality of their work.
10. create an appreciation for both the importance and joy of learning.
11. be environmentally responsible in the development and maintenance of its campus and to include environmentally responsible technologies in its curriculum.
Educational Philosophy

New England Institute of Technology is a private, non-profit, technical college whose mission is to provide specialized associate, bachelor’s, and master’s degree programs for students from diverse educational backgrounds and with differing levels of ability. The College’s mission evolved from the principle that all persons, regardless of age, gender, disability, socioeconomic circumstances, religious, racial or ethnic background, should have access to career opportunities through a quality technical education. To achieve this purpose, NEIT is first and foremost an institution committed to teaching.

At NEIT, we believe and affirm that every student can learn; we recognize that different students may learn in different ways with differing levels of ability; and we recognize the importance of creating a learning environment in each classroom and laboratory that both challenges and supports each of our students.

Definition of an Educated Person

The New England Institute of Technology philosophy of education described in its Educational Philosophy is embraced firmly by faculty and staff. This philosophy is guided and sustained by the NEIT Statement of Mission and Objectives. It is intrinsic to the culture of the College and it is manifest in how and what the faculty teach and in what they expect of NEIT graduates as educated persons.

NEIT’s graduates achieve technical competence, and develop the values and standards of professional and ethical behavior that can serve them well in both the workplace and in our democratic society. These values include responsible citizenship, an appreciation of and respect for cultural diversity, and an informed world-view.

NEIT anticipates that its graduates know how to observe and to read carefully, to analyze and evaluate facts and ideas, to reach valid and well-supported conclusions, and to communicate clearly. The College expects also that its graduates appreciate other fields of knowledge — science, the arts and humanities, and the social sciences — and that they are able to integrate what they have learned from these subjects within their technical fields.

The faculty strives to instill in their students the belief that knowledge coupled with experience leads to wisdom, and that education does not end with a degree, but continues throughout one’s lifetime. In the process, NEIT graduates may discover the joy to be found in learning, the hallmark of an educated person.

Charter

New England Institute of Technology operates under a charter from the State of Rhode Island and is empowered by the State to confer associate and baccalaureate degrees and such other degrees as are usually conferred by colleges and universities.

Accreditation

New England Institute of Technology is accredited by the New England Association of Schools and Colleges, Inc. (NEASC), Commission on Institutions of Higher Education.

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

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

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

Commission on Institutions of Higher Education
New England Association of Schools and Colleges
3 Burlington Woods, Suite 100
Burlington, MA 01803
(781) 425-7700
E-Mail:  cihe@neasc.org

NEASC is listed by the U.S. Department of Education as a nationally recognized accrediting agency under the provisions of Chapter 33, Title 38, U.S. Code, and subsequent legislation.

The programs listed below have specialized professional accreditations. Please check the program descriptions in the Curriculum section for details.

- Automotive Collision Repair Technology, A.S.
- Automotive/Advanced Automotive Technology, A.S.
- Electrical Engineering Technology, B.S.
- Mechanical Engineering Technology, B.S.
Inquiries regarding the status of NEIT’s accreditation by these organizations should be directed to the Office of Teaching and Learning.

Complaints concerning NEIT related to fraud or advertising, approval to operate, quality of education or accreditation requirements may be directed to the Rhode Department of Attorney General’s Office, 150 South Main Street, Providence, RI 02903.

**Campuses**

New England Institute of Technology has three campuses, two in Warwick and a new 220-acre campus in East Greenwich, Rhode Island, all a short distance south of the state’s capital, Providence.

The Julian B. Gouse Campus, headquartered at 2500 Post Road, Warwick, consists of two buildings, containing more than 120,000 square feet of faculty and administrative offices, classroom and laboratory space, as well as a student lounge and an eating area. The Gouse Campus is named after the late trustee and benefactor of the college. Julian B. Gouse was a member of the original Board of Directors of the National Association of Trade and Technical Schools; a trustee of New England Institute of Technology; and, for twenty years, president of one of America’s leading technical schools, Massachusetts Trade Shop School.

The nearby Access Road Campus in Warwick, consists of four buildings, containing more than 114,000 square feet of office, classroom, and laboratory space featuring a custom-designed 53,000 square-foot facility dedicated exclusively to the training of automotive technicians which opened in April 2005. The Access Road Campus receives power from a 156 foot wind turbine and an array of 135 solar panels.

In addition, the automotive laboratory utilizes both energy recovery and geothermal technologies to supply pre-heated and pre-cooled fresh air into the facility.

The East Greenwich Campus consists of one building containing 265,000 square feet of office, classroom, and laboratory space. It sits on 220 wooded acres in a scenic New England town.

All buildings on the Gouse, Access Road, and East Greenwich campuses were either originally designed or extensively remodeled to serve the institutional needs of the College, its mission and purposes. Laboratories have been conceived for the technology of the 21st century and they equal or surpass industry standards. Spacious and well-lighted, many of these combined classroom/laboratories have been custom-built to faculty and staff specifications. These facilities integrate computers into a highly functional setting for the technological training that is necessary to prepare students for successful applications in the workplace.

The College requires that all students be prepared to take classes and receive services at any of NEIT’s locations where the appropriate classes and services are offered. It may not be possible for a student to take an entire program, including liberal arts courses, at one location.

**Class Size**

The usual size of technical classes at New England Institute of Technology is about 15 students. The average size of a liberal arts class is about 20 students. Smaller and larger class sizes are found from time to time in all programs.

**Feinstein Enriching America Program**

New England Institute of Technology is the recipient of a grant from the Feinstein Foundation. The objective of the Feinstein Enriching America Program is to promote the theme and values of caring, compassion, and community involvement. All students are encouraged to participate in this program which involves community-based volunteerism and may include academic credit.

**Annual Security Report**

Annually, NEIT distributes a security report to all current students and employees. Prospective students and employees may obtain a copy of the current report from the Business Office. The report includes campus policies regarding various security and emergency matters as well as statistics concerning the occurrence on campus of reported criminal offenses. In its 2012 report, NEIT had minimal incidents to report.

**Student Consumer Information**

Information about the institution and its administration of Title IV programs is provided to all current students and upon request to prospective students.
Admission to the Associate Degree Programs

Acceptance Criteria
A candidate for admission to the associate degree program must have one of the following:
1. A high school diploma;
2. A recognized high school equivalency certificate; or,
3. Verification of completion of a secondary school education in a home school setting that qualifies as an exemption from compulsory school attendance requirements under State law.

Application Procedures
1. Applicants must schedule an interview with a college admissions officer.
2. Applicants must submit an application for enrollment along with the non-refundable application fee. Applications may be obtained from NEIT or completed online at https://www.neit.edu/Admissions/Apply-Online.
3. Applicants must provide a certificate, signed by a physician, confirming that they have been immunized against measles, mumps, rubella, and varicella, that they have received a booster dose of tetanus and diphtheria (Td) within the last ten (10) years, and 3 doses of Hepatitis B vaccine or a positive titer.

Additional Requirements
Students entering an associate degree program will be assessed for skill levels in reading, writing and mathematics to determine their readiness to begin standard college work. Students whose assessment results show math, reading, and/or writing skills below college level may either be eligible to enroll in courses designed to strengthen those skills which they must satisfactorily complete before registering for technical courses, or they may be denied admission, unless exempt from this requirement by written consent of the Office of Teaching and Learning (OTL).

Individual programs may have additional requirements; consult with an Admission’s Officer.

Acceptance
The student will be notified by the Admission’s Office once an admission decision has been made.

NEIT reserves the right to refuse admission to any student for any reason other than race, color, religious belief, sexual orientation, national origin, age, or disability.
Admission to the Bachelor’s Degree Programs

Acceptance Criteria

A candidate for admission to the bachelor’s degree program must have the following:

1. An associate in science degree from an accredited institution or be otherwise eligible for junior-level standing; and
2. For a Bachelor of Science Degree in Electrical Engineering Technology, a cumulative grade point average of 2.5 (out of 4.0). For all other bachelor’s degree programs, a cumulative grade point average of 2.0 (out of 4.0) is required.

Application Procedures

1. Applicants must schedule an interview with a college admissions officer.
2. Applicants must submit an application for enrollment along with the non-refundable application fee. Applications may be obtained from NEIT or completed online at https://www.neit.edu/Admissions/Apply-Online.
3. Applicants must provide a certificate, signed by a physician, confirming that they have been immunized against measles, mumps, rubella, and varicella, that they have received a booster dose of tetanus and diphtheria (Td) within the last ten (10) years, and 3 doses of Hepatitis B vaccine or a positive titer.
4. Applicants to a bachelor’s degree program from institutions other than NEIT must submit an official post-secondary institution transcript to the Office of Teaching and Learning. To be considered official, transcripts must be received by NEIT directly from the issuing institution. If the student is to deliver transcripts, they must be in sealed, unopened envelopes and certified with the official seal of the issuing institution.

Additional Requirements

If a student does not have the appropriate prerequisite course(s), the student must complete those course(s) during the first or second quarter of the bachelor’s program.

NEIT associate degree students who anticipate completing all technical courses required of the associate in science degree curriculum, yet need up to 8 liberal arts credits to earn their associate degree, will be accepted into the bachelor of science program contingent upon their ability to complete the outstanding associate level course requirements during the first quarter of the bachelor’s program.

Individual programs may have additional requirements; consult with an Admission’s Officer.

Acceptance

The student will be notified by the Admission’s Office once an admission decision has been made.

- Direct – Student meets all requirements for admission to the bachelor’s degree program
- Provisional – Student’s admission is based on his/her successful completion of appropriate prerequisite coursework, planned or in progress, during the first or second quarter of the bachelor’s program. NEIT reserves the right to cancel a student’s admission if prerequisite or liberal arts courses referred to in Additional Requirements (above) are not completed in the required quarter.
- Denied – Student does not meet criteria or requirements for admission to the bachelor’s degree program.

NEIT reserves the right to refuse admission to any student for any reason other than race, color, religious belief, sexual orientation, national origin, age, or disability.

Admission to the Master’s Degree Programs

Acceptance Criteria

A candidate for admission to the master’s degree program must have or submit the following:

Master’s Degree in Information Technology

1. A bachelor’s degree in IT or its equivalent from an accredited institution;
2. A cumulative grade point average of 2.5 (out of 4.0); and,
3. An essay (see your Admission’s Officer).

Master’s Degree in Occupational Therapy

1. An associate’s degree in occupational therapy from an ACOTE-accredited educational institution;
2. Current certification as an occupational therapy assistant by the National Board of Certification in Occupational Therapy (COTA).
3. A cumulative grade point average of 2.5 (out of 4.0).
4. An essay (see your Admissions Officer).
5. Eligibility to enter MA 300 Statistics.
6. Readiness to begin advanced level college work as determined by an assessment of skill levels in writing.
Application Procedures (All Programs)
1. Applicants must schedule an interview with a college Admission’s Officer.
2. Applicants must submit an application for enrollment along with the non-refundable application fee. Applications may be obtained from NEIT or completed online at https://www.neit.edu/Admissions/Apply-Online.
3. Applicants must provide a certificate, signed by a physician, confirming that they have been immunized against measles, mumps, rubella, and varicella, they have received a booster dose of tetanus and diphtheria (Td) within the last ten years, and 3 doses of Hepatitis B vaccine or a positive titer.
4. Applicants to a master’s degree program who are attending or graduated from institutions other than NEIT must submit an official post-secondary institution transcript to the Office of Teaching and Learning. To be considered official, transcripts must be received by NEIT directly from the issuing institution. If the student is to deliver transcripts, they must be in sealed, unopened envelopes and certified with the official seal of the issuing institution.

Acceptance
The student will be notified by the Admission’s Office once an admission decision has been made.
NEIT reserves the right to refuse admission to any student for any reason other than race, color, religious belief, sexual orientation, national origin, age, or disability.

Admission with Advanced Standing
Applicants may be admitted with advanced standing at the discretion of the Office of Teaching and Learning. Consideration is given to the following:
1. Credits from an accredited post-secondary institution. An official transcript must be submitted to the Office of Teaching and Learning. Academic credit will be given only to courses in which a student earned a “C” or above (transfer credit). A grade of “B” or above is required for transfer of credits for the Master of Science Degree in Occupational Therapy.
2. Credits through CLEP and challenge exams (challenge credit authorized by department chairs or the Director of Academic Skills).
3. Credit may be extended for past work experience which represents college-level skills or competencies and can be properly documented, verified, and related to educational objectives through the submission of a portfolio (portfolio review credit).

Contact the Office of Teaching and Learning, (401) 467-7744 Ext. 3438, for more detailed information.

Credit for Life, Military, and Work Experience
New England Institute of Technology allows technical and general education credit for military, life, and work experience providing this experience is college-level, is related to the student’s educational objectives, and can be properly documented and verified through the submission of a portfolio. Students desiring more information about credit for life and work experience should contact the Office of Teaching and Learning.

Transfer of Credit
New England Institute of Technology will accept transfer credits from another accredited post-secondary institution which meet the following conditions:
1. An official transcript from the institution at which the coursework was completed must be submitted to the Office of Teaching and Learning.
2. The course(s) for which transfer credit is requested are equivalent in both credit hours and content to the theory and/or lab course(s) offered at NEIT. The student may be required to provide catalog descriptions from the original institution for equivalency to be determined.
3. The student earned a grade of “C” (73%) or above in the course. A grade of “B” (83%) or above is required for transfer of credits for the Master of Science Degree in Occupational Therapy.
4. The student has not already attempted and failed the course at NEIT. Students may petition the Office of Teaching and Learning for consideration of special circumstances.
5. Transcripts must be received prior to the second session of the class for any course in which the student is currently enrolled for consideration of transfer credit.
6. Transfer coursework for which credit is awarded will be recorded on the student’s transcript without a grade designation and therefore will not be calculated in the student’s grade point average.
7. Requests for transfer credit from institutions located outside the U.S. will be evaluated on an individual basis with consideration of the above conditions.

Upon completion of the credit review process, students will receive written notification of the NEIT courses for which transfer credit was accepted.

Associate Degree in Applied Technical Studies
The Associate Degree in Applied Technical Studies is designed for students who have previously gained skills and knowledge in specific occupations. The flexible curriculum for this degree is tailored to meet the student’s professional and career
goals and is chosen from selected technical courses by the student and the Assistant Provost. Admission to the program is limited to adult learners with work or military experience. Students desiring more information about the degree should contact the Office of Teaching and Learning.

**Admissions Tour**

All prospective students, along with their families and friends, are encouraged to visit the College. A tour may be scheduled in conjunction with an on-campus admissions interview. Tours may also be scheduled by calling the Admissions Office for an appointment at 800-736-7744. The Admissions Office is open Monday through Thursday from 7:30 a.m. to 8 p.m., Fridays 7:30 a.m. to 4 p.m.; and Saturdays 9 a.m. to 12 noon.

**International Admissions**

New England Institute of Technology welcomes applications from international students. Currently, international students at the College represent 24 countries from Asia, Europe, the Caribbean Basin, North America, Central America, Africa and South America. The College offers a wide array of extensive support systems specifically geared toward the needs and culture of the international community.

International applicants must meet the domestic admission requirements set forth in the Admissions Section of this catalog to qualify for admission to NEIT. To apply to NEIT, an international student must submit an application. Applications may be mailed, but the fastest and most efficient way to submit an application is online at https://www.neit.edu/Admissions/International-Students/International-Application. Candidates for whom English is not their first language must demonstrate fluency in English and must submit a recent TOEFL or IELTS score. Students eligible for admission to NEIT will be contacted. After an eligible student has paid the application and registration fees, NEIT will mail a letter of acceptance and an enrollment package to the student. All information submitted to the College should be sent to the attention of the International Admissions Office.

Upon receipt of the enrollment package and student’s affidavit of financial support, the school will issue the necessary immigration paperwork to obtain a U.S. Student Visa.

**Non-Matriculated Students**

Students who are not admitted to or do not seek degree candidacy may be permitted to take a limited number of courses in a Non-Matriculated Status. Authorization to take courses is granted by the Office of Teaching and Learning based on evidence that the students are capable of successfully completing the courses for which they seek to register.

Acceptable evidence may include successful completion of college courses at other institutions of higher education, standardized test results such as the SAT, or satisfactory performance on the appropriate NEIT Assessment Test as reported by the Academic Skills Center.

Registration of non-matriculated students will be reviewed for satisfactory performance by the Office of Teaching and Learning each quarter. Non-matriculated students may register for a maximum of thirty credits. Authorization to register beyond the thirty-credit limit may be granted by the Office of Teaching and Learning.

Students registered in non-matriculated status will enjoy all the privileges of classroom participation; registration and grades for all courses will be recorded on an official College transcript. Those who subsequently wish to become degree candidates must follow the standard application procedures for admission. Credits earned in a non-matriculated status will be evaluated by the Office of Teaching and Learning as to their pertinence and applicability in satisfying the requirements for the degree for which the student applies. All degree candidates must be formally admitted as matriculated students.
**TUITION**

**Full-Time Students**

Normally, for purposes of tuition assessment, NEIT defines a full-time course load as 10 technical credits per quarter. Some quarters may include some liberal arts courses to achieve 10 credits. The tuition for these quarters will remain at the full-time tuition rate.

Please note that NEIT’s definition of full-time for purposes of tuition assessment differs from the definition of a “full-time student” used by the federal government for the purpose of awarding financial aid. See the section on Financial Aid for additional details. Please contact the Student Accounts Office for further information on tuition.

**Part-Time Students**

Students enrolled in an approved part-time curriculum may take up to 6 technical credits per quarter or up to 10 technical and liberal arts credits per quarter. Part-time students pay tuition at the part-time rate in effect at the time they enroll in the part-time program.

**Non-Matriculated Status**

Students who have not enrolled in a program of study but wish to take individual courses will pay the cost-per-credit rate in effect at the time they enroll for the course.

**Program Rate Charge for an Individual Course**

Students repeating an individual course or taking an elective course not required for graduation pay the program rate charge in effect at the time they take the course.

Students who have transfer, portfolio review, or challenge credits approved by the Office of Teaching and Learning will receive a tuition reduction for transferred technical courses subject to certain restrictions. The tuition reduction, computed on a program rate basis, will be applied in the final quarter of the student’s curriculum to offset the tuition assessment. No tuition credit is allowed for non-technical courses.

Students who elect to take the technical portion of the curriculum at a faster rate than the rate specified in the curriculum/contract will be assessed additional tuition charges.

An insert has been provided with this catalog containing up-to-date tuition and fees. For further information, please write the Director of Admissions, New England Institute of Technology, One New England Tech Boulevard, East Greenwich, RI 02818-1205, or telephone (401) 467-7744 or refer to the College website at: http://www.neit.edu/Financial-Aid/Tuition.
FEES

Application Fee
A non-refundable application fee is due at the time of application.

Registration and Administrative Fees
A registration fee is charged at the beginning of the first academic quarter. An administrative fee is charged at the beginning of each academic quarter. These fees cover the costs of administrative processing required for each student to register for each academic quarter and are non-refundable. See the tuition and fee insert for current rates.

Student and Technology Fee
These fees are charged at the beginning of each academic quarter. These fees assist NEIT in providing the required hardware and software throughout the institution; internet accessibility; and in covering the costs of school-sponsored services such as student accident insurance, the maintenance of the student parking areas, parking stickers, and the I.D./Library card. See the tuition and fee insert for current rates.

Laboratory Fees
A laboratory fee is charged at the beginning of each academic quarter. It covers the costs of equipment and material used in all technical courses. See the tuition and fee insert for current rates.

Other Fees
There may be other incidental charges assessed for certain courses to cover material that will be consumed during the period of study.

Cancellation Policy
Should an applicant not be accepted by the Admissions Office, the applicant will receive notification. New England Tech will make a complete refund of all monies paid less the non-refundable application fee.

Applicants who have been accepted by the Admissions Office may cancel their enrollment at the College prior to starting classes by written notice to the Director of Admissions. Students who cancel their enrollment or do not attend one class will receive a 100% refund of all payments less the non-refundable application, registration and administrative fees.

NEIT reserves the right at any time and for any reason not prohibited by law, to return any tuition and fees or part thereof to any registered student who in the opinion of the College is unfit for the profession selected.

Institutional Tuition and Fees Refund Policy
1. Students who withdraw from NEIT must notify the Registrar’s Office, in writing. Absence from class does not constitute withdrawal.
2. All refunds of tuition, registration, administrative, student, and lab fees are calculated on an academic quarter basis.
3. Written notification received by the Registrar:
   - In the first week* of class will result in a refund of 75% of the quarter’s tuition and fees.
   - In the second week* of class will result in a refund of 50% of the quarter’s tuition and fees.
   - In the third week* of class will result in a refund of 25% of the quarter’s tuition and fees.
   - After the third week* of class will result in no refund.

*Note: A week is an academic week, which begins on Sunday and ends on Saturday. An academic quarter is comprised of ten (10) weeks.

Return of Funds
Federal, state and institutional financial aid will be returned to the appropriate source (e.g., federal, state or other lender) in accordance with federal and state regulations in effect at the time of the student’s withdrawal. Information about the requirements for determining the treatment of Title IV funds when a student withdraws is available in the “Student Guide to Financial Aid” which may be obtained in the Financial Aid Office. See also: “Refunds to Financial Aid Programs” in the Financial Assistance section of the catalog.

Repeating a Course
Subject to certain restrictions, students are allowed one opportunity to repeat failed courses without incurring any additional tuition cost. Students are strongly encouraged, prior to scheduling repeat courses, to contact the Student Accounts Office for additional details, including certain restrictions that may exist.
FINANCIAL ASSISTANCE

Financial aid at New England Institute of Technology is available from a variety of sources: non-repayable grants, scholarships, work study programs, student loans, and NEIT's own tuition payment plan. Applicants may receive aid through any or all of these programs, depending on their financial need.

All applicants are required to meet with a financial aid officer. The officer will review the availability of grants and loans and will provide assistance in completing the required financial aid applications.

Financial Aid programs available are:
- Federal Pell Grant
- Federal Supplemental Educational Opportunity Grant (FSEOG)
- Federal Work Study (FWS)
- Federal Stafford Loan Program (FDSL)
- Federal Parent Loan for Undergraduate Students (FPLUS)
- State Grants
- Private Scholarships and Loans
- Institutional Scholarships and Loans

For a listing of eligibility requirements for federal, state, institutional and private funding sources please refer to the Student Guide to Financial Aid available in the Financial Aid Office.

Veterans Benefits

Eligible veterans receive benefits as determined by their course of training and federal regulations. Each student receiving veterans benefits is required to verify his/her enrollment at NEIT by calling the VA Regional Office monthly. NEIT is required to notify the Veterans Administration of any changes in a student’s course load or status. Such notification may result in the termination of veterans benefits to the student, but does not relieve the student of his or her financial obligation to NEIT.

Financial Aid Awarding Policy

NEIT takes into consideration all financial sources when awarding aid to eligible applicants. For the purpose of this policy, “aid” includes grants, loans, and scholarships of any form.

If after initial awards have been made, a student receives aid which brings his or her total aid package above the “cost of attendance” (the total amount it is determined it will cost a student to attend NEIT), NEIT will re-assign some of the institutional funds awarded to the student.

It is the intention of this policy to ensure that aid resources are made available to as many students as possible.
Application Requirements

Applicants interested in any of the financial aid programs available at NEIT should contact the Financial Aid Office for applications and for further information. Financial aid awards are not automatic. Students must file a Free Application for Federal Student Aid (FAFSA) with the NEIT Financial Aid Office for each award year that they are in college. All students receiving financial aid have certain rights and responsibilities. A document outlining these rights and responsibilities is available in the Financial Aid Office.

Federally Defined Full-Time Status

For the purposes of determining a student’s eligibility for financial aid, NEIT’s Satisfactory Academic Progress Policy defines a student as “full-time” if the student is taking a minimum of 12 academic credits. Students taking fewer than 12 academic credits may be defined as three-quarter, half time or less than half time. See the Financial Aid Office for additional information.

Satisfactory Academic Progress Policy

Federal requirements require that each postsecondary educational institution participating in federal student financial aid assistance programs establish, publish and apply standards of satisfactory academic progress for those students receiving federal student financial assistance. Students receiving federal student financial assistance are expected to maintain satisfactory academic progress throughout their program in order to continue their eligibility for federal student financial assistance. The measurement of satisfactory academic progress requires an evaluation of the student’s quantitative progress and qualitative progress. The qualitative measure requires that the student maintain a specific cumulative grade point average throughout his or her program of study. The quantitative measure requires that the student complete the program within 150 percent of the normal length as measured in terms of attempted credits versus completed credits. The Satisfactory Academic Progress Policy for student financial aid recipients is at least as strict as the policy used for non-financial aid recipients.

The evaluation for both the qualitative and the quantitative measures will be conducted at the end of every third quarter from the student’s initial enrollment at New England Institute of Technology.

If, at the end of that period, the student does not meet the minimum requirements established in the chart on the next page, the student will not be eligible for federal student financial assistance, but may continue attending NEIT using his or her own sources of funding.
Requirements for Maintaining Satisfactory Academic Progress:

1. Maximum Time to Complete

A student may attempt a maximum of 150% of the published length of the program and still maintain his/her eligibility for federal student financial assistance. After a student has attempted 150% of the published length of the program, the student will no longer qualify for federal student financial assistance.

The published length of an associate degree program is the minimum number of credits required to graduate from the program. For example, if 98 credits are required for graduation, a student may attempt a total of 147 credits (98 X 150%).

The published length of a bachelor’s degree program is the combined minimum number of credits required to graduate from both the bachelor’s and associate degree programs. For example, if 98 credits are required for graduation from the associate degree program and 92 credits are required for graduation from the bachelor’s degree program, a student may attempt a total of 285 credits (190 X 150%).

2. Successful Completion of the Program

At the end of every third quarter of the student’s program, students will be expected to complete a specified percentage of attempted credits as described in the chart in section 4.

Attempted credits include the published number of credits for all courses for which the student receives a grade of A, A-, B+, B-, C+, C-, D+, D, F, W, P, S, U, IPR, or AU while the student is enrolled in a program of study at NEIT (see Academic Regulations in the Office of Teaching and Learning section of the catalog for further clarification of grades). With the exception of remedial courses, all credits the student attempts are used in computing satisfactory progress, including credits for repeated courses. The published number of credits for any course taken for non-credit, as well as credits that a student transfers from another institution, are used in computing satisfactory progress.

When a student changes major, only credits for those courses that apply to the new program are counted as attempted credits.

3. Qualitative Measure

At the end of every third quarter of a student’s program, students will be expected to maintain a minimum cumulative grade point average (GPA) as described in the chart in section 4.

The cumulative grade point average is based on credits attempted in all courses which carry credit toward graduation. Courses which carry grades of W, P, S, U, IPR, or AU, are not included in a student’s GPA. When a course is repeated, only the higher grade is included in the cumulative grade point average. Credits that a student transfers from another institution are not included in the student’s GPA.

The cumulative GPA for bachelor’s students and master’s students includes all credits for courses taken in the associate degree program at NEIT which carry credit toward graduation.

4. Progress Required to Continue Eligibility for Financial Aid in the Associate in Science Degree Programs and the Bachelor of Science Degree Programs.

<table>
<thead>
<tr>
<th>Total Credits Attempted</th>
<th>Minimum GPA Required</th>
<th>Percentage of Total Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-16 (A.S. Degree only)</td>
<td>1.6</td>
<td>30%</td>
</tr>
<tr>
<td>17-36 (A.S. Degree only)</td>
<td>1.7</td>
<td>40%</td>
</tr>
<tr>
<td>37-54 (A.S. Degree only)</td>
<td>1.8</td>
<td>50%</td>
</tr>
<tr>
<td>55-96 (A.S. Degree only)</td>
<td>1.9</td>
<td>60%</td>
</tr>
<tr>
<td>97 or more or you are enrolled in a bachelor's or master's degree program</td>
<td>2.0</td>
<td>67%</td>
</tr>
</tbody>
</table>

5. Loss of Qualification for Financial Aid Assistance

Students who fail to achieve satisfactory academic progress at the end of a third quarter measurement will not be eligible for financial aid assistance unless they can, through the appeal process set forth below, demonstrate special circumstances which impeded their ability to successfully achieve satisfactory academic progress.

6. Appeal Process and Continuation of Eligibility for Financial Aid Assistance

A student who is no longer eligible for financial aid due to his or her failure to maintain satisfactory academic progress may appeal to the Financial Aid Office. If the student is able to demonstrate through documentation, to the satisfaction of the Financial Aid Office, that his/her failure to make satisfactory academic progress was due to special circumstances which impeded the student’s ability to successfully achieve satisfactory academic progress, the student will be allowed
to continue his or her eligibility for financial aid assistance on a quarterly basis. This eligibility is subject to the student’s achieving specified conditions set forth in a plan provided by the Financial Aid Office.

If at the end of any quarter, the student fails to achieve the specified conditions, the student will no longer be eligible for financial aid assistance.

7. Re-Establishment of Eligibility for Financial Aid

A student who is no longer eligible for financial aid assistance due to failure to maintain satisfactory academic progress will again be eligible for financial aid assistance when and if the student achieves the cumulative grade point average and percentage of courses completed listed on the chart above. During the student’s period of disqualification for financial aid assistance, the student may continue his or her program of study at the institution using his or her own sources of funding as long as the student meets all other academic requirements of the institution.

Refunds to Federal Aid Programs (Title IV)

The Federal “Return of Title IV Funds” requirement is applied to the account of any student who leaves school before graduation.

NEIT must determine the amount of Title IV aid earned by the student. If there is Title IV aid that needs to be returned (“unearned funds”), the aid must be returned in the following order: Federal Stafford Loans, Federal Plus Loans, Federal Pell Grants, Federal SEOG, and finally to any other Title IV programs.

Federal regulations may allow NEIT to keep only a portion of the Title IV aid, which includes FDSL/FPLUS Loans, if the student leaves school before the end of the academic year. A student who has used FDSL/FPLUS Loans to pay tuition may have a balance due NEIT if the student withdraws before the end of the academic year.

There may be a responsibility for both NEIT and the student to return unearned funds to the lender and/or the Department of Education.

See also “Institutional Tuition and Fees Refund Policy” in the Tuition and Fees Section of the catalog.

Institutional Financial Aid Policy

Institutional grants and scholarships for students who withdraw from NEIT will be prorated and refunded as outlined in the institutional “Tuition and Fees Refund Policy” in the Tuition and Fees section of the catalog.
The Career Services Office

The Career Services Office offers assistance to students and graduates in many aspects of the job search. Workshops are conducted to enhance students’ job seeking skills. Students are also encouraged to meet individually with members of the Career Services staff to perfect their resumes, interviewing skills, and job search techniques. Students are also invited to visit the Career Services Office, the Library, and the Library’s website (http://library.neit.edu/) to review instructional job search materials.

Many employers use NEIT as a resource when recruiting new employees by submitting job leads directly to the NEIT Career Services Office. The Career Services staff also contacts employers to identify employment opportunities for students and graduates. Students and graduates may review the names of company contacts as well as other reference materials to identify job lead sources. Part-time employment listings are also available in the Career Services Office and posted on campus bulletin boards. The Career Services Office also hosts recruitment events which are held on campus throughout the year.

Students are eligible to receive assistance in obtaining full-time employment in their field of study when they have fulfilled graduation requirements, have met all of their financial obligations, and have submitted a resume in the prescribed NEIT format to the Career Services Office. Students’ resumes will be circulated, as appropriate, to employers who are looking for candidates with technical skills. It is the College’s policy that students who fail to submit a resume and/or keep appointments with prospective employers or with the Career Services staff are formally acknowledging that they are unavailable for employment assistance.

Office of Student Support Services

Students Advisors serve as the primary point of contact for students to assist them in reaching their educational goals. They provide the information, support and encouragement necessary in addressing students’ questions and concerns, and they provide guidance to students regarding college policies and procedures.

Students should contact their Student Advisor with any questions they may have, including questions about NEIT degree requirements, NEIT policies and procedures, and campus resources. The Student Advisor is available to assist students experiencing difficulties with coursework and problems that may interfere with the successful completion of their programs, so the students can have a positive and successful experience throughout their education at NEIT.

Student Activities

The Student Activities Coordinator works with students and faculty to provide activities that are of interest to NEIT students. Students are encouraged to participate in student clubs and student activities to enhance their leadership skills and to meet other students.
Housing

A housing coordinator is available in the Office of Student Support Services whose primary responsibility is to assist students in locating housing in the area. All rental/lease and other arrangements are strictly the responsibility of the student and the property owner. NEIT’s role is limited to facilitating the acquisition of housing for those unfamiliar with the area. While efforts are made to provide students with a variety of housing options, NEIT does not make any representations about the safety of neighborhoods in which any particular housing is located. Students are advised to check with the local authorities regarding the safety of any neighborhood in which they are considering renting. Students are responsible for their choice of housing.

Students’ Rights and Responsibilities

College policies, rules and procedures setting forth student rights and responsibilities are published in this catalog and in the Student Handbook. It is the student’s responsibility to review these publications. Copies of the most recent versions of these publications are available on the password-protected New England Tech Student Home Page, https://students.neit.edu/.

Student Conduct

It is expected that each member of the college community will responsibly participate in a cooperative learning experience. To ensure the success of this experience, the College requires a community which encourages mutual respect. Students who have concerns of any kind are urged to consult immediately with an appropriate member of the college community. Students who are unclear as to who may best resolve their concerns should consult the Office of Student Support Services. This office will refer the student to the appropriate department and will assist the student as necessary.

Students who have conflicts involving staff, other students, academic matters or any other aspect of their college experience should follow the procedures outlined in the Student Handbook entitled “Student Conflict Resolution Procedure.”

Any student who feels he/she was unfairly disciplined or dismissed may petition in writing as published in the Student Disciplinary Policy.

Students’ Right to Privacy and Access to Records

New England Institute of Technology complies with the provisions of the Family Educational Rights and Privacy Act of 1974 (FERPA). A “Notification to Students on Rights to Privacy” is e-mailed to students annually and published in the Student Handbook. Copies of the College’s notification are available in the Registrar’s Office.
**Student Disciplinary Policy***

It is a major objective at NEIT to protect and preserve the quality of the educational environment for everyone. This objective entails two basic expectations:

That the NEIT community expects high standards of courtesy, integrity, and responsibility from all of its members.

That each student is responsible for his/her conduct, and that continuation as a student is conditional upon compliance with the requirements expressed or implied in this policy.

College officials are charged with the welfare of all students. It is in this regard that NEIT reserves the right to take necessary and appropriate action to protect the safety and well-being of the campus community.

Disregard on the part of the student for the college’s rules, regulations or policies, or exhibition of behavior by a student, on- or off-campus, that in the sole judgment of college officials demonstrates a serious lack of respect for other members of the campus community or that could be considered a potential safety threat to the campus community may require the immediate application of sanctions or disciplinary action up to and including dismissal.

It is neither possible nor necessary to specify every instance of misconduct that could result in sanctions, disciplinary action or dismissal from the college. Grounds for sanctions, disciplinary action or dismissal include but are not limited to: the use, possession or sale of intoxicating beverages on campus; the use, possession or sale of illegal drugs on campus; gambling on campus; insubordination; nonpayment of financial obligations; the unauthorized use of school equipment including computers and computer systems; academic dishonesty; plagiarism; violation of copyright laws; assault; harassment; disruptive, disorderly or indecent behavior; serious criminal offenses; or failure to exhibit the highest quality of behavior, good citizenship and respect for the campus community, both on and off-campus.

Disciplinary action is based upon the nature and severity of the matter and on general principles of fair treatment. Disciplinary actions will take into account the effect of the conduct on the victim and/or college community, the student’s disciplinary history, and/or whether disciplinary actions such as warnings or probation are likely to change the student’s conduct. While every attempt will be made to fairly and consistently administer its disciplinary procedures, NEIT will also seek to be responsive to the facts and circumstances of each individual case. Some disciplinary actions may be more punitive than others due to the seriousness of the offense.

Sanctions or dismissal of the student under this policy does not terminate the student’s or guarantor’s obligation to meet his or her financial obligations to NEIT.

*This is intended to be a summary of NEIT’s Student Disciplinary Policy. The entire policy is published in the Student Handbook and includes a listing of NEIT personnel with authority for imposing disciplinary action and the process for student appeals.*
The Office of Teaching and Learning is responsible for the overall quality control and management of all curricula, faculty and academic staff, academic support services, class scheduling, classroom and laboratory instruction, and academic records management. The Office of Teaching and Learning includes:

- The Office of the Senior Vice President and Provost
- The Registrar’s Office
- The Library and Information Commons
- The Academic Skills Center
- The Faculty Resource Center
- The Feinstein Enriching America Program
- Department Chairs
- Faculty
- Office for Institutional Effectiveness

The Office of Teaching and Learning is managed by the Senior Vice President and Provost (the chief academic officer of the College), and the Associate and Assistant Provosts. All inquiries concerning the Office of Teaching and Learning should be directed to (401) 739-5000, Ext. 3438.
Grade Point Average

Grade points are computed by multiplying the number of credit hours for the course by the weighted point value of the grade (see Grading System). Example: A grade of B+ (with a grade point value of 3.33) in MA 125, a four-credit course, is assigned 13.32 grade points (3.33 x 4). The cumulative grade point average (GPA) is obtained by dividing the total number of grade points achieved by number of credit hours of work completed.

Courses for which transfer credit was awarded are not included in the GPA calculations.

Credit Hour

For a typical NEIT quarter (10 weeks), 1 credit hour corresponds to 3 hours of engaged academic time per week. For five-week courses, 1 credit hour corresponds to 6 hours of engaged academic time per week. In addition, 1 credit hour corresponds to 3 hours of clinical experience per week and 5 hours of externship experience per week.

Academic Probation

Academic probation is a provisional status given to a student who is not meeting the College’s requirements for academic achievement. A student who does not meet the College’s requirements for academic achievement (see “Required Levels of Achievement” on next page) will be placed on academic probation. A student who is placed on probation must meet with a Student Advisor in the Office of Student Support Services to discuss academic problems and develop a plan to address the problems.

A student who has met the College’s requirements for academic achievement by the end of the probationary quarter will be taken off probation. A student who has not met the College’s requirements for academic achievement at the end of the probationary quarter will remain on probation for a second quarter.

A student who has met the College’s requirements for academic achievement by the end of a second probationary quarter will be removed from probationary status if the student’s cumulative GPA meets the minimum requirements. A student who has had a successful academic quarter but whose cumulative progress does not meet the academic standards required by his/her technology will remain on probation for an additional quarter. A student in a second probationary quarter who has not had a successful academic quarter and whose achievement does not meet the cumulative GPA college requirement will be dismissed from the College.

Students may not take more than 19 credits during their first probationary quarter and not more than 16 credits during their second probationary quarter. A student who is on academic probation must contact his/her Student Advisor to review and discuss the proper course load for the successive quarter.
Required Levels Of Academic Achievement

Any student who does not meet the following standards for quarterly grade point average and/or for cumulative grade point average will be on probation for the following quarter:

<table>
<thead>
<tr>
<th>Credits Completed</th>
<th>Quarterly GPA</th>
<th>Cumulative GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Associate Degree Program</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;36 credits completed</td>
<td>1.0</td>
<td>1.7</td>
</tr>
<tr>
<td>36-71 credits completed</td>
<td>1.0</td>
<td>1.8</td>
</tr>
<tr>
<td>72 and above</td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Bachelor’s Degree Program</strong></td>
<td>2.0</td>
<td>2.0</td>
</tr>
<tr>
<td><strong>Master’s Degree Program</strong></td>
<td>3.0</td>
<td>3.0</td>
</tr>
</tbody>
</table>

**Note:** Students in Surgical Technology must achieve a grade of at least C+ in Surgical Technology and biology courses and a cumulative grade point average of at least 2.33 throughout the program in order to be in good standing. For all quarters, students in Nursing must maintain a minimum grade of C (77%) for every nursing, math, and biology course taken to complete the Associate in Science Degree in Nursing and to advance to the next quarter. A cumulative grade point average of at least 2.33 must be maintained throughout the program. Students will be allowed to repeat a nursing course only once before being dismissed from the program. A student will be dismissed from the program if any two nursing, math, and biology courses are not passed with a C+ or better. Students in Occupational Therapy Assistant Technology must achieve a grade of C+ or better in all Occupational Therapy Assistant courses, a C or better in all Biology courses, and a cumulative grade point average of at least 2.33 throughout the program in order to be in good standing. Students in the Master of Science in Occupational Therapy must earn a minimum of a B in all occupational therapy courses and a minimum cumulative grade point average of 3.00 throughout the program in order to be in good standing. Students in Physical Therapist Assistant Technology must achieve a grade of at least C+ in all required Physical Therapist Assistant and biology courses and a cumulative grade point average of at least 2.33 throughout the program in order to be in good standing. Students in the Respiratory Care program must achieve a cumulative grade point average of at least 2.33 throughout the program in order to be in good standing. Students in Veterinary Technology must achieve a grade of C or better in all veterinary and biology courses throughout the program in order to be in good standing. Students in Electrical Technology with Renewable Energy (ELRE) must achieve a cumulative grade point average of 2.50 throughout the program and hold their OSHA card in order to enter the seventh quarter of the program.

Appeal of Dismissal

A student who has been dismissed because his or her academic achievement does not meet college requirements may appeal the dismissal to the Office of Teaching and Learning. Consideration will be given to extenuating circumstances that led to poor academic achievement. Students who successfully appeal a dismissal will be placed on second probation.

Dean’s List and Honors

The Office of Teaching and Learning publishes a Dean’s List at the end of each quarter for students enrolled in associate and bachelor’s degree programs. The Dean’s List recognizes students who have earned at least 10 matriculating credits and a GPA of at least 3.6. Graduates with a cumulative GPA of 3.6 or better are cited at commencement “With Honors.”
Alpha Chi Honor Society

Alpha Chi is an academic honor society that recognizes and promotes excellence in scholarship among college and university students of good character. As a general honor society, Alpha Chi accepts members from all academic fields, and inducts no more than the top 10 percent of junior, senior, and graduate students at member institutions. NEIT’s chapter of Phi Theta Kappa is Rhode Island Gamma, Chapter #395.

Phi Theta Kappa

Phi Theta Kappa is an international honors society for associate level students. The society recognizes those students who have achieved academic excellence by achieving a cumulative grade point average of at least 3.8 and 24 credit hours. Membership provides opportunities for leadership and involvement in college and community service. NEIT’s chapter of Phi Theta Kappa is Beta Xi Phi.

Progress Reports

Grade reports are available at the end of each quarter on the student website through the link labeled “Web for Students”. Grades are based on student academic achievement.

Graduation with an Associate Degree

To be eligible for graduation with an associate in science degree from NEIT, students must:
1. successfully complete all courses listed in the curriculum they are pursuing;
2. have a cumulative grade point average of at least 2.0 (unless otherwise indicated by program);
3. complete the last 34 credit hours at NEIT as a residency requirement and have received academic credit for the balance of the program; and,
4. fulfill all financial obligations to the College.

Graduation with a Bachelor’s Degree

To be eligible for graduation from NEIT with a bachelor of science degree, students must:
1. successfully complete all courses listed in the curriculum they are pursuing;
2. have a cumulative grade point average of at least 2.0 (unless otherwise indicated by program);
3. complete the last 60 credit hours at NEIT as a residency requirement and have received academic credit for the balance of the program; and,
4. fulfill all financial obligations to the College.

Residency requirements may be partially waived with the written permission of the Office of Teaching and Learning.

Graduation with a Master’s Degree

To be eligible for graduation from NEIT with a master of science degree, students must:
1. successfully complete all courses listed in the curriculum they are pursuing;
2. have a cumulative grade point average of at least 3.0;
3. complete the last 60 credit hours at NEIT as a residency requirement and have received academic credit for the balance of the program; and,
4. fulfill all financial obligations to the College.

Dual Degree Policy

A dual degree, for the purposes of this policy, refers to the pursuit of a second associate degree or a second bachelor’s degree at the New England Institute of Technology. Students may pursue a second associate degree or a second bachelor’s degree by completing a minimum of 34 additional technical credits in the second degree program. The additional technical credits in the second degree program shall be comprised of the technical degree requirements in the second program as well as any technical electives as approved by the Department Chair. Technical electives will be approved with consideration of relevancy to the chosen field of study. Liberal arts courses may only be included as part of the additional technical credits if the second degree program requires specific core electives not already completed in the first degree program. All requests for a dual degree must be approved by the Office of Teaching and Learning.

General Graduation Information

The formal graduation ceremony is limited to students who complete all requirements for a degree on or before the end of the Spring Quarter.

Transcripts and Letters of Technical Proficiency

Students may request an official transcript from the Registrar’s Office listing courses and grades earned. Any student who completes the technical core courses of a program or a specific technical segment (e.g., the Plumbing portion of the Plumbing/Heating Technology associate degree) may request a Letter of Technical Proficiency from the Registrar’s Office. This letter will document the student’s grades earned and courses completed in a technical area. Transcripts and Letters of Technical Proficiency are issued only for students who have fulfilled all financial obligations to the College.
Drop and Add Policy

Students may add or drop courses after the start of classes in compliance with the procedures described in NEIT’s Drop and Add Policy which is published in the Student Handbook.

PLEASE NOTE: Dropping a course and reducing your credit load may adversely affect your financial aid eligibility. It is strongly recommended that students meet with a representative of the Student Accounts Office to discuss the potential impact on their financial aid status and with their Student Advisor to discuss the impact on their ability to complete their degree within the anticipated time frame.

Class Attendance

Regular and prompt attendance at all classes is expected of all students. Each course syllabus clearly states the attendance policy and the makeup policy for that class. All work missed by reason of absence or tardiness, regardless of the cause, must be made up to the satisfaction of the instructor. Students who know that they will be absent are expected to obtain assignments from instructors in advance so that the necessary work will be completed before they leave or immediately upon their return.

Schedule of Classes

Day classes are held between 7:30 a.m. and 5:35 p.m. Night classes are held Monday through Friday between 5:45 p.m. and 10:40 p.m. Some courses are also offered on Saturday between 8:00 a.m. and 4:30 p.m.

Library and Information Commons

The NEIT Library contains a comprehensive collection of materials to support the research, professional and personal growth needs of the college community. Both print and digital resources are available in a welcoming environment with a variety of spaces for study and research.

The Library provides a cultural center for the College through an annual all-college art show, rotating exhibits of class work in the fine and applied arts, and through lectures and presentations on wide-ranging topics.

A comprehensive website (library.neit.edu) provides access to the online catalog, full-text databases, web pages with numerous subject-specific links, online research and writing guides, tutorials, and pages for specific populations within the college community (new students, faculty, international students). These online resources are available at all times and are designed to help students develop the skills they need to become independent, information literate learners.

For more information on the Library please call (401) 739-5000, Ext. 3553.
Academic Skills Center

The Academic Skills Center (ASC) provides support to NEIT students throughout their degree programs. This support begins with the assessment, placement, and advising process and continues with learning assistance services and programs. In partnership with faculty and staff, the ASC prepares students to become more effective, self-directed, life-long learners. The overall goals of these activities are to address the learning needs, academic performance, and success of our students.

Incoming students are assessed in reading, writing and mathematics, after which they meet with an Assessment and Placement Advisor to discuss their placement in first quarter classes. A Study Skills workshop is offered to all new students prior to the start of classes. The ASC courses in developmental reading, writing and mathematics help students build skills in these areas. A variety of enrichment courses provide students with the opportunity to build their reading comprehension, writing skills, research and study skills, and analytical mathematical skills.

In addition, the ASC provides tutorial support and alternative learning strategies for students in need of personalized instruction in reading, writing, mathematics, and/or physics. The professional tutors in the ASC’s Writing Center and English, Mathematics, and Science Labs, assist students with assignments in reading, writing, oral presentations, mathematics, physics, and life sciences. Adaptive technology is also available for students identified as those who need alternative learning strategies to succeed in their courses. Although the Center does not provide tutorial support in the technical content areas, tutors can assist technical departments in the training of Peer Tutors through the Peer Tutor Program. The professional staff of the ASC also offers students online and independent study courses to strengthen computer skills and study skills. Enrichment courses are offered for professional and personal growth.

All services of the Academic Skills Center are offered at no charge to students.

For more information on the Academic Skills Center please call (401) 739-5000, Ext. 3428.

Technical Advisory Committees

Each academic department has a Technical Advisory Committee. The Technical Advisory Committee consists of representatives from many of the industries and businesses that provide employment opportunities for NEIT graduates.

Department chairs and faculty consult with the committees and with individual committee members frequently throughout the year on technical curriculum issues.

Through input from its Technical Advisory Committees, NEIT is able to ensure that its programs, in addition to being academically sound, are educating graduates who meet the needs of industry.

A list of committee membership is available in the Office of Teaching and Learning.
All students are enrolled in college credit programs. Degrees are awarded after the satisfactory completion of both technical and liberal arts requirements of each program.

**An Associate in Science Degree is awarded in:**
- Advanced Automotive Technology
- Advanced Automotive Technology with High Performance
- Advanced Aviation Science Technology
- Applied Technical Studies Technology (see program description on p. 10)
- Architectural Building Engineering Technology
- Automotive Collision Repair Technology
- Automotive Technology
- Automotive Technology with High Performance
- Aviation Science Technology
- Building Construction Technology
- Business Management Technology
- Clinical Medical Assistant Technology
- Criminal Justice Technology
- Electrical Technology
- Electrical Technology with Renewable Energy Systems
- Electronic Systems Engineering Technology
- Game Development and Simulation Programming Technology
- Graphics, Multimedia and Web Design Technology
- Health Information Management Technology
- Information Technology
  - Network Engineering
  - Software Engineering
- Interior Design
- Marine Technology
- Mechanical Engineering Technology
- Nursing
- Occupational Therapy Assistant Technology
- Physical Therapist Assistant Technology
- Plumbing/Heating/Gas Technology
- Refrigeration/Air Conditioning/Heating/Gas Technology
- Respiratory Care
- Surgical Technology
- Veterinary Technology
- Video and Audio Production Technology
- Video Game Design Technology
A Bachelor of Science Degree is awarded in:
- Architectural Building Engineering Technology
- Automotive Service Management
- Business Management Technology
- Construction Management Technology
- Criminal Justice Technology
- Cyber Security Technology
- Digital Recording Arts Technology
- Electrical Engineering Technology
- Game Development and Simulation Programming Technology
- Health Care Management
- Information Technology, Networking Engineering
- Information Technology, Software Engineering
- Interior Design
- Mechanical Engineering Technology
- RN to BSN

A Master of Science Degree is awarded in:
- Information Technology
- Occupational Therapy

Plus-Two Bachelor Degree Division

After two years of study at NEIT, students may continue their preparation for more demanding career opportunities. Plus-Two means that a student’s education at NEIT takes place in two, two-year academic segments, each terminating in a degree: the associate degree followed by the bachelor’s degree.

The bachelor’s degree is an advanced, upper-division program that builds on the foundation of the associate degree. In each program, courses are planned in a coherent sequence that more fully develops the student’s understanding of the theoretical basis of the field, while continuing to expand and broaden the student’s ability to integrate concepts with their practical application in laboratory experiences. Some bachelor’s programs culminate in a senior project, in which the student develops an individual research project appropriate to the particular major.

The senior project requires the student to synthesize all aspects of the bachelor’s degree program. The student must not only bring together both theoretical and practical applications of the technical subject but must also make use of appropriate mathematics and physics. In addition, the student must present the project in both written and oral form, using the communications skills gained in liberal arts courses.

Graduates of any NEIT associate degree program may continue on for a Bachelor of Science Degree in Business Management Technology. In some cases, students may need additional coursework to meet the prerequisites of the bachelor’s program.

In the following cases, students can move directly into a bachelor program with minimal or no additional coursework:

<table>
<thead>
<tr>
<th>Graduates with an NEIT associate degree in:</th>
<th>May take a bachelor’s degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural Building Engineering Technology</td>
<td>Architectural Building Engineering Technology</td>
</tr>
<tr>
<td>Construction Management Technology</td>
<td>Construction Management Technology</td>
</tr>
<tr>
<td>Automotive Collision Repair Technology</td>
<td>Automotive Service Management Technology</td>
</tr>
<tr>
<td>Automotive Technology and Advanced Automotive Technology</td>
<td>Automotive Service Management Technology</td>
</tr>
<tr>
<td>Building Construction Technology</td>
<td>Construction Management Technology</td>
</tr>
<tr>
<td>Business Management Technology</td>
<td>Business Management Technology</td>
</tr>
<tr>
<td>Clinical Medical Assistant Technology</td>
<td>Health Care Management</td>
</tr>
<tr>
<td>Criminal Justice Technology</td>
<td>Criminal Justice Technology</td>
</tr>
<tr>
<td>Electrical Technology and</td>
<td>Electrical Engineering Technology</td>
</tr>
<tr>
<td>Electronic Systems Engineering Technology</td>
<td>Game Development and</td>
</tr>
<tr>
<td>Game Development and Simulation Programming Technology</td>
<td>Simulation Programming Technology</td>
</tr>
<tr>
<td>Graphics, Multimedia &amp; Web Design Technology</td>
<td>Digital Recording Arts Technology</td>
</tr>
<tr>
<td>Health Information Management</td>
<td>Health Care Management</td>
</tr>
<tr>
<td>Information Technology, Network Engineering</td>
<td>Information Technology, Network Engineering or Cyber Security Technology</td>
</tr>
<tr>
<td>Information Technology, Software Engineering</td>
<td>Information Technology, Software Engineering</td>
</tr>
<tr>
<td>Interior Design</td>
<td>Interior Design</td>
</tr>
<tr>
<td>Marine Technology</td>
<td>Mechanical Engineering Technology</td>
</tr>
<tr>
<td>Mechanical Engineering Technology</td>
<td>Mechanical Engineering Technology</td>
</tr>
<tr>
<td>Nursing</td>
<td>RN to BSN</td>
</tr>
<tr>
<td>Physical Therapist Assistant Technology</td>
<td>Health Care Management</td>
</tr>
<tr>
<td>Respiratory Care</td>
<td>Health Care Management</td>
</tr>
<tr>
<td>Surgical Technology</td>
<td>Health Care Management</td>
</tr>
<tr>
<td>Video &amp; Audio Production Technology</td>
<td>Digital Recording Arts Technology</td>
</tr>
<tr>
<td>Video Game Design Technology</td>
<td>Game Development and Simulation Programming Technology</td>
</tr>
</tbody>
</table>

Graduates with an NEIT associate degree in:

Occupational Therapy Assistant Technology  | May apply for admission to a master's degree program in:
Occupational Therapy

Graduates with an NEIT bachelor's degree in:

Information Technology  | May apply for admission to a master's degree program in:
Information Technology

A student must earn at least a 2.0 grade point average in the associate division to enroll in NEIT’s bachelor division; some programs may have additional requirements. A student must earn at least a 2.5 grade point average in the bachelor’s division to apply for admission to a master’s program. For additional information, please consult with the Office of Teaching and Learning or the Office of Student Support Services.
Curriculum Requirements and Liberal Arts Core

All programs, both those leading to associate degrees and those leading to bachelor’s degrees, must meet certain minimum requirements in both the technical major and in the liberal arts. Individual departments have specific requirements and may require more than the minimum number of credits. A list of all the courses in each technology and each core is available in this catalog.

**Minimum Requirements for an Associate in Science Degree*/Standard**

**Distribution of Credits**

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Courses</td>
<td>60</td>
</tr>
<tr>
<td>Mathematics/Science Core</td>
<td>8</td>
</tr>
<tr>
<td>Communications Core</td>
<td>8</td>
</tr>
<tr>
<td>Humanities, Arts/Foreign Language Core</td>
<td>8</td>
</tr>
<tr>
<td>Social Sciences Core</td>
<td>8</td>
</tr>
<tr>
<td>Total Minimum Requirement</td>
<td>92</td>
</tr>
</tbody>
</table>

**Minimum Requirements for a Bachelor of Science Degree*/Standard**

**Distribution of Credits** (in addition to associate degree totals)

<table>
<thead>
<tr>
<th>Category</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical courses</td>
<td>60</td>
</tr>
<tr>
<td>Mathematics/Science Core</td>
<td>8</td>
</tr>
<tr>
<td>Communications Core</td>
<td>8</td>
</tr>
<tr>
<td>Social Sciences Core</td>
<td>4</td>
</tr>
<tr>
<td>Humanities Core</td>
<td>4</td>
</tr>
<tr>
<td>Social Sciences, Humanities, or Arts/Foreign Language Core</td>
<td>4</td>
</tr>
<tr>
<td>Total Minimum Requirement</td>
<td>88</td>
</tr>
</tbody>
</table>

**NOTE:** These are minimum requirements; distribution of credits may vary between departments. Consult descriptions of each program for more complete information.

General Education/ Liberal Arts Core Requirements

**Humanities and Social Sciences**

All students, at both of the associate and bachelor’s level, are required to take a core of communication courses that stress writing, oral communication, and critical thinking. Entering students are tested and placed in either EN 101 or EN 102. EN 102 is a prerequisite for taking upper level courses in English, humanities, and social sciences. Those studying for the bachelor’s degree also take EN 331, an advanced course in research writing, and EN 421 Technical Communications.

Additional information about liberal arts requirements can be obtained from the Humanities and Social Sciences Department, from the Office of Teaching and Learning, or from the Office of Student Support Services.

**Mathematics and Sciences**

The Mathematics and Sciences Department plays a crucial role for all of the technical majors in the College, giving students the background they need to understand their technologies.

The mathematics portion of the curriculum includes courses ranging from non-credit developmental courses for those who need to brush up on math skills, to a series of advanced calculus courses. Science courses are offered in biology, chemistry, physics and physical science.
The mathematics and science courses have two principal purposes. The first is to provide students with the mathematical tools required to function successfully in their chosen technologies. The mathematics and science courses offered in each technology have been chosen for their usefulness and applicability to that particular field.

The second purpose of the mathematics and science courses is to provide students with a progressive, linear thought-processing capability that will help them to work out solutions to problems in situations for which they have not been specifically trained. The study of sciences provides an understanding of the physical and natural laws governing technical applications, while mathematics offers a problem-solving approach to thinking.

Complete details about curriculum requirements in mathematics and science can be found in the descriptions of curriculum requirements.

**Starting Dates**

Students may register and begin a program of study in the Fall, Winter, Spring, or Summer Quarter, although in most cases, beginning courses in the major in any particular quarter cannot be guaranteed.

**Cancellation of Courses**

Courses available each quarter are printed on a course schedule. NEIT reserves the right to cancel courses or change the scheduled location of classes as necessary due to insufficient enrollments, classroom availability or other mitigating factors.

**Choice of Curriculum**

Students are required to state their choice of curriculum on their application for admission. The choice may be changed prior to registration by consulting an admissions officer. After classes have started, changes may be made only by consultation with the student advisor and may require the department chair’s approval. A student will receive guidance in the development of a program of study; however, the final responsibility for selecting a student’s program of study is with the student.

The following pages list the courses required to complete degree requirements in each of the programs offered at NEIT. The order in which a student takes the required courses may vary from the listed order as long as prerequisites for individual courses are met.
CURRICULUM
Associate in Science Degree

The Associate in Science degree in Architectural Building Engineering Technology is one of five degree programs offered through the Department of Design + Architectural Building Technology.

The Architectural Building Engineering Technology Program is based upon the premise that buildings are designed and built using a team concept. As an integral member of that team, the architectural engineer must have the ability to create and construct buildings that will answer the economic, safety, technical, sustainability, and aesthetic requirements of a project. The associate degree program allows the student to develop these necessary abilities by emphasizing the fundamentals of architectural design, structural engineering, environmental systems, sustainability, and construction technology. The program is also designed to instill within the student a sense of professionalism and a desire to serve and contribute to society.

In the associate degree program, students also develop basic skills in drafting, graphic communications, three dimensional theory, computer aided drafting (CAD), construction documents, construction techniques, green technology, and building materials. Upon successful completion of the associate degree program, students can continue into the NEIT Bachelor of Science in Architectural Building Engineering Technology degree program.
# CURRICULUM

## Architectural Building Engineering Technology

### Associate in Science Degree

#### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 110</td>
<td>Introduction to Architecture and Building Technology</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ABT 112</td>
<td>Technical Drafting and Graphic Communications</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 114</td>
<td>Introduction to Computer-Aided Drafting (CAD)</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ABT 115</td>
<td>Introduction to Structures</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>(ELECTIVE) Any other MA/SCI requirement or Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **CHOOSE ONE**
- **ELECTIVE** Any other MA/SCI requirement or Humanities, Social Sciences, or Arts/Foreign Language Core Elective (depending upon Math placement)

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 122</td>
<td>Two and Three Dimensional Design Theory</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 124</td>
<td>Construction Methods &amp; Materials</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 125</td>
<td>Building Design &amp; Technology I</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ELECTIVE) English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 135</td>
<td>Building Design &amp; Technology II</td>
<td>2</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>ABT 136</td>
<td>Introduction to Environmental Systems</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 210</td>
<td>Technical Math II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter II)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(ELECTIVE) Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 216</td>
<td>Presentation Techniques</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 217</td>
<td>Surveying</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 218</td>
<td>Building Information Modeling I (BIM I)</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>PHY 200</td>
<td>Physics I &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>HI 235</td>
<td>Architectural History (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 223</td>
<td>Structures I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 225</td>
<td>Building Design &amp; Technology III</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 127</td>
<td>Introduction to Construction Estimating</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 232</td>
<td>Structures II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 235</td>
<td>Building Design &amp; Technology IV</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>ABT 236</td>
<td>Building Codes</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PHY 300</td>
<td>Physics II &amp; Lab (MA/SCI Core)**</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 101**

**Legend**

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

**ABT Evening students should take PHY 300 on Saturdays in Q6 or complete all their core electives before Q6.**
Bachelor of Science Degree

The Bachelor of Science Degree in Architectural Building Engineering Technology is one of five degree programs offered through the Department of Design + Architectural Building Technology.

The Architectural Building Engineering Technology Program continues to build upon the premise that buildings are designed and built using a team concept. The bachelor program allows the student to build upon the fundamentals learned in the associate degree program and expand their knowledge base of architectural design, engineering, and building science. As in the associate degree, the bachelor program is also designed to instill within the student a sense of professionalism and a desire to serve and contribute to society through the solutions of its problems in a way which is technically, environmentally, and socially acceptable.

In the bachelor program, students also study advanced topics in structural engineering using wood, steel, masonry, and concrete, advanced environmental and mechanical systems, sustainability, LEED certification of buildings, site planning, contracts and specifications, and construction law. The program culminates with a Senior Thesis course. In this final term, students must demonstrate their understanding of and ability to utilize and synthesize the technical and engineering concepts they developed throughout their New England Tech experience.

Students who wish to pursue professional registration may take advantage of our agreement with Boston Architectural Center (BAC) or pursue graduate studies at other institutions in the United States. Other students may pursue careers in associated fields within the design and building industry.
## Architectural Building Engineering Technology
### Bachelor of Science Degree

### Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 314</td>
<td>Construction Contracts &amp; Specifications</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 315</td>
<td>Structural Wood Design</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ABT 336</td>
<td>Advanced HVAC</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MA 310</td>
<td>Calculus I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

### Quarter VIII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 324</td>
<td>Masonry Construction &amp; Detailing</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 325</td>
<td>Soil Mechanics &amp; Foundation Design</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 328</td>
<td>Structural Steel Design</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

### Quarter IX

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 316</td>
<td>Building Electrical Systems</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 334</td>
<td>Site Engineering &amp; Planning</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 337</td>
<td>Building Information Modeling II (BIM II)</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ABT 338</td>
<td>Reinforced Concrete Design</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

### Quarter X

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 326</td>
<td>Fire Protection Systems &amp; Advanced Plumbing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 410</td>
<td>Building Design &amp; Technology V (Low Rise)</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

### Quarter XI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 420</td>
<td>Building Design &amp; Technology VI (High Rise)</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>ABT 421</td>
<td>Acoustics &amp; Lighting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 422</td>
<td>Senior Thesis Proposal</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>6</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter XII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 430</td>
<td>Senior Thesis</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ABT 431</td>
<td>Engineering Economy</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 433</td>
<td>Construction Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>6</td>
<td>15</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 95**

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Associate in Science Degree

The associate in science degree program in Automotive Collision Repair Technology offers an in-depth study of all aspects of auto body technology, collision repair, and refinishing. Students are provided theory and practice in sheet metal repair and replacement, repair of body damage, frames and unibody, glass installation, and paint refinishing techniques.

Students also learn the aspects of automotive technology (such as brakes, suspension, heating, and air conditioning), which are most useful for a thorough understanding of auto body and collision repair.

Graduates are ready to enter a range of technician positions in the auto body field. In addition, after completing some prerequisites, they are eligible to continue on for a Bachelor of Science in Automotive Service Management Technology or in Business Management Technology.

CERTIFICATION STATUS

NEIT’s Automotive Collision Repair Technology program is Master-Certified by the National Automotive Technician’s Education Foundation (NATEF), 101 Blue Seal Drive, Suite 101, Leesburg, Virginia 20175, telephone: (703) 669-6650.
Automotive Collision Repair Technology
Associate in Science Degree

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT</td>
<td>105</td>
<td>Introduction to Transportation Technology</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>101</td>
<td>Fundamentals of Auto Body Metal Repair</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>103</td>
<td>Fundamentals of Auto Body Metal Repair Lab</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>118</td>
<td>Welding for Collision Repair</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>137</td>
<td>Fundamentals of Paints &amp; Refinishing Equipment</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>136</td>
<td>Fundamentals of Paints &amp; Refinishing Equipment Lab</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

-or-

<table>
<thead>
<tr>
<th>Quarter II</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB</td>
<td>145</td>
<td>Glass and Non-Structural Panel Replacement</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>146</td>
<td>Glass and Non-Structural Panel Replacement Lab</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>152</td>
<td>Introduction to Structural Repairs &amp; Component Replacement</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>153</td>
<td>Introduction to Structural Repairs &amp; Component Replacement Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

-or-

<table>
<thead>
<tr>
<th>Quarter III</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB</td>
<td>154</td>
<td>Major &amp; Minor Frame &amp; Structural Straightening</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>155</td>
<td>Major &amp; Minor Frame &amp; Structural Straightening Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>156</td>
<td>Plastic Panel &amp; SMC Repair</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>157</td>
<td>Plastic Panel &amp; SMC Repair Lab</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

-or-

<table>
<thead>
<tr>
<th>Intersession (Required for ASM Students Only)</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC</td>
<td>203</td>
<td>Principles of Economics (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB</td>
<td>243</td>
<td>Multi-Stage Paint Applications</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>245</td>
<td>Multi-Stage Paint Applications Lab</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>253</td>
<td>Paint and Refinishing Applications</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>254</td>
<td>Paint and Refinishing Applications Lab</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>261</td>
<td>Assessing Damage &amp; Estimating Repairs</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Multi-Stage Paint Applications</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Computer Concepts (ASM Students)</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB</td>
<td>122</td>
<td>Brakes &amp; Suspension Systems for Collision Students</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>123</td>
<td>Brakes &amp; Suspension Systems for Collision Students Lab</td>
<td>0</td>
<td>4</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>127</td>
<td>Introduction to Airbrushing</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>128</td>
<td>Custom Modifications I</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHY</td>
<td>126</td>
<td>Applied Physics &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core (Non-ASM Students)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MGT</td>
<td>127</td>
<td>Accounting I (ASM Students)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUB</td>
<td>129</td>
<td>Advanced Airbrushing Techniques</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>130</td>
<td>Custom Modifications II</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>131</td>
<td>Basic Electricity for the Collision Trade</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AUB</td>
<td>132</td>
<td>Basic Electricity for the Collision Trade Lab</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AUT</td>
<td>275</td>
<td>Automotive Heating &amp; Air Conditioning Systems</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BU</td>
<td>236</td>
<td>Small Business and the Law (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 96 for ACR students / 103 Quarter Credit Hours for ASM students

**Legend**

- C = Number of lecture hours per week
- L = Number of laboratory hours per week
- T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

PLEASE NOTE: All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
 Associate in Science Degree

The Automotive Technology Department provides in-depth study and application of the most up-to-date trends in the automotive field.

The department offers four automotive associate degree programs: Automotive Technology and Advanced Automotive Technology, Automotive Technology with High Performance and Advanced Automotive Technology with High Performance. While all programs cover the same topics, the Advanced Automotive Technology degrees include more in-depth study.

Students learn the design, theory of operation, and servicing techniques of the many systems and system components of today's automobiles. Training in engine construction and design, engine repair, electricity, electronics, suspension, steering, brakes, transmissions, fuel systems, ignition systems, and emission controls is provided to assure maximum coverage. Advanced training in air conditioning, drive trains, and transaxles is offered as well. A final engine performance class covers computerized engine controls, fuel injection systems, tailpipe emissions diagnosis, and ABS braking systems. NEIT uses the latest industry standards, up-to-date diagnostic equipment, and Automotive Service Excellence approved curriculum in its training program.

The High Performance degree programs offer an additional quarter of study in high performance vehicle modification and testing.

These intensive programs prepare the student for entry-to-industry-level technical capability and offer skills needed for rapid advancement.

After completing some prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Automotive Service Management Technology or in Business Management Technology.

CERTIFICATION STATUS

NEIT’s Automotive Technology program is Master-Certified by the National Automotive Technician’s Education Foundation (NATEF), 101 Blue Seal Drive, Suite 101, Leesburg, Virginia 20175, (703) 669-6650.
# Automotive Technology

## Associate in Science Degree

### Quarter I

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>TT</td>
<td>105</td>
<td>Introduction to Transportation Technology</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ATX</td>
<td>115</td>
<td>Automotive Engines</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>ATX</td>
<td>117</td>
<td>Automotive Engines Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>200</td>
<td>Applied Math for Business (MA/SCI Core)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Quarter II

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATX</td>
<td>125</td>
<td>Automotive Electricity and Electronics</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>ATX</td>
<td>127</td>
<td>Automotive Electricity and Electronics Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>AUT</td>
<td>114</td>
<td>Oxy and Electric Welding and Cutting</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter III

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATX</td>
<td>135</td>
<td>Automotive Brakes, Suspension and Steering</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>ATX</td>
<td>137</td>
<td>Automotive Brakes, Suspension and Steering Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>PHY</td>
<td>126</td>
<td>Applied Physics &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Intersession

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>BU</td>
<td>236</td>
<td>Small Business and the Law (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter IV

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATX</td>
<td>222</td>
<td>Automotive Heating and Air Conditioning Systems</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>ATX</td>
<td>225</td>
<td>Automotive Fuel and Ignition Systems</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>ATX</td>
<td>227</td>
<td>Automotive Fuel and Ignition Systems Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language Core) (AS students)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>200</td>
<td>Applied Math for Business (MA/SCI Core) (BS Students Only – depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math I (MA/SCI Core) (BS Students Only – depending upon Math placement)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Quarter V

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATX</td>
<td>235</td>
<td>Automotive Engine Performance Diagnosis</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>ATX</td>
<td>237</td>
<td>Automotive Engine Performance Diagnosis Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>AUT</td>
<td>262</td>
<td>Introduction to Hybrid Vehicles</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUT</td>
<td>276</td>
<td>Light Duty Diesel Diagnostics and Repair</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter VI

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT</td>
<td>215</td>
<td>Automotive Powertrains</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>AUT</td>
<td>219</td>
<td>Automotive Powertrains Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>AUT</td>
<td>220</td>
<td>Advanced Powertrains</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core (AS Students)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EC</td>
<td>203</td>
<td>Principles of Economics (SS Core) (BS Students Only)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### One Additional Quarter

### Quarter VII

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT</td>
<td>271</td>
<td>Introduction to High Performance Vehicles</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>AUT</td>
<td>272</td>
<td>Introduction to High Performance Vehicles Lab</td>
<td>0</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

*Total Quarter Credit Hours = 103*

### AUTOMOTIVE TECHNOLOGY WITH HIGH PERFORMANCE

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
</table>

*Total Quarter Credit Hours = 93*

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Associate in Science Degree

The Automotive Technology Department provides in-depth study and application of the most up-to-date trends in the automotive field.

The department offers four automotive associate degree programs: Automotive Technology and Advanced Automotive Technology, Automotive Technology with High Performance and Advanced Automotive Technology with High Performance. While all programs cover the same topics, the Advanced Automotive Technology degrees include more in-depth study.

Students learn the design, theory of operation, and servicing techniques of the many systems and system components of today’s automobiles. Training in engine construction and design, engine repair, electricity, electronics, suspension, steering, brakes, transmissions, fuel systems, ignition systems, and emission controls is provided to assure maximum coverage. Advanced training in air conditioning, drive trains, and transaxles is offered as well. A final engine performance class covers computerized engine controls, fuel injection systems, tailpipe emissions diagnosis, and ABS braking systems. NEIT uses the latest industry standards, up-to-date diagnostic equipment, and Automotive Service Excellence approved curriculum in its training program.

The High Performance degree programs offer an additional quarter of study in high performance vehicle modification and testing.

These intensive programs prepare the student for entry-to-industry-level technical capability and offer skills needed for rapid advancement.

After completing some prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Automotive Service Management Technology or in Business Management Technology.
### Advanced Automotive Technology

#### Associate in Science Degree

**Quarter V or VI**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 221</td>
<td>Automotive Engine Performance Diagnosis</td>
<td>8</td>
<td>0</td>
<td>8</td>
</tr>
<tr>
<td>AUT 222</td>
<td>Automotive Engine Performance Diagnosis Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>AUT 220</td>
<td>Advanced Powertrains</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>AUT 251</td>
<td>Internship/Practical Experience</td>
<td>0</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>AUT 261</td>
<td>Introduction to Natural Gas Vehicles</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>AUT 262</td>
<td>Introduction to Hybrid Vehicles</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>AUT 263</td>
<td>NVH Principles and Diagnostics</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>AUT 276</td>
<td>Light Duty Diesel Diagnostics and Repair</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>AUT 280</td>
<td>Advanced Troubleshooting</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>AUB 136/137</td>
<td>Fundamentals of Paints &amp; Refinishing Equipment</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MGT 127</td>
<td>Accounting I (BS Management Students)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MT 215</td>
<td>Fuel Systems Theory and Introduction to EFI Applications</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>MT 217</td>
<td>Diesel Engine Service and Maintenance</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>MT 261</td>
<td>Fiberglass Fabrication and Repair</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Quarter VI or V**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 215</td>
<td>Automotive Powertrains</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>AUT 219</td>
<td>Automotive Powertrains Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>AUT 275</td>
<td>Automotive Heating and Air Conditioning Systems</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUB 136/137</td>
<td>Fundamentals of Paints &amp; Refinishing Equipment</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MGT 113</td>
<td>Computer Concepts (BS Management Students)</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MT 215</td>
<td>Fuel Systems Theory and Introduction to EFI Applications</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>MT 217</td>
<td>Diesel Engine Service and Maintenance</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>MT 261</td>
<td>Fiberglass Fabrication and Repair</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**Advanced Automotive Technology with High Performance**

**One Additional Quarter**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 271</td>
<td>Introduction to High Performance Vehicles</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>AUT 272</td>
<td>Introduction to High Performance Vehicles Lab</td>
<td>0</td>
<td>8</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 100 for ASM Students

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total quarter hours where each lecture hour per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

The Bachelor of Science in Automotive Service Management Technology is designed to provide students with a broad range of management, business, and technical skills applicable to employment in the transportation industries. The program provides education and training in management, accounting and cash flow, human resources and personnel supervision, financial planning, inventory controls, warranty management, sales promotions, software applications, and industry-specific topics. Through various teaching methodologies, students will be exposed to theory and application of customer service skills, management of employees, and system controls. Graduates of this BS program will be prepared to seek entry-level to mid-level positions such as general service manager, sales manager, human resource manager, service writer, parts manager, warranty administrator, fleet manager, collision repair production manager, and marina and boatyard manager.
## Automotive Service Management Technology
### Bachelor of Science Degree

### Quarter VII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 300</td>
<td>Industry Software Applications I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AUT 301</td>
<td>Sales and Customer Relations</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IT 375</td>
<td>Information Systems Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>12</td>
<td>4</td>
<td>14</td>
</tr>
</tbody>
</table>

### Quarter VIII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 302</td>
<td>Service Management Operations</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>AUT 303</td>
<td>Environmental Health and Safety</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Product and Service Marketing</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>12</td>
<td>4</td>
<td>14</td>
</tr>
</tbody>
</table>

### Quarter IX
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 222</td>
<td>Accounting II</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 334</td>
<td>Introduction to ePortfolio</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MGT 337</td>
<td>Applied Spreadsheets</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AUT 304</td>
<td>Industry Software Applications II</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MA 300</td>
<td>Statistics (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>12</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter X
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 313</td>
<td>Human Resource Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>AUT 401</td>
<td>Warranty Administration</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ACC 311</td>
<td>Managerial Accounting</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>12</td>
<td>4</td>
<td>14</td>
</tr>
</tbody>
</table>

### Quarter XI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 402</td>
<td>Inventory Management</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>AUT 403</td>
<td>Introduction to Senior Externship</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>FIN 410</td>
<td>Financial Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>15</td>
<td>4</td>
<td>17</td>
</tr>
</tbody>
</table>

### Quarter XII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUT 404</td>
<td>Legal Issues and the Dealership</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>AUT 405</td>
<td>ASE Test Preparation</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>AUT 410</td>
<td>Senior Externship</td>
<td>1</td>
<td>20</td>
<td>5</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 481</td>
<td>ePortfolio Presentation</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MGT 482</td>
<td>Strategic Management: Capstone</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>10</td>
<td>11</td>
<td>20</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 88/89**

**Legend**

C = Number of lecture hours per week  
L = Number of laboratory hours per week  
T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

Computer Concepts (MGT 113 or IT 111 Introduction to Information Technology), Small Business and the Law (BU 236), Accounting I (MGT 127), and Applied Math for Business (MA 200) or their equivalents need to be taken either during the Associate Degree Program, while matriculating in Automotive Service Management, or during a prerequisite quarter.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Associate in Science Degree

The Aviation Science Technology (AST) associate degree program combines academic studies and flight training to prepare graduates for a wide variety of positions within the air transportation industry, including general, airline and corporate aviation.

The curriculum provides the flight training necessary to operate in the high-density environment of modern airspace. All flight training courses are taken at an FAA-certified/licensed facility. During the Associate in Science Degree in Aviation Science Technology program, students will be eligible to take the following Federal Aviation Administration (FAA) certification examinations: Private Pilot, Commercial Pilot, and Instrument Pilot. Students will be eligible to take the Flight Instructor, Instrument Flight Instructor, Multi-Engine and Multi-Engine Instructor certification examinations through the course of the Associate in Science Degree in Advanced Aviation Science Technology.

The program emphasizes critical thinking and analytical skills, as well as oral and written communication skills. Effective resource management, human factors, and safety awareness are constantly emphasized throughout the curriculum. Classroom instruction and the use of flight simulators complement intensive flight training.

The program prepares graduates for careers in government and civil aviation organizations as professional pilots and flight operations managers, including executive, corporate, agricultural, and air carrier operations. The typical career path starts as a certified flight instructor and leads to positions with airlines and corporate flight departments.

Upon graduation with either the Associate in Science Degree in Aviation Science Technology or the Associate in Science Degree in Advanced Aviation Science Technology, after completing some prerequisites, students are prepared to continue their education with a Bachelor of Science in Business Management Technology at NEIT.

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 110</td>
<td>Private Pilot Ground</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>AST 113</td>
<td>Private Pilot Flight I*</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SCI 114</td>
<td>Meteorology</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core (depending upon placement)</td>
<td>13</td>
<td>6</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>
## CURRICULUM

### Aviation/Advanced Aviation Science Technology

**Associate in Science Degree**

#### ADVANCED AVIATION SCIENCE TECHNOLOGY

##### TWO ADDITIONAL QUARTERS

<table>
<thead>
<tr>
<th>Quarter VII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 270</td>
<td>Advanced Ground</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>AST 273</td>
<td>Certified Flight Instructor Flight*</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>AST 274</td>
<td>Advanced Aircraft Systems</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AST 275</td>
<td>Multi-Engine Flight*</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Quarter Credit Hours = 127</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter VIII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 283</td>
<td>Advanced Navigation</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AST 284</td>
<td>Advanced Flight Operations</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AST 285</td>
<td>Certified Flight Instructor Instrument Flight*</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AST 287</td>
<td>Multi-Engine Instructor Flight*</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total Quarter Credit Hours = 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IX</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total Quarter Credit Hours = 127</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All flight courses are taught at an independent FAA-certified facility and credits will be awarded by NEIT.*

Note: The actual number of lab hours for flight courses depends on the individual student’s rate of progress to achieve the required competency levels. Approximately 240 flight hours is required to complete the associate degree in Aviation Science Technology and approximately 30 additional flight hours is required to complete the associate degree in Advanced Aviation Science Technology. All flight courses must be taken at an FAA-certified facility. Each flight course requires an FAA certificate as a prerequisite to register for the next flight course in the curriculum.

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

Completion of the AS degree in Aviation Science Technology requires that the student complete the requirements for and receive the following Federal Aviation Administration certifications:

- Private Pilot License
- Commercial Pilot License
- Instrument Pilot Rating

Completion of the AS degree in Advanced Aviation Science Technology requires that the student complete the requirements for and receive the following Federal Aviation Administration certifications:

- Flight Instructor Certificate
- Instrument Flight Instructor Certificate
- Multi-Engine Rating
- Multi-Engine Instructor Certificate

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 120</td>
<td>Commercial Pilot Ground</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>AST 123</td>
<td>Private Pilot Flight II*</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>AST 124</td>
<td>Aviation Safety</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter II)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Quarter II | Total Quarter Credit Hours = 13                  |    |    |    |

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 130</td>
<td>Instrument Pilot Ground</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>AST 133</td>
<td>Commercial Pilot Flight I*</td>
<td>0</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter II)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Quarter III | Total Quarter Credit Hours = 14                  |    |    |    |

### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 243</td>
<td>Air Traffic Control</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>AST 244</td>
<td>Instrument Pilot Flight I*</td>
<td>0</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>MA 210</td>
<td>Technical Math II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Quarter IV | Total Quarter Credit Hours = 12                  |    |    |    |

### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 253</td>
<td>Airport Operations and Management</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>AST 254</td>
<td>Aviation Law and Regulations</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>AST 255</td>
<td>Commercial Pilot Flight II*</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Quarter V  | Total Quarter Credit Hours = 12                  |    |    |    |

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AST 260</td>
<td>Instructor Pilot Ground</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>AST 263</td>
<td>Commercial Pilot Flight III*</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>AST 264</td>
<td>Crew Resource Management</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PHY 200</td>
<td>Physics I (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Quarter VI | Total Quarter Credit Hours = 16                  |    |    |    |

Total Quarter Credit Hours = 103
Associate in Science Degree

The associate in science degree program in Building Construction Technology is designed to include all facets of the residential, and some facets of the commercial building trade, as well as aspects of the cabinetmaking and design trade. It also focuses on the role of computers in the estimating, design, and manufacturing components of the industry. The program has two tracks: Building Construction and Cabinetmaking, and Building Construction and Design.

Construction topics include site work and framing procedures for floors, walls, rafters, dormers, and stair systems. Interior installation treatments include drywall installation, taping, and spackling; finished openings, casing, baseboard and molding. The applicable building codes are viewed extensively. Methods of sizing all components are stressed, as are the design considerations mandated by the code. Students who successfully complete the OSHA class receive an OSHA10 card. Students who successfully complete the Lead Abatement class are eligible to sit for the Rhode Island lead abatement exam.

The construction and cabinetmaking components of the program include manual and computer assisted drafting (CAD), print reading, and manual and computer aided estimating. The use of computers is emphasized to make students better prepared for these fast-paced industries.

Exterships are available as options in the curriculum. It is the responsibility of the student to secure the externship site.

### BUILDING CONSTRUCTION AND CABINETMAKING (BCC)

The cabinetmaking component includes the study of machinery and tools, wood as a material, cabinetmaking joints and assembly. Cabinets are built and completed in the lab. The cabinetmaking portion also includes the set-up, programming, and operation of a Computerized Numerical Control (CNC) router. After completing some prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Business Management Technology.

### BUILDING CONSTRUCTION AND DESIGN (BCD)

The design program combines elements of Building Construction and Architectural Engineering. Graduates of the Building Construction and Design curriculum are eligible to enter the Bachelor of Science Degree program in Construction Management Technology (CMT).

---

### CORE CURRICULUM

#### Quarter I

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>114</td>
<td>Technical Fundamentals of Building Construction</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>CR</td>
<td>116</td>
<td>Tool and Site Work Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>CR</td>
<td>117</td>
<td>Introduction to Blueprint Reading</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MGT</td>
<td>120</td>
<td>Word Processing (5 week course)</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Quarter II

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>122</td>
<td>House Framing I</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>CR</td>
<td>121</td>
<td>House Framing I Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>CR</td>
<td>124</td>
<td>Construction Safety Practices and OSHA</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>CR</td>
<td>126</td>
<td>Introduction to Building Codes</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>ELECTIVE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Quarter III

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>209</td>
<td>Introduction to CAD for Construction</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BU</td>
<td>236</td>
<td>Small Business and the Law (ISS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>121</td>
<td>Business Math (MA/SCI Core) (For BCC)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math (MA/SCI Core) (CMT/BS)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CR</td>
<td>131</td>
<td>House Framing II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CR</td>
<td>132</td>
<td>House Framing II Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>CR</td>
<td>222</td>
<td>Introduction to Computerized Numerical Control (CNC) Programming</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CR</td>
<td>223</td>
<td>Introduction to Computerized Numerical Control (CNC) Lab</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>CR</td>
<td>236</td>
<td>Introduction to Finishing and Spraying</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

---

### BUILDING CONSTRUCTION AND CABINETMAKING CONCENTRATION (BCC)

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR</td>
<td>209</td>
<td>Introduction to CAD for Construction</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BU</td>
<td>236</td>
<td>Small Business and the Law (ISS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>121</td>
<td>Business Math (MA/SCI Core) (For BCC)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math (MA/SCI Core) (CMT/BS)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CR</td>
<td>131</td>
<td>House Framing II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CR</td>
<td>132</td>
<td>House Framing II Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>CR</td>
<td>222</td>
<td>Introduction to Computerized Numerical Control (CNC) Programming</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CR</td>
<td>223</td>
<td>Introduction to Computerized Numerical Control (CNC) Lab</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>CR</td>
<td>236</td>
<td>Introduction to Finishing and Spraying</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
## Building Construction Technology
### Associate in Science Degree

### Quarter IV
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 136</td>
<td>Introduction to Computer Estimating</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CR 212</td>
<td>Cabinetmaking I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CR 211</td>
<td>Cabinetmaking I Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>CR 217</td>
<td>Professional Seminar</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group One</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 226</td>
</tr>
<tr>
<td>ABT 136</td>
</tr>
<tr>
<td>ABT 217</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group Two</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 236</td>
</tr>
<tr>
<td>CR 237</td>
</tr>
<tr>
<td>CR 238</td>
</tr>
<tr>
<td>ELECTIVE</td>
</tr>
<tr>
<td>CR 241</td>
</tr>
<tr>
<td>CR 250</td>
</tr>
</tbody>
</table>

### Quarter V
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 124</td>
<td>Construction Methods and Materials</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 217</td>
<td>Surveying</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 223</td>
<td>Structures I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CR 210</td>
<td>Lead Abatement Worker Training</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Group One
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 250</td>
<td>Externship I</td>
<td>0</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Technical Drafting &amp; Graphic Communications</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### Quarter VI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 250</td>
<td>Externship I</td>
<td>0</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Group Two
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 131</td>
<td>House Framing II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CR 132</td>
<td>House Framing II Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>CR 209</td>
<td>Introduction to CAD for Construction</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 93

### BUILDING CONSTRUCTION AND DESIGN CONCENTRATION (BCD)

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CR 131</td>
<td>House Framing II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CR 132</td>
<td>House Framing II Lab</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>CR 209</td>
<td>Introduction to CAD for Construction</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 94-97

### Legend
- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit, every 2-4 laboratory hours are one credit depending on the expected amount of pre- or post-lab work.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Associate in Science Degree

The Business Management department offers two academic programs: an Associate in Science in Business Management Technology (MGT AS) and a Bachelor of Science in Business Management Technology. The associate degree curriculum combines management theory, computer training, and communication skills essential for employment in business. The bachelor degree curriculum builds on the education that the associate degree program provides.

Students in MGT AS learn management, marketing, and sales principles that are applied in laboratory simulations. Hands-on training in computer software includes spreadsheets, databases, presentation software, and word processing. Other computer applications include interactive accounting, desktop publishing, and Web navigation.

Communication skills, including writing and speaking, are refined. Students review the basics of English grammar, business-letter writing and editing, and proofreading. Additionally, students practice their verbal skills by making various presentations and preparing for the employment interview.

Graduates of the MGT AS program may be qualified to work in a variety of fields in positions such as office manager, sales representative, administrative assistant, and management trainee.
## Business Management Technology Associate in Science Degree

### Quarterly Course Offerings

#### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 113</td>
<td>Computer Concepts</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT 118</td>
<td>Keyboarding (5-week course)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MGT 119</td>
<td>Business Document Processing (5-week course)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MGT 135</td>
<td>Business Communication I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>12</td>
<td>6</td>
<td>15</td>
</tr>
</tbody>
</table>

#### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 122</td>
<td>International Business</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT 127</td>
<td>Accounting I</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 150</td>
<td>Principles of Management I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>16</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

#### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 124</td>
<td>Proofreading and Editing for Business</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MGT 134</td>
<td>Office Administration</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT 140</td>
<td>Introduction to Business</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EC 203</td>
<td>Principles of Economics (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core) (depending upon Quarter II)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td>Math/Science Core (depending upon Quarter II)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>15</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

#### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 212</td>
<td>Desktop Publishing</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT 227</td>
<td>Spreadsheets</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 245</td>
<td>Professional Sales Techniques</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>11</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

#### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 222</td>
<td>Accounting II</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 230</td>
<td>Principles of Marketing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BU 236</td>
<td>Small Business and the Law (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MGT 250</td>
<td>Office Productivity Software*</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGT 280</td>
<td>Externship*</td>
<td>0</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>14-15</td>
<td>6-17</td>
<td>18</td>
</tr>
</tbody>
</table>

#### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 210</td>
<td>Financial Planning</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MGT 236</td>
<td>Business Communication II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MGT 238</td>
<td>Principles of Management II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>CHOOSE ONE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGT 232</td>
<td>Database Management*</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MGT 280</td>
<td>Externship (Optional, depending upon Quarter VI)*</td>
<td>0</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>8-10</td>
<td>6-19</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td><strong>Total Quarter Credit Hours</strong></td>
<td>96</td>
<td>96</td>
<td>96</td>
</tr>
</tbody>
</table>

**Legend**

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

*MGT 280 can be substituted for MGT 250 in Quarter V, or for MGT 232 in Quarter VI if it has not already been taken in Quarter V.*
The Bachelor of Science Degree in Business Management Technology (MGT BS) program builds on the knowledge and skills acquired in not only the MGT AS but also in any of NEIT’s associate degree programs. The program incorporates the latest technological advances such as online portfolios and business changes including the use social media as a marketing tool. Areas of study include finance, computer software, entrepreneurship, and management. International business, team dynamics, and sales and marketing are additional focuses.

Features of the program are the practical business experience brought into the classroom by the faculty, the use of computer technology, and the completion of a final capstone project.

Graduates are eligible for employment in the Internet, multimedia, manufacturing, wholesale, retail and service industries as managers or as owners of their own enterprises. Further, those graduates who are already in the workplace use their degrees to apply for promotions.
## Business Management Technology
### Bachelor of Science Degree

(Students may start their degree program in Quarter VII, VIII or IX.)

#### Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 331</td>
<td>Sales and Customer Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 334</td>
<td>Introduction to ePortfolio</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MGT 337</td>
<td>Applied Spreadsheets</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 300</td>
<td>Statistics (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total       |                                      | 13 | 6  | 16 |

#### Quarter VIII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 313</td>
<td>Human Resource Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 346</td>
<td>Project Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 222</td>
<td>Accounting II (non-MGT AS graduates only)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 280</td>
<td>Externship (Only MGT AS graduates – see Dept. Chair or Advisor)</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IT 267</td>
<td>IT Ethics and Professional Development</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>SE 114</td>
<td>Programming Essentials Using C++</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total       |                                      | 13 | 6  | 16 |

#### Quarter IX

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 340</td>
<td>Managerial Decision Making</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Product and Service Marketing</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ACC 311</td>
<td>Managerial Accounting</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total       |                                      | 12 | 6  | 15 |

#### Quarter X

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 360</td>
<td>Negotiations</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MKT 355</td>
<td>Internet Marketing</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 375</td>
<td>Cooperative Learning</td>
<td>0</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>EC 301</td>
<td>The Global Economy (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total       |                                      | 13 | 4/ 22 | 15 |

#### Quarter XI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 375</td>
<td>Information Systems Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 420</td>
<td>Production/Operations Management</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT 425</td>
<td>Entrepreneurship I</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>FIN 410</td>
<td>Financial Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total       |                                      | 11 | 8  | 15 |

### Quarter XII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 435</td>
<td>Entrepreneurship II</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 481</td>
<td>ePortfolio Presentation</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>MGT 482</td>
<td>Strategic Management: Capstone</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>FIN 430</td>
<td>Investments</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities, Social Sciences, or Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total       |                                      | 13 | 6  | 16 |

Total Quarter Credit Hours = 93

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

Computer Concepts (MGT 113 or IT 111 Introduction to Information Technology), Small Business and the Law (BU 236), Accounting I (MGT 127), and Applied Math for Business (MA 200) or Technical Math I (MA 125) or their equivalents need to be taken either during the Associate Degree Program, while matriculating in Business Management, or during a prerequisite quarter.

All bachelor degree students are required to take a minimum of 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Associate in Science Degree

Clinical Medical Assistant Technology is an associate degree program offering a focused training in clinical patient care skills needed in today’s rapidly changing medical environment. An introduction to basic administrative skills common to the field is included.

Clinically, students learn about the human body as a whole, functioning unit; about providing the best in patient care; and about diagnostic techniques. Clinical courses are competency-based with the student afforded the opportunity to practice in small classes with high tech medical equipment until competent. Skills such as therapeutic ultrasound, automated blood chemistries, medication administration by all routes, phlebotomy and computerized diagnostic multichannel EKGs are included. Extensive hands-on laboratory experience is also included. Realistic clinical experience is gained in the medical community during 180 hours spent in the role of entry-level Clinical Medical Assistant in a facility chosen by the student during the last 2 quarters.

Administratively, students gain an understanding of the changing health care system of the United States and its business aspects, such as the scheduling and tracking of patients; billing and charging; and the preparation of medical reports.

At the conclusion of the program the student is able to perform patient care skills, laboratory skills and diagnostic testing commonly done in a physician’s office, clinic or laboratory on each of the body systems and with the further ability to manage administrative aspects of a modern medical environment. Students completing the program are eligible to take a national certification exam. Graduates may work in an individual physician’s office, urgent care facility, or in a larger organization such as a hospital or health maintenance organization. Graduates of this program, after completing certain prerequisites, are also eligible to continue their education with a Bachelor of Science Degree in Health Care Management.

Medical Assistants are in the top 10 fastest growing fields according to the U.S. Department of Labor Statistics.
## Clinical Medical Assistant Technology
### Associate in Science Degree

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 100</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>AHS 102</td>
<td>Introduction to Allied Health</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>CMA 100</td>
<td>Law and Professionalism in the Medical Office</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Quarter II**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 120</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CMA 124</td>
<td>Medical Language I</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CMA 126</td>
<td>Clinical Documents and Communications</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MGT 118</td>
<td>Keyboarding (1st 5 weeks)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>MGT 119</td>
<td>Business Document Processing (2nd 5 weeks)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Intersession**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter III**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 201</td>
<td>Introduction to Medical Ethics and Bioethics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIO 131</td>
<td>Pathophysiology</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CMA 132</td>
<td>Clinical Laboratory Tests</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CMA 134</td>
<td>Medical Language II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CMA 137</td>
<td>Clinical Care Techniques I</td>
<td>1</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>PS 201</td>
<td>Introduction to Psychology (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter IV**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMA 217</td>
<td>Clinical Care Techniques II</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>CMA 218</td>
<td>Comprehensive Medical Transcription I (1st 5 weeks)</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CMA 219</td>
<td>Comprehensive Medical Transcription II (2nd 5 weeks)</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CMA 225</td>
<td>Medication Administration</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter V**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMA 227</td>
<td>Clinical Laboratory Applications I</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CMA 228</td>
<td>Comprehensive Medical Office Practice I (1st 5 weeks)</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CMA 229</td>
<td>Comprehensive Medical Office Practice II (2nd 5 weeks)</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>CMA 236</td>
<td>Clinical Experience I</td>
<td>1</td>
<td>9</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter VI**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMA 237</td>
<td>Clinical Laboratory Applications II</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>CMA 240</td>
<td>Clinical Experience II &amp; Clinical Project</td>
<td>1</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 96

<table>
<thead>
<tr>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>C = Number of lecture hours per week</td>
</tr>
<tr>
<td>L = Number of laboratory hours per week</td>
</tr>
<tr>
<td>T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.</td>
</tr>
</tbody>
</table>

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

The Bachelor of Science Degree in Construction Management Technology is one of five degree programs offered through the Department of Design + Architectural Building Technology. The program prepares students to be proficient in the process and methodology of constructing the built environment relative to design, technology, engineering, building science, sustainability, and social responsibility. It is based upon the premise that the construction management professional must possess a core knowledge which allows them to integrate design, engineering, and technology into the process of construction.

The program allows students to develop the necessary skills by emphasizing the theoretical and practical concepts of design, building systems, components, engineering, and construction practices. Additional areas of study include principles of construction management, project management, advanced estimating and scheduling, construction contract administration, and construction law. The program is also designed to instill within the student a sense of professionalism and a desire to serve and contribute to society through solving its problems in technically, environmentally, and socially acceptable ways.

Students may enter the Construction Management Technology program after earning their Associate Degree in Architectural/Building Engineering Technology at the New England Institute of Technology, or they may transfer from other comparable college programs. The program culminates with a Senior Thesis course. In this final term, students must demonstrate their understanding of and ability to utilize and synthesize the technical, engineering, and management concepts they developed throughout their New England Tech experience.

Graduates of the construction management program will be qualified for a wide range of exciting employment opportunities in several fields in the public and private sector, including construction management, building engineering, real estate, land development, construction sales, and facilities management.
# Construction Management Technology Bachelor of Science Degree

## Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 314</td>
<td>Construction Contracts &amp; Specifications</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 315</td>
<td>Structural Wood Design</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CMT 311</td>
<td>Construction Management Principles</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MA 310</td>
<td>Calculus I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

## Quarter VIII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 325</td>
<td>Soil Mechanics &amp; Foundation Design</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 328</td>
<td>Structural Steel Design</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MGT 360</td>
<td>Negotiations</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

## Quarter IX

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 316</td>
<td>Building Electrical Systems</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 334</td>
<td>Site Engineering &amp; Planning</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 338</td>
<td>Reinforced Concrete Design</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CMT 331</td>
<td>Specifications &amp; Quality Control</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>2</td>
<td>17</td>
</tr>
</tbody>
</table>

## Quarter X

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 326</td>
<td>Fire Protection Systems &amp; Advanced Plumbing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CMT 411</td>
<td>Project Scheduling</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CMT 412</td>
<td>Construction Practice</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>2</td>
<td>14</td>
</tr>
</tbody>
</table>

## Quarter XI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 336</td>
<td>Advanced HVAC</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 422</td>
<td>Senior Thesis Proposal</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>CMT 421</td>
<td>Advanced Estimating</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CMT 422</td>
<td>Construction Site Safety</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 431</td>
<td>Engineering Economy</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 433</td>
<td>Construction Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CMT 434</td>
<td>Ethics &amp; the Construction Industry</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CMT 435</td>
<td>Senior Thesis</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 97

## Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
**Associate in Science Degree**

The Associate in Science Degree in Criminal Justice provides dynamic and intensive instruction in all aspects of the Criminal Justice system. The first quarter focuses on core foundational Criminal Justice courses like Criminal Justice, Corrections and the Court System. Starting in the second quarter and continuing into the sixth quarter, students are exposed to various specialized disciplines under the Criminal Justice umbrella and will gain valuable hands-on experience in a variety of topics, including financial and cyber crimes; police operations and report writing; criminal procedure; forensic science; firearm skills; drugs; and terrorism, gang and organized crime issues.

Criminal Justice students will utilize the skills and knowledge acquired to participate in an all-encompassing Criminal Justice (CJ) Portfolio beginning in the second quarter and continuing until graduation. The CJ Portfolio is a life-like investigative assignment starting with the commission of a mock crime event, gathering of victim and witness statements, processing a crime scene, and collecting evidence. This realistic process will culminate with the presentation of testimony in a Moot Court/Mock Trial scenario during which the student will present a portfolio that has been constructed and maintained by the student during the entire investigative process.

In the sixth quarter, students may have the option to participate in a Criminal Justice Externship where they will work with criminal justice professionals in the community. During this Externship students will have opportunities to apply classroom training to real life situations in various police departments, courts, correctional facilities, and investigative agencies and gain first-hand knowledge of the Criminal Justice system. In addition, after completing certain prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Criminal Justice Technology or in Business Management Technology.

Graduates of this program will be qualified to seek entry-level employment in a number of challenging Criminal Justice professions, such as police officer, state trooper, correctional officer, court officer, criminal justice counselor, federal law enforcement officer, private security officer, crime scene investigator, corporate loss prevention, and insurance claims investigator. (Please note: a criminal record may affect a graduate’s ability to qualify for some Law Enforcement positions.)
# Criminal Justice Technology
## Associate in Science Degree

### Quarter I

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ</td>
<td>110</td>
<td>Criminal Justice</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CJ</td>
<td>112</td>
<td>Corrections</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CJ</td>
<td>114</td>
<td>The Court System</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**-or-**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total |     |                                   | 15 | 2 | 16 |

### Quarter II

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ</td>
<td>120</td>
<td>Forensics I</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>CJ</td>
<td>122</td>
<td>Criminal Law</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**-or-**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

| Total |     |                                   | 16 | 4 | 18 |

### Quarter III

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ</td>
<td>130</td>
<td>Forensics II/Portfolio Management</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CJ</td>
<td>132</td>
<td>Criminal Procedure</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>CJ</td>
<td>134</td>
<td>Report Writing</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SS</td>
<td>231</td>
<td>Crime and Deviance (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total |     |                                   | 12 | 10 | 17 |

### Quarter IV

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ</td>
<td>240</td>
<td>Interviewing &amp; Investigation Techniques</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CJ</td>
<td>241</td>
<td>Introduction to Digital Forensics</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CJ</td>
<td>244</td>
<td>Drugs &amp; the Law</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EN</td>
<td>211</td>
<td>Oral Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total |     |                                   | 11 | 8  | 15 |

### Quarter V

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ</td>
<td>250</td>
<td>Police Operations/Simulated Firearms Skills</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CJ</td>
<td>254</td>
<td>Sentencing – Probation &amp; Parole</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CJ</td>
<td>256</td>
<td>Portfolio Prep &amp; Management</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>CJ</td>
<td>258</td>
<td>Contemporary Criminal Justice Issues</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**ELECTIVE**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total |     |                                   | 13 | 6  | 16 |

### Quarter VI

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ</td>
<td>260</td>
<td>Moot Court/Mock Trial</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CJ</td>
<td>266</td>
<td>Gangs &amp; Organized Crime</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**ELECTIVE**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ</td>
<td>262</td>
<td>Externship</td>
<td>1</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>CJ</td>
<td>264</td>
<td>Terrorism – Concepts &amp; Analysis</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total |     |                                   | 15 | 12 | 18 |

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SS</td>
<td>204</td>
<td>Juvenile Justice System in America (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

| Total |     |                                   | 18 | 2  | 19 |

**Total Quarter Credit Hours = 100 w/ Externship option**

**Total Quarter Credit Hours = 101 with Terrorism – Concepts & Analysis option**

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

The Bachelor of Science Degree in Criminal Justice provides dynamic and intensive instruction in all aspects of the Criminal Justice system. The program expands upon the core knowledge and skills attained by the student in the Associate in Science Degree in Criminal Justice.

The program exposes students to more rigorous study of Criminal Justice topics like Case Studies in Criminal Forensics, Domestic & Family Law Issues, Integration of Criminal Law & Criminal Procedure, and Contemporary Issues in Corrections. Students are also provided with the opportunity to choose classes that focus on Digital Forensics or more traditional Criminal Justice topics in designated quarters.

Students are exposed to various specialized disciplines in criminal justice such as domestic terrorism, ethics, financial and white-collar crimes, corporate and private security, and administrative issues. Students will also study police operations, including traffic enforcement, report writing, use of force issues, critical incident tactics and advanced investigation techniques.

Bachelor of Science Degree in Criminal Justice Technology students will utilize the skills and knowledge acquired in each quarter to participate in a challenging multi-session Criminal Justice Senior Capstone in their final quarter. The Criminal Justice Senior Capstone Project is a real time investigative assignment beginning with a mock crime event and involves gathering information from victims and/or witnesses, processing the crime scene, and culminates with drafting a comprehensive report and evidence portfolio that will be presented to a panel of law enforcement professionals.

In the final quarter, students may have the option to participate in a Criminal Justice Senior Externship where they will work with criminal justice professionals in the community. During this Senior Externship, students will have opportunities to apply classroom training to real life situations in various police departments, courts, correctional facilities, and investigative agencies and gain first-hand knowledge of the Criminal Justice System.

Graduates of this program will be qualified to seek entry-level employment in a number of challenging criminal justice professions, such as police officer, state trooper, correctional officer, court officer, criminal justice counselor, federal law enforcement officer, private security officer, crime scene investigator, corporate loss prevention, and insurance claims investigator. (Please note: a criminal record may affect a graduate’s ability to qualify for some law enforcement positions.)
# Criminal Justice Technology
## Bachelor of Science Degree

## Quarter VII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 370</td>
<td>Traffic Enforcement and Investigation</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CJ 372</td>
<td>Case Studies in Criminal Forensics</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CJ 374</td>
<td>Domestic and Family Law Issues</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 370</td>
<td>Traffic Enforcement and Investigation</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CJ 372</td>
<td>Case Studies in Criminal Forensics</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CJ 374</td>
<td>Domestic and Family Law Issues</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 11 + 8 = 19

## Quarter VIII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 380</td>
<td>Criminal Justice and The Media</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CJ 382</td>
<td>Integration of Criminal Law and Criminal Procedure</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CJ 384</td>
<td>Contemporary Issues in Corrections</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SS 303</td>
<td>Communication in the Global Workplace (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 15 + 6 = 21

## Quarter IX
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 393</td>
<td>Advanced Report Writing Skills</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CJ 394</td>
<td>Issues of Diversity in Criminal Justice</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CJ 389</td>
<td>Mobile Device Forensics</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 12 + 6 = 18

## Quarter X
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 400</td>
<td>Ethics and the Criminal Justice Professional</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CJ 402</td>
<td>Use of Force and the Consequences</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CJ 404</td>
<td>Digital Forensics Investigations and Applications</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 15 + 0 = 15

## Quarter XI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 410</td>
<td>Advanced Techniques in Criminal Forensics</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CJ 412</td>
<td>Critical Incident Response and Tactics</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CJ 414</td>
<td>Corporate and Private Security</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CJ 416</td>
<td>Capstone Investigation and Preparation</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 15 + 4 = 19

## Quarter XII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 420</td>
<td>Criminal Justice Administration Issues</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CJ 421</td>
<td>Women and Crime</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CJ 424</td>
<td>Senior Capstone</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>CJ 430</td>
<td>Career Preparation for the Criminal Justice Professional</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CJ 426</td>
<td>Senior Externship</td>
<td>1</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>MGT 313</td>
<td>Human Resource Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 360</td>
<td>Negotiations</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 16 + 18 = 34

Total Quarter Credit Hours = 98 - 99

### Legend
- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Bachelor of Science Degree

The bachelor’s program in Digital Recording Arts builds on the foundational skills gained in the associate degree program in Video and Audio Production. In addition, graduates of Graphics, Multimedia and Web Design are able to enter this degree program by means of alternate seventh quarter courses. The curriculum’s emphasis on the electronic media industry allows students to attain a high level of digital production expertise.

Digital Recording Arts video courses are designed to develop professional level skills in broadcast, non-broadcast, client-based and new media programs. Audio courses enhance the student’s abilities in multi-track studio recording and mixing techniques. Students will also be introduced to remote location recording, sound reinforcement, and mixing for digital film.

Experience in multi-camera location shooting, visual design, commercial, news, documentary, music video and audio productions offer students opportunities to apply their creative talents and broaden their career options. Throughout the curriculum, students are challenged to apply real-world management level problem solving techniques within their production teams and when dealing with clients.

The capstone project focuses on developing and producing a video or audio program for an outside client’s product or service. Acting as freelance producers, students work to their predefined budgets, production schedules and scripts to deliver their finished programs on time while meeting client expectations.
Digital Recording Arts Technology  
Bachelor of Science Degree

### Quarter VII – VAP

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 305</td>
<td>Digital Editing 2</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DRA 307</td>
<td>Visual Design 2</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>DRA 325</td>
<td>Remote Radio Production (5 weeks)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>DRA 328</td>
<td>Music Recording Techniques (5 weeks)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>10</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

-OR-

### Quarter VII – GMW

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 302</td>
<td>Introduction to Digital Audio (5 Weeks)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>DRA 305</td>
<td>Digital Editing 2</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DRA 321</td>
<td>Digital Production Techniques</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>DRA 328</td>
<td>Music Recording Techniques (5 Weeks)</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

### Quarter VIII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 331</td>
<td>News Production</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DRA 336</td>
<td>Multi-Track Recording</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>DRA 338</td>
<td>Broadcast Pre-Production (5 Weeks)</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DRA 357</td>
<td>Field Audio Production</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>DRA 406</td>
<td>The Business of Music and Radio Station Management</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>EC 301</td>
<td>The Global Economy (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>13</td>
<td>10</td>
<td>18</td>
</tr>
</tbody>
</table>

### Quarter IX

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 380</td>
<td>Visual Effects</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DRA 410</td>
<td>Sound for Picture</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>DRA 421</td>
<td>Video Post-Production</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>DRA 447</td>
<td>Audio Post-Production</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>8</td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>

### Quarter X

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 337</td>
<td>Sound Reinforcement 1</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DRA 401</td>
<td>Documentary Filmmaking</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>DRA 423</td>
<td>Advertising</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>14</td>
<td>10</td>
<td>19</td>
</tr>
</tbody>
</table>

### Quarter XI

<table>
<thead>
<tr>
<th>Course #</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 402</td>
<td>Freelance Project Pre-Production</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>DRA 426</td>
<td>Commercial Production</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>DRA 431</td>
<td>Remote Production</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>DRA 449</td>
<td>Mixdown</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>12</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter XII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRA 440</td>
<td>Career Preparation</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>DRA 445</td>
<td>Sound Reinforcement 2</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>DRA 451</td>
<td>Digital Portfolio</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>DRA 455</td>
<td>Freelance Production*</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td>9</td>
<td>12</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 98

**Legend**

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

*The following course may be used in place of DRA 455 under certain circumstances.

DRA 416 Production Practicum (Department Chair Permission) 1 4 3

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Bachelor of Science Degree

The Bachelor of Science Degree in Electrical Engineering Technology (ELT) is designed primarily for those students who already possess an associate degree in fields related to Electronics or Electrical Technology. The ELT program at NEIT emphasizes the hands-on, practical approach to the mastery of Electrical Engineering Technology. This approach is supplemented in the ELT program with increasing levels of electronics and electrical theory, industrial controls, mathematics, and physics. In addition to the normal laboratory performance and theory testing, participants in the ELT program are also expected to demonstrate competence in using both oral and written skills. This program is designed both to educate and to provide the personal skills for self-directed learning throughout the student’s professional life.

The ELT program is a unique combination of two traditional electronic and electrical topics. The study of electronic components, electronic subsystems and programming of microprocessor systems is combined with that of automation systems or advanced industrial controls, energy management and process control. ELT students are presented with applications of complex automation controllers, network communications, data acquisition, process manufacturing and microcontroller systems in order to develop an increased level of understanding which enhances their professional value to prospective employers. At the conclusion of the ELT program, the students are expected to develop and synthesize their own design project demonstrating the applied skills acquired throughout the program or find an internship in a related field. The “Hybrid” approach of the ELT program that combines traditional electronic and electrical skill sets provide the student with a unique knowledge base that will allow them to pursue careers under the direction of an engineering staff but above that of the traditional electrical worker.

Graduates of this program are qualified for positions in product development, operations, or technical service. The engineering technologist works with a professional engineer or scientist in converting scientific knowledge and craftsmanship into products and techniques.

ACCREDITATION STATUS

The Bachelor of Science Degree program in Electrical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, Maryland, 21202-4012, Telephone (410) 347-7700.
### CURRICULUM

**Electrical Engineering Technology Bachelor of Science Degree**

#### Quarter VII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 314</td>
<td>C++ Programming</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 322</td>
<td>Fluid Power</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELT 310</td>
<td>Programmable Automation Controllers and Lab</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MA 310</td>
<td>Calculus I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total:** 13 6 16

#### Quarter VIII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 320</td>
<td>SCADA and Communication Systems and Lab</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EET 364</td>
<td>Digital Circuit Design</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>PHY 300</td>
<td>Physics II (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CHM 300</td>
<td>Chemistry I &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total:** 12 8 16

#### Quarter IX
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 360</td>
<td>Embedded Microcontrollers</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EET 362</td>
<td>Embedded Microcontrollers Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>EET 374</td>
<td>Circuit Analysis I</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total:** 11 6 14

#### Quarter X
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 463</td>
<td>Sensors and Signal Conditioning</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EET 384</td>
<td>Circuit Analysis II</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELT 410</td>
<td>Electrical Design &amp; Energy Management &amp; Lab</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total:** 13 6 16

#### Quarter XI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 472</td>
<td>Introduction to Senior Project</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELT 475</td>
<td>Automation and Process Control &amp; Lab</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EC 301</td>
<td>The Global Economy (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELT 420</td>
<td>Building Management Systems &amp; Lab</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Technical Elective (see chart below)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total:** 12 4 14

#### Quarter XII
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 480</td>
<td>Senior Project</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>EET 482</td>
<td>Senior Project Seminar</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>HU 331</td>
<td>Ethics and Technology (HU Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELT 481</td>
<td>Internship</td>
<td>0</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Technical Elective (see chart below)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total:** 8/11 6/24 14

**Total Quarter Credit Hours (62 Technical Credits 28 Credits Liberal Arts) = 90**

**Technical Elective Choices for Quarter XI**
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EET 486</td>
<td>LabVIEW Programming</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 239</td>
<td>Quality</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Business Management Courses (as space is available)**
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 313</td>
<td>Human Resource Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 331</td>
<td>Sales and Customer Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 340</td>
<td>Management Decision Making</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MGT 346</td>
<td>Project Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MKT 310</td>
<td>Product and Service Marketing</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Legend**

*C = Number of lecture hours per week

*L = Number of laboratory hours per week

*T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Associate in Science Degree

The Electrical Technology program trains students for entry-level careers in the electrical industry. Some of the diverse careers open to graduates are construction electrician, maintenance electrician, photovoltaic installation technician, power system technician, electrical relay technician, electrical research technician, electrical distribution sales, electro-mechanical technician, electrical technical support, and entry level controls engineer.

The curriculum integrates electrical theory and practical application to give students not only the manual skills to wire and install electrical systems and apparatus but also the mathematical and practical knowledge to support, explain and troubleshoot each application. Computer programs are integrated into the coursework to allow for practice of circuit calculations, to create working models that simulate real circuit conditions and to support classroom lectures and demonstrations. Of equal importance is the thorough study of the safety rules, protocols, and procedures laid out in the National, Massachusetts and Rhode Island Electrical Codes as well as the OSHA standards for the construction and general industries.

Laboratory projects provide hands-on experience to develop wiring techniques and to simulate actual job conditions.

Upon completion of the Associate in Science Degree in Electrical Technology, the graduate is qualified to seek employment in entry-level careers in the electrical industry and are qualified to work as an apprentice electrician or technician. Associate degree graduates can also continue in the NEIT Bachelor of Science in Electrical Engineering Technology program.

For those interested in careers in the sustainable renewable energy fields such as solar photovoltaic arrays, wind generation (turbine), tidal generation and fuel cell technologies, an additional quarter specifically addresses these careers as well as the unique techniques and standards students must learn to become competent as “green” electricians or technicians. Upon successful completion, students may earn an additional Associate in Science degree in Electrical Technology with a concentration in Renewable Energy Sources. Upon passage of the program, students are eligible to sit for the North American Board of Certified Energy Practitioners (NABCEP) entry level exam.

The “Green Quarter” is available for Electrical Technology graduates as well as non-NEIT students provided certain requirements are met (i.e. electrical licensing, electrical contractor, and electrical engineer).
### Electrical Technology
#### Associate in Science Degree

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course No.</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 112</td>
<td>Electrical Foundations I &amp; Lab</td>
<td>5</td>
<td>2</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>ELT 116</td>
<td>Introduction to Residential Wiring/NEC I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELT 117</td>
<td>Basic Wiring Techniques Lab</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter II</th>
<th>Course No.</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 122</td>
<td>Electrical Foundations II &amp; Lab</td>
<td>6</td>
<td>2</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>ELT 126</td>
<td>Residential Wiring/NEC II</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ELT 127</td>
<td>Residential Wiring Lab II</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter III</th>
<th>Course No.</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 132</td>
<td>Transformers &amp; Lab</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELT 134</td>
<td>OSHA Construction Safety &amp; Health</td>
<td>1.5</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ELT 136</td>
<td>Advanced Wiring/NEC III</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELT 137</td>
<td>Advanced Wiring III Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MA 210</td>
<td>Technical Math II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 212</td>
<td>Motor Theory</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELT 214</td>
<td>Motor Controls &amp; Lab</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELT 216</td>
<td>AutoCAD Electrical</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHY 200</td>
<td>Physics I &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course No.</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 222</td>
<td>Industrial Controls</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>ELT 223</td>
<td>Industrial Controls Lab</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELT 226</td>
<td>Introduction to Programmable Logic Controllers &amp; Lab</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PS 210</td>
<td>Human Relations in the Workplace (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 232</td>
<td>Electronic Motor Drive Systems</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>ELT 233</td>
<td>Advanced Industrial Controls Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>ELT 236</td>
<td>Advanced Programmable Logic Controllers &amp; Lab</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 97 ELY AS

### Electrical Technology with Renewable Energy

#### One Additional Quarter

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>L</th>
<th>T</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELT 280</td>
<td>Photovoltaic Systems &amp; Lab</td>
<td>4</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>ELT 290</td>
<td>Wind Turbine Technology &amp; Other Renewable Energy Sources</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>SCI 110</td>
<td>Environmental Science (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 111 for ELY RE AS

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

*Students in Electrical Technology with Renewable Energy (ELRE) must achieve a cumulative grade point average of 2.50 throughout the program and hold their OSHA card in order to enter the seventh quarter of the program.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Associate in Science Degree

The associate in science degree in Electronic Systems Engineering Technology provides training in one of the most fundamental and important fields in technology today. The first five quarters provide a core foundation of knowledge in electronics and electronic systems. During the last quarter, a student focuses on one of two directions: continuing on toward NEIT’s bachelor’s degree in Electrical Engineering Technology or entering the workplace after earning an associate degree. The associate degree program is designed to give students entering the field of electronics a sound, comprehensive foundation in the skills employers are seeking in an electronics technician. Beginning with electronic foundation core courses and culminating in electronic systems, the curriculum provides the knowledge required to succeed in this modern high-tech field. Laboratory projects have been developed to provide hands-on experience and to simulate actual job conditions. The lab projects are highlighted in courses such as telecommunications, digital electronics, data and acquisition control, microprocessor control, programmable logic control (PLC) and robotic control systems. Students also have two to three technical elective choices in areas such as Renewable Energy Systems, Cisco Networks, CAD, and Biomedical Systems.

Graduates of this program are qualified to seek entry-level employment in a number of challenging areas such as research and development, product design, product testing, field service, manufacturing of complex electronic assemblies and systems, installation, marketing, and customer service.
## Electronic Systems Engineering Technology
### Associate in Science Degree

#### Quarter I
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 110</td>
<td>Electrical Circuit Theory I</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EST 111</td>
<td>Instruments and Basic Circuit Construction</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EST 112</td>
<td>Introduction to Engineering Technology</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td><strong>Social Sciences Core</strong> (CHOOSE ONE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Quarter II
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 120</td>
<td>Electrical Circuit Theory II &amp; Lab</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>EST 131</td>
<td>Semiconductor Technology</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td><strong>Communications Core</strong> (CHOOSE ONE)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Quarter III
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 126</td>
<td>Digital Logic Systems I</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EST 138</td>
<td>Linear Integrated Circuits</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EST 167</td>
<td>Robotic Control Systems</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MA 210</td>
<td>Technical Math II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Quarter IV
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 226</td>
<td>Digital Logic Systems II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EST 236</td>
<td>Microprocessor Control Systems</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>EST 242</td>
<td>Industrial Systems</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>PS 210</td>
<td>Human Relations in the Workplace (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Quarter V
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 250</td>
<td>Telecommunications Systems</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EST 254</td>
<td>Introduction to Programmable Controller (PLC)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Elective</td>
<td>Technical Elective</td>
<td>2-4</td>
<td>2/4</td>
<td>3-5</td>
</tr>
<tr>
<td>PHY 200</td>
<td>Physics I &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Quarter VI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 258</td>
<td>Printed Circuit Board Design</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELT 216</td>
<td>AutoCAD Electrical</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>Technical Elective</td>
<td>2-4</td>
<td>2/4</td>
<td>3-5</td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td><strong>Humanities (or Arts/Foreign Language) Core</strong></td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total Contact Hours = 1120</strong></td>
<td><strong>Total Quarter Credit Hours = 96-100</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Technical Electives
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EST 246</td>
<td>Data Acquisition Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EST 255</td>
<td>Renewable Energy Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EST 260</td>
<td>Biomedical Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MCT 115</td>
<td>Computer Aided Design I</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>NE 134</td>
<td>Cisco I</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>NE 243</td>
<td>Cisco II</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

### Legend
- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

The Bachelor Degree Program in Game Development and Simulation Programming Technology will prepare students for careers in Game Programming and Software Engineering. The program builds on the foundations laid in the associate degree program with emphasis placed on acquiring the technical skills necessary to implement games on a variety of platforms including phones, handheld devices, and XBox.

Through studying and applying key principles of software design as well as specific game algorithms and techniques, students will learn to design and implement games of increasing size and complexity. Class work is centered around developing games in small teams, an approach which allows students to acquire both the technical and interpersonal skills necessary for the game and simulation industry.

A key feature of the program is the senior capstone project where students will bring together knowledge gained throughout the program. Under the supervision of a faculty member, students in teams of two to four will design and develop a game over a period of six months. The project work will be evaluated by a team of three faculty members.

Graduates from this program will be eligible for positions such as game designer, level designer, game developer, quality assurance engineer, software engineer, and game programmer.
### Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS 373</td>
<td>Advanced Algorithms and API</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS 375</td>
<td>Simulation and Serious Games</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>GDS 383</td>
<td>Console Game Programming I</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MA 310</td>
<td>Calculus (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 10

### Quarter VIII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS 370</td>
<td>Advanced Game Design</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>GDS 371</td>
<td>Tools and Engine Development</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS 381</td>
<td>Software Testing and Quality Assurance</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 10

### Quarter IX

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 393</td>
<td>Design Patterns</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>GDS 399</td>
<td>Console Game Programming II</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MA 315</td>
<td>Math for Game Developers (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 13

### Quarter X

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS 402</td>
<td>Level Design and Gameplay Development</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>GDS 404</td>
<td>Artificial Intelligence</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS 405</td>
<td>Console Game Programming III</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 10

### Quarter XI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 408</td>
<td>Programming Mobile Devices</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS 410</td>
<td>Introduction to Senior Project</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>GDS 413</td>
<td>Advanced Portfolio Development</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 9

### Quarter XII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS 420</td>
<td>Senior Project</td>
<td>2</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>GDS 422</td>
<td>Emerging Technologies in Game Development</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 8

### Legend

C = Number of lecture hours per week  
L = Number of laboratory hours per week  
T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Associate in Science Degree

The Graphics, Multimedia and Web Design Technology associate programs prepare students for entry-level positions in a variety of emerging media and desktop production environments. The underlying goal of visual creativity is central to all of the technological coursework, and each student will produce and design a personal “brand” to package and promote their portfolios.

After completing the first three core quarters of the combined track, students will choose to finish their last three quarters with a specialized track in either Multimedia or Graphic Design. Students will create projects on their own or in teams with each student assuming responsibility for the production process. Student projects will be deployed via cloud or web server. A digital portfolio of each student’s projects will be accumulated throughout the entire program. Off-campus cooperative work experience may also be gained during the sixth quarter.

MULTIMEDIA AND WEB DESIGN

Starting with the core skills of digital photography, design, and computer graphics, students receive hands-on, project-oriented instruction in web design, interactive multimedia, branding, and e-publishing. A wide variety of 2D and 3D animation software is also integrated into the program. Students also learn how to most effectively use digital audio and video clips for multimedia presentations, web delivery, and social media. Multimedia students will further their core curriculum with interactive design, web audio and video, 3-D animation, and electronic publishing.

Students will graduate with an Associate in Science Degree in Graphics, Multimedia and Web Design with a concentration in Multimedia. Upon completion of the Associate in Science Degree, students in the Multimedia track will have the opportunity to matriculate to the Bachelor of Science Degree in Digital Recording Arts (DRA).

GRAPHIC DESIGN

The Graphic Design associate program prepares students for entry-level positions in a variety of digital desktop and e-publishing environments. Students will also learn how to effectively integrate graphic design for web interfaces. The program begins with the core skills of design theory, digital photography, and computer graphics. Students receive hands-on, project-oriented instruction in typography, graphic design, web design, desktop e-publishing, pre-press technology, and personal branding. A wide variety of industry standard software will be used.

Students will graduate with an Associate in Science Degree in Graphics, Multimedia and Web Design with a concentration in Graphic Design. In addition, after completing certain prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Business Management Technology.

---

### CORE CURRICULUM

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD 100</td>
<td>Digital Imaging</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MWD 112</td>
<td>Digital Graphics</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MWD 123</td>
<td>Design I</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English Placement)</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter II</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD 110</td>
<td>Introduction to Web Design</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MWD 223</td>
<td>Design II</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GXD 201</td>
<td>Intro to Typography</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>AR 203</td>
<td>Introduction to Drawing (HU or AR/FL Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td>Oral Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter III</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD 131</td>
<td>Web Animation</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SE 122</td>
<td>XHTML</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GXD 102</td>
<td>Digital Illustration</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 211</td>
<td>Oral Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

---
### MULTIMEDIA CONCENTRATION CURRICULUM

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD 120</td>
<td>Desktop Video Production</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MWD 124</td>
<td>2-D Animation</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MWD 129</td>
<td>Project Planning and Estimating</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 100**

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD 141</td>
<td>Design III</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MWD 231</td>
<td>Digital Publishing I</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MWD 252</td>
<td>3D Animation</td>
<td>1</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HU 240</td>
<td>Modern Art and Design (HU or AR/FL Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 100**

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD 215</td>
<td>Web Content Management With WordPress</td>
<td>4</td>
<td>2</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MWD 272</td>
<td>Associate Portfolio</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MWD 251</td>
<td>Special Topics: Multimedia</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MWD 280</td>
<td>Cooperative Work Experience</td>
<td>0</td>
<td>15</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 93**

### GRAPHIC DESIGN CONCENTRATION CURRICULUM

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GXD 212</td>
<td>Digital Graphics II</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MWD 129</td>
<td>Project Planning and Estimating</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GXD 205</td>
<td>Digital Photography II</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 93**

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWD 141</td>
<td>Design III</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MWD 231</td>
<td>Digital Publishing I</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GXD 200</td>
<td>Digital Pre-press</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HU 240</td>
<td>Modern Art and Design (HU or AR/FL Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 93**

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GXD 232</td>
<td>Digital Publishing II</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GXD 270</td>
<td>Associate Portfolio</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MWD 280</td>
<td>Cooperative Work Experience</td>
<td>0</td>
<td>15</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 93**

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of hours per week is one credit

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

This technology requires EN 101, EN 102, HU 203 and 3 Humanities/Social Sciences electives for the associate degree track. If a student places out of EN 101 the number of Humanities/Social Sciences electives goes up by one.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

The Health Care Management program offers a Bachelor of Science degree that builds on the knowledge and skills acquired by those in the allied health field and who possess at least an associate degree in the health care field. The program incorporates innovations, managerial techniques and theory into a practical 18-month program which will prepare the student for entry level managerial roles in the health care arena.

The program includes studies in the core areas of health care systems, health care law, public health, health care economics, health care marketing and finance. There is an opportunity for those students who wish to pursue a career path in long term care administration. A requirement to successfully complete the program is two quarters of externships. Students will be able to select their management externship experiences either in long term care administration or in a health care setting.

Health Care Management graduates would be prepared to work as managers or assistant managers to support strategic planning, budgeting, or for supervision of a program or department. The skills received in the HCM program will prepare students for positions in the long-term health care industry, public health, the hospital industry, home health care, community health centers and other health settings.
## Health Care Management Technology
### Bachelor of Science Degree

<table>
<thead>
<tr>
<th>Quarter VII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM 310</td>
<td>Introduction to Health Care Management</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HCM 311</td>
<td>Health Care Systems</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>IT 375</td>
<td>Information Systems Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter VIII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM 320</td>
<td>Health Care Law</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HCM 321</td>
<td>Public Health</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MGT 313</td>
<td>Human Resource Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 300</td>
<td>Statistics (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IX</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM 330</td>
<td>Health Care Economics</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MGT 337</td>
<td>Applied Spreadsheets</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HCM 339</td>
<td>Mental Health and Well Being</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SO 321</td>
<td>Sociology of Aging (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter X</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM 410</td>
<td>Health Care Marketing</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HCM 411</td>
<td>Health Care Finance</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HCM 415</td>
<td>Introduction to Health Care Externships</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MGT 346</td>
<td>Project Management</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 340</td>
<td>Managerial Decision Making</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HCM 420</td>
<td>Health Care Externship I</td>
<td>0</td>
<td>24</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td>BOTH OF THE FOLLOWING</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCM 421</td>
<td>Long Term Care Management (first 5 weeks)</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HCM 422</td>
<td>Long Term Care Management Externship I (last 5 weeks)</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCM 430</td>
<td>Senior Seminar</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AND CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCM 431</td>
<td>Health Care Externship II</td>
<td>0</td>
<td>24</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HCM 433</td>
<td>Long Term Care Management Externship II</td>
<td>0</td>
<td>24</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 96 for Long Term Care Track
Total Quarter Credit Hours = 97 for Health Care Track

### Legend
- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.
Associate in Science Degree

The Associate in Science in Health Information Management Technology program prepares technicians to maintain, collect, and analyze patients’ health information data including medical history, symptoms, examinations results, diagnostic tests, treatment methods, and all other healthcare provider services. Technicians ensure the quality, accuracy, accessibility, and security of health information data. They regularly communicate with physicians and other healthcare professionals to clarify diagnoses or to obtain additional information. Health information technicians should possess excellent oral and written communication skills as they often serve as liaisons between healthcare facilities, insurance companies, and other establishments.

The Health Information Management Technology curriculum combines elements of healthcare, business, and information technology. Coursework involves medical terminology, anatomy and physiology, health data requirements and standards, clinical classification and coding systems, data analysis, healthcare reimbursement methods, database security and management, confidentiality of personal health information, and quality improvement methods. Students will be trained on electronic health records software applications to maintain data on patient safety, patterns of disease, disease treatment and outcomes for biomedical statistics.

Health information technicians’ duties vary with the size and scope of the medical facility. Technicians specialize in many aspects of health information and can work in physicians’ offices, nursing care facilities, outpatient care centers, home healthcare services, hospitals, managed care organizations, government agencies, behavioral health facilities, and insurance companies.

The Health Information Management Technology program is a six-quarter program that may be completed in as little as 18 months. Upon successful completion of the entire course of study, graduates may sit for the Certified Electronic Health Record Specialist (CEHRS) examination administered by the National Health Career Association and the more advanced Certified Professional in Electronic Health Records (CPEHR) examination administered by Health IT Certification. In addition, after completing certain prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Health Care Management Technology.
**Health Information Management Technology Associate in Science Degree**

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHS 102</td>
<td>Introduction to Allied Health</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MGT 118</td>
<td>Keyboarding (weeks 1-5)*</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MGT 119</td>
<td>Business Document Processing (weeks 6-10)*</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MGT 113</td>
<td>Computer Concepts</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IT 111</td>
<td>Introduction to Information Technology</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter II</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 100</td>
<td>Anatomy &amp; Physiology I</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CMA 124</td>
<td>Medical Language I</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>HIM 120</td>
<td>HIPAA and Patient Confidentiality</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>HIM 122</td>
<td>Introduction to Electronic Health Records</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter III</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMA 134</td>
<td>Medical Language II</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CMA 219</td>
<td>Comprehensive Medical Transcription II (weeks 6-10)*</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 124</td>
<td>Proofreading and Editing for Business</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIO 120</td>
<td>Anatomy &amp; Physiology II</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PS 202</td>
<td>Psychology of Healthcare (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMA 228</td>
<td>Comprehensive Medical Office Practice I (weeks 1-5)*</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CMA 229</td>
<td>Comprehensive Medical Office Practice II (weeks 6-10)*</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 227</td>
<td>Spreadsheets</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMA 126</td>
<td>Clinical Documents and Communication</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>IT 265</td>
<td>Introduction to Information Security</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MGT 232</td>
<td>Database Management</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HIM 250</td>
<td>Comprehensive Health Information Management I</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT 250</td>
<td>Office Productivity Software</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>HIM 260</td>
<td>Comprehensive Health Information Management II</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HIM 262</td>
<td>Externship</td>
<td>0</td>
<td>10</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PS 210</td>
<td>Human Relations in the Workplace (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Legend</th>
<th>C = Number of lecture hours per week</th>
</tr>
</thead>
<tbody>
<tr>
<td>L =</td>
<td>Number of laboratory hours per week</td>
</tr>
<tr>
<td>T =</td>
<td>Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.</td>
</tr>
</tbody>
</table>

PLEASE NOTE: All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

*Note that because these classes run for 5 weeks, the lecture and lab times shown are doubled. For example, a 1 lecture hour and 2 laboratory hour course requires 2 lecture hours and 4 laboratory hours for each of the five weeks.*
# Associate in Science Degree

The Information Technology Department offers an associate in science degree in Information Technology, the field that has become the backbone of business, technology and industry. The department has an extensive set of computer labs for student use to gain hands-on experience in all areas of the field, from programming to software applications to network management and administration.

The emphasis of this program is on how specific computer applications solve business issues. The analysis and design of systems is covered to expose the student to problems that may be expected on the job. The student learns to program in languages in demand in the workplace. Further, the student is introduced to the current software packages for word processing and database management. The student is also prepared to meet the technical needs of a business office through Microsoft, Cisco and networking courses that introduce the student to LAN administration.

The student selects a specialization in either software engineering or network engineering. The software engineering concentration provides more depth in business applications, web development and database design. Upon completion of this concentration, students are qualified to apply for positions in software support, programming, web development or a wide range of other entry-level positions or to continue in the NEIT Software Engineering Technology bachelor’s degree program.

The network engineering concentration provides a focus in network administration and infrastructure. The network engineering curriculum has been designed to include an understanding of operating systems, the infrastructure that connects computers, and the networks they form. The curriculum provides training in Microsoft Windows networks and Cisco networking. The program is completed with the appropriate theory of personal computer configuration and maintenance and repair techniques required to succeed in a dynamically changing workplace. Laboratory projects have been developed to simulate actual workplace scenarios and to provide hands-on troubleshooting experience. Such peripheral devices as laser printers, multimedia kits, fax modems and scanners highlight laboratory projects.

Graduates with a network engineering concentration will be eligible to take such internationally recognized certification exams as Microsoft Certified Professional (MCP) and the A+ Service Technician Certificate. Graduates of this program are qualified to seek entry-level positions such as Cisco support technician, operator, Microsoft and network LAN administrator, personal computer technicians, personal computer field service technicians, support representatives, help desk representatives, and network service technicians. Associate degree graduates can continue in the NEIT Bachelor of Science in Network Engineering Technology program.

## CORE CURRICULUM

### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 111</td>
<td>Introduction to Information Technology</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SE 114</td>
<td>Programming Essentials Using C++</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SE 122</td>
<td>XHTML</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**-or-**

**ELECTIVE**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humanities, Social Sciences, or Arts/Foreign Language Core</td>
<td>10</td>
<td>8</td>
<td>14</td>
</tr>
</tbody>
</table>

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 124</td>
<td>Intermediate Programming Using C++</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>NE 120</td>
<td>Windows Networking Essentials</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>NE 122</td>
<td>Hardware Fundamentals</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**-or-**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>12</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE 134</td>
<td>Cisco I</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>SE 132</td>
<td>Access Programming</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter II)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**-or-**

**ELECTIVE**

<table>
<thead>
<tr>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications Core</td>
<td>16</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>
### NETWORK ENGINEERING CONCENTRATION CURRICULUM

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>243</td>
<td>Cisco II</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>NE</td>
<td>244</td>
<td>Desktop OS Troubleshooting</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>NE</td>
<td>248</td>
<td>Linux Fundamentals</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter IV Total Credit Hours = 10 8 14**

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>253</td>
<td>Cisco III</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>NE</td>
<td>262</td>
<td>Server Administration</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PHY</td>
<td>200</td>
<td>Physics I &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter V Total Credit Hours = 15 6 18**

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>265</td>
<td>AS Capstone Project</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>NE</td>
<td>267</td>
<td>Introduction to Information Security</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter VI Total Credit Hours = 9-13 4-19 14-16**

**Total Quarter Credit Hours = 94-96**

### SOFTWARE ENGINEERING CONCENTRATION CURRICULUM

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE</td>
<td>240</td>
<td>Javascript - Client Side Web Development</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>SE</td>
<td>245</td>
<td>C#</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SE</td>
<td>246</td>
<td>Database Design and SQL</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter IV Total Credit Hours = 14 10 19**

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE</td>
<td>252</td>
<td>Systems Analysis and Design</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>SE</td>
<td>255</td>
<td>Advanced C#</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SE</td>
<td>266</td>
<td>Web Development Using PHP and MySQL</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>PHY</td>
<td>200</td>
<td>Physics I (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter V Total Credit Hours = 9 12 15**

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE</td>
<td>256</td>
<td>Web Development Using .NET</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>SE</td>
<td>265</td>
<td>AS Capstone Project</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Quarter VI Total Credit Hours = 6-10 10-25 14-16**

**Total Quarter Credit Hours = 96/98**

**Legend**

- C = Number of lecture hours per week
- L = Number of laboratory hours per week
- T = Total Quarter Hours where each lecture hour per week is one credit and each two or three of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

The Information Technology Department offers three concentrations as part of the Bachelor of Science in Information Technology: Software Engineering Technology, Network Engineering Technology and Cyber Security Technology.

A key feature of these programs is the choice between the senior project and the cooperative learning experience in the final two quarters. In the senior project, each student works with a faculty member to develop and present a project that focuses in depth on a particular topic and allows the student to bring together knowledge gained throughout the program.

The cooperative learning experience, based on industry demand and with the approval of the IT Department Chair, may be available during the final two quarters of the program. These experiences, which may be paid or unpaid, allow students to receive college credit and to work off-campus in an organization where they will practice and enhance their technical skills. Typically, and when available, students will work in the same organization for the final two quarters of the bachelor’s degree program.

Cyber Security

The Cyber Security program is designed to prepare students for a career in the network security industry. The bachelor of science degree is ideal for students who already possess an Associate in Science degree in Network Engineering or related discipline. The curriculum includes core topics in the realm of cyber security, such as: computer systems, mobile and network forensics, Windows and Linux security and incident response.

Students will learn best practices for the design of secure modern networks as well as how to secure existing computers and networks. Students will learn about evolving threats and the proper use of specific security tools. Both security theory and hands-on practice are stressed.

With a bachelor’s degree in Cyber Security, students can compete for positions like: systems operations and maintenance professional, network security specialist, digital forensics and incident response specialist and vulnerability analyst. Positions in law enforcement will also be attainable. While the emphasis of the program is on network security, graduates are qualified for positions advertised as network administrators, network engineers and network analysts.
Network Engineering

The Bachelor of Science Degree in Network Engineering Technology continues on the base built during the associate degree to give the student more extensive experience in the management of Local Area Networks (LANs), intranets, Wide Area Networks (WANS) and exposure to configuring and managing web servers.

Upon completion of this program, graduates are eligible to apply for positions as network security specialists, LAN managers, network administrators, network engineers and network analysts.

Graduates of this program will be eligible to take such internationally recognized certification exams as the CompTIA Security+ and Network+ exams and the Microsoft Certified System Administrator (MCSA).
Bachelor of Science Degree

**NETWORK ENGINEERING CURRICULUM**
(Continued From Previous Page)

<table>
<thead>
<tr>
<th>Quarter IX</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>393</td>
<td>WAN Technologies</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>NE</td>
<td>395</td>
<td>Internet Servers</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>CYB</td>
<td>394</td>
<td>Windows Security</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>11</td>
<td>10</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter X</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>404</td>
<td>Heterogeneous Network Administration</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>NE</td>
<td>405</td>
<td>Mail Servers</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>NE</td>
<td>406</td>
<td>Router Security and Firewall Management</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA</td>
<td>310</td>
<td>Calculus (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>300</td>
<td>Statistics (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>11</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>407</td>
<td>Virtualization</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>NE</td>
<td>416</td>
<td>Introduction to Network Engineering Senior Project</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>CYB</td>
<td>412</td>
<td>Network Security</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>11</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

OR Quarter XI

<table>
<thead>
<tr>
<th>Quarter XI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>414</td>
<td>Cooperative Learning I</td>
<td>0</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>4</td>
<td>30</td>
<td>14</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CYB</td>
<td>408</td>
<td>Linux Security</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>CYB</td>
<td>423</td>
<td>Incident Response</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>NE</td>
<td>425</td>
<td>Network Engineering Senior Project</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>8</td>
<td>12</td>
<td>14</td>
</tr>
</tbody>
</table>

OR Quarter XII

<table>
<thead>
<tr>
<th>Quarter XII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE</td>
<td>420</td>
<td>Cooperative Learning II</td>
<td>0</td>
<td>33</td>
<td>11</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>4</td>
<td>33</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 91-92
Software Engineering

The Bachelor of Science Degree in Software Engineering Technology builds upon the knowledge of the associate degree to give the student a broader exposure to programming languages, especially object-oriented languages, and deeper experience in database design, development and implementation.

Upon completion of this program, graduates will be prepared to apply for positions such as system developer, analyst, programmer, database specialist, software engineer, web programmer, planner or developer.

SOFTWARE ENGINEERING CURRICULUM

<table>
<thead>
<tr>
<th>Quarter VII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 374</td>
<td>IT Project Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>IT 378</td>
<td>Database Management</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SE 421</td>
<td>Unified Modeling Language</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

| Total         |            |             | 12 | 4 | 14 |

<table>
<thead>
<tr>
<th>Quarter VIII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 385</td>
<td>Java</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SE 388</td>
<td>Embedded Microcontroller Programming</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SE 389</td>
<td>Open Source Frameworks</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

| Total         |            |             | 11 | 10 | 15 |

<table>
<thead>
<tr>
<th>Quarter IX</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 393</td>
<td>Design Patterns</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>SE 426</td>
<td>Web Services</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 210</td>
<td>Technical Math II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

| Total         |            |             | 14 | 6 | 17 |

<table>
<thead>
<tr>
<th>Quarter X</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 394</td>
<td>Algorithms in Software Engineering</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SE 398</td>
<td>Advanced SQL</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SE 407</td>
<td>Advanced .NET</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 310</td>
<td>Calculus (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>-or-</td>
<td>MA 300</td>
<td>Statistics (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>6</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 414</td>
<td>Introduction to Senior Project</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SE 417</td>
<td>Software Security</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SE 396</td>
<td>Advanced PHP Programming</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OR</th>
<th>Quarter XI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 410</td>
<td>Cooperative Learning I</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 408</td>
<td>Programming Mobile Devices</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SE 425</td>
<td>Senior Project</td>
<td>0</td>
<td>6</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SE 428</td>
<td>Emerging Technologies in Software Engineering and Web Development</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OR</th>
<th>Quarter XII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>SE 427</td>
<td>Cooperative Learning II</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Total Quarter Credit Hours | = 89 |

*The cooperative learning experience based on industry demand and with the approval of the IT Department Chair, may be available during the final two quarters of the program.

Legend

C = Number of lecture hours per week
L = Number of laboratory hours per week
T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

PLEASE NOTE: All liberal arts core courses are listed in italics.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.

*Note: If you had MA 210 in your AS program, you will need to take a Core Elective in its place.
Master of Science Degree

The Master’s program in Information Technology (MSIT) at New England Institute of Technology is designed for IT professionals who want to advance their technical knowledge in the field, enhancing this with the education and experience for management in the IT industry. The program emphasizes the relevance of continuous learning to personal and professional growth through the combination of advanced technical courses and an integrated management core. Students gain a unique understanding of the relationship between IT and business by learning to utilize technology to improve business processes. Employment opportunities may include positions such as project manager, network manager, chief information officer (CIO), chief technical officer (CTO), business analyst or systems integrator.

The MSIT program is designed to equip the current or aspiring IT manager with the necessary tools to make deliberate decisions that affect the organization’s informational needs. The program’s mission is built around the components that make up the informational infrastructure: the software applications that support the business processes, the information and data sources used to store the data, the processes used to secure the data, the network used to access data and applications and the people who design, manage and implement the applications, data and the network.

While the bachelor’s program in IT focuses on preparing graduates to secure, design and implement applications, databases and networks, the master’s program provides graduates with the ability to analyze business scenarios, anticipate and respond to a continuously changing environment and effectively assign resources to the components that make up the organization’s information system.
## Information Technology Master of Science Degree

### Quarter I
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 502</td>
<td>Data Warehousing and Data Analytics</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>IT 504</td>
<td>IT Finance</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 8**

### Quarter II
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 512</td>
<td>Network Infrastructure and Design</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>IT 514</td>
<td>IT Leadership</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 8**

### Quarter III
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 522</td>
<td>Software Architecture and User Interface Design</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>IT 524</td>
<td>Information Systems Security</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 8**

### Quarter IV
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 532</td>
<td>IT Project Management</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>IT 534</td>
<td>Implications of Digitization</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 8**

### Quarter V
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 542</td>
<td>Emerging IT Infrastructure Developments</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>IT 544</td>
<td>Cloud Computing</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 8**

### Quarter VI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT 552</td>
<td>Information Technology and the Law</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>IT 554</td>
<td>Master's Project</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 48**

### Legend
- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.
The practice of interior design requires the designer to understand this process as well as human response to color, light, fabric, texture, and volumetric space.

Interior design is not interior decorating. The sophistication of the interior design profession now requires the practitioner to possess a fundamental knowledge of building science and technology. It is essential that today’s designer is able to integrate science and technology into the creative design process.

The Interior Design program at New England Institute of Technology offers a curriculum specifically developed to meet the needs of today’s demanding interior design profession. The associate degree curriculum provides the students with the fundamental skills to function as team members in the development of interior design projects. Additional areas of study include space planning, three-dimensional theory, building systems, and construction methods. The program is also designed to instill within the student a sense of professionalism and social responsibility.

The students are introduced to the basic elements and theories of design, color and spatial composition that form the foundation of creative design. They are also, through specific courses, introduced to both manual and computer-aided drafting (CAD) skills. Theory and technical courses will familiarize the student with the fundamentals of interior design including the design attributes of materials, textiles, building codes, and building systems. Studio courses require the student to incorporate the learned theoretical and technical knowledge into a comprehensive design based upon specific program requirements. Studio project types include residential, office, and retail.

Upon successful completion of the associate degree program, students can continue into the NEIT Bachelor of Science in Interior Design degree program.
# Interior Design
## Associate in Science Degree

### Quarter I
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABT 110</td>
<td>Introduction to Architecture and Building Technology</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ABT 112</td>
<td>Technical Drafting and Graphic Communications</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 114</td>
<td>Introduction to Computer Aided Drafting (CAD)</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ABT 115</td>
<td>Introduction to Structures</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td><strong>ELECTIVE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

### Quarter II
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 121</td>
<td>Interior Building Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 122</td>
<td>Two &amp; Three Dimensional Design Theory</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 124</td>
<td>Construction Methods &amp; Materials</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>HI 235</td>
<td>Architectural History (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter III
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 132</td>
<td>Interior Design Studio I – Residential</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ID 134</td>
<td>Color and Composition</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 216</td>
<td>Presentation Techniques</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td><strong>-or-</strong></td>
<td><strong>ELECTIVE</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter IV
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 136</td>
<td>Introduction to Environmental Systems</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 212</td>
<td>Programming</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ABT 218</td>
<td>Building Information Modeling I (BIM I)</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>EN 211</td>
<td>Oral Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PHY 200</td>
<td>Physics I &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter V
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 225</td>
<td>History of Interior Design I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 226</td>
<td>Finishes &amp; Materials I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 228</td>
<td>Interior Design Studio II – Retail</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ABT 236</td>
<td>Building Codes</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MA 210</td>
<td>Technical Math II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter VI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 232</td>
<td>Professional Practice for Interior Designers</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 233</td>
<td>Computer Graphics &amp; Applications</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 234</td>
<td>Portfolio Review</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ID 235</td>
<td>Interior Design Studio III – Office</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td><strong>ELECTIVE</strong></td>
<td><strong>Social Sciences Core</strong></td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 100**

### Legend
- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
that today's designer is able to integrate the advances in building science and technology into the creative design process. The Interior Design degree program at New England Institute of Technology offers a curriculum specifically developed to meet the needs of today's demanding interior design profession. The Bachelor of Science Degree in Interior Design allows the student to build upon the fundamentals learned in the associate degree program and expand their knowledge base of design and building science. Students study advanced concepts of interior design and building science through a unique combination of theoretical and practical courses and design studios. These courses cover advanced topics including finishes and materials, textiles, history, estimating and scheduling, contracts and specifications, construction law, acoustics and lighting, and interior construction documentation. The studio courses allow students to incorporate their learned knowledge and skills in a practical application. Studio project types include space planning, hospitality, commercial, and institutional.

A unique component of the Interior Design bachelor’s degree is the common core courses shared with the architecture and construction management curricula. These common courses provide the interior design student with the essential knowledge of building science and technological skills which are crucial in today's interior design profession. This cross-curricular approach to interior design creates graduates uniquely qualified to succeed in today's demanding design profession.

As in the Associate in Science degree in Interior Design, the program strives to instill within each student an awareness of and desire to contribute to the profession and society at large through the development of a professional personal ethic that demands technically, environmentally, and socially responsible decision making. The bachelor's curriculum culminates with a senior thesis project in which students must demonstrate competency and understanding of the technical and design concepts developed throughout their NEIT experience.
### Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 313</td>
<td>Finishes &amp; Materials II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 314</td>
<td>History of Interior Design II</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 315</td>
<td>Interior Construction Documents</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 337</td>
<td>Building Information Modeling II (BIM II)</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Quarter Hours</strong></td>
<td>14</td>
<td>6</td>
<td>17</td>
</tr>
</tbody>
</table>

### Quarter VIII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 320</td>
<td>Interior Design Studio IV – Space Planning</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ID 322</td>
<td>Textiles</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ID 331</td>
<td>Furniture, Fixtures &amp; Equipment</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>Technical Elective*</td>
<td>2/3</td>
<td>0/4</td>
<td>3/4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Quarter Hours</strong></td>
<td>14/15</td>
<td>6/10</td>
<td>18/19</td>
</tr>
</tbody>
</table>

### Quarter IX

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 330</td>
<td>Interior Design Studio V – Hospitality</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ABT 421</td>
<td>Acoustics &amp; Lighting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Quarter Hours</strong></td>
<td>13</td>
<td>6</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter X

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 410</td>
<td>Interior Design Studio VI – Institutional</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ID 324</td>
<td>Advanced Lighting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>PHY 300</td>
<td>Physics II &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Quarter Hours</strong></td>
<td>12</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter XI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 420</td>
<td>Project Estimating &amp; Scheduling</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ID 421</td>
<td>Portfolio Review</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ABT 314</td>
<td>Construction Contracts &amp; Specifications</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 422</td>
<td>Senior Thesis Proposal</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Quarter Hours</strong></td>
<td>13</td>
<td>4</td>
<td>15</td>
</tr>
</tbody>
</table>

### Quarter XII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID 430</td>
<td>Interior Design Studio VII – Senior Thesis</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>ID 431</td>
<td>Professional Issues in Interior Design</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>ABT 433</td>
<td>Construction Law</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>Technical Elective*</td>
<td>2/3</td>
<td>0/4</td>
<td>3/4</td>
</tr>
<tr>
<td></td>
<td><strong>Total Quarter Hours</strong></td>
<td>10/11</td>
<td>6/10</td>
<td>14/15</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 96/98

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All students entering the Interior Design BS program are required to have successfully completed an ID Associate Degree program and to have taken ABT 124, ABT 136, ABT 218 and ABT 236 as prerequisites. A prerequisite quarter is available to those applicants needing to fulfill the prerequisite requirements.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Associate in Science Degree

The Marine Technology program offers an associate degree in Marine Technology. Theory and practical training in marine mechanics, marine business concepts, marine electricity and marine systems installation, repair and service are the thrust of the program. Hands-on practical skills in installation, service, and repairs to mechanical, electrical, electronic, and hydraulic systems utilized by both recreational and commercial vessels are stressed throughout the curriculum to reinforce the in-depth theory classes. In addition, marine business procedures are taught using computerized learning methods with marine specific software.

Graduates of the associate degree program are skilled technicians ready for entry level positions in such areas as marina/boatyard operations, vessel manufacturing, and engine repair, support services for commercial vessels, engine room staff aboard commercial vessels, marine electronics installation, and marine wholesale/retail product sales.

After completing some prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Automotive Service Management Technology or in Business Management Technology.
## Marine Technology Associate in Science Degree

### Quarter I

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>105</td>
<td>Introduction to Marine Technology</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MT</td>
<td>116</td>
<td>Introduction to Engine Theory</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MT</td>
<td>117</td>
<td>Introduction to Engine Lab</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>MT</td>
<td>118</td>
<td>Introduction to Electricity Fundamentals</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MT</td>
<td>119</td>
<td>Introduction to Electricity Fundamentals Lab</td>
<td>0</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td>Applied Math for Business (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter II

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>120</td>
<td>Advanced Marine Electricity &amp; Electronics Installation</td>
<td>4</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>MT</td>
<td>127</td>
<td>Marine Engine Applications</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PHYS</td>
<td>126</td>
<td>Applied Physics &amp; Lab (MA/SCI Core) (CHOICE ONE)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter III

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>114</td>
<td>Marine Welding and Cutting</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>MT</td>
<td>138</td>
<td>Outboard Engine Overhaul and Systems Diagnosis</td>
<td>4</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter IV

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>215</td>
<td>Fuel Systems Theory and Introduction to EFI Applications</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>MT</td>
<td>216</td>
<td>Marine Drive Systems Theory and Service</td>
<td>4</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>BU</td>
<td>236</td>
<td>Small Business and the Law (SS Core) (CHOICE ONE)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>200</td>
<td>Applied Math for Business (MA/SCI Core) (ASM Students) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter V

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>217</td>
<td>Diesel Engine Service and Maintenance</td>
<td>2</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>MT</td>
<td>218</td>
<td>Marine Systems</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MT</td>
<td>261</td>
<td>Fiberglass Fabrication and Repair</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EC</td>
<td>203</td>
<td>Principles of Economics (SS Core) (ASM Students)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td>ELECTIVE Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter VI

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT</td>
<td>254</td>
<td>Marina and Boatyard Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MT</td>
<td>258</td>
<td>Elements of Marine Surveying</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td>Advanced Composites and Fabrication</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MT</td>
<td>255</td>
<td>Marine Industry Externship</td>
<td>0</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>MT</td>
<td>262</td>
<td>OSHA Maritime Industry Safety (Ship Yard)</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>IT</td>
<td>111</td>
<td>Introduction to Information Technology (ASM Students)</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT</td>
<td>113</td>
<td>Computer Concepts (ASM Students)</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT</td>
<td>127</td>
<td>Accounting I (ASM Students)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 93-95

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Associate in Science Degree

Students at the associate in science level of the Mechanical Engineering Technology program concentrates on product design. They study the design of products by learning design principles, sketching, problem solving, and how both the engineering materials and manufacturing processes and machines are selected and scheduled. Students gain a wide background of knowledge in such areas as electricity and electronics, metrology and the measurements of products, manufacturing processes, and tool design.

Design is emphasized utilizing the latest in computer drafting technology (CAD). Product design also affords an opportunity to work in an area of special interest such as a hobby. Graduates could work in the design of recreational equipment such as wing surfers or bicycles, or possibly automotive design or even toy design. Product design can be an extremely exciting and rewarding career.

Every item that we buy today has been the result of a product design development process. Today's product designer works as a member of a product design and development team. Cross-functional product design and development teams are responsible for bringing a product from initial conception to product launch when it becomes available to the public. They also work to continually improve products after product launch. Graduates of the Mechanical Engineering Technology program are prepared for several types of design and technologist positions on these teams including positions such as product designer, CADD designer, tool designer, R&D technician, or manufacturing technician.

The graduate with an Associate in Science Degree in Mechanical Engineering Technology is eligible to continue on for a Bachelor of Science in Mechanical Engineering Technology.
# Mechanical Engineering Technology
## Associate in Science Degree

### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 112</td>
<td>Introduction to Mechanical Engineering Technology</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>MCT 113</td>
<td>Design Principles</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MCT 115</td>
<td>Computer Aided Design I (CAD)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>CHOOSE ONE</td>
<td>(depending upon Math placement)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>16</td>
<td>2</td>
<td>17</td>
</tr>
</tbody>
</table>

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 124</td>
<td>Computer Aided Design II</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 125</td>
<td>Manufacturing Processes</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>15</td>
<td>2</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 134</td>
<td>Computer Aided Design III</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 136</td>
<td>Electricity/Electronics</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 212</td>
<td>Metrology</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA 210</td>
<td>Technical Math II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 130</td>
<td>Engineering Materials</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 226</td>
<td>Electricity/Electronics II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MCT 215</td>
<td>Statics</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>PS 210</td>
<td>Human Relations in the Workplace (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>12</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 224</td>
<td>Mechanics of Materials</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 233</td>
<td>Kinematics</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MCT 239</td>
<td>Quality</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>PHY 200</td>
<td>Physics I &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>11</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 235</td>
<td>Automation</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 237</td>
<td>Design Project</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>MCT 240</td>
<td>Manufacturing Planning</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PHY 300</td>
<td>Physics II &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>13</td>
<td>6</td>
<td>16</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 94

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

Manufacturing in the United States had its start in New England, where it has been the cornerstone of the economy. Today, New England has many new small manufacturing companies creating a job market for today’s engineers and designers.

The Bachelor of Science in Mechanical Engineering Technology which focuses on product and process design addresses today’s job market emphasizing product design, tool and machine design, and manufacturing methods, as well as supporting engineering professions such as development engineers, application engineers, CAD engineering specialties, and basic engineering problem solvers. The courses in the program complement and augment the courses completed in the associate level. The courses at the bachelor level allow the student to link the design aspect of product development to the production phase, and facilitate delivery to the customer. Students learn the theory and application of hydraulics, pneumatics, dynamics, instrumentation, thermodynamics and heat transfer, and machine design. Additionally, students gain knowledge in mechatronics, materials and inventory control, and plastics design.

Near the end of the program, students are required to complete a capstone course, which provides an excellent opportunity to tie the coursework together into a comprehensive senior project.

Graduates are well prepared for employment opportunities in research and development, as well as the design and problem solving professions in manufacturing and design departments. The opportunities for design professionals are diverse and they are needed for virtually every conceivable type of manufactured product, including those less obvious process intensive product types such as clothing and foodstuffs. Product design offers exceptional opportunities for those especially creative individuals in such fields as machine design, specialized or customized product design, packing or container design, and toy design. Graduates are also prepared for employment opportunities as technologists in the area of production, quality, processes, automation, and tooling.

This program is designed for graduates of the New England Institute of Technology Associate in Science in Mechanical Engineering Technology degree program. Graduates of other colleges with related degrees in engineering technology may be eligible for transfer into the junior year of the program, or may be eligible for advanced standing through transfer, or, in some cases, related work experience.

ACCREDITATION STATUS
The Bachelor of Science Degree program in Mechanical Engineering Technology is accredited by the Engineering Technology Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, Maryland, 21202-4012, Telephone (410) 347-7700.
## Mechanical Engineering Technology

Bachelor of Science Degree

<table>
<thead>
<tr>
<th>Quarter VII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 313</td>
<td>Engineering Economics</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 314</td>
<td>Mechatronics</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 317</td>
<td>CAD/CAM in Design and Manufacturing</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 310</td>
<td>Calculus I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter VIII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 322</td>
<td>Fluid Power</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EST 254</td>
<td>Introduction to Programmable Controllers</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MA 320</td>
<td>Calculus II (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IX</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 336</td>
<td>Dynamics</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 422</td>
<td>Manufacturing Processes II</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EET 486</td>
<td>LabVIEW Programming</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EC 301</td>
<td>The Global Economy (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter X</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 424</td>
<td>Design with Plastics</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 431</td>
<td>Machine Design</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CHM 300</td>
<td>Chemistry &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>EN 421</td>
<td>Technical Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 324</td>
<td>Design for Manufacture and Assembly</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 418</td>
<td>Advanced Computer Applications</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 420</td>
<td>Thermodynamics</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MCT 425</td>
<td>Engineering Capstone Project Seminar</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter XII</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 416</td>
<td>Operations Management</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 434</td>
<td>Heat Transfer</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MCT 451</td>
<td>Engineering Capstone Project</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>HU 331</td>
<td>Ethics and Technology (HU Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 93

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All bachelor degree students are required to take 28 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses.
Associate in Science Degree

The Associate in Science Degree in Nursing provides entry-level opportunities for students to pursue a career as a Registered Nurse. Registered Nurses provide for the physical, mental and emotional needs of their patients. RNs are advocates and health educators for patients, families and communities. They help people take proactive measures to ensure they live a healthier life.

This nursing program prepares competent entry-level nurses to provide care for diverse populations within the community. In order to do so, students need technical skills, medical knowledge, highly-developed communication and critical thinking skills. New England Institute of Technology prepares students to accomplish these skills and develop as a professional nurse.

Throughout the curriculum, the student has planned clinical and laboratory experiences to complement classroom learning. This is a seven-quarter that can be completed in as little as 21 months.

Graduates of the NEIT Associate Degree in Nursing will enter the fastest-growing employment market in the United States. They are prepared to work in a wide variety of settings, including hospitals, home health care, long-term care, healthcare clinics, public health, and outpatient care. Graduates of the Associate Degree Nursing program are eligible to take the National Council Licensing Examination for Registered Nurses. In addition, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Nursing.

ACCREDITATION STATUS

The Associate in Science Degree in Nursing program is fully accredited by the National League for Nursing Accrediting Commission (NLNAC).

National League for Nursing Accrediting Commission, Inc.
3343 Peachtree Road NE, Suite 850
Atlanta, Georgia 30326
Telephone: (404) 975-5000
FAX: (404) 975-5020
## Nursing Associate in Science Degree

### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 110</td>
<td>Introduction to Nursing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MGT 112</td>
<td>Introduction to Office Software</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BIO 103</td>
<td>Comprehensive Anatomy &amp; Physiology I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BIO 104</td>
<td>Comprehensive Anatomy &amp; Physiology I Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total** 13 6 16

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 120</td>
<td>Nursing Fundamentals I</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 121</td>
<td>Nursing Fundamentals I Clinical</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>BIO 122</td>
<td>Microbiology</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>BIO 124</td>
<td>Comprehensive Anatomy &amp; Physiology II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BIO 125</td>
<td>Comprehensive Anatomy &amp; Physiology II Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total** 10 10 15

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 130</td>
<td>Nursing Fundamentals II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>NUR 131</td>
<td>Nursing Fundamentals II Clinical</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>BIO 132</td>
<td>Nutrition</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PS 140</td>
<td>Life-Span Development (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 110</td>
<td>Healthcare Communication Skills (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total** 16 6 18

### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 242</td>
<td>Medical Surgical &amp; Assessment I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>NUR 243</td>
<td>Medical Surgical &amp; Assessment I Clinical</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>BIO 133</td>
<td>Nursing Pharmacology I</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>SO 203</td>
<td>Social Problems (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total** 11 6 14

### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 233</td>
<td>Nursing Pharmacology II</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>NUR 252</td>
<td>Medical Surgical &amp; Assessment II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>NUR 253</td>
<td>Medical Surgical &amp; Assessment II Clinical</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>NUR 254</td>
<td>Mental Health</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>NUR 255</td>
<td>Mental Health Clinical</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total** 9 14 14

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 260</td>
<td>Maternal Child Health</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>NUR 261</td>
<td>Maternal Child Health Clinical</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>NUR 262</td>
<td>Pediatric</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>NUR 263</td>
<td>Pediatric Clinical</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total** 8 12 12

### Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 272</td>
<td>Preceptored Synthesis</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>NUR 271</td>
<td>Preceptored Synthesis Clinical</td>
<td>0</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>NUR 274</td>
<td>Nursing Capstone Course</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>NUR 278</td>
<td>Nursing Leadership</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total** 10 6 12

**Total Quarter Credit Hours = 109**

### Intersession

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total** 8 0 8

### Legend

- C = Number of lecture hours per week
- L = Number of laboratory hours per week
- T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours or every three clinical hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Associate in Science Degree

The Occupational Therapy Assistant (OTA) associate degree program prepares students to help a variety of people in a variety of places. OTAs assist people of all ages, with varying abilities or handicaps, to become independent in their day-to-day activities. Occupational therapy is a hands-on career, which literally involves working to change people’s lives for the better. Because every client has a unique set of circumstances, OTAs help to develop and carry out a unique treatment plan for each one.

As an OTA, graduates can work in traditional medical environments or in any setting where people need to learn new ways to live satisfying and productive lives. In the field, the OTA is supervised by a registered occupational therapist (OTR). Most of the time, however, the OTA works independently with individual clients or groups. In the associate degree program, the student learns to act as part of the rehabilitation team, collecting data needed for the patient’s initial evaluation, carrying out treatment plans, using technology to help people overcome disabilities, and designing activities to help people reach their goals.

Evening students attend evening classes during Quarters I-IV of the program. The only difference between day and evening is the scheduling of intersession. Beginning in Quarter V, all students complete their Quarters V and VI (fieldwork) as day students.

After completion of all classroom training on campus and Level I Fieldwork off campus, students enter the community for Level II Fieldwork. The two Level II Fieldwork experiences give the student many opportunities to apply classroom training to real life situations. Upon successful completion of all degree requirements, the student will be eligible to sit for the National Certification Examination for Occupational Therapy Assistants. Employment is available in a wide variety of settings in the areas of physical disabilities, pediatrics, and geriatrics, as well as in mental health and wellness programs. In addition, after completing certain prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Business Management Technology or apply for entry to the Master of Science Degree in Occupational Therapy.

ACCREDITATION STATUS

The Occupational Therapy Assistant Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), c/o Accreditation Department, American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. AOTA’s phone number is (301) 652-AOTA and the website is www.acoteonline.org. Graduates of the program will be able to sit for the national certification examination for the occupational therapy assistant administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be a Certified Occupational Therapy Assistant (COTA). Most states, including Rhode Island, require licensure in order to practice. State licensure is usually based on the results of the NBCOT Certification Examination. A felony conviction may affect a graduate’s ability to sit for the NBCOT certification examination or attain state licensure.
## Curriculum

### Occupational Therapy Assistant Technology Associate in Science Degree

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTA</td>
<td>110</td>
<td></td>
<td>Foundations of Human Occupation</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OTA</td>
<td>111</td>
<td></td>
<td>Foundations of Human Occupation Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>BIO</td>
<td>100</td>
<td></td>
<td>Anatomy and Physiology I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BIO</td>
<td>101</td>
<td></td>
<td>Anatomy and Physiology I Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>AHS</td>
<td>102</td>
<td></td>
<td>Introduction to Allied Health</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td></td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td></td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter II

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTA</td>
<td>122</td>
<td>Development of Human Occupation Across the Lifespan</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OTA</td>
<td>123</td>
<td>Dynamics of Movement &amp; Lab</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>BIO</td>
<td>120</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BIO</td>
<td>121</td>
<td>Anatomy and Physiology II Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter III

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTA</td>
<td>130</td>
<td>Principles of Therapeutic Intervention for Children/Adolescents</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OTA</td>
<td>131</td>
<td>Principles of Therapeutic Intervention for Children/Adolescents Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>OTA</td>
<td>132</td>
<td>Occupational Therapy for Pediatrics/Developmental Disabilities</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OTA</td>
<td>134</td>
<td>Occupational Therapy for Psychosocial Function and Dysfunction</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OTA</td>
<td>135</td>
<td>Occupational Therapy for Psychosocial Function and Dysfunction Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>OTA</td>
<td>136</td>
<td>Level I Fieldwork A and Seminar</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Quarter IV

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTA</td>
<td>236</td>
<td>Level I Fieldwork* B and Seminar</td>
<td>1</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>OTA</td>
<td>240</td>
<td>Principles of Therapeutic Intervention for Adults</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OTA</td>
<td>241</td>
<td>Principles of Therapeutic Intervention for Adults Lab</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>OTA</td>
<td>242</td>
<td>Occupational Therapy for Adults/Physical Disabilities</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OTA</td>
<td>250</td>
<td>Occupational Therapy in Gerontology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

### Quarter V

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTA</td>
<td>255</td>
<td>Practice Issues for the Occupational Therapy Assistant</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>OTA</td>
<td>258</td>
<td>Level II Fieldwork* I</td>
<td>0</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI core) (depending upon Math placement)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

### Quarter VI

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTA</td>
<td>263</td>
<td>Senior Capstone and Practice Development Seminar</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OTA</td>
<td>268</td>
<td>Level II Fieldwork* II</td>
<td>0</td>
<td>30</td>
<td>10</td>
</tr>
</tbody>
</table>

### Intersession (This will vary depending upon the start date)

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Students with no college credits will need to take at least one course during intersession. Total Quarter Credit Hours = 105

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

* 3 Fieldwork hours =1 quarter credit hour

Level I Fieldwork offered in Quarters 3 and 4 for a total of 60 hours. The first Level II Fieldwork begins in Quarter 5 during the 4th week of the quarter. The second Level II Fieldwork begins in Quarter 6. Each Fieldwork includes full-time placement in a facility for 8 weeks for each placement; for a total of 16 weeks.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

**PLEASE NOTE:** Students in this technology are required to maintain a minimum grade of C+ in all OTA courses.
Master of Science Degree

The Master of Science in Occupational Therapy (MSOT) program at NEIT allows certified occupational therapy assistants to expand on their academic and clinical experience to become leaders in their profession. This program is designed to be a bridge for professionals to move to the next level of responsibility as registered occupational therapists. The program is offered in a weekend format that requires students to be on campus five (5) weekends in each ten-week academic quarter and to participate online during alternate weeks. A student following the MSOT program as outlined will complete the degree in ten (10) quarters. Registered occupational therapists (OTRs) assist people of all ages, with varying abilities or handicaps, to become independent in their day-to-day activities. Because every client has a unique set of circumstances, OTRs evaluate, develop, and help carry out a unique treatment plan for each one.

As an OTR, graduates can work in traditional medical environments or in any setting where people need to learn new ways to live satisfying and productive lives. In the field, OTRs often supervise occupational therapy assistants and other personnel. Students learn to use a variety of assessment techniques to identify a client’s functional problems as well as their underlying physical, mental, and psychosocial problem areas. The OTR takes the lead in using pertinent personal information as well as theoretical and scientific evidence to establish appropriate intervention plans for individual clients or groups. The OTR acts as part of the rehabilitation team, participating in various interdisciplinary meetings and assuring that all occupational therapy intervention meets the legal, ethical, and fiscal requirements that apply to various medical and community-based settings.

After completion of all classroom training on campus, and Level I Fieldwork off campus, students enter the community for Level II Fieldwork. Two full-time twelve-week Level II Fieldwork experiences give the student many opportunities to apply classroom training in real life situations. Upon successful completion of all degree requirements, the student will be eligible to sit for the National Certification Examination for Occupational Therapists. Those who complete the program and pass the exam are awarded the title of Occupational Therapist Registered. Employment is available in a wide variety of settings in the areas of physical disabilities, pediatrics, and geriatrics, as well as in mental health and wellness programs.

ACCREDITATION STATUS

The entry-level occupational therapy master’s degree program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), c/o Accreditation Department, American Occupational Therapy Association (AOTA), 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE’s telephone number c/o AOTA is (301) 652-AOTA and the website is www.acoteonline.org. Graduates of the program will be eligible to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this exam, the individual will be an Occupational Therapist, Registered (OTR). In addition, most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination. A felony conviction may affect a graduate’s ability to sit for the NBCOT certification examination or attain state licensure.
### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 310</td>
<td>Service Delivery Models in Occupational Therapy</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>BS-level Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

12 0 12

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 325</td>
<td>Kinesiology</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 422</td>
<td>Writing in the Health Sciences (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>BS-level Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BIO 440</td>
<td>Functional Neuroscience</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

14 2 15

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 320</td>
<td>Theoretical and Clinical Reasoning in Occupational Therapy</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 300</td>
<td>Statistics (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>BS-level Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

12 0 12

### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 410</td>
<td>Critical Analysis of Scientific Literature</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OT 530</td>
<td>Service Management in Mental Health</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>OT 536</td>
<td>Level I A Fieldwork</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

8 5 10

### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 540</td>
<td>Service Management in Pediatrics</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>OT 546</td>
<td>Level I B Fieldwork</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>OT 548</td>
<td>Research Design</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

8 5 10

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 550</td>
<td>Service Management for Adult Rehabilitation</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>OT 555</td>
<td>Wellness and Participation in Populations</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OT 556</td>
<td>Level I C Fieldwork</td>
<td>0</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

7 5 9

### Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 552</td>
<td>Leadership and Advocacy</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OT 560</td>
<td>Service Management in Geriatrics</td>
<td>4</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>OT 565</td>
<td>Practicum in Population-Based OT Services</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

8 6 11

### Quarter VIII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 670</td>
<td>Practice Issues for the Occupational Therapist Seminar</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>OT 673</td>
<td>Capstone Project</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

8 4 10

### Quarter IX

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 688</td>
<td>Level II A Fieldwork full time (12 wks)</td>
<td>0</td>
<td>35</td>
<td>12</td>
</tr>
</tbody>
</table>

0 35 12

### Quarter X

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT 698</td>
<td>Level II B Fieldwork full time (12 wks)</td>
<td>0</td>
<td>35</td>
<td>12</td>
</tr>
</tbody>
</table>

0 35 12

Total Quarter Credit Hours = 113

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

Please note: All liberal arts core courses are listed in italics.
Associate in Science Degree

The Physical Therapist Assistant (PTA) associate degree program prepares students to help a variety of people in diverse settings. PTAs assist people of all ages, with various movement disorders, to become independent in their day-to-day functions. Physical therapy is a hands-on career, which literally involves working to change people’s lives for the better. Because every client has a unique set of circumstances, PTAs help to carry out a unique treatment plan for each one, under the direction and supervision of a physical therapist.

As a PTA, graduates can work in traditional medical environments or in settings where people need to learn new ways to prevent injury or to promote health, wellness, and fitness. In the field, the PTA is supervised by a licensed physical therapist (PT). Most of the time, the PTA works with individual clients or groups under the direction of a PT. In the associate degree program, the student learns to act as part of the rehabilitation team, collecting data needed for the patient’s initial evaluation, carrying out selected physical therapy interventions outlined in the PT treatment plans, using technology to help people overcome disabilities, and designing activities to help people reach their goals.

After completion of all classroom training on campus, and Level I Clinical Education off campus, students enter the community for Level II Clinical Education. The two Level II Clinical Education experiences give the student many opportunities to apply classroom training to real life situations. Upon successful completion of all degree requirements, the student will be eligible to sit for the National Physical Therapy Examination for Physical Therapist Assistants. Employment is available in a wide variety of settings in the areas of physical disabilities, pediatrics, and geriatrics, as well as in athletic facilities and wellness programs. In addition, after completing certain prerequisites*, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Health Care Management Technology or Business Management Technology.

ACCREDITATION STATUS

The Physical Therapist Assistant Program at New England Institute of Technology is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association, 1111 North Fairfax Street, Alexandria, Virginia 22314-1488; telephone: (703) 706-3245; email: accreditation@apta.org; website: www.capteonline.org
### Physical Therapist Assistant Technology Associate in Science Degree

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>111</td>
<td>Foundations of Physical Therapy</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>112</td>
<td>Foundations of Physical Therapy Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIO</td>
<td>100</td>
<td>Anatomy and Physiology I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIO</td>
<td>101</td>
<td>Anatomy and Physiology I Lab (MA/SCI Core)</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>AHS</td>
<td>102</td>
<td>Introduction to Allied Health (MA/SCI Core)</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>-or-</td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>14</td>
<td>8</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter II</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>123</td>
<td>Data Collection Skills</td>
<td>1</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>124</td>
<td>Clinical Kinesiology</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>125</td>
<td>Clinical Kinesiology Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIO</td>
<td>120</td>
<td>Anatomy and Physiology II</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIO</td>
<td>121</td>
<td>Anatomy and Physiology II Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PHY</td>
<td>126</td>
<td>Applied Physics &amp; Lab (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter III</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>136</td>
<td>Level I Clinical Education A</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>138</td>
<td>Physical Agents &amp; Lab</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>139</td>
<td>Advanced Data Collection Skills</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>142</td>
<td>Principles of Musculoskeletal Physical Therapy</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIO</td>
<td>131</td>
<td>Pathophysiology</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>237</td>
<td>Level I Clinical Education B</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>240</td>
<td>Principles of Neuromuscular Physical Therapy</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>242</td>
<td>Principles of Cardiopulmonary Physical Therapy</td>
<td>4</td>
<td>4</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>PS</td>
<td>202</td>
<td>Psychology of Healthcare (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>253</td>
<td>Practice Issues for the Physical Therapist Assistant</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>258</td>
<td>Level II Clinical Education A</td>
<td>0</td>
<td>24</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTA</td>
<td>260</td>
<td>Senior Capstone</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PTA</td>
<td>268</td>
<td>Level II Clinical Education B</td>
<td>0</td>
<td>24</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intersession (This will vary depending on the start date)</th>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ELECTIVE</strong> Humanities (or Arts/Foreign Language) Core</td>
<td>102</td>
<td>English II (COM Core) (depending upon Quarter III)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>C = Number of lecture hours per week</td>
</tr>
<tr>
<td>L = Number of laboratory hours per week</td>
</tr>
<tr>
<td>T = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.</td>
</tr>
</tbody>
</table>

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

**C =** 3 Clinical Education Hours =1 Quarter Credit Hour

**Please note:** Level 1 Clinical Education offered in Quarters 3 and 4 for a total of 90 hours. The first Level II Clinical Education begins in Quarter 5 during the 5th week of the quarter. The second Level II Clinical Education begins in Quarter 6. Each Clinical Education experience includes full-time placement in a facility for 6 weeks for each placement; for a total of 12 weeks.

*Students considering a Bachelor of Science Degree in Business Management Technology need to take Computer Concepts (MGT 113 or IT 111 Introduction to Information Technology), Small Business and the Law (BU 236), Principles of Economics (EC 203), Accounting I (MGT 127), and Technical Math I (MA 125) or their equivalents either during their associate degree program or during a pre-requisite quarter. See your student advisor to schedule these courses.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

**PLEASE NOTE:** “Students in Physical Therapist Assistant Technology must achieve a grade of C+ or better in all required PTA and BIO courses and a cumulative grade point average of at least 2.33 throughout the program in order to be in good standing.”
Associate in Science Degree

The Associate in Science Degree in Plumbing and Heating is a program offered jointly through the Plumbing Department and the Heating Department.

Plumbing/Heating is a comprehensive program designed to train the student as an entry-to-industry level technician. The student is taught the basic theory and practices of plumbing and heating and receives hands-on experience in a laboratory setting. The program offers a curriculum combining two distinct but interconnected areas: heating in residential structures and plumbing in residential, commercial, and industrial structures.

The four quarter plumbing portion of the program includes the study of basic tools; methods of fabrication; fitting identification and usage; drainage; waste and venting; water piping methods and design; sewage disposal and treatment; water sources and distribution; and household and industrial maintenance.

Sustainability issues using rainwater harvesting and gray water technology are stressed.

In the three quarter heating portion of the program, various gas and oil fired heating systems are examined such as steam, warm air, and forced hot water. Also presented are the burners used in conjunction with these systems and their associated control circuitry. Special consideration is given to electrical wiring, heat loss calculations and system design as they relate to a residential application. Topics in the use of biofuels and a study of solar technology are also covered.

The theory and lab experience includes the design, installation, troubleshooting, and servicing of a vast array of heating units.

The graduate is prepared for entry-level technician positions in the plumbing and heating industry. In addition, after completing certain prerequisites*, graduates of this program area are eligible to continue on for a Bachelor of Science Degree in Business Management Technology.
### Quarter I
<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL</td>
<td>114</td>
<td>Pipe Fitting Basics</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PL</td>
<td>117</td>
<td>Pipe Fitting Basics Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PL</td>
<td>118</td>
<td>Blueprint Reading and Drafting</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td>MA</td>
<td>Technical Math I (MA/SCI Core)</td>
<td>13</td>
<td>4</td>
<td>14</td>
</tr>
</tbody>
</table>

### Quarter II
<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL</td>
<td>124</td>
<td>Drainage, Waste and Vent Design</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PL</td>
<td>123</td>
<td>Drainage, Waste, and Vent and Potable Water System Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PL</td>
<td>125</td>
<td>Potable Water Piping Design</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math I (MA/SCI Core) (depending upon Quarter I)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td>ELECTIVE</td>
<td>Math/Science Core (CHOOSE ONE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td>EN</td>
<td>English II (COM Core)</td>
<td>17</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

### Quarter III
<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL</td>
<td>230</td>
<td>Plumbing Fixture, Appliance and Appurtenance</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PL</td>
<td>233</td>
<td>Plumbing System Design and Fixture Installation Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PL</td>
<td>232</td>
<td>Troubleshooting and Repair</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>AH</td>
<td>123</td>
<td>Basic Electricity</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core) (depending upon Quarter II)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td>ELECTIVE</td>
<td>Communications Core (CHOOSE ONE)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13</td>
<td>9</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter IV
<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PL</td>
<td>240</td>
<td>Pump System Design</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>PL</td>
<td>243</td>
<td>Pump System Design Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>PL</td>
<td>242</td>
<td>Final Project</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>BU</td>
<td>236</td>
<td>Small Business and the Law (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>16</td>
<td>6</td>
<td>18</td>
<td></td>
</tr>
</tbody>
</table>

### Quarter V
<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH</td>
<td>220</td>
<td>Basic Heating</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>AH</td>
<td>222</td>
<td>Basic Heating Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>13</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

### Quarter VI
<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH</td>
<td>230</td>
<td>Heating Systems Theory</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>AH</td>
<td>232</td>
<td>Heating Systems Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>13</td>
<td>8</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

### Quarter VII
<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH</td>
<td>226</td>
<td>Gas Technology</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>AH</td>
<td>228</td>
<td>Gas Technology Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 107

### Legend
- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit, every 2-4 laboratory hours are one credit depending on the expected amount of pre- or post-lab work.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

*Students considering a Bachelor of Science Degree in Business Management Technology need to take Computer Concepts (MGT 113 or IT 111 Introduction to Information Technology), Small Business and the Law (BU 236), Principles of Economics (EC 203), Accounting I (MGT 127), and Technical Math I (MA 125 or their equivalents either during their associate degree program or during a prerequisite quarter. See your student advisor to schedule these courses.*

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
**Associate in Science Degree**

The Associate in Science Degree in Refrigeration/Air Conditioning/Heating (RACH) is offered jointly by the Refrigeration and Air Conditioning Department, and the Heating Department.

Refrigeration/Air Conditioning/Heating (RACH) is a comprehensive program designed to train the students as entry-to-industry level technicians. The program offers a curriculum combining two distinct but interrelated areas dealing with heat energy and its transfer. The curriculum includes both the theoretical and practical aspects of heating and cooling.

The course content of the program includes the basic theory of heat flow and its control and the methods used to make heat flow to either cool or heat a specific area. Instruction in the refrigeration and air conditioning field begins with the basic domestic refrigerator and progresses to the most complex commercial refrigeration and air conditioning systems over the course of four ten-week quarters. Topics in ground source geothermal are also covered.

In the three-quarter heating portion of the program, various gas and oil fired heating systems are examined such as steam, warm air, and forced hot water. Also presented are the burners used in conjunction with these systems and their associated control circuitry. Special consideration is given to electrical wiring, heat loss calculations and system design as they relate to a residential application. Topics in the use of biofuels and a study of solar technology are also covered.

All sections of the RACH program contain intensive instruction in the mechanical and electrical control devices used in heating and cooling systems. Students receive comprehensive training in troubleshooting and service call procedures for both the heating and refrigeration/air conditioning sections of the program.

Graduates are prepared for positions as entry-level technicians in the refrigeration, air conditioning, and heating fields. In addition, after completing certain prerequisites*, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Business Management Technology.
### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 110</td>
<td>Basic Refrigeration</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>AH 112</td>
<td>Basic Refrigeration Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AH 123</td>
<td>Basic Electricity</td>
<td>2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11</td>
<td>7</td>
<td>13</td>
</tr>
</tbody>
</table>

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 120</td>
<td>Basic Refrigeration Electricity</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>AH 124</td>
<td>Basic Refrigeration Electricity Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 125/121</td>
<td>Technical Math I/ Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 130</td>
<td>Commercial Refrigeration</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>AH 125</td>
<td>Commercial Refrigeration Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MA 125</td>
<td>Technical Math I (MA/SCI Core) (depending upon Quarter II)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 210</td>
<td>Air Conditioning</td>
<td>7</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>AH 213</td>
<td>Air Conditioning Lab</td>
<td>2</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>AH 212</td>
<td>Refrigeration Technician Certification</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>4</td>
<td>16</td>
</tr>
</tbody>
</table>

### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 220</td>
<td>Basic Heating</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>AH 222</td>
<td>Basic Heating Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 230</td>
<td>Heating Systems Theory</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>AH 232</td>
<td>Heating Systems Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

### Quarter VII

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 226</td>
<td>Gas Technology</td>
<td>9</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>AH 228</td>
<td>Gas Technology Lab</td>
<td>0</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 110

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit, every 2-4 laboratory hours are one credit depending on the expected amount of pre- or post-lab work.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

*Students considering a Bachelor of Science Degree in Business Management Technology need to take Computer Concepts (MGT 113 or IT 111 Introduction to Information Technology), Small Business and the Law (BU 236), Principles of Economics (EC 203), Accounting I (MGT 127) and Technical Math I (MA 125) or their equivalents either during their associate degree program or during a prerequisite quarter. See your student advisor to schedule these courses.

All associate degree students are required to take 32 credits of liberal arts and math/ science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.*
Associate in Science Degree

The Associate in Science in Respiratory Care program prepares students to pursue a career as a skilled, critical thinking, Respiratory Therapist (RT). RTs assess, treat, and monitor patients with disorders of the cardiopulmonary system. Practicing under the guidance of a physician, RTs perform a wide array of diagnostic and therapeutic procedures on adult, pediatric, and newborn patients.

Typical responsibilities for an RT include interviewing and examining patients with breathing problems, performing diagnostic studies such as obtaining and analyzing arterial blood gases, pulmonary function testing, hemodynamic monitoring, and polysomnography. RTs administer aerosolized medications, initiate mechanical ventilation, perform bronchopulmonary hygiene, maintain airway patency, and provide cardiopulmonary resuscitation.

RTs play an integral role in the development and monitoring of a patient’s cardiopulmonary treatment plan. RTs utilize evidence-based medicine to educate patients, families, and the community regarding cardiopulmonary wellness, disease prevention and management.

RTs work in a variety of healthcare environments such as hospitals, long-term care facilities, rehabilitation centers, skilled nursing facilities, homecare agencies, sleep disorder centers, clinical transport operations, physician’s offices, wellness clinics, educational institutions, traveling agencies, and medical equipment sales and service providers.

The Respiratory Care program is a full-time, 6 quarter program that may be completed in as little as 18 months. Through the combination of classroom, laboratory, and hands-on clinical experiences, students will be provided the opportunity to apply their knowledge and create real-world understanding. Upon successful completion of the entire course of study, graduates will be eligible to sit for the entry-level Certified Respiratory Therapist (CRT) exam administered by the National Board for Respiratory Care (NBRC). An individual must pass this examination to be eligible for state licensure and to qualify to take the advanced-level Registered Respiratory Therapist (RRT) exam administered by the NBRC. In addition, after completing certain prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Health Care Management Technology.

ACCREDITATION STATUS

The Respiratory Care program at New England Institute of Technology holds Provisional Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com). This status signifies that a program that has been granted an Approval of Intent has demonstrated sufficient compliance to initiate a program in accordance with the Standards through the completion and submission of an acceptable Self Study Report (SSR), and other documentation required by the CoARC Board. The conferral of Provisional Accreditation denotes a new program that has made significant progress towards meeting the Standards of Accreditation. The program will remain on Provisional Accreditation until achieving Initial Accreditation. It is recognized by the National Board for Respiratory Care (NBRC) toward eligibility to the Respiratory Care Credentialing Examination(s). Enrolled students completing the program under Provisional Accreditation are considered graduates of a CoARC accredited program.

The New England Institute of Technology holds Provisional Accreditation from the Commission on Accreditation for Respiratory Care (www.coarc.com).

Commission on Accreditation For Respiratory Care
1248 Harwood Road, Bedford, Texas 76021-4244
(817) 283-2835
### Respiratory Care
#### Associate in Science Degree

#### CURRICULUM

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 110</td>
<td>Foundations of Respiratory Care</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>RC 111</td>
<td>Introduction to Respiratory Care Clinical</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIO 103</td>
<td>Comprehensive Anatomy &amp; Physiology I</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIO 104</td>
<td>Comprehensive Anatomy &amp; Physiology I Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

12 8 16

<table>
<thead>
<tr>
<th>Quarter II</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 120</td>
<td>Principles of Cardiopulmonary Physiology</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>RC 121</td>
<td>Respiratory Care Pharmacology</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>BIO 124</td>
<td>Comprehensive Anatomy &amp; Physiology II</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BIO 125</td>
<td>Comprehensive Anatomy &amp; Physiology II Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

EN 101    | English I (COM Core) (depending upon English placement) | 4  | 0  | 4  |

12 6 15

<table>
<thead>
<tr>
<th>Quarter III</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 130</td>
<td>Theory &amp; Application of Respiratory Care I &amp; Lab</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>RC 131</td>
<td>Respiratory Care Clinical I</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>RC 132</td>
<td>Respiratory Care Pathophysiology I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIO 122</td>
<td>Microbiology (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

EN 102    | English II (COM Core) (depending upon Quarter II)  | 4  | 0  | 4  |

13 18 20

<table>
<thead>
<tr>
<th>Intersession</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS 202</td>
<td>Psychology of Healthcare (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

8 0 8

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 240</td>
<td>Theory &amp; Application of Respiratory Care II &amp; Lab</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>RC 241</td>
<td>Respiratory Care Clinical II</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>RC 242</td>
<td>Respiratory Care Pathophysiology II</td>
<td>0</td>
<td>12</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>PS 210</td>
<td>Human Relations in the Workplace (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

14 16 20

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 252</td>
<td>Theory &amp; Application of Respiratory Care III &amp; Lab</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>RC 253</td>
<td>Respiratory Care Clinical III</td>
<td>0</td>
<td>18</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>RC 254</td>
<td>Specialty Principles &amp; Practice of Respiratory Care</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

5 22 13

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 261</td>
<td>Theory &amp; Application of Respiratory Care IV &amp; Lab</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>RC 262</td>
<td>Respiratory Care Clinical IV</td>
<td>0</td>
<td>24</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

3 28 13

Total Quarter Credit Hours = 105

Legend

C = Number of lecture hours per week
L = Number of laboratory/clinical hours per week
T = Total quarter hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

PLEASE NOTE: All liberal arts core courses are listed in italics.

All associate degree students are required to take (or transfer) 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Bachelor of Science Degree

The RN to BSN program at NEIT allows the Registered Nurse with an earned associate degree or nursing diploma, and an active unencumbered license, to continue their education and earn a Bachelor of Science Degree in Nursing (BSN) entirely online. Baccalaureate-prepared nurses advance the profession of nursing, improve the quality of patient care, and contribute to the well-being of the community. Reasons for pursuing the baccalaureate degree vary. Students who decide to pursue a BSN may be ready to assume more professional responsibility, pursue a position that requires a BSN or to prepare for graduate school. Whatever the reason, the RN to BSN program at NEIT is designed to help students reach their professional goals.

Material covered integrates clinical decision-making and health care informatics with the role of the registered nurse. Courses include the theory and research-based knowledge in the provision of care to the client, family, and community in a global society with flexibility to adapt to the changing nature of healthcare and healthcare roles. Students also learn how to integrate care across multiple settings, managing the interactions between and among components of the integrated network of healthcare services. The graduate will be prepared for positions in primary care, community health settings, acute care, rehabilitation and long-term care facilities.
## RN to BSN
Bachelor of Science Degree

### First Quarter

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 370</td>
<td>Concepts of Professional Nursing</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

### Following Quarters

(*The courses listed below may be taken in any sequence with the exception that the MA 300 Statistics course is a prerequisite to the NUR 402 Applications of Research to Clinical Practice course.)*

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 372</td>
<td>Leadership and Management</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 380</td>
<td>Regulatory Environments</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 382</td>
<td>Informatics and Healthcare Technology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 390</td>
<td>Ethical and Legal Issues</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 392</td>
<td>Quality and Safety</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 400</td>
<td>Principles of Prevention and Population Health</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 402</td>
<td>*Applications of Research to Clinical Practice</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>NUR 410</td>
<td>Inter-Professional Collaboration</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>EN 331</td>
<td>Research Writing (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>MA 300</td>
<td>Statistics (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Math/Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences, Humanities or Arts/Foreign Language Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

### Final Quarter

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR 412</td>
<td>Capstone Practicum</td>
<td>3</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 90

Program total is 90 total credits with 60 in course work and 30 granted for associate degree transfer credits.

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory/clinical hours per week
- **T** = Total quarter hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.
Associate in Science Degree

The Associate in Science Degree in Surgical Technology prepares practitioners specifically for the operating room scrub role. During operative procedures, the Surgical Technologist functions as an integral part of the surgical team and works in cooperation with the surgeon, anesthesiologist, and registered nurse performing duties that are vital for the safety and care of surgical patients. Responsibilities include preparation of sterile operative equipment and supplies; instrumentation during operative procedures and other intra-operative patient care activities. Common duties include operating sterilizers, lights, suction machines, electrosurgical units and laparoscopic equipment as well as preparing the patient’s surgical site.

In the Surgical Technology curriculum, theory and practice are integrated through the use of laboratory experiences in a completely equipped, on campus-simulated operating room and in actual hospital operating rooms. Comprehensive background in anatomy and physiology is studied along with the proper medical terminology of the systems. An appreciation of the person having surgery, knowledge of common conditions requiring surgery and the surgical procedure as well as skills of patient care are included in surgical procedures classes. Ethical and legal dimensions of the work and profession of the Surgical Technologist are part of the program. Supervised clinical practice in surgical environments prepares the student realistically.

The graduate is prepared for entry-level positions in such areas as hospital operating room departments, obstetrical departments, surgical supply/processing departments, outpatient surgical centers, and surgeon office practices. In addition, after completing certain prerequisites, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Health Care Management Technology.

ACCREDITATION STATUS

The Surgical Technology program of study is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Upon completion of the program, graduates are eligible to take the National Certification Exam administered by The National Board of Surgical Technology and Surgical Assisting (NBSTSA).

Commission on Accreditation of Allied Health Education Programs (CAAHEP), 1361 Park Street, Clearwater, Florida 33756
Telephone (727) 210-2350
# Surgical Technology
## Associate in Science Degree

### Quarter I
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 101</td>
<td>Introduction to Surgical Technology</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MGT 120</td>
<td>Word Processing (5 weeks)</td>
<td>5</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>BIO 100</td>
<td>Anatomy and Physiology I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BIO 101</td>
<td>Anatomy and Physiology I Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>AHS 102</td>
<td>Introduction to Allied Health</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

CHOOSE ONE

- EN 101 English I (COM Core) (depending upon English placement)
- or -

- EN 102 English II (COM Core)

**Total Quarter Credit Hours = 101**

### Quarter II
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 120</td>
<td>Surgical Instrumentation</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>BIO 122</td>
<td>Microbiology</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>BIO 120</td>
<td>Anatomy &amp; Physiology II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>BIO 121</td>
<td>Anatomy &amp; Physiology II Lab</td>
<td>0</td>
<td>4</td>
<td>2</td>
</tr>
</tbody>
</table>

CHOOSE ONE

- MA 100/110 Introduction to College Math (MA/SCI Core) (depending upon Math placement)
- or -

- ELECTIVE Math/Science Core

- EN 102 English II (COM Core) (depending upon Quarter I)
- or -

- ELECTIVE Communications Core

**Total Quarter Credit Hours = 101**

### Quarter III
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 130</td>
<td>Surgical Procedures I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ST 131</td>
<td>Surgical Procedures I Lab</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>BIO 130</td>
<td>Pharmacology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>BIO 131</td>
<td>Pathophysiology</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>PS 201</td>
<td>Introduction to Psychology (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 101**

### Quarter IV
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 200</td>
<td>Surgical Procedures II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ST 201</td>
<td>Surgical Procedures II Lab (5 weeks)</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ST 203</td>
<td>Professional Communication Skills (5 weeks)</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ST 204</td>
<td>Operating Room Laboratory I** (5 weeks)</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>AHS 201</td>
<td>Introduction to Medical Ethics and Bioethics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

CHOOSE ONE

- ELECTIVE Humanities (or Arts/Foreign Language) Core

**Total Quarter Credit Hours = 101**

### Quarter V
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 205</td>
<td>Advanced Topics in Surgical Technology</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>ST 220</td>
<td>Surgical Procedures III</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ST 222</td>
<td>Operating Room Laboratory II**</td>
<td>0</td>
<td>24</td>
<td>8</td>
</tr>
<tr>
<td>ST 223</td>
<td>Surgical Seminar I</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 101**

### Quarter VI
<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 230</td>
<td>Operating Room Laboratory III** (5 weeks)</td>
<td>0</td>
<td>12</td>
<td>4</td>
</tr>
<tr>
<td>ST 232</td>
<td>Advanced Applications of Surgical Technology</td>
<td>6</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>ST 233</td>
<td>Surgical Seminar II (5 weeks)</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 101**

### Optional Courses – To be taken at Department Chair’s Discretion

The credits for ST 98/ST99 do not count for degree requirements.

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ST 99</td>
<td>Clinical Review</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>ST 98</td>
<td>Advanced Clinical Review</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total Quarter Credit Hours = 101**

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory hours per week
- **T** = Total Quarter Hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.
- **** 3 clinical lab hours = 1 Quarter Credit Hour, Operating Room Practicum Hours are 60 minute clock hours.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

* Students considering a Bachelor of Science Degree in Business Management Technology need to take Computer Concepts (MGT 113 or IT 111 Introduction to Information Technology), Small Business and the Law (BU 236), Principles of Economics (EC 203), Accounting I (MGT 127) and Technical Math I (MA 125) or their equivalents either during their Associate Degree program or during a prerequisite quarter. See your student advisor to schedule these courses.

**PLEASE NOTE:** For all quarters, a grade of C+ or better must be attained in BIO and ST technical subjects in order to advance to the next quarter. A cumulative grade point average of at least 2.33 must be maintained throughout the program.

Students will be required to complete all of the 1st academic year, including general education courses, to progress to the 2nd academic year when actual hospital-based operating room experience begins.
Associate in Science Degree

The Associate in Science in Veterinary Technology prepares students as entry-level veterinary technicians. These students are provided with the educational foundation necessary to develop the required critical thinking, managerial, and clinical professional skills necessary to perform as effective members of the veterinary health care team.

Veterinary technology is the science and art of providing professional support to veterinarians. Veterinary technicians provide professional health care for animals under the supervision of a veterinarian. Examples of areas of responsibility for veterinary technicians include surgical assisting, anesthesiology, radiology, caring for hospitalized patients, administering vaccines and medications, dental prophylaxis, collecting specimens and performing clinical laboratory procedures, client education, physical examination and patient history, and office/hospital management. Veterinary technicians cannot diagnose, prescribe, or perform surgery.

Throughout the curriculum, the student is exposed to veterinary team concepts and appropriate modeling of professional and ethical conduct. There are planned laboratory and clinical practice experiences that expand student knowledge and lead to proficiency in task-specific essential and recommended skills for the entry-level veterinary technician.

ACCREDITATION STATUS
The American Veterinary Medical Association (AVMA) Committee on Veterinary Technician Education and Activities (CVTEA) accredits programs in veterinary technology that graduate veterinary technicians. NEIT has applied for accreditation. The CVTEA performs an initial site visit once the first cohort is approximately 2/3 of the way through the curriculum. Application for accreditation does not guarantee accreditation. All students who graduate after accreditation has been granted will be recognized as graduates of an accredited veterinary technology program.

American Veterinary Medical Association (AVMA) Committee on Veterinary Technician Education and Activities (CVTEA) Education and Research Division
1931 N. Meacham Rd., Suite 100
Schaumburg, IL 60173-4630
800/248-2862 ext. 6624
www.avma.org
## Veterinary Technology
### Associate in Science Degree

<table>
<thead>
<tr>
<th>Quarter I</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET 110</td>
<td>Introduction to Veterinary Technology</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>VET 112</td>
<td>Veterinary Anatomy &amp; Physiology I</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VET 113</td>
<td>Veterinary Anatomy &amp; Physiology I Lab</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>BIO 116</td>
<td>Introduction to Biology</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

- **Choose One**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core)</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

- **Choose One**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 101</td>
<td>Life Science Chemistry (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter II</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET 120</td>
<td>Animal Management</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>VET 122</td>
<td>Veterinary Anatomy &amp; Physiology II</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VET 123</td>
<td>Veterinary Anatomy &amp; Physiology II Lab</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

- **Choose One**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 101</td>
<td>Life Science Chemistry (MA/SCI Core)</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

- **Choose One**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE</td>
<td>Math/Science Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intersession</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

- **Choose One**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 102</td>
<td>English II (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

- **Choose One**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter III</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET 130</td>
<td>Veterinary Pharmacology</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VET 137</td>
<td>Laboratory Animal Technology and Lab</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BIO 122</td>
<td>Microbiology</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter IV</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET 240</td>
<td>Animal Diseases</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>VET 242</td>
<td>Animal Nursing</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>VET 243</td>
<td>Small Animal Nursing Lab</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>VET 250</td>
<td>Large Animal Nursing Laboratory</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter V</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET 252</td>
<td>Veterinary Imaging</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>VET 253</td>
<td>Veterinary Imaging Laboratory</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>VET 254</td>
<td>Veterinary Anesthesia and Surgical Nursing and Lab</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>VET 138</td>
<td>Veterinary Practicum I</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>VET 248</td>
<td>Veterinary Practicum II</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Quarter VI</th>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>VET 260</td>
<td>Veterinary Management</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>VET 262</td>
<td>Veterinary Clinical Laboratory Procedures</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>VET 263</td>
<td>Veterinary Clinical Laboratory Procedures Lab</td>
<td>0</td>
<td>3</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>VET 258</td>
<td>Veterinary Practicum III</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>VET 268</td>
<td>Veterinary Practicum IV</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 98

### Legend

- **C** = Number of lecture hours per week
- **L** = Number of laboratory/practicum hours per week
- **T** = Total quarter hours where each lecture hour per week is one credit and each pair of laboratory hours per week is one credit.

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take a minimum of 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
Associate in Science Degree

The Video and Audio Production Technology program is characterized by the use of a project-oriented approach with an emphasis on program development and team building skills that are required by these industries. Students are exposed to broadcast-quality equipment while acquiring both theoretical and practical knowledge.

Upon completion of the Associate in Science Degree in Video and Audio Production Technology, students will be qualified to obtain employment in the following industries: broadcast/non-broadcast television, radio and audio recording. Students are prepared for careers in video production which include: director, technical director, lighting director, camera operator, master control operator, videographer, video editor, producer and production assistant.

Opportunities in Audio and Radio Production include: recording technician, board director, editor, video and radio producer, copywriter and on-air talent.

In addition, after completing certain prerequisites*, graduates of this program are eligible to continue on for a Bachelor of Science Degree in Digital Recording Arts Technology or in Business Management Technology.
# Video and Audio Production Technology
## Associate in Science Degree

### Quarter I

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 101</td>
<td>Video Techniques/Studio 1</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>COM 105</td>
<td>Visual Design</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>COM 118</td>
<td>Scriptwriting</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 10

### Quarter II

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 106</td>
<td>Motion Graphics</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COM 125</td>
<td>Digital Editing</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COM 127</td>
<td>Field Shooting/Lighting</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 102</td>
<td>English II (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EN 211</td>
<td>Oral Communications (COM Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 14

### Quarter III

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 136</td>
<td>Audio Recording</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>COM 211</td>
<td>Media Ethics</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>COM 215</td>
<td>Corporate Media</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>BU 236</td>
<td>Small Business and the Law (SS Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 121</td>
<td>Business Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities Core</td>
<td>15</td>
<td>6</td>
<td>18</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 15

### Quarter IV

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 134</td>
<td>Studio Production</td>
<td>2</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>COM 146</td>
<td>Audio Recording II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>COM 223</td>
<td>Broadcast Sales and Video Distribution</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>EN 211</td>
<td>Oral Communications (COM Core) (depending upon English placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>ELECTIVE</td>
<td>Communications Core</td>
<td>10</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

### Quarter V

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 227</td>
<td>Radio 1 – Programming</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COM 231</td>
<td>Digital Filmmaking</td>
<td>3</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Humanities (or Arts/Foreign Language) Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 9

### Quarter VI

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 237</td>
<td>Radio 2 – Talk and Information</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COM 250</td>
<td>Associate Portfolio</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

**CHOOSE ONE**

<table>
<thead>
<tr>
<th>Course No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 230</td>
<td>Cooperative Work Experience**</td>
<td>0</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>-or-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COM 232</td>
<td>Associate Final Project</td>
<td>1</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 8-9

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.

* Students considering a Bachelor of Science Degree in Business Management Technology need to take Computer Concepts (MGT 113 or IT 111 Introduction to Information Technology), Small Business and the Law (BU 236), Principles of Economics (EC 203), Accounting I (MGT 127) and Technical Math I (MA 125) or their equivalents either during their Associate Degree program or during a prerequisite quarter. See your student advisor to schedule these courses.
Associate in Science Degree

The Video Game Development and Design Technology has two degree tracks: Game Development and Simulation Programming and Video Game Design.

GAME DEVELOPMENT AND SIMULATION PROGRAMMING TECHNOLOGY

The associate degree program in Game Development and Simulation Programming Technology will prepare students for entry-level careers in game programming, simulation programming, and software engineering as well as for entry-level positions in a variety of digital, desktop production environments.

Through a combination of theoretical and hands-on state-of-the-art laboratory experiences, small class sizes led by experienced instructors, the program emphasizes application of knowledge to the design and development of games and simulations in order to prepare students for the exciting field of game development as well as for the simulation industry.

Students will learn how to design games, will be introduced to the game development process, will hone people skills and communications skills through team-based projects and presentations, will master 2D and 3D animation concepts, and will learn the use of industry-standard software packages. An important component of the curriculum is building a portfolio that will include game assets developed by students. Graduates from this program will be eligible for entry-level positions such as junior game designer, technical artist, level designer, and visual effects animator. This program, after completing certain prerequisites, also prepares students to further their education in NEIT’s bachelor’s degree program in Game Development and Simulation Programming Technology.

VIDEO GAME DESIGN TECHNOLOGY

The associate degree program in Video Game Design Technology will prepare students for entry-level careers in game design, animation and visualization as well as for entry-level positions in a variety of digital media production environments.

Through a combination of theoretical and hands-on state-of-the-art laboratory experiences, small class sizes led by experienced instructors, the program emphasizes application of knowledge to the design and development of games and simulations in order to prepare students for the exciting fields of the electronic entertainment and simulation industries.

Students will learn how to design games, will be introduced to the game development process, will hone people skills and communications skills through team-based projects and presentations, will master 2D and 3D animation concepts, and will learn the use of industry-standard software packages. An important component of the curriculum is building a portfolio that will include game assets developed by students. Graduates from this program will be eligible for entry-level positions such as junior game designer, quality assurance engineer, and junior programmer. This program also prepares students to further their education in NEIT’s bachelor’s degree program in Game Development and Simulation Programming Technology.

### CORE CURRICULUM

#### Quarter I

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>111</td>
<td>XHTML/Javascript</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS</td>
<td>114</td>
<td>Introduction to Game Development</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MWD</td>
<td>112</td>
<td>Digital Graphics</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>MA</td>
<td>100/110</td>
<td>Introduction to College Math (MA/SCI Core) (depending upon Math placement)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Math/Science Core</td>
<td>10</td>
<td>8</td>
<td>15</td>
</tr>
</tbody>
</table>

#### Quarter II

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>110</td>
<td>Introduction to Game Programming</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS</td>
<td>125</td>
<td>Flash I</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS</td>
<td>240</td>
<td>Game Design</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>HU</td>
<td>210</td>
<td>Art for Game Design (HU Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
</tbody>
</table>

#### Quarter III

<table>
<thead>
<tr>
<th>Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>121</td>
<td>Intermediate Game Programming</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS</td>
<td>137</td>
<td>Flash II</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>VGD</td>
<td>133</td>
<td>3D Modeling I</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN</td>
<td>101</td>
<td>English I (COM Core) (depending upon English placement)</td>
<td>14</td>
<td>12</td>
<td>20</td>
</tr>
</tbody>
</table>
# Video Game Development and Design Technology
## Associate in Science Degree

## Curriculum

### Game Development and Simulation Programming Curriculum

<table>
<thead>
<tr>
<th>Quarter IV Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>131</td>
<td>Advanced Game Programming</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS</td>
<td>243</td>
<td>MOD</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>VGD</td>
<td>244</td>
<td>Unity I</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>125</td>
<td>Technical Math I</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Communications Core</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarter V Course</td>
<td>No.</td>
<td>Course Title</td>
<td>C</td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>GDS</td>
<td>241</td>
<td>API Programming</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GDS</td>
<td>252</td>
<td>Algorithms and Data Structures</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>VGD</td>
<td>255</td>
<td>Unity II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>PHY</td>
<td>200</td>
<td>Physics I (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>10</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

### Video Game Design Curriculum

<table>
<thead>
<tr>
<th>Quarter IV Course</th>
<th>No.</th>
<th>Course Title</th>
<th>C</th>
<th>L</th>
<th>T</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDS</td>
<td>243</td>
<td>MOD</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>VGD</td>
<td>242</td>
<td>3D Modeling II</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>VGD</td>
<td>244</td>
<td>Unity I</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MA</td>
<td>121</td>
<td>Business Math (MA/SCI Core)</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>EN</td>
<td>102</td>
<td>English II (COM Core)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Communications Core</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHOOSE ONE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quarter V Course</td>
<td>No.</td>
<td>Course Title</td>
<td>C</td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>VGD</td>
<td>253</td>
<td>3D Modeling III</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>VGD</td>
<td>255</td>
<td>Unity II</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>VGD</td>
<td>259</td>
<td>Storyboard and Design</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE</td>
<td></td>
<td>Social Sciences Core</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>10</td>
<td>8</td>
<td>14</td>
</tr>
<tr>
<td>Quarter VI Course</td>
<td>No.</td>
<td>Course Title</td>
<td>C</td>
<td>L</td>
<td>T</td>
</tr>
<tr>
<td>GDS</td>
<td>134</td>
<td>Game Persistence</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>GDS</td>
<td>261</td>
<td>Game Architecture</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>GDS</td>
<td>266</td>
<td>Game Studio for Game Developers</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>GDS</td>
<td>267</td>
<td>Portfolio Development</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>MA</td>
<td>210</td>
<td>Technical Math II</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>8</td>
<td>12</td>
<td>14</td>
</tr>
</tbody>
</table>

Total Quarter Credit Hours = 97

### Legend

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>Number of lecture hours per week</td>
</tr>
<tr>
<td>L</td>
<td>Number of laboratory hours per week</td>
</tr>
<tr>
<td>T</td>
<td>Total Quarter Hours where each lecture hour per week is one credit and each two or three of laboratory hours per week is one credit.</td>
</tr>
</tbody>
</table>

**PLEASE NOTE:** All liberal arts core courses are listed in italics.

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of EN 101, EN 102 or MA 100/110 must still take 32 credits of core courses.
All programs must meet certain minimum requirements in both the technical major and in the liberal arts. Technical course requirements are listed in each curriculum along with liberal arts selections. Courses listed as “Core Electives” in a curriculum can be chosen by the student from one of the several core areas listed below. Each core area provides a variety of courses for student choice. Individual technical majors have specific requirements and may require more than the minimum number of credits or may specify certain courses in a particular core area. Students must take a minimum of 32 credits in core electives for the associate degree and an additional minimum of 28 credits for the (2 + 2) bachelor’s degree. All liberal arts core elective courses are 4 credits. Please refer to the curriculum of the technical major for specific requirements of your program.

**Associate Degree**

**Liberal Arts Core Areas**
You must choose the following during your degree program:
2 Courses from the Communications Core (minimum)
2 Courses from the Math/Science Core (minimum)
1-2 Courses from the Humanities Core OR
1 Course from the Humanities Core AND/OR
1 Course from the Arts/Foreign Language Core
1-2 Courses from the Social Sciences Core
For a minimum of 8 courses (32 credits)

**Associate Degree**

**Liberal Arts Courses by Core Area**

**Communications Core Electives (Minimum 8 Credits)**
EN 101 English I (required of all students)
EN 102 English II (required of all students)
EN 110 Healthcare Communication Skills (Nursing only)
EN 211 Oral Communications
HU 208 Rap/Rock and Poetry

**Math/Science Core Electives (Minimum 8 Credits)**
CHM 101 Life Science Chemistry
MA 100/110 Introduction to College Math
MA 121 Business Math
MA 125 Technical Math I
MA 130 Applied Concepts in Mathematics
MA 200 Applied Math for Business
MA 210 Technical Math II
PHY 126 Applied Physics & Lab
PHY 200 Physics I and Lab
SCI 110 Environmental Science
SCI 114 Meteorology

**Arts/Foreign Language Core Electives (Maximum of 4 Credits in Place of a Humanities Course)**
AR 203 Introduction to Drawing
AR 204 Introduction to Theater
AR 205 Introduction to Digital Photography
AR 206 3D Sculpture: an Adventure in the Third Dimension
AR 207 Introduction to Applied Music
JP 201 Introduction to Japanese
SP 201 Introduction to Spanish
SP 203 Spanish for Healthcare Workers

**Humanities Core Electives (Minimum 4 Credits)**
HU 202 Introduction to the Arts
HU 207 Introduction to Literature
HU 208 Rap/Rock and Poetry
HU 209 Film and Dance
HU 210 Art for Game Design
HU 211 Introduction to Film
HU 212 Documentary Film
HU 215 Popular Culture
HU 216 Music and the Media
HU 240 Modern Art and Design
HU 242 The Automobile and American Culture
HU 243 The American Dream (literature course)
HU 244 Science Fiction
HU 250 Cribs: The American Home
HU 291 Critical Thinking and Chess

**Social Sciences Core Electives (Minimum 4 Credits)**
BU 236 Small Business and the Law
EC 203 Principles of Economics
HI 211 United States History I: 1600-1877
HI 231 Contemporary History
HI 235 Architectural History
HI 240 History of Aviation
HI 280 The Holocaust
PS 140 Life-Span Development
PS 201 Introduction to Psychology
PS 202 Psychology of Healthcare
PS 203 Psychology of Happiness
PS 210 Human Relations in the Workplace
SO 203 Social Problems
SO 220 Internet and Society
SO 231 Crime and Deviance
SS 140 Criminal Investigations
SS 201 American Government in Action
SS 203 Terrorism & National Security
SS 204 Juvenile Justice System in America
SS 206 Constitutional Values in the 21st Century
SS 221 Technology and American Life

**Bachelor Degree**

**Liberal Arts Core Areas**
You must choose the following during your degree program:
2 Courses from the Communications Core
2 Courses from the Math/Science Core
1 Course from the Humanities Core
1 Course from the Social Sciences Core
1 Course from either the Humanities Core OR from the Arts/Foreign Language Core OR from the Social Sciences Core

**Bachelor Degree**

**Liberal Arts Courses by Core Area**

**Communications Core Electives (Minimum 8 Credits)**
EN 331 Research Writing
EN 421 Technical Communications
EN 422 Writing in the Health Sciences
SS 303 Communication in the Global Workplace

**Math/Science Core Electives (Minimum 8 Credits)**
CHM 300 Chemistry I/Lab
MA 300 Statistics
MA 310 Calculus I
MA 315 Math for Game Developers
MA 320 Calculus II
PHY 300 Physics II & Lab
SCI 304 Development of Western Science
Course Codes

ABT – Architectural Building Engineering
ACC – Accounting
AH – Refrigeration/Air Conditioning/Heating
AHS – Allied Health
AR – Art
AS – Academic Skills
AST – Aviation Science
AUB – Automotive Collision Repair
(see also AUT & TT)
AUT – Automotive (see also TT)
BIO – Biology
BU – Business
CE – Community Enrichment
CHM – Chemistry
CJ – Criminal Justice
CMA – Clinical Medical Assistant
(see also AHS, BIO, & SCI)
CMT – Construction Management
(see also ABT & MGT)
COM – Video and Audio Production
(see also MWD)
CR – Building Construction/Cabinetmaking
DRA – Digital Recording Arts
EC – Economics
EET – Electronics Engineering Technology
ELT – Electrical Engineering Technology
ELY – Electrical (see also OSH)
EN – English
EST – Electronics Systems Engineering
FIN – Finance
GDS – Game Development and Simulation Programming
(see also MWD & SE)
GXD – Graphic Design (see also MWD)
HCM – Health Care Management
HIM – Health Information Management
HI – History
HU – Humanities
ID – Interior Design (see also ABT)
IT – Information Technology
(see also NE & SE)
JP – Japanese
MA – Mathematics
MCT – Mechanical Engineering Technology
MGT – Business Management
(see also ACC, FIN, IT, & MKT)
MKT – Marketing
MT – Marine (see also TT)
MWD – Multimedia and Web Design
(see also IT & SE)
NE – Network Engineering
(see also IT & SE)
NUR – Nursing
OT – Occupational Therapy
OTA – Occupational Therapy Assistant
(see also SCI)
PHY – Physics
PL – Plumbing (see also AH)
PS – Psychology
PTA – Physical Therapist Assistant
(see also SCI)
RC – Respiratory Care
SCI – Science
SE – Software Engineering
(see also IT & NE)
SO – Sociology
SP – Spanish
SS – Social Sciences
ST – Surgical Technology
(see also AHS, BIO, IT, & SCI)
TT – Transportation Technology
(see also AUB, AUT, MT)
VET – Veterinary Technology
VGD – Video Game Design
(see also GDS, MWD, and SE)

SCI 320 Understanding Flight
SCI 330 Our History and Future in Space
SCI 340 Introduction to Environmental Health

Arts/Foreign Language Core Electives (Maximum of 4 Credits in Place of a Humanities Course)
JP 201 Introduction to Japanese
SP 201 Introduction to Spanish
SP 203 Spanish for Healthcare Workers

Humanities Core Electives (Minimum 4 Credits)
HU 311 The Art of Film
HU 313 World War II in Film
HU 321 Representations of Gender
HU 331 Ethics and Technology
HU 341 World Religions
HU 350 Literature and Health
HU 352 History of Rock and Roll
HU 432 History of Western Art
HU 433 Encountering 20th Century Art
HU 441 World Literature

Social Sciences Core Electives (Minimum 4 Credits)
EC 301 The Global Economy
EC 311 Personal Finance
HI 311 The History of the American Family
PS 320 Developing Leadership in the Workplace
PS 330 Marriage and the Family
SO 321 Sociology of Aging
SO 333 Sport in Society
SO 461 Language and Society
SS 301 U.S. Foreign Policy Challenges
SS 302 The United States Legal System
SS 303 Communication in the Global Workplace
SS 330 Contemporary Social Issues
SS 350 Everything is a Negotiation

1. Subject to Change
Courses are listed alphabetically by course code.

ARCHITECTURAL BUILDING ENGINEERING

ABT 110 Introduction to Architecture and Building Technology
1 Class Hour 1 Quarter Credit Hours
This course introduces the student to the field of architectural/building technology as a profession and the many career paths available to the graduate. Topics will include skills and attitudes necessary to the technology, professional ethics, professional license requirements, relationships with other trades and professions, and program options within the college.

ABT 112 Technical Drafting and Graphic Communications
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course is designed to give the student the basic understanding of Architectural Drafting and Graphic Communications through the exploration and use of drafting materials and methods using both two and three-dimensional exercises. The emphasis will be on wood frame construction. Architectural lettering, line work, and standard abbreviations will be covered, as well as the proper use of architectural and civil engineering scales. Basic concepts are introduced including ordering principles, proportion, human scale and the basic elements of architecture and interior design. Students develop their own powers of observation throughout the course as they gain new levels of awareness, understanding, and ability related to design.

ABT 114 Introduction to Computer-Aided Drafting (CAD)
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
This course will provide the student with the basics in architectural drafting using the applications of computer-aided design. Students will become familiar with keyboard and mouse functions as they apply to architectural drawings. The emphasis will be on wood frame construction. Topics will include use of the CAD system, the role of drawings in the construction process, and the relationship between the drawings.

ABT 115 Introduction to Structures
2 Class Hours 2 Quarter Credit Hours
This course is a study of basic concepts and terminology used in the design of a building’s structural system. The emphasis will be on residential and light commercial construction. Topics covered will include types of loads, load and area calculations, materials, theory of equilibrium, elementary statics, structural components, stair design, foundation design, roof pitches, and the use of span charts found in the Rhode Island State Building Code.

ABT 122 Two and Three Dimensional Design Theory
3 Class Hours 3 Quarter Credit Hours
Prerequisite: ABT 112
In this course, students will explore and develop an understanding of abstraction and conceptualization of two and three dimensional design relevant to architecture and interiors. Through a series of assigned studio exercises, students will study ordering principles, color theory, and basic elements and organization of space and form.

ABT 124 Construction Methods & Materials
3 Class Hours 3 Quarter Credit Hours
This course is an introduction to building science relative to the assembly of systems both structural and non-structural, and to the extensive technical terminology used in the building industry. The main focus of the course will be on commercial construction. Topics will include explanations of major building systems and their assembly, the identification of their components, and the limitations of the systems.

ABT 125 Building Design & Technology I
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: ABT 112, ABT 114, ABT 115
This course will introduce the student to the design process and provide additional knowledge about the preparation of residential design development and construction drawings. Based upon a supplied program and site plan students will design and execute documents for a single family residence. Standard techniques of wood frame construction will also be discussed. Topics covered will include design theory, site planning, sequencing of drawings, wood frame terminology, components and their proper assembly, and the content of typical drawings necessary for the construction of a wood framed residence. Also included is an explanation of relevant sections of the building code, the importance of their proper use, and their relationship to wood frame construction.

ABT 127 Introduction to Construction Estimating
3 Class Hours 3 Quarter Credit Hours
Prerequisites: ABT 112, ABT 115, MA 100/110
In this course, students study the estimating procedures and principles used to determine detailed cost estimates in the construction bidding process. The emphasis will be on residential and light commercial construction. Topics covered will include the organization, classification, and quantity surveys of materials and labor costs, subcontracted work, overhead and profit.

ABT 128 Building Information Modeling I (BIM I)
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: ABT 114 and ABT 135 or ID 121 and ID 132
This course introduces and familiarizes students with the science of surveying, applications, equipment, and methods. Topics covered include equipment operation and handling, terminology, leveling, horizontal and vertical measurements, angles, and construction layout. Lab work is supplemented with data plotting and related computations using hand and computer solutions.

ABT 129 Plumbing Systems
4 Class Hours 4 Quarter Credit Hours
Prerequisites: ABT 114 and ABT 135 or ID 121 and ID 110
This course introduces and familiarizes students with the science of plumbing, heating, ventilation, and air conditioning systems. Students will gain an understanding of typical plumbing, heating, and air conditioning systems and their application to architectural design and construction. Topics covered include the types of plumbing, heating, and air conditioning systems used in modern buildings, their installation, and their relationship to architectural design and construction. Lab work is supplemented with the use of computer-aided parametric building information modeling as a tool used in the design of buildings and as a means of producing architectural documentation.
bi-directional associativity, interoperability, detailing, intuitive user interface, and parametric components.

**ABT 223 Structures I**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: ABT 135 or CR 122, MA 125  
This course will introduce the student to the primary concepts of statics. Topics covered will include concurrent, coplanar and parallel force systems, equilibrium, moment, analysis of statically determinate structures, reactions, and truss analysis using mathematical and graphic methods. Computerized programs for structural analysis will also be introduced.

**ABT 225 Building Design & Technology III**  
4 Class Hours 6 Lab Hours 7 Quarter Credit Hours  
Prerequisites: ABT 135, ABT 136, ABT 216  
Students will continue to explore the architectural design process by investigating an existing building, assessing the design and developing an understanding of the subjects spatial, environmental, structural, mechanical and architectural components. The students understanding of this structure will be demonstrated through drawings and models. The analysis will be followed by a building design problem assigned by the instructor. Students will demonstrate their designs and define how the development was informed by the existing building investigations. Topics covered will include drawing, model making, and theory of design, concept formulation and schematic design. Students will make a graphic presentation representing their solution to a jury of critics at the end of the quarter.

**ABT 232 Structures II**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: ABT 223 or CR 131  
This course will build upon the skills and theories developed in Structures I, and introduce the student to the primary concepts of strength of materials. Topics covered will include centroids, moment of inertia, shear and moment diagrams, stresses in beams, stress-strain relationships, deflection, combined loading conditions, and column theory.

**ABT 235 Building Design & Technology IV**  
4 Class Hours 6 Lab Hours 7 Quarter Credit Hours  
Prerequisite: ABT 225  
Students will continue to explore the architectural design process by solving a building design problem assigned by the instructor. The project will begin with programmatic information and a raw site and culminate in the design development phase. Topics covered will include theory of design, programming, concept formulation, selection of structural and mechanical systems, and schematic design and design development drawings. The effects of site, environment, precedent and zoning regulation on the design process will be discussed. Students will make a graphic presentation representing their solution to a jury of critics at the end of the quarter.

**ABT 236 Building Codes**  
2 Class Hours 2 Quarter Credit Hours  
Prerequisites: ABT 135 or ID 121 and ID 132  
In this course, students study the codes that regulate the building industry. Topics will include code history, their purpose, and how they are organized. Also included will be a review of the International Building Codes, Mechanical Codes, National Fire Protection Code, and the Americans with Disabilities Act as it pertains to the accessibility of buildings.

**ABT 314 Construction Contracts & Specifications**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: ABT 232 or (ID 232 or ID 315)  
This course is a study of the procedures used to prepare construction specifications and standard construction contracts. Emphasis will be on commercial construction projects. Topics covered will include the CSI specification format, abbreviated and three-part specifications, party responsibility, liability, and the relationship between contracts and specifications, and contract type versus delivery method.

**ABT 315 Structural Wood Design**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: ABT 232  
In this course, students study the analysis and design of wood relative to its use as a structural system. Topics will include wood properties, grading rules, allowable working stresses, deflection, connections, flitch beams, framing systems, and loading conditions. Structural differences between solid sawn, laminated, and engineered lumber will be examined as well as the use of computer programs as a design tool.

**ABT 316 Building Electrical Systems**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: ABT 136, ABT 232  
This course is a study of basic commercial building electrical systems. Topics will include circuit design, power distribution, service equipment, communication systems, fire alarm systems, and code regulation.

**ABT 324 Masonry Construction & Detailing**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: ABT 235  
In this course, students study the technical and mechanical properties of masonry construction relative to its use as a structural and enclosure system. Topics will include shapes and types of masonry block, bond beams, lintels, piers, masonry foundations, typical construction details, brick and stone veneers, integration with other structural systems, and code regulations.

**ABT 325 Soil Mechanics & Foundation Design**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ABT 232  
In this course, students study the engineering properties of soils and the principles of foundation design. Topics covered will include soil classification, stress, settlement, consolidation, slope stability, bearing pressure, and retaining wall and shallow foundation design.

**ABT 326 Fire Protection Systems & Advanced Plumbing**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: ABT 136, ABT 232  
This is a combined course studying the basic concepts, terminology, and technical understanding of commercial plumbing and fire protection systems. Topics will include sewage disposal, domestic supply and distribution, controls and valves, space requirements, materials, wet and dry systems, alarms, insurance regulations, integration with design and structural systems, and code regulations.

**ABT 328 Structural Steel Design**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: ABT 232  
In this course, students study the analysis and design of steel relative to its use as a structural system. Topics will include properties of steel, the design of beams, columns, plates and joists, riveted and welded connections, code compliance, and the use of computer programs as design tools.

**ABT 334 Site Engineering and Planning**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: ABT 232  
A study of the concepts and technology used in the design, planning, and engineering of a site relative to land use and real estate development. The emphasis will be on residential single and multi-family development. Topics will include site analysis and selection, plane surveying, grading, roads, drainage, utilities, density, erosion and sediment control, zoning and environmental regulations, and federal, state and municipal approvals. Students will develop a graphic solution for an assigned real estate development project.
Courses are listed alphabetically by course code.

**ABT 336 Advanced HVAC**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: ABT 136, ABT 232  
This course is a comprehensive study of commercial and industrial HVAC systems. Topics will include central heating and cooling, water to air systems, air to air systems, required accessories, building support requirements, terminal heating and cooling devices, and rooftop packaged units. The economics of HVAC systems and mechanical code requirements will also be covered.

**ABT 337 Building Information Modeling II (BIM II)**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisites: ABT 218  
This course expands upon the theory and applications of computer-aided drafting and building information modeling studied in ABT 218. The emphasis will be on advanced use of Revit by Autodesk and increased productivity techniques.

**ABT 338 Reinforced Concrete Design**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: ABT 232  
In this course, students study the analysis and design of reinforced concrete elements relative to their use as a structural system. Topics will include properties of reinforced concrete, the design of beams, columns, and one-way slabs, positive and negative moment and shear reinforcement, pre-stressed concrete, code compliance, and the use of computer programs as design tools.

**ABT 410 Building Design & Technology V (Low Rise)**  
4 Class Hours 6 Lab Hours 7 Quarter Credit Hours  
Prerequisites: ABT 236, ABT 314, ABT 315, ABT 316, ABT 324, ABT 325, ABT 328, ABT 334, ABT 336  
In this course, students will explore the relationship between architectural design and the engineering and technology necessary to bring those designs to fruition. The emphasis will be on low rise buildings. Each student will develop a design solution for an assigned problem including the analysis and integration of the building, structural, and environmental systems. Students will make a graphic presentation representing their solution to a jury of critics at the end of the term.

**ABT 420 Building Design & Technology VI (High Rise)**  
4 Class Hours 6 Lab Hours 7 Quarter Credit Hours  
Prerequisites: ABT 236, ABT 314, ABT 315, ABT 316, ABT 324, ABT 325, ABT 328, ABT 334, ABT 336  
In this course, students will further explore the relationship between architectural design, engineering, and technology relative to high rise buildings. Each student will develop a design solution for an assigned problem including the analysis and integration of the building, structural, and environmental systems. Students will make a graphic presentation representing their solution to a jury of critics at the end of the term.

**ABT 421 Acoustics & Lighting**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: ABT 235, MA 210, PHY 300 (ABT students) OR ID 121, MA 125 (ID students)  
In this course, students study the basic concepts, terminology, and technical understanding of acoustics and illumination relative to building and site design, construction, and human comfort. Topics will include noise transmission and control, acoustical properties of materials, STC ratings of assemblies, natural and artificial illumination, lighting calculations, selections of fixtures and systems, and code regulation.

**ABT 422 Senior Thesis Proposal**  
2 Class Hours 2 Quarter Credit Hours  
This course is a direct preparatory course for ABT 430/CMT 435/ID 430 Senior Thesis. The intent of the course is to guide and assist students through the process of initial project selection, site selection, and proposal preparation. Topics will include site analysis, research, and architectural programming.

**ABT 430 Senior Thesis**  
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisites: ABT 410, ABT 420, ABT 421, ABT 422  
This is a direct-studies course in which students must demonstrate to the architectural and construction faculty, their understanding of and ability to utilize and synthesize the design, technical and engineering concepts they have developed throughout their college experience. Prior to the commence-ment of the quarter, students will submit in proposal format, a project for review and approval by the faculty. Students will work independently with weekly interaction with a faculty advisor. The quarter will culminate with a formal presentation to a jury of faculty and critics.

**ABT 431 Engineering Economy**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: MA 125  
In this course, students study the fundamentals of economic analysis with an emphasis on the topics that are relative to the work of an engineer. Topics will include basic economic concepts, cash flow, economy factors, nominal and effective interest rates, multiple factors, gradients, and depreciation.

**ABT 433 Construction Law**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ABT 314 or ID 232  
This course examines the aspects of law which are unique or of special interest to the construction and architectural process. Topics will include government regulations, bidding, contracts, formation and interpretation of contract documents, liability, risk management, and dispute resolution.

**ACCOUNTING**

**ACC 311 Managerial Accounting**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: MGT 222  
Students review financial accounting principles and statements and study the principles of managerial accounting including the specific areas of cost accounting using spreadsheet software. Topics include cost classification, cost determination, making business decisions using cost behavior and evaluating business performance. This course strengthens students’ comprehension of financial accounting principles while providing the fundamental concepts necessary to manage and control the various costs in a small business.

**REFRIGERATION/AIR CONDITIONING/HEATING**

**AH 110 Basic Refrigeration**  
7 Class Hours 7 Quarter Credit Hours  
This course involves the study of heat and the way in which refrigeration technology is employed to transfer this source of energy. It also includes the study of tools and devices utilized to efficiently move this energy from one point to another, applications of the evaporation and condensation cycle of common refrigerants, and the analysis of the design, operation and servicing of the mechanical refrigeration system.

**AH 112 Basic Refrigeration Lab**  
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Areas of practice in this course include: fabrication of refrigerant lines and connections that join the various refrigeration components together; the service technique as applied to installing manifold gauge sets and temperature-measuring devices; removing, adding or replacing refrigerant charges; and proving operational conditions on live, educational and factory-designed equipment.
**AH 120 Basic Refrigeration Electricity**  
7 Class Hours 7 Quarter Credit Hours  
Prerequisites: AH 110/112, AH 123  
This course involves the study of basic electricity and of electricity as it applies to refrigeration and air conditioning systems. Semi-conductors which serve as a foundation for more advanced solid-state control systems; procedures required in the use of diverse electrical instruments and how they can be employed to diagnose electrical problems; compressor drive and fan motor circuitry and hermetic circuits with their associated starting relays and motor starting capacitor circuitry are discussed.

**AH 123 Basic Electricity**  
2 Class Hours 3 Lab Hours 3 Quarter Credit Hours  
This basic course is intended to familiarize heating, refrigeration/air conditioning, and plumbing students with the knowledge of electricity necessary to be successful in their respective fields. Specific topics include: basic atomic theory; current, voltage, and resistance; circuitry; electromagnetic devices; and residential panel designs and circuit installations. Laboratory experiments utilizing power supplies, electrical devices, and analog and digital meters, are designed to reinforce understanding of these topics.

**AH 124 Basic Refrigeration Electricity Lab**  
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Prerequisites: AH 110/112, AH 123  
Students work on projects concerned with the use of voltmeters, ammeters, ohmmeters, wattmeters and capacitor bridges. Other projects include: proving the effects of voltage drop, high resistance contacts, shorts and opens and related preventive maintenance. Students practice wiring and operation of open and hermetic motors with a variety of control systems, as well as troubleshooting all of the common failures which can put refrigeration plants in jeopardy of improper and costly operation.

**AH 130 Commercial Refrigeration**  
7 Class Hours 7 Quarter Credit Hours  
Prerequisites: AH 120/124  
Topics of study include: advanced refrigeration principles involving humidity control as well as temperature; selection of the low and high sides of a refrigeration system with stress being placed on the balancing of their capacities for peak efficiency; specialized study of the design of walk-in coolers and freezers, and installation of both self-contained and remote condensing equipment.

**AH 132 Commercial Refrigeration Lab**  
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Prerequisites: AH 120/124  
Students work on controlling temperature and humidity on actual commercial fixtures, setting the various types of electrical and pressure/temperature controls widely used to operate commercial systems, sizing and installing liquid and suction lines on walk-in freezers and coolers. Diagramming and installing wiring of contactors, starters and associated electrical equipment will also be covered.

**AH 210 Air Conditioning**  
7 Class Hours 7 Quarter Credit Hours  
Prerequisites: AH 130/132  
Topics studied include: air and its properties; psychrometric functions of air conditioning systems and an analysis of equipment installation and diagnostic procedures; the fundamentals of liquid chillers, cooling towers and water cooled condensers with concentration directed to components, controls, and overall operation; and heat load calculations and selection of equipment to be installed.

**AH 212 Refrigeration Technician Certification**  
2 Class Hours 2 Credit Hours  
Prerequisites: AH 110, AH 120  
This course is intended to familiarize the student with the federal laws and regulations involving the use and handling of refrigerants. Students study the effects of CFC and HCFC use on the environment past and present, the Montreal Protocol’s reaction to global environmental problems such as ozone depletion and global warming, and the proper use of equipment that complies with The Clean Air Act of 1990.

**AH 213 Air Conditioning Lab**  
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Prerequisites: AH 130/132  
Students apply the principles of psychrometry in testing an operating air conditioner; study the various components that make up the system, tracing the many refrigerant and electrical circuits used in domestic and commercial systems; and use air measuring instruments to determine the actual volume and weight of air being circulated.

**AH 220 Basic Heating**  
9 Class Hours 9 Quarter Credit Hours  
Prerequisite: AH 123  
Various oil burner designs will be studied. Each major oil burner component will be examined as to its function, operation, testing and replacement. Pipe-fitting practices will be explained and demonstrated. Chimneys and alternate venting methods will be presented. Draft, combustion chambers, boiler construction, combustion testing and schematic reading are all covered in detail in this course. The student will also receive information on operation, location, testing and replacement of the most common types of thermostats and primary controls.

**AH 222 Basic Heating Lab**  
8 Lab Hours 2 Quarter Credit Hours  
Prerequisite: AH 123  
This course provides experience through laboratory projects in servicing, repairing, testing, analyzing, installing, and replacing oil burner components. It also includes wiring and servicing of burner controls, fabricating soldered joints, and pipe fitting.

**AH 226 Gas Technology**  
9 Class Hours 9 Quarter Credit Hours  
Prerequisites: AH 230/232  
Gas Technology is designed to give the student a practical working knowledge of gas-fired equipment and the associated practices and procedures for the installation, troubleshooting, and servicing of this type of equipment. The objectives for the course are accomplished through the study of gas properties, combustion theory, distribution systems and regulators, various burner designs, control systems, and venting requirements.

**AH 228 Gas Technology Lab**  
8 Lab Hours 2 Quarter Credit Hours  
Prerequisites: AH 230/232  
Students are able to apply the theory learned in class to live units in the lab. The lab experience affords the student valuable hands-on application in areas such as testing, troubleshooting, and servicing on the same type of equipment that will be encountered in the field.

**AH 230 Heating Systems Theory**  
9 Class Hours 9 Quarter Credit Hours  
Prerequisites: AH 123, AH 220/222  
Students study the design, construction and operation of gravity and forced warm air systems, domestic water heaters as well as steam systems and accessories. The course also covers the understanding of forced hot water system components and controls. Heat loss calculation and design of a forced hot water system are also presented.

**AH 232 Heating Systems Lab**  
8 Lab Hours 2 Quarter Credit Hours  
Prerequisites: AH 123, AH 220/222  
Students service steam, hot water, and warm air heating systems in the laboratory. Accessories and energy-conservation devices are installed as part of the student’s lab work. Troubleshooting procedures are analyzed on the burners. Complete combustion testing is done in one of the approximately forty units. Students make recommendations to improve the operation of these units.
COURSES ARE LISTED ALPHABETICALLY BY COURSE CODE.

**ALLIED HEALTH**

**AHS 102 Introduction to Allied Health**
2 Class Hours 2 Quarter Credit Hours
This course introduces the student to the Allied Health professions offered at New England Institute of Technology. The course covers topics generic to the health care professional, including basic skills, language and professional roles and responsibilities.

**AHS 201 Introduction to Medical Ethics and Bioethics**
3 Class Hours 3 Quarter Credit Hours
This course is designed for the allied health student who has not been exposed to formal medical ethics or bioethics theory. Purposely broad in nature, it introduces the student to important medical ethical issues pertaining to the health care professions such as confidentiality, informed consent, euthanasia, abortion, genetic engineering, and organ allocation. A unique aspect of this course is the focus on current bioethical issues in the news. Topic selection will be driven by current issues in bioethics affecting the healthcare provider as well as the public at large.

**ART (ARTS/FOREIGN LANGUAGE CORE)**

**AR 203 Introduction to Drawing**
4 Class Hours 4 Quarter Credit Hours
This course introduces students to key concepts and techniques integral to developing basic drawing skills. Class time will be spent discussing, demonstrating and practicing these skills in order to produce a comprehensive body of work specific to the course objectives. Course performance will be evaluated on effort and growth as opposed to artistic talent.

**AR 204 Introduction to Theater**
4 Class Hours 4 Quarter Credit Hours
This course will provide students with both a theoretical and practical understanding of acting and the theatrical process as evidenced by theatrical scenes, performed by students as a final project. Theater exercises will guide the students toward self-discovery in order to explore character development and the interpretation of the content/themes of various plays. Students will write character analysis essays as a method for understanding the specific elements of acting necessary to accurately portray a given character. Students will also explore the ways in which a play is translated into a production with an emphasis on differentiating the functions of the playwright, the actor, the director, set designer and other members of a production team.

**AR 205 Introduction to Digital Photography**
4 Class Hours 4 Quarter Credit Hours
**Not available to MWD students.**
This course introduces students to the basic concepts of digital image making. Students will also develop skills in the critical analysis of photographs and learn about both the creative process and the historical significance of photography. Course performance will be evaluated on student effort and growth as opposed to artistic talent.

**AR 206 3D Sculpture: An Adventure in the Third Dimension**
4 Class Hours 4 Quarter Credit Hours
This course will teach students to think, see and function in 3-dimensional space. They will explore the differences and similarities between 2-dimensional and 3-dimensional representation in composition and design. Students will use a broad range of materials to create sculptures that will help them explore different aspects of 3-dimensional functioning. Class time will be spent in a combination of sculpture design and a discussion of slides of work reflecting the history of three-dimensional works of art from Greek times to the present. No prior experience with art courses is required.

**AR 207 Introduction to Applied Music**
4 Class Hours 4 Quarter Credit Hours
This course will afford students the opportunity to experience a “hands on” approach to piano keyboard and composition. Each section of the course will focus on one musical concept through listening, playing and finally application. Because of the computer assisted nature of the program, all levels of musical and keyboard comprehension can be accommodated and the course can be geared to the individual interests and needs of each student in the class.

**ACADEMIC SKILLS DEVELOPMENTAL COURSES**

The following four-credit courses do not count toward degree requirements. Placement in these courses is based on the results of students’ Pre-admission assessment and writing assessments.

**AS 044 Reading for a Technology**
4 Class Hours 4 Quarter Credit Hours
This course is designed for students who need to build their vocabulary and develop critical reading and thinking skills necessary to succeed in their technology courses. The primary focus is on learning strategies to read more quickly with greater comprehension. Students are also introduced to Internet research and oral presentations, and gain practice reading material from Quarter I technology texts.

**MA 040 Pre-College Math**
8 Lab Hours 4 Quarter Credit Hours
This course is designed for students who need a thorough review of arithmetic including whole numbers, fractions, and decimals. This course will integrate problem solving related to ratios, proportions and percent. Solving basic equations and operations with signed numbers will be introduced. In addition, this course is intended to familiarize students with the calculator functions related to the applications above.

**Academic Skills Enrichment Courses**
In addition to the college’s regular academic courses, the Academic Skills Center offers a variety of enrichment courses for both personal enrichment and professional development. Each enrichment course is one credit and does not apply toward required graduation credits. For a full listing of the courses offered, please refer to the Web for Students website, online college catalog, speak with your Academic Advisor or contact the Director of Academic Skills.

**AVIATION SCIENCE**

**AST 110 Private Pilot Ground**
5 Class Hours 5 Quarter Credit Hours
This course includes an introductory study of the basic principles of aerodynamic forces, basic aircraft systems, including engines, propellers, and instruments, basic navigation, flight operations, Federal Aviation Regulations, and publications for the private pilot.

**AST 113 Private Pilot Flight I***
6 Lab Hours 3 Quarter Credit Hours
Prerequisite: FAA First Class Medical Certificate
Primary instruction in single-engine airplanes (land) and in flight training devices in accordance with the FAA-approved syllabus is included in this course. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT. Successful completion of this course requires a minimum of 20 hours of dual flight instruction received from a FAA-Designated Flight Instructor as well as successful completion of Phase I of the Private Flight syllabus.
**AST 120 Commercial Pilot Ground**  
5 Class Hours 5 Quarter Credit Hours  
Prerequisite: AST 110  
This course focuses on high performance aircraft, including an understanding of loading graphs, endurance and performance tables and charts, and advanced aircraft systems, such as controllable pitch propellers, pressurization, anti-icing and turbo-charging. Precision flight maneuvers will be included, as well as FAA regulations for commercial pilots and operating procedures under FAR Part 135 and FAR Part 121.

**AST 123 Private Pilot Flight II*  
6 Lab Hours 3 Quarter Credit Hours  
Prerequisite: FAA First Class Medical Certificate  
Continued primary instruction, Phase 2 and Phase 3 of the FAA-approved Private Pilot Syllabus, in single-engine airplanes (land) and in flight training devices. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT. Credit for this course will be awarded upon passing the FAA Practical Test for the Private Pilot License.

**AST 124 Aviation Safety**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: AST 110  
This course is an introduction to aviation safety, accident investigation and prevention, and human performance in the aviation system. Students will be introduced to various categories of risk and how they relate to commercial and general aviation.

**AST 130 Instrument Pilot Ground**  
6 Class Hours 6 Quarter Credit Hours  
Prerequisite: AST 120  
This course discusses basic flight instruments and their use. The course includes attitude instrument flying, basic maneuvers, power control, unusual attitudes and recoveries, and applications of instrument flight maneuvers. Also covers electronic aids, navigation instruments, FAA Airway system, communications, air traffic control, flight planning, and IFR regulations, procedures, and publications for the commercial and instrument pilot.

**AST 133 Commercial Pilot Flight I*  
8 Lab Hours 4 Quarter Credit Hours  
Prerequisite: AST 123  
Advanced instruction in cross country operation of single engine airplanes (land), and in flight training devices in accordance with the FAA-approved syllabus are discussed. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT. The focus of this course is Phase I of the FAA-Approved syllabus for the Commercial Pilot License. Successful completion of this course requires a minimum of 40 hours flight experience comprised of dual flight instruction received from a FAA-Designated Flight Instructor and solo flight experience.

**AST 243 Air Traffic Control**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: AST 110, AST 123  
This course includes an introduction to the functions, rules, phraseology, and publications utilized in the Air Traffic Control system. Topics include airborne and ground navigational aids and communications integrated in radar and non-radar ATC functions.

**AST 244 Instrument Pilot Flight I*  
12 Lab Hours 6 Quarter Credit Hours  
Prerequisite: AST 123  
Instrument instruction in single-engine airplanes (land) and in flight training devices in accordance with the FAA-approved syllabus are included in the course. This course is taught at an independent FAA certified facility and credits will be awarded by NEIT. Credit for this course will be awarded upon passing the FAA Practical Test for the Instrument Pilot Certificate.

**AST 253 Airport Operations and Management**  
4 Class Hours 4 Quarter Credit Hours  
A comprehensive overview of the functions of airport management is discussed in this course. The pervasive role of government, both federal and state, in airport regulation, funding, planning, design, and construction will be examined. The rapidly changing environment marked by supply and demand relationships driven by airline economics, system imbalances caused by capacity constraints, and extensive environmental considerations will be analyzed.

**AST 254 Aviation Law and Regulations**  
4 Class Hours 4 Quarter Credit Hours  
A study of the U.S. commercial air transport industry and government agencies such as DOT, FAA, and NTSB that are involved in the air transport industry. Topics include the history of aviation law, introduction to the American legal system, regulatory bodies and policymakers, economic regulation of domestic aviation, deregulation, legal issues and airport regulation, enforcement and compliance, environmental law and the aviation industry, and a brief introduction to international air law.

**AST 255 Commercial Pilot Flight II*  
6 Lab Hours 3 Quarter Credit Hours  
Prerequisite: AST 123  
Continued advanced instruction in single engine airplanes (land), and in flight training devices in accordance with the FAA-approved syllabus. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT. The focus of this course is Phase II of the FAA-Approved syllabus for the Commercial Pilot License. Successful completion of this course requires a minimum of 40 hours flight experience comprised of dual flight instruction received from an FAA-Designated Flight Instructor and solo flight experience.

**AST 260 Instructor Pilot Ground**  
5 Class Hours 5 Quarter Credit Hours  
Prerequisite: AST 244  
A study of the basics of flight instruction with emphasis on communication skills, as well as the process of instruction and evaluation is included in this course which will prepare the student for the FAA Fundamentals of Instruction Examination.

**AST 263 Commercial Pilot Flight III*  
6 Lab Hours 3 Quarter Credit Hours  
Prerequisites: AST 123, AST 244, AST 255  
Continued advanced instruction in single engine airplanes (land), and in flight training devices in accordance with the FAA-Approved Commercial Pilot syllabus. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT. The focus of this course is Phase III of the FAA-Approved syllabus for the Commercial Pilot License. Credit for this course will be awarded upon passing the FAA Practical Test for the Commercial Pilot License.

**AST 264 Crew Resource Management**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: AST 110, AST 124  
This course introduces the student to the concepts of crew resource management (CRM) and the contributions CRM makes to the safe and efficient performance to members of flight crews. Through group projects and in-class exercises, students will develop their own CRM skills and learn how to apply them to various situations and settings. While this course is primarily intended for students who wish to become professional pilots, the skills learned are important to management in any organizational setting.

**AST 270 Advanced Ground**  
6 Class Hours 6 Quarter Credit Hours  
Prerequisite: AST 123  
This course will provide students with the advanced knowledge and understanding of techniques required for the Multi-Engine and Instrument Instructor Flight Labs.
Courses are listed alphabetically by course code.

**AST 273 Certified Flight Instructor Flight**
2 Lab Hours 1 Quarter Credit Hour
Prerequisite: AST 263
Advanced instruction in single-engine airplanes (land) and in flight training devices in accordance with the FAA-Approved Flight Instructor syllabus. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT upon passing the FAA Practical Test for the Flight Instructor Certificate.

**AST 274 Advanced Aircraft Systems**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AST 120, AST 130, AST 133 and AST 263
This is an advanced course designed to provide knowledge, understanding and applicable skills with respect to turbine aircraft systems, limitations, procedures, and performance.

**AST 275 Multi-Engine Flight**
2 Lab Hours 1 Quarter Credit Hour
Prerequisite: AST 123
Advanced instruction in multi-engine airplanes (land), and in flight training devices in accordance with the FAA-Approved Commercial Multi-Engine Pilot syllabus. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT upon passing the FAA Practical Test for the Commercial Pilot License – Airplane Multi-Engine Land.

**AST 283 Advanced Navigation**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AST 120, AST 130, AST 133, AST 263
This is an advanced course designed to build on the student’s knowledge of the low altitude airway structure by introducing the language and concepts associated with high-altitude flight. Students will learn jet routing and international flight navigation requirements, position reporting and documentation. Students will have an opportunity to operate advanced Flight Management Systems and personally engage in international flight planning.

**AST 284 Advanced Flight Operations**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AST 120, AST 130, AST 133, AST 263
This course focuses on high performance aircraft, including an understanding of loading graphs, endurance and performance tables and charts, and advanced aircraft systems, such as controllable pitch propellers, pressurization, anti-icing and turbo-charging. Precision flight maneuvers will be included, as well as FAA regulations for commercial pilots and operating procedures under FAR Part 135 and FAR Part 121. A field study component is included in this course.

**AST 285 Certified Flight Instructor Instrument Flight**
4 Lab Hours 2 Quarter Credit Hours
Prerequisites: AST 273, AST 275
Advanced instruction in multi-engine airplanes (land), and in flight training devices in accordance with the FAA-Approved Multi-Engine Flight Instrument syllabus. This course is taught at an independent FAA-certified facility and credits will be awarded by NEIT upon passing the FAA Practical Test for the Flight Instructor, Multi-Engine Pilot Certificate.

*All flight courses are taught at an independent FAA-certified facility and credits will be awarded by NEIT.*

**AUTOMOTIVE**

**ATX 115 Automotive Engines**
7 Class Hours 7 Quarter Credit Hours
Co-requisite: ATX 117
This course is the study of two-and four-cycle internal combustion engine operation and design. Topics covered are: engine identification, internal components, cooling systems, lubrication systems and preliminary diagnosis of internal noises and excessive smoke. The course begins with discussions on internal failures and moves to practice with engine precision measurement and in-car repairs. In-depth discussions will focus on sealing techniques and engine breathing requirements. We then move to in-car repairs including timing belts and water pumps. Students will study engine fasteners and fastening techniques. In-depth discussions will focus on sealing techniques and engine breathing requirements.

**ATX 117 Automotive Engines Lab**
6 Lab Hours 2 Quarter Credit Hours
Pre/co-requisite: ATX 115
Students will practice compression and vacuum testing, oil pressure and cooling system examination. Students will learn to identify different engine configurations through the use of VIN or model numbers and will practice finding specifications in service manuals or by using computerized information systems. Students will practice replacement of cylinder head gaskets, water pumps, timing belts and intake manifold gaskets. This course is designed to encourage team work and critical thinking skills.

**ATX 125 Automotive Electricity and Electronics**
7 Class Hours 7 Quarter Credit Hours
Co-requisite: ATX 127
This course is a study of the fundamental theory and application of electrical and electronic principles in the automotive industry. Topics covered include principles of electricity, electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion students will be able to properly use electrical testing equipment, wiring diagrams, diagnose, test, and repair electrical concerns. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

**ATX 127 Automotive Electricity and Electronics Lab**
6 Lab Hours 2 Quarter Credit Hours
Pre/co-requisite: ATX 125
In the lab, students will learn the use of multimeters and other test equipment. Students will diagnose and repair electrical circuits and components. Topics covered include electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion, students will be able to properly use electrical testing equipment and wiring diagrams to properly diagnose and repair automotive electrical failures. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

**ATX 135 Automotive Brakes, Suspension and Steering**
7 Class Hours 7 Quarter Credit Hours
Co-requisite: ATX 137
This course covers the principles of operation of drum and disc braking systems. Students will study hydraulic principles, brake inspection, brake bleeding, brake system flushing, and machining practices. This course also introduces the student to automotive tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.
ATX 137 Automotive Brakes, Suspension and Steering Lab
6 Lab Hours 2 Quarter Credit Hours
Pre/co-requisite: ATX 135
The brake portion of the course covers the principles of operation, servicing and the diagnosing of drum, disc, parking, power assist and anti-lock braking systems. The steering and suspension portion of the course introduces the student to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

ATX 222 Automotive Heating and Air Conditioning Systems
3 Lab Hours 1 Quarter Credit Hour
Prerequisites: ATX 125/127 OR AUB 131/132
This course will cover basic physics concepts of heating, cooling heat transfer and phase changes. It will apply this knowledge to the understanding of engine cooling systems, heating systems and air conditioning systems. Students will apply this knowledge in the lab in the testing and servicing of these systems.

ATX 225 Automotive Fuel and Ignition Systems
7 Class Hours 7 Quarter Credit Hours
Prerequisites: ATX 115/117, ATX 125/127, TT 105
Co-requisite: ATX 227
Students are introduced to the air and fuel requirements of the internal combustion engine. Storage tanks, lines and fittings, electric/mechanical fuel pumps, electronic fuel injection theory and operation will be discussed. The computer network and scan tool operation as it applies to the fuel system will also be discussed. Students will be introduced to the diagnosis and repair of advanced electronic and computerized ignition systems found on the modern day internal combustion engine. The study of the components and operation of the engine management system used on today’s cars will be major topics of discussion in class.

ATX 227 Automotive Fuel and Ignition Systems Lab
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: ATX 115/117, ATX 125/127, TT 105
Pre/co-requisite: ATX 225
Students will practice fuel tank removal and installation and fuel pump removal and installation. They will also practice the diagnosis and repair of all types of electronic fuel injection. Routine service procedures, i.e. fuel injection cleaning/de-carbonizing will also be practiced. Students will be required to use state of the art tools and service equipment commonly used in the trade. Students will also practice scan tool operation and use these and other common tools and diagnostic equipment to troubleshoot and service modern ignition and fuel systems.

ATX 235 Automotive Engine Performance Diagnosis
7 Class Hours 7 Quarter Credit Hours
Prerequisites: ATX 225/227
Co-requisite: ATX 237
This course will cover the complete computerized engine management systems (i.e., ignition, fuel, and emissions) and self-diagnostics. OBD II (on-board diagnostics generation 2) and drive-cycle monitors will be discussed, as well as advanced testing procedures using lab scopes, scan tools and other tools and equipment common to the repair and service trade. The course will also focus on the diagnosis and repair of drivability problems associated with chassis and body computer control systems. Modern day vehicles have a number of computers that control ride, traction, braking, shift patterns, interior safety and comfort. This course will examine each of these computer-controlled systems and the diagnosis and repair of these systems using advanced testing procedures and diagnostic equipment.

ATX 237 Automotive Engine Performance Diagnosis Lab
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: ATX 225/227
Pre/co-requisite: ATX 235
Students will be required to diagnose and repair various drivability problems using scan tools, lab scopes and other state of the art tools and equipment. They will also be required to diagnose and repair emissions related failures using 5-gas analyzers. Students will be required to diagnose and repair various problems associated with ride, traction, braking, shift patterns, interior safety and comfort using scan tools, lab scopes and other modern day state of the art equipment and tools normally found in the service trade.

AUTOMOTIVE COLLISION REPAIR

AUB 101 Fundamentals of Auto Body Metal Repair
3 Class Hours 3 Quarter Credit Hours
Co-requisites: AUB 103, AUB 118
Students will learn the proper and safe use of hand and power tools specific to the auto body trade. Students will learn the concepts of straightening sheet metal components and practice the proper use of various auto body refinishing materials and equipment.

AUB 103 Fundamentals of Auto Body Metal Repair Lab
4 Lab Hours 1 Quarter Credit Hour
Pre/co-requisite: AUB 101
In the lab, students will practice the concepts they learned in AUB 101. Students will be assigned an auto body component and will demonstrate their ability to correctly apply refinishing materials using specialized equipment. Students will also practice using hand and power tools specific to the automotive collision repair industry.

AUB 118 Welding for Collision Repair
3 Lab Hours 1 Quarter Credit Hour
This course is intended to teach students the fundamentals of using both oxy/acetylene and electric welding equipment. Students will learn the three different classes of welding, safety precautions associated with each class and will practice basic welding, brazing and cutting techniques.

AUB 122 Brakes and Suspension Systems for Collision Students
4 Class Hours 4 Quarter Credit Hours
Co-requisite: AUB 123
This course covers the principles of operation of drum and disc braking systems including the study of hydraulic principles, brake inspection, brake bleeding, brake system flushing and machining practices. In addition, this course introduces students to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.
Courses are listed alphabetically by course code.

**AUB 123 Brakes and Suspension Systems for Collision Students Lab**
4 Lab Hours 1 Quarter Credit Hour  
Pre/co-requisite: AUB 122  
Students will practice drum and disc machining, caliper service and brake inspections in the lab. They will also be introduced to anti-lock braking systems and servicing. Students will practice rebuilding wheel cylinders, calipers and master cylinders to manufacturers’ specifications. They will also learn tire dismounting and mounting, balancing and service of run-flat design tires. Students will practice removal and installation of steering components and will also study suspension system component removal and replacement in the lab; and practice wheel replacement and alignment using a variety of state of the art equipment.

**AUB 127 Introduction to Airbrushing**  
1 Class Hours 3 Lab Hours 2 Quarter Credit Hours  
Prerequisites: AUB 243/245, AUB 253/254  
This class is designed for the person who has no airbrush experience and for those who have used an airbrush before but want to learn new techniques. Instruction will cover how to handle the airbrush, the hook-up and maintenance procedure for double action brushes, how to render in black, white and color and more. Through a series of pre-printed exercises students will learn glazing techniques, mixing of products and media and to work with stencils and templates.

**AUB 128 Custom Modifications I**  
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Custom car design and building allows students to express themselves in a creative way. Students will gain minor fabrication skills using sheet metal. Students will be exposed to body kits and their installation. Also, students will learn the art of removing door hardware and installing electric door openers. The installation of Lambo doors and suicide doors will be demonstrated and explained. The class will discuss the art of chopping a roof of an automobile. There is no end to the possibilities of custom car design.

**AUB 129 Advanced Airbrushing Techniques**  
1 Class Hours 3 Lab Hours 2 Quarter Credit Hours  
Prerequisite: AUB 127  
This class expands on the techniques mastered in AUB 127. Instruction will cover how to render in color and more. Through a series of pre-printed exercises students will practice glazing techniques, mixing of products and media and to work with stencils and templates. Emphasis will be in illustrations and custom ornate work on large surface areas as well as multilevel illustrations.

**AUB 130 Custom Modifications II**  
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
After the completion of sheet metal work and design comes the painting techniques students will use in finishing a custom project. Steps in preparing the panel for that custom finish will be demonstrated and practiced. Students will develop a unique illustration and geometric designs for their project. Specific topics addressed include application of candy finish, how to create traditional and realistic flames. The use of templates and a wide variety of masking techniques to create that custom paint finish will be practiced.

**AUB 131 Basic Electricity for the Collision Trade**  
3 Class Hours 3 Quarter Credit Hours  
Co- requisite: AUB 132  
This course covers electrical fundamentals from “What is Electricity?” to basic troubleshooting techniques. Topics covered will be: how electricity is produced, types of electricity, Ohm’s Law, basic circuit construction, conductors, insulators, induction, battery construction and testing, alternators, starters, lighting systems, electrical testing tools and diagnosis of circuit problems.

**AUB 132 Basic Electricity for the Collision Trade Lab**  
3 Lab Hours 1 Quarter Credit Hour  
Pre/co-requisite: AUB 131  
In the lab, students will learn the use of multimeters, and other test equipment to diagnose and repair electrical circuits and components including lights, gauges, solenoids, relays, voltage regulators, motors and generators. Students will be instructed in the correct methods of constructing circuits, testing batteries, charging systems and starting systems.

**AUB 136 Fundamentals of Paints and Refinishing Equipment Lab**  
4 Lab Hours 1 Quarter Credit Hour  
Pre/co-requisite: AUB 137  
Students will practice surface preparation such as masking techniques, surface preparation, preparing sprayable materials, spraying different consistencies of paints and primers and cleaning and storing painting equipment and supplies.

**AUB 137 Fundamentals of Paints and Refinishing Equipment**  
2 Class Hours 2 Quarter Credit Hours  
Co-requisite: AUB 136  
Students will learn spray equipment handling, operation and care. Students will practice spraying various consistencies of paints from undercoats to topcoats. Students will learn personal health safety and spray booth operation.

**AUB 138 Glass and Non-Structural Panel Replacement**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: AUB 101/103  
Co-requisite: AUB 146  
Students will be instructed in the proper methods used in the removal and replacement of auto glass, interior moldings, interior hardware and exterior trim. Demonstrations will include proper installation of exterior panels as well as adjustments on hoods, fenders, doors and deck lids.

**AUB 139 Fundamentals of Paints and Refinishing Equipment**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: AUB 118, AUB 101/103  
Pre/co-requisite: AUB 145  
In the lab, students will practice the concepts they learned in AUB 145. Students will demonstrate the ability to properly install a non-structural panel to manufacturer’s specifications. Students will also perform adjustments on hoods, fenders, doors and deck lids to achieve proper fit.

**AUB 152 Introduction to Structural Repairs and Component Replacement**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: AUB 118, AUB 101/103, AUB 137/136  
Co-requisite: AUB 153  
In this course, students will learn vehicle frame and body design from full-frames to unibody construction and the proper methods used in the removal and replacement of such structural components as quarter panels and door skins. Demonstrations will include the operation of hydraulic straightening equipment, straightening techniques, straightening structural components and replacement of door skins and/or quarter panels on live vehicles or replacement doors. Students will be instructed in sectioning of stationary mild and H.S.S. steel panels.

**AUB 153 Introduction to Structural Repairs and Component Replacement Lab**  
8 Lab Hours 2 Quarter Credit Hours  
Prerequisites: AUB 118, AUB 101/103, AUB 137/136  
Pre/co-requisite: AUB 152  
Students will demonstrate the ability to properly operate hydraulic straightening equipment and will practice straightening techniques and straightening structural components in the collision repair lab. Students will be instructed in, and practice sectioning of, stationary mild and H.S.S. steel panels. They will also demonstrate their ability to replace a door skins and/or quarter panels on live vehicles or replacement doors.
AUB 154 Major and Minor Frame and Structural Straightening
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AUB 137/136, AUB 145/146, AUB 152/153
Co-requisite: AUB 155
Students will be instructed in full-frame and unibody straightening on vehicles using the portable and stationary frame straightening equipment. Instruction will also cover the procedures used in the repair of major collision damage repair, the use and operation of a body and frame bench, and the methods used to verify specifications and measurement. Those skills will be used to repair vehicles with major collision damage using universal measuring systems in the automotive collision repair lab.

AUB 155 Major and Minor Frame and Structural Straightening Lab
8 Lab Hours 2 Quarter Credit Hours
Prerequisites: AUB 137/136, AUB 145/146, AUB 152/153
Pre/co-requisite: AUB 154
Students will be asked to demonstrate the knowledge gained in AUB 154 and to perform frame straightening on either unibody or full-frame vehicles. They will also demonstrate their ability to use the universal measuring system to correctly verify specifications and measurement of a vehicle with major collision damage and return a damaged vehicle to factory specification. Vehicle type and design will depend on vehicle availability.

AUB 156 Plastic Panel and SMC Repair
3 Class Hours 3 Quarter Credit Hours
Prerequisites: AUB 101/103, AUB 137/136, AUB 145/146
Co-requisite: AUB 157
In this course, students will learn the process for repairing various plastic components used on modern automobiles today. Students will be instructed in the use of plastic welders and plastic adhesives to perform repairs on both rigid and flexible component to industry standards. Students will also be instructed in the repair and replacement of Sheet Molded Composite (SMC) panels.

AUB 157 Plastic Panel and SMC Repair Lab
3 Lab Hours 1 Quarter Credit Hour
Prerequisites: AUB 101/103, AUB 137/136, AUB 145/146
Pre/co-requisite: AUB 156
Students will practice repairing plastic components using plastic welders and special adhesives particular to the automotive industry. Students will also practice replacing SMC components and panels and refinishing them to manufacturer’s specifications and industry standards.

AUB 156 Multi-Stage Paint Applications
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AUB 101/103, AUB 137/136
Co-requisite: AUB 243
Students will practice mixing two and three stage paints using computerized mixing equipment. Students will demonstrate their ability to identify colors using vehicle color codes and determine the type of paint presently on the vehicle.

AUB 155 Multi-Stage Paint Applications Lab
4 Lab Hours 1 Quarter Credit Hour
Prerequisites: AUB 101/103, AUB 137/136
Pre/co-requisite: AUB 243
Students will demonstrate their ability to mix primers and paints with related additives and apply them to properly prepared vehicle surfaces. To do this, students will be asked to demonstrate their ability to identify colors from vehicle paint codes and mix paints using the computerized mixing equipment and blend newly-applied paint into previously painted panels.

AUB 156 Assessing Damage and Estimating Repairs
3 Class Hours 3 Quarter Credit Hours
Prerequisites: AUB 156/157
This class is designed for students who have completed all aspects of the repair and refinishing portion of their Automotive Collision Repair curriculum. This course prepares students to write estimates of repair using collision crash guides, parts sources, and other available types of literature for various makes of vehicles. Students will also be instructed in the latest software available for the estimation of vehicle repairs.
Courses are listed alphabetically by course code.

AUTOMOTIVE

AUT 103 Automotive Engines
7 Class Hours 7 Quarter Credit Hours
This course is the study of two-and four-cycle internal combustion engine operation and design. Topics covered are: engine identification, internal components, cooling systems, lubrication systems and preliminary diagnosis of internal noises and excessive smoke. The course begins with discussions of internal failures and moves to practice with engine precision measurement and in-car repairs. In-depth discussions will focus on sealing techniques and engine breathing requirements. We then move to in-car repairs including timing belts and water pumps. Students will study engine fasteners and fastening techniques. In-depth discussions will focus on sealing techniques and engine breathing requirements.

AUT 104 Automotive Engines Lab
8 Lab Hours 2 Quarter Credit Hours
Students will practice compression and vacuum testing, oil pressure and cooling system examination. Students will learn to identify different engine configurations through the use of VIN or model numbers and will practice finding specifications in service manuals or by using computerized information systems. Students will practice disassembly of major components and replacement of cylinder head gaskets, water pumps, timing belts and intake manifold gaskets.

AUT 105 Automotive Electricity and Electronics
7 Class Hours 7 Quarter Credit Hours
This course is a study of the fundamental theory and application of electrical and electronic principles in the automotive industry. Topics covered include principles of electricity, electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion, students will be able to properly use electrical testing equipment, wiring diagrams, diagnose, test, and repair electrical concerns. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

AUT 106 Automotive Electricity and Electronics Lab
8 Lab Hours 2 Quarter Credit Hours
In the lab, students will learn the use of multimeters and other test equipment. Students will also build, diagnose and repair electrical circuits and components. Topics covered include electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion, students will be able to properly use electrical testing equipment, wiring diagrams, diagnose, test, and repair electrical concerns. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

AUT 107 Automotive Brakes, Suspension and Steering
8 Class Hours 8 Quarter Credit Hours
This course covers the principles of operation of drum and disc braking systems. Students will study hydraulic principles, brake inspection, brake bleeding, brake system flushing, and machining practices. This course also introduces the student to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

AUT 108 Automotive Brakes, Suspension and Steering Lab
8 Lab Hours 2 Quarter Credit Hours
The brake portion of the course covers the principles of operation, servicing and the diagnosing of drum, disc, parking, power assist and anti-lock braking systems. The steering and suspension portion of the course introduces the student to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

AUT 109 Automotive Brakes, Suspension and Steering Systems
8 Lab Hours 2 Quarter Credit Hours
In the lab, students will learn the use of multimeters and other test equipment. Students will also build, diagnose and repair electrical circuits and components. Topics covered include electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion, students will be able to properly use electrical testing equipment, wiring diagrams, diagnose, test, and repair electrical concerns. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

AUT 110 Automotive Brakes, Suspension and Steering Systems Lab
8 Lab Hours 2 Quarter Credit Hours
In the lab, students will learn the use of multimeters and other test equipment. Students will also build, diagnose and repair electrical circuits and components. Topics covered include electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion, students will be able to properly use electrical testing equipment, wiring diagrams, diagnose, test, and repair electrical concerns. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

AUT 111 Automotive Brakes, Suspension and Steering Systems
8 Lab Hours 2 Quarter Credit Hours
The brake portion of the course covers the principles of operation, servicing and the diagnosing of drum, disc, parking, power assist and anti-lock braking systems. The steering and suspension portion of the course introduces the student to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

AUT 112 Automotive Brakes, Suspension and Steering Systems Lab
8 Lab Hours 2 Quarter Credit Hours
The brake portion of the course covers the principles of operation, servicing and the diagnosing of drum, disc, parking, power assist and anti-lock braking systems. The steering and suspension portion of the course introduces the student to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

AUT 113 Automotive Brakes, Suspension and Steering Systems
8 Lab Hours 2 Quarter Credit Hours
The brake portion of the course covers the principles of operation, servicing and the diagnosing of drum, disc, parking, power assist and anti-lock braking systems. The steering and suspension portion of the course introduces the student to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

AUT 114 Oxy and Electric Welding and Cutting
3 Lab Hours 1 Quarter Credit Hour
This course is intended to teach students the fundamentals of using both oxy/acetylene and electric welding equipment. Students will learn the three different classes of welding, safety precautions associated with each class and will practice basic welding, brazing and cutting techniques.
This course will cover the complete computerized engine management systems (i.e., ignition, fuel, and emissions) and self-diagnostics. OBD II (on-board diagnostics generation 2) and drive-cycle monitors will be discussed, as well as advanced testing procedures using lab scopes, scan tools and other tools and equipment common to the repair and service trade. The course will also focus on the diagnosis and repair of drivability problems associated with chassis and body control computer systems. Modern day vehicles have a number of computers that control ride, traction, braking, shift patterns, interior safety and comfort. This course will examine each of these computer-controlled systems and the diagnosis and repair of these systems using advanced testing procedures and diagnostic equipment.

**AUT 222 Automotive Engine Performance Diagnosis Lab**
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: AUT 209/210
Pre/co-requisite: AUT 221
Students will be required to diagnose and repair various drivability problems using scan tools, lab scopes and other state-of-the-art tools and equipment. They will also be required to diagnose and repair emissions related failures using 5-gas analyzers. Students will be required to diagnose and repair various problems associated with ride, traction, braking, shift patterns, interior safety and comfort using scan tools, lab scopes and other modern day state of the art equipment and tools normally found in the service trade.

**AUT 221 Automotive Engine Performance Diagnosis**
8 Class Hours 8 Quarter Credit Hours
Prerequisites: AUT 209/210
Co-requisite: AUT 222
This course will cover the complete computerized engine management systems (i.e., ignition, fuel, and emissions) and self-diagnostics. OBD II (on-board diagnostics generation 2) and drive-cycle monitors will be discussed, as well as advanced testing procedures using lab scopes, scan tools and other tools and equipment common to the repair and service trade. The course will also focus on the diagnosis and repair of drivability problems associated with chassis and body control computer systems. Modern day vehicles have a number of computers that control ride, traction, braking, shift patterns, interior safety and comfort. This course will examine each of these computer-controlled systems and the diagnosis and repair of these systems using advanced testing procedures and diagnostic equipment.

**AUT 220 Advanced Powertrains**
1 Class Hour 3 Lab Hours 2 Quarter Credit Hours
Pre/co-requisites: AUT 215/219
In this course, students will study the different types of four wheel drive systems. Topics covered will include four wheel drive rear axles and transaxles, transfer case vacuum and electric controls, and clutch removal and installation. Students will practice diagnosis and repair of electronic and vacuum control system as well as transfer case rebuilding.

**AUT 251 Internship/Practical Experience**
20 Internship Lab Hours 4 Quarter Credit Hours
This course is designed for the student who has completed the majority of his/her automotive studies and wishes to hone their skills in the work environment. Employers will be matched with students based on interest/ability levels to assist students to improve their mechanical skill in the work environment.

**AUT 252 Advanced Powertrains**
1 Class Hour 3 Lab Hours 2 Quarter Credit Hours
Prerequisites: AUT 220/210, AUT 221/222
This course will focus on the following areas: the origins and properties of natural gas; gas composition; defining the combustion process of natural gas as opposed to gasoline or diesel fuel; the handling of fuels and related safety precautions; tank construction; performance of general maintenance procedures; tank installation; general operation and function of regulators, mixers, solenoids, and electronic components; NFPA-52 regulations; and defining the role of the NGV technician. Students will perform a CNG vehicle conversion and initial set up procedures using data gathered by exhaust gas emissions analysis.

**AUT 261 Introduction to Natural Gas Vehicles**
3 Lab Hours 1 Quarter Credit Hour
Prerequisites: AUT 209/210, AUT 221/222
This course will cover the theory and operation of hybrid electric vehicles. While this class will focus on hybrid electric vehicles, different types of alternative fuel vehicles will be introduced as well. Safety procedures and common services to hybrid electric vehicles will be discussed as well as specific tool usage as they pertain to high voltage systems.

**AUT 262 Introduction to Hybrid Vehicles**
1 Class Hour 3 Lab Hours 2 Quarter Credit Hours
Prerequisites: AUT 209/210 or ATX 225/227
This course will cover the theory and operation of hybrid electric vehicles. While this class will focus on hybrid electric vehicles, different types of alternative fuel vehicles will be introduced as well. Safety procedures and common services to hybrid electric vehicles will be discussed as well as specific tool usage as they pertain to high voltage systems.

**AUT 263 NVH Principles and Diagnostics**
1 Class Hour 3 Lab Hours 2 Quarter Credit Hours
Prerequisites: TT 105, AUT 103/104, AUT 107/108, MA 100/110
In this course, students will learn to identify and diagnose noise, vibration, and harshness issues as they apply to vehicle ride quality, vehicle operation and customer perception. Students will become proficient using various tools designed to detect noise, vibration, and harshness and determine the corrective repairs.

**AUT 271 Introduction to High Performance Vehicles**
6 Class Hours 6 Quarter Credit Hours
Prerequisites: AUT 221 or ATX 235
This course will cover an introduction to horsepower, airflow through an engine and exhaust systems. Dynomometer testing of vehicles prior to modifications will be discussed and practiced as well as modification which can be made to most vehicles. Students will practice testing vehicles, making engine, exhaust and suspension modification and retesting vehicles to measure results.

**AUT 272 Introduction to High Performance Vehicles Lab**
8 Lab Hours 4 Quarter Credit Hours
Prerequisites: AUT 221 or ATX 235
Students will practice testing vehicles, making engine, exhaust and suspension modification and retesting vehicles to measure results.

**AUT 275 Automotive Heating and Air Conditioning Systems**
1 Class Hours 3 Lab Hours 2 Quarter Credit Hours
Prerequisites: TT 105 and AUT 105/106 OR AUB 131/132
This course will cover basic physics concepts of heating, cooling heat transfer and phase changes. It will apply this knowledge to the understanding of engine cooling systems, heating systems and air conditioning systems. Students will apply this knowledge in the lab in the testing and servicing of these systems.

**AUT 276 Light Duty Diesel Diagnostics and Repair**
1 Class Hour 3 Lab Hours 2 Quarter Credit Hours
Prerequisites: TT 105 and AUT 103/104/105/106 or ATX 115/117/125/127
This course covers the principles of operation of light duty diesel vehicles. The class will focus on: basic diesel operation, preventive maintenance, high and low pressure fuel systems, high and low pressure lubricating systems, intake and exhaust systems and emission controls. Content learned in the classroom will be applied in the lab.

**AUT 280 Advanced Troubleshooting**
1 Class Hour 3 Lab Hours 2 Quarter Credit Hours
Prerequisites: AUT 103/104, AUT 209/210
This course is designed for the student who has completed the majority of his/her automotive studies and wants to hone their diagnostic skills. This course is lab-based and focuses on automotive drivability problems and will consist of a large amount of hands-on practical problems.
Courses are listed alphabetically by course code.

**AUT 300 Industry Software Applications I**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: TT 105 and MGT 113 or by permission of the department chair.  
Students are introduced to industry software packages such as ALLDATA and Mitchell1 to track work orders, customer service intervals, recalls and warranty updates. Students practice communications with consumers, as well as other departments within the dealership. Students hone communication skills with a focus on persuasive writing in a fast-paced electronic office. Additional focus will be on setting up a customer database in Outlook, in which students create and organize contacts, manage distribution lists, and manage mail folders and archives.

**AUT 301 Sales and Customer Relations**  
3 Class Hours 3 Quarter Credit Hours  
High-quality service in today's automotive industry is defined by the customer's experience at the dealership. Operational excellence ensures that the customer's car will be ready when promised and fixed correctly the first time. Selling service is perhaps the most difficult of all sales and begins when the customer responds to an advertisement or visits the dealership. The Service Writer is often the first person the customer encounters. This course gives the student an understanding of the relationship between the dealership and the customer. The course teaches the concepts of integrity-based sales to achieve customer loyalty. The course will also train students to strive for high-quality service and customer satisfaction.

**AUT 302 Service Management Operations**  
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
High-quality service operations require effective management teams. This course gives students an understanding of management operations of today’s high performing dealerships. Students study time management, benchmarking and best practices, internal operations, compensation management and physical operations as well as insurance issues faced in the automotive environment. Students work in teams and roleplay to learn the concepts of leadership through motivation.

**AUT 303 Environmental Health and Safety**  
2 Class Hours 2 Quarter Credit Hours  
This course covers the responsibilities of the service department to provide their employees with Right-to-Know training and Hazardous Materials Communication. Students learn the governmental requirements for Right-to-Know training and practice developing a hazard communication plan for a small service business.

**AUT 304 Industry Software Applications II**  
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisite: AUT 300  
Students are introduced to advanced industry software programs to track work orders, customer service intervals, recalls and warranty updates. Students create a customer database for mailings, service reminders and recall information. Students also create reports to monitor technician efficiency and profitability. Additionally students track expenses and performance of the service department.

**AUT 401 Warranty Administration**  
3 Class Hours 3 Quarter Credit Hours  
Today, with automobiles having 100,000-mile warranties, more and more vehicles coming into the shop are covered under warranty. It has become a necessity in many shops today to have at least one person to manage the tracking and collection of warranty claims. This position interacts directly with the manufacturer so that claims are approved and paid to the dealership. Communication and attention to detail are extremely important in this position. Students improve their business-to-business communication skills learned in AUT 300.

**AUT 402 Inventory Management**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Today's service shops struggle to have the correct parts in sufficient quantity to keep their technicians productive. With extended service hours, the prospect of having parts delivered during the repair process is not always possible. Students in this class learn the aspects of inventory control, just-in-time purchasing, dealing with jobbers and wagon vendors, tracking cores, core charges and credits.

**AUT 403 Introduction to Senior Externship**  
2 Class Hours 2 Quarter Credit Hours  
Prerequisites: ACC 311, AUT 300, AUT 301, AUT 302, AUT 303, AUT 304, AUT 401, IT 375, MGT 222, MGT 313, MGT 337, MKT 310  
This class covers job-interviewing skills including writing the resume, references, cover letter, and thank-you letter. Students apply for three externship placements and interview for the position with their possible mentor. This class prepares the student for his/her externship experience in Quarter XII and familiarizes the student with the requirements and expectations of externship. This course provides a seamless transition into AUT 410 Senior Externship.

**AUT 404 Legal Issues and the Dealership**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: BU 236  
This course focuses on the legal aspects of running a service department. Such topics as signatures on repair orders, mechanic's liens, and lemon laws are discussed. Students research current practices and develop an outline of service department best practices.

**AUT 405 ASE Test Preparation**  
2 Class Hours 2 Quarter Credit Hours  
This course prepares ASM students for the National Institute of Automotive Service Excellence (ASE) examination as a service consultant and/or parts manager. Students practice taking ASE-style examinations and review the material from their past five quarters concerning safety, employee management, and customer service.

**AUT 410 Senior Externship**  
1 Class Hour 20 Lab Hours 5 Quarter Credit Hours  
Prerequisites: AUT 402, AUT 403, FIN 410  
Students spend 20 hours per week at their externship placement honing their skills under the supervision of a jobsite mentor. Students have an active role in the scheduling of work for technicians and the interaction with the customers. Students meet periodically with the externship advisor to discuss their work experiences. Students complete a writing project evaluating their experiences and will present this report to the faculty and their classmates at the completion of the quarter.

**BIOLOGY**

**BIO 100 Anatomy & Physiology I**  
4 Class Hours 4 Quarter Credit Hours  
This course presents a comprehensive study of the structure and function of the human body as a whole, emphasizing the normal which will serve as a background for the application of scientific principles both in everyday life and in the work of various health disciplines. Systems covered include integumentary, skeletal, muscular, nervous, and endocrine with respect to both histological and gross anatomy.

**BIO 101 Anatomy and Physiology I Lab**  
4 Lab Hours 2 Quarter Credit Hours  
Laboratory practice includes the study of tissues by using microscopic examinations and the dissection of animal specimens, along with histological experimentation. Units covered are concerned with general introductory material, the skeletal, muscular, endocrine, and nervous systems.
**BIO 103 Comprehensive Anatomy and Physiology I**  
4 Class Hours 4 Quarter Credit Hours  
This course is the first of two courses where the nursing student will comprehensively study the anatomy (structure) and physiology (function) of the human body. Based on the inter-relationship of related concepts, the nursing student will master the complementary nature that anatomy has to physiology. Topics will include orientation to the body as a whole, skin, bones, joints, muscles, nerves and glands.

**BIO 104 Comprehensive Anatomy and Physiology I Lab**  
4 Lab Hours 2 Quarter Credit Hours  
Laboratory practice includes the study of tissues by using microscopic examinations and the dissection of animal specimens, along with histological experimentation. Units covered are concerned with general introductory material, the skeletal, muscular, endocrine, and nervous systems.

**BIO 116 Introduction to Biology**  
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
This is a survey course intended to provide students with a firm foundation in the scientific method of inquiry. Basic biologic topics presented will include the nature and history of scientific study, diversity of organisms, basic cellular structure and function, evolution, population biology, plant biology, ecology, reproduction/development, and genetics. Scientific literacy will be developed, providing the student with an appreciation of and ability to interpret ongoing scientific research.

**BIO 120 Anatomy & Physiology II**  
4 Class Hours 4 Quarter Credit Hours  
This course is a continuation of Anatomy & Physiology I, concentrating on circulatory, respiratory, digestive, urinary, and reproductive systems.

**BIO 121 Anatomy and Physiology II Lab**  
4 Lab Hours 2 Quarter Credit Hours  
Emphasis is placed on association, correlation, critical thinking and overview of the body as a whole functioning unit, with units covering circulatory, respiratory, digestive, urinary, and reproductive systems.

**BIO 122 Microbiology**  
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
The morphology, physiology and pathology of microbial organisms are covered along with dynamics of microbial populations. Emphasis is placed on disease causation and implications for health care providers.

**BIO 124 Comprehensive Anatomy and Physiology II**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: BIO 103, BIO 104  
A continuation of Anatomy & Physiology I, this course concentrates on the in-depth coverage of the circulatory, respiratory, digestive, urinary and reproductive systems, from the Nursing perspective.

**BIO 125 Comprehensive Anatomy and Physiology II Lab**  
4 Lab Hours 2 Quarter Credit Hours  
Prerequisites: BIO 103/104  
Co-requisite: BIO 124  
Emphasis is placed on association, correlation, critical thinking and overview of the body as a whole functioning unit, with units covering circulatory, respiratory, digestive, urinary, and reproductive systems.

**BIO 130 Pharmacology**  
3 Class Hours 3 Quarter Credit Hours  
Presentation of the basic concepts of pharmacology with emphasis on the biological factors affecting the action of drugs, factors modifying drug response, and drug interactions. Basic fundamental principles of chemistry are covered as necessary background material.

**BIO 131 Pathophysiology**  
2 Class Hours 2 Quarter Credit Hours  
Prerequisites: BIO 100, BIO 120  
An introduction to the process of disease and its effects on the body and the basic responses of cells, tissues, and organ systems to these disorders. General phenomena such as inflammation, immune response, and carcinogenesis will be considered as well as a survey of disorders common to the clinical setting characteristic of the various organ systems using a system by system approach.

**BIO 132 Nutrition**  
4 Class Hours 4 Quarter Credit Hours  
This course begins with a basic overview of the biochemistry necessary to understand the biology of nutrition. It is designed to provide the student with an understanding of the functions of food in the promotion and maintenance of health and in the treatment of specific disease states. Topics covered include the composition and function of the major food groups, vitamins and minerals, product label interpretation, nutritional requirements throughout the life cycle, and nutrition’s role in wellness and disease. A brief assessment of the economic, cultural, social, and psychological factors affecting good nutrition is also included.

**BIO 133 Nursing Pharmacology I**  
3 Class Hours 2 Lab Hours 4 Credit Hours  
Prerequisites: NUR 130, NUR 131  
Co-requisites: NUR 242, NUR 243  
This course covers pharmacological terms and concepts related to the nervous system (peripheral and central) and the cardiovascular system, along with dosage calculations, specialty populations, and drugs related to these systems, including trade and generic names, indications, classifications, forms, and dosing.

**BIO 233 Nursing Pharmacology II**  
3 Class Hours 2 Lab Hours 4 Credit Hours  
Prerequisite: BIO 133  
This course covers the medical terms and concepts related to the immune, respiratory, gastrointestinal, endocrine, vascular and renal systems, along with the drugs related to these systems, including trade and generic names, indications, classifications, forms, and dosing. The pharmacology of infectious diseases and antineoplastics is also discussed.

**BIO 440 Functional Neuroscience**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: BIO 100/101, BIO 120/121 or their equivalent  
This course provides students with an advanced understanding of the anatomy and physiology of the central and peripheral nervous systems and how disorders in these systems affect a person’s ability to function in everyday life. Topics include special senses, motor control, perceptual and cognitive processing and emotion.

**BUSINESS (SOCIAL SCIENCES CORE)**

**BU 236 Small Business and the Law**  
4 Class Hours 4 Quarter Credit Hours  
This course is designed for those students who intend to successfully start and operate their own small business. This course will focus on the various elements associated with the start up, acquisition and operation of a small business from the entrepreneurial point of view. Topics to be covered will include business formation, contract negotiations and drafting, financing, employee discrimination issues, customer relations issues, licensing, permits and tax basics. Additionally, students will be asked to complete a legal research assignment and prepare and present a business plan in their particular technological field of study. Students will leave this course with the fundamental knowledge necessary to start and run a successful small business and to avoid the legal pitfalls, which often lead to small business dissolution.
Courses are listed alphabetically by course code.

COMMUNITY ENRICHMENT

CE 101 Community Enrichment
1 Class Hour 1 Quarter Credit Hour
In this course, which is part of the Feinstein Enriching America Program, each student will explore ways of enhancing the community through performing a project which provides a service to the community. The project, which may be performed over several quarters, will be documented in a journal in which the student will reflect on the significance of the experience.

CE 301 Community Enrichment
1 Quarter Credit Hour
Must be taken with EN 331
CE 301 Community Enrichment, a Feinstein Enriching America Program, is a bachelor level one-credit option offered as a co-requisite of EN 331 Research Writing. The course addresses the concepts of civic responsibility, social issues, and personal values. Students will be required to engage in a service experience and submit a reflective research paper on the topic of the service experience.

CHEMISTRY (MATH/SCIENCE CORE)

CHM 101 Life Science Chemistry
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110
This course provides an introduction to inorganic chemistry and organic chemistry with a focus on life science applications as reflected in the selection of the text. Topics include measurement, units of concentration, the nature of atoms, states of matter, periodicity, bonding, stoichiometry, chemical reactions, thermodynamics and kinetics.

CHM 300 Chemistry I and Lab
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 210
Topics covered include atomic structure, the periodic law, and nature of the chemical bond, chemical reactivity, stoichiometry, and acid base reactions.

CRIMINAL JUSTICE

CJ 110 Criminal Justice
4 Class Hours 4 Quarter Credit Hours
This is an introductory criminal justice course focusing on the concepts and organization of the criminal justice system. This course will examine the various components of the criminal justice system and analyze their interactive relationships with each other, giving the student a detailed overview of the criminal justice system in the United States.

CJ 112 Corrections
4 Class Hours 4 Quarter Credit Hours
This course will focus on the various correctional components and concepts that have been established in our modern day corrections system. It will expose students to alternative forms of corrections from incarceration to community based and all the alternatives in between. This course will establish the relationship and importance of corrections in the overall criminal justice system.

CJ 114 The Court System
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
This course teaches the fundamentals of the criminal and civil legal system in America and includes an overview of federal, state and lower courts. It covers the dynamics of courthouse justice, the roles judges, prosecutors, defense attorneys, witnesses, victims and defendants fill, as well as the trial process and sentencing.

CJ 120 Forensics I
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: CJ 110
This course focuses on basic police science theories and techniques and introduces students to crime scene investigation and the analysis of physical evidence typically found at crime scenes. The focus is on crime scene management, recognition, documentation, collection, preservation and processing of crime scene evidence. Students will work in an actual forensic laboratory and on a simulated crime scene. The laboratory component will allow students to employ practical application skills of the forensic topics studied. Assignments from this course will be incorporated into the student’s portfolio.

CJ 122 Criminal Law
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: CJ 110
This course will cover both theory and practical application of the criminal law. Students will examine the elements of crime, elements of proof and other issues related to criminal law in local, state, and federal jurisdictions. Students will be able to apply the elements of criminal law to real life situations and case studies. Assignments from this course will be incorporated into the student’s portfolio.

CJ 130 Forensics II/Portfolio Management
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: CJ 120
This course studies police science theories and techniques in greater depth. The student will engage in hands-on application of forensic topics, such as obtaining and analyzing fingerprint and impressions of physical evidence, photography, crime scene identification and in the simulated crime scene. Students will then apply the techniques learned in the forensics topics in the laboratory component of the course. In addition, students will be instructed on portfolio management and requirements and add materials to their Criminal Justice portfolio.

CJ 132 Criminal Procedure
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: CJ 122
This course explores the legal doctrines that constitute the core of criminal procedure created by the United States Supreme Court as it interprets the Constitution. Concentration is on the rules developed for such official action as police searches, taking confessions, and the conduct of criminal trials for the protection of suspects’ rights. The classic tension between order (the necessary power of government to ensure public safety by processing suspects through the criminal justice system and convicting the guilty) and liberty (the danger of that power to individual freedoms by the arbitrary exercise of governmental power) will be examined. Assignments from this course will be incorporated into the student’s portfolio.

CJ 134 Report Writing
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: EN 101, CJ 122
This course focuses on developing the student’s ability to write brief, accurate and complete reports. The primary goal is to teach effective methods of conveying the facts and circumstances of unusual occurrences through written reports in an objective manner. Assignments from this course will be incorporated into the student’s portfolio.

CJ 240 Interviewing & Investigation Techniques
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: CJ 134
Criminal investigation is an inquiry into allegations that a crime has been committed and the circumstances or relationships that are involved. This course deals with the duties and responsibilities of the investigator/detective/patrol officer in the course of an investigation and emphasizes the policies and procedures employed in the investigation of crime, in addition to present day tools and techniques available for the law enforcement professional. Topics of recent controversy such as stalking, DNA profiling and the media frenzy that surrounds investigations are also covered. Assignments from this course will be incorporated into the student’s portfolio.

CJ 241 Introduction to Digital Forensics
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
This course is an introduction to digital forensics. Topics include: the discussion of various types of computer crime, in both the public and private sector, the collection, preservation and investigation of digital evidence, the fundamentals of
COURSE DESCRIPTIONS

CJ 244 Drugs & the Law
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: CJ 122, CJ 132
This course will examine drug use in America, as well as the influences from other countries. The course will cover drug use from a broad perspective, including the biological, historical, psychological, and sociological aspects of drug use and abuse in our society. The business of drug dealing, diverse drug laws, prevention activities, and treatment programs will be discussed. This course will also provide the student with a thorough understanding of the nation’s changing drug policy and the criminal justice system’s reaction to those changes. Assignments from this course will be incorporated into the student’s portfolio.

CJ 250 Police Operations/Simulated Firearms Skills
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
This course is designed to instruct the student in the history and purposes of policing, as well as the various methods of contemporary police operations, including community policing. In addition, police equipment, support services, personnel issues, and patrol/investigative techniques used within the law enforcement field are covered. The student will be introduced to firearms through a computer simulation experience. The lawful and unlawful use of weapons under current legal controls, and the legal restrictions concerning firearms, as well as liability issues related to the use of firearms will be covered. Thorough training on decision making, involving shoot/don’t shoot scenarios, will be covered in the lab sessions, in addition to building searches and motor vehicle stops, handcuffing and baton training. Assignments from this course will be incorporated into the student’s portfolio.

CJ 254 Sentencing – Probation and Parole
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: CJ 110, CJ 112
This course focuses on the services delivered to the offender such as probation, parole, halfway houses, drug-alcohol, mental health, and other social services agencies. A focus on community programs, and programs used in restructuring the correctional client within society will also be covered. An examination of offender supervision philosophies within community correction programs, jail and prison reentry programs, parole and probation agencies, and pretrial supervision environments will be explored. Assignments from this course will be incorporated into the student’s portfolio.

CJ 256 Portfolio Prep and Management
2 Lab Hours 1 Quarter Credit Hour
This course will assist Criminal Justice students in the creation of a portfolio that will demonstrate academic progression and the acquisition of various criminal justice skills. The portfolio will provide a comprehensive snapshot of the individual learning experience and will evaluate proficiency and ability. It typically includes sample reports, completed assignments, submission and evaluation of evidence and materials gathered in Forensics I and II, case studies, skill evaluations and information to be presented during the Moot Court/Mock Trial segment in Quarter VI.

CJ 258 Contemporary Criminal Justice Issues
3 Class Hours 3 Quarter Credit Hours
This course will explore current events within the criminal justice system utilizing a variety of high-interest issues. Students will be encouraged to discuss and debate recent happenings to develop an understanding of how these issues relate to crime and justice.

CJ 260 Moot Court/Mock Trial
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: Successful completion of all technical courses in Quarter I through Quarter V
The Moot Court/Mock Trial is the culmination of the Criminal Justice program of study. Students will be assigned roles within the criminal investigation studied throughout the program, such as police officer, forensics investigator, expert witness, probation officer, prosecutor or victim, defense attorney or defendant. Students will prepare and present testimony/evidence/opinion in a life-like criminal trial utilizing the contents of their portfolio to demonstrate the knowledge, experience and skills gained from each course the student has completed. The focus will be on the student’s ability to organize case materials, properly present convincing testimony/argument, and defend their position/role based on solid legal concepts that have been developed from, and documented in their portfolio.

CJ 262 Externship
1 Class Hour 10 Lab Hours 3 Quarter Credit Hours
Prerequisites: Successful completion of all technical courses in Quarter I through Quarter IV
The optional Externship offers the student the opportunity to apply the Criminal Justice theories learned to practical application in the field. Placement in an appropriate agency is achieved through the approval of the Criminal Justice Department Chair/supervising faculty member. A log of activities and duties performed will be maintained, and the final grade will be based on the log, the assessment provided by the placement agency, and a final comprehensive report detailing the student’s experience.

CJ 264 Terrorism – Concepts and Analysis
4 Class Hours 4 Quarter Credit Hours
This course will provide students with an overall snap-shot of modern day terrorism. It will explore the post 9/11 strategic methodologies of terrorism and how they relate to law enforcement. This course will expose students to various terrorist tradecraft and identification of both foreign and domestic terrorist organizations. It will allow students at all levels of law enforcement to develop an understanding of their role in combating modern day terrorists. The laboratory component will allow the students to research various terrorist organizations, conduct group assignments, and plot future terrorist trends.

CJ 266 Gangs & Organized Crime
4 Class Hours 4 Quarter Credit Hours
This course is designed to familiarize the student with the structure and organization of traditional and emerging gangs/organized crime operations. It is an exploration of the history, scope, and methods of controlling organized crime and street gangs in America with emphasis on local, regional, and statewide crime control efforts. Research and discussion of federal and state laws aimed at preventing this type of crime will be undertaken. Investigation techniques will be discussed concerning recognizing gang/organized crime activities, graffiti, symbols, and methods of recruitment of new gang/organized crime members.

CJ 370 Traffic Enforcement and Investigation
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: CJ 122
This course details the enforcement and investigative methods used by most state and municipal police departments. Students will examine accident investigation and the various methods of interpreting evidence related to motor vehicle accidents. Enforcement methods will be explored including verbal warnings and issuing traffic and speed related citations. This course will also introduce the student to the techniques, methods, and strategies used to detect impaired drivers. Standardized methods of field sobriety, such as Horizontal Gaze Nystagmus, and the legal standards necessary to successfully prosecute the impaired driver will be discussed.
Courses are listed alphabetically by course code.

**CJ 372 Case Studies in Criminal Forensics**  
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisites: CJ 120, CJ 130  
This course is designed to explore actual homicide and/or violent crime cases as seen through the eyes of the investigator using actual crime scene photographs, sketches, photographed evidence and autopsy photographs. A visit to the original outdoor crime scene will be conducted if possible, with the instructor/investigator on scene for questions. This course will test the knowledge and analytical skills of the student and their ability to fully develop the investigative plan needed to move forward in the case analysis. Labs will focus on processing evidence similar to the type seized from the original crime scenes attempting to yield and analyze similar results from the actual cases.

**CJ 374 Domestic and Family Law Issues**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
This course introduces the elements of family law and explores its influence on American social life and contemporary notions of justice. Topics include marriage and parenting implications on the justice system, divorce, custody and support, nontraditional families, and domestic violence. Issues of child abuse and classification of child predators will also be explored.

**CJ 380 Criminal Justice and the Media**  
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisite: EN 331  
This course is an in-depth analysis of the effect of the news media on crime levels and public fear of crime. The relationship between media coverage and public perception, as well as the media’s role in crime prevention, is explored. Federal and state legislation related to freedom of the press, privacy protection, and freedom of information requests will also be discussed.

**CJ 382 Integration of Criminal Law and Criminal Procedure**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: CJ 122, CJ 132  
This course will build upon the principles and concepts learned in CJ 122 Criminal Law and CJ 132 Criminal Procedure. Students will examine hypothetical and actual cases and identify the strengths and weaknesses of the matter using principles of both statutory and constitutional analysis. Upon completion of the case reviews, students will be expected to furnish an opinion on the merits of the case and the likelihood of a successful prosecution, or identify the need for additional investigation and evidence to bring the matter to a resolution.

**CJ 384 Contemporary Issues in Corrections**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: CJ 112  
This course looks at the many complex issues that corrections professionals face in a constant changing environment. Topics include: political and social outlooks on corrections, legal liability issues as they pertain to both prisons and jails, use of force, medical needs and rights of prisoners, religious issues, food services, workforce recruitment and retention, administrative and management challenges. Students will use assigned lab time to develop a paper layout and set-up of a small prison/jail, to include addressing construction, security, staffing, emergency protocols and budgeting.

**CJ 389 Mobile Device Forensics**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: CJ 241  
Students will learn the techniques and methods used in the acquisition and analysis of data from mobile devices, such as cell phones, iPods, iPhones, BlackBerrys and PDAs; SIM cards; the tools and methods used in the forensic investigation and analysis of mobile devices and SIM cards; the preparation and writing of forensic reports and preparing for testimony. Topics include: discussion of cell phone, iPod, iPhone, PDA and Blackberry basics; SIM cards; report writing of forensic investigations, preparation of court testimony. These topics will be reinforced through case studies, hands-on laboratory exercises and video presentations.

**CJ 393 Advanced Reporting Writing Skills**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: CJ 134, EN 331  
This is an advanced course emphasizing gathering, organizing, and preparing information for more complex investigative reports. Topics include: communicating facts, information, and ideas effectively in a simple, clear and logical manner for various types of criminal justice system reports, agency memos, and administrative reports. Using video scenarios as a basis for the information, students will gain practical experience in field note-taking, report writing and presenting testimony in court-like settings. In addition, the student will learn the practical aspects of computer assisted report writing and the integration of traditional report writing techniques with these types of programs.

**CJ 394 Issues of Diversity in Criminal Justice**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: SS 303  
This course explores a broad range of populations as they interact with the criminal justice system. Populations studied include: Asian-Americans, gays and lesbians, Latinos, Arab-Americans, Native Americans, and the elderly in addition to the more “traditional” minority groups. Topics include: historical development, societal issues, crime and punishment, discrimination, and employment. Students will examine special populations in various roles throughout the criminal justice system to get a more balanced view of the numerous issues facing these particular groups.

**CJ 400 Ethics and the Criminal Justice Professional**  
3 Class Hours 3 Quarter Credit Hours  
This course examines ethical questions that can arise during the career of a criminal justice professional. Students will use analytical tools to recognize and address contemporary ethical dilemmas within the American judicial system. Students will also explore issues of morality, virtue, honesty, and ethical decision-making in the United States criminal justice system. Topics include: behavior on and off duty, leading by example, corruption and using positions for personal gain. This course will incorporate hypothetical situations as well as real cases so that the student can evaluate and discuss the reasons a case/ethical dilemma developed and possible avoidance techniques that could/should have been employed.

**CJ 402 Use of Force and the Consequences**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: CJ 250  
This course will expose students to the legally established use of force standards in our justice system. Students will receive a historical and comprehensive review of U.S. State Supreme Court cases that have established the legal standards pertaining to the use of force. Students will also study the use of force continuum and the civil and criminal consequences if violations of the use of force standards occur.

**CJ 404 Digital Forensics Investigations and Applications**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: CJ 241 and CJ 382 or CYB 371  
This course explores the statutes and court procedures associated with the digital forensic investigation for both the criminal and civil systems. Topics include 4th Amendment violations of the use of force standards occur.
COURSE DESCRIPTIONS

CJ 410 Advanced Techniques in Criminal Forensics
4 Class Hours 4 Quarter Credit Hours
Prerequisite: CJ 372
This course is designed for students that have a background in basic crime scene investigation and processing. Students will be assisted in achieving a higher level of proficiency in crime scene investigation and upon completion of this class, will have the necessary skills to process or coordinate the processing of complex crime scenes. Building upon the knowledge and skills obtained in CJ 130 Forensics II/Portfolio Management and CJ 372 Case Studies in Criminal Forensics, students will expand upon the shooting reconstruction and blood spatter analysis instructions. Methods of instruction include: analysis of bloodstain spatter using mathematical formulations and stringing to calculate angles of impact spatter to establish points of origin; expanded shooting reconstruction with the use of lasers and mathematical formulations to calculate bullet trajectory to establish shooter/victim position; and detection and enhancement of blood evidence at crime scenes with a focus on chemical processing of bloody latent fingerprints.

CJ 412 Critical Incident Response and Tactics
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: CJ 402
This course is designed to assist students in analyzing the methods and techniques used by law enforcement professionals as they handle dangerous and stressful situations in a legal, positive manner. This course will present an overview of critical incident management by discussing planning, prevention, response, and post-incident management, as well as inter-agency coordination. Topics include the various types of critical incidents (such as serious accidents, crimes in progress, natural disasters, and terrorist acts), identification and description of the objectives and benefits of a coordinated critical incident response, review of critical incidents and critique of the positive and negative outcomes of critical incident responses. Students will examine critical incident response both "pre 9/11" and "post 9/11".

CJ 414 Corporate and Private Security
3 Class Hours 3 Quarter Credit Hours
This course looks at the many facets of corporate and private security. Students will examine the historical background of security, as well as an analysis of corporate security methods, advancements in private security technology, camera systems, alarms, and anti-breaching systems. Students will discuss the theory that private security can help be the eyes and ears for law enforcement and if that approach could result in security at less cost to society and the taxpayer.

CJ 416 Capstone Investigation and Preparation
1 Class Hour 2 Lab Hours 2 Quarter Credit Hours
Prerequisites: Successful completion of all technical courses in Quarter VII through Quarter IX
This course will assist Criminal Justice students in preparation for their participation in CJ 424 Capstone II. The Capstone Investigation and Preparation class will provide the student with the framework necessary to prepare them for the multi-session investigative assignment they will be required to complete in Quarter VI. This learning experience will evaluate proficiency in the skills learned including review of sample reports, completed assignments, submission and evaluation of evidence and review of case studies. All of this will be done with an emphasis on the instructor preparing the student for what will take place as they complete their course of study in their final Capstone project/presentation of investigation.

CJ 420 Criminal Justice Administration Issues
3 Class Hours 3 Quarter Credit Hours
Prerequisite: CJ 400
This class will identify, analyze, and offer solutions to various contemporary management problems in a criminal justice organization. Students should be prepared to review case studies related to management problem recognition and review the role of supervisors and managers in a typical criminal justice agency. Students will be exposed to civil liability issues at the local, state, and federal law levels and learn proactive methods that may minimize personal and organizational liability risks. Constitutional requirements, court decisions, and legislation (such as EEOC requirements) and their impact on management in criminal justice organizations are discussed.

CJ 421 Women and Crime
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331
This course will focus on women’s experiences with crime and the criminal justice system in America. The primary areas of study will be: women as victims, lawbreakers, prisoners, and professionals in the criminal justice system. Students will explore the problems and issues facing women in the criminal justice system and develop an understanding of these issues and their importance.

CJ 424 Senior Capstone
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: Successful completion of all technical courses in Quarter VII through Quarter XI
Capstone II is the culmination of the Bachelor of Science in Criminal Justice Technology program of study. Students will take part in a multi-session mock crime event and be expected to utilize the skills learned and studied throughout the program as they investigate the event. Students will respond to the mock scene, set up an incident command, and gather evidence and statements. After finishing the on-site investigation, students will analyze evidence in the lab and draft the necessary investigative documents and reports to prepare the case for court. The focus will be on the student’s ability to organize and investigate a complex mock crime event and properly present convincing testimony/argument based on the facts they are able to develop during the investigation.

CJ 426 Senior Externship
1 Class Hour 10 Lab Hours 3 Quarter Credit Hours
Prerequisites: Successful completion of all technical courses in Quarter VII through Quarter XI
The Externship offers the student the opportunity to apply the criminal justice theories learned to practical application in the field. Placement in an appropriate agency is achieved through the approval of the Criminal Justice Department Chair/supervising faculty member. A log of activities and duties performed will be maintained, and the final grade will be based on the log, the assessment provided by the placement agency, and a final comprehensive report detailing the student’s experience.

CJ 430 Career Preparation for the Criminal Justice Professional
2 Class Hours 2 Quarter Credit Hours
Seeking employment within the field of criminal justice can be challenging for many without prior preparation. This course will take an in depth look into written, physical/agility and psychological testing requirements as applicable, interviewing techniques, professional appearance and resume building. A detailed examination of the background investigation process to include social media activity, credit reporting, criminal activity, polygraph use and other investigative tools will also be undertaken.
Courses are listed alphabetically by course code.

**CLINICAL MEDICAL ASSISTANT**

**CMA 100 Law and Professionalism in the Medical Office**
3 Class Hours 3 Quarter Credit Hours
Law and Professionalism in the Medical Office is an introductory course that presents the legal side of the outpatient medical environment. It is designed to introduce the clinical medical assistant to the foundations of medical law to assist them: with interacting with the legal profession, recognizing when they need medical advice, protecting their employers from medical malpractice complaints, and understanding their employee rights and the rights of their patients. Case studies from actual legal proceedings are used to illustrate key points of law and the interpretation of statutes that may affect the professional medical assistant.

**CMA 124 Medical Language I**
2 Class Hours 2 Quarter Credit Hours
Prerequisite: AHS 102
A comprehensive study of medical language, complementing the foundations presented in AHS 102 Introduction to Allied Health. Medical terminology relating to specific body systems will be explored in greater depth and applied in Anatomy & Physiology II.

**CMA 126 Clinical Documents and Communications**
2 Lab Hours 1 Quarter Credit Hour
This course will introduce the student to the patient record, records management and other documents common to the clinical setting. Topics will include the importance of the patient record, initiating and maintaining the medical record, charting formats and accuracy, common medical abbreviations as well as filing equipment and systems. Telephone technology and techniques will also be discussed and applied.

**CMA 132 Clinical Laboratory Tests**
2 Class Hours 2 Quarter Credit Hours
Prerequisites: BIO 100, BIO 120
Co-requisite: BIO 131
Common diagnostic laboratory tests are studied in a system-by-system approach with implications for health care professionals discussed.

**CMA 134 Medical Language II**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: AHS 102, CMA 124
This course builds on the medical terminology learned in Medical Language I and includes symbols and charting abbreviations, chemical symbols, laboratory test abbreviations and medical terminology of specialty areas of medicine. The student will learn to communicate both verbal and written formats, medical information common to the clinical setting.

**CMA 137 Clinical Care Techniques I**
1 Class Hour 6 Lab Hours 4 Quarter Credit Hours
Prerequisites: BIO 100, BIO 120
A competency-based introduction to patient centered procedures routinely performed in the medical office. Topics include infection control, patient exams, vital signs, assistive devices, hot and cold application, wound management, and principles of nutrition.

**CMA 217 Clinical Care Techniques II**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours
Prerequisites: CMA 132, CMA 137, BIO 131
As a competency-based introduction to exam room procedures in the clinical setting, the student will master the basic techniques of eye and ear testing, x-ray preparation, sterile technique, minor surgery preparation and assistance, managing medical emergencies, computerized multichannel diagnostic EKGs and patient education.

**CMA 218 Comprehensive Medical Transcription I**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisites: MGT 118, MGT 119
The student applies acquired skills in keyboarding in the use of dictating equipment and a PC to transcribe various parts of the medical record including memos, letters, and medical documents. Word processing is continued and basic commands are mastered to save, retrieve, edit, and print these medically-oriented documents.

**CMA 219 Comprehensive Medical Transcription II**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisite: CMA 218
Various operations of word processing will be utilized to produce complete medical transcripts. Proofreading skills are emphasized. Use of all medical resource materials is emphasized to construct precise medical histories, x-ray, operative and consultation reports, as well as discharge summaries. Mailable transcripts are the expected outcome; additional documents for employment are also produced.

**CMA 225 Medication Administration**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: CMA 137, BIO 100, BIO 120, BIO 131
This course will apply the basic principles of medication preparation and administration, focusing on the knowledge and skills required for safe and effective administration. Emphasis will be placed on legal and ethical implications, source of drugs, drug relations, drug references, drug actions, forms of drugs, labeling, storage, and handling, systems of measurement and dosage calculations. Guidelines for the preparation and administration of medication will also be applied. Upon completion, the student should be able to prepare and administer oral, intradermal, subcutaneous, and intramuscular medication using proper techniques.

**CMA 227 Clinical Laboratory Applications I**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: CMA 137, CMA 217
This competency-based course is designed to assist the student to develop the skills necessary to perform routine laboratory procedures in the clinical setting. Topics will include: Laboratory safety, microscope use, urine collection methods and testing, microbiological testing, pregnancy testing, Pap smears and PKU testing. Quality assurance methods will also be discussed.

**CMA 228 Comprehensive Medical Office Practice I**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisites: CMA 218, CMA 219
An overview of insurance coverage in the United States is presented. The proper, efficient, and accurate completion of the many types of insurance forms is taught. Blue Shield, Medicare, Medicaid, Workers’ Compensation and private insurance are taught and practiced. Correct procedure coding using CPT codes is researched. Diagnosis coding for maximal reimbursement utilizing ICD codes is perfected. Multiple exercises are included to allow the student to exercise newly acquired skills.

**CMA 229 Comprehensive Medical Office Practice II**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisite: CMA 228
This course is designed to familiarize the student with computerized managed care of a medical environment and to assist them in developing the confidence and skills necessary to become a successful user of managed care software. It includes an understanding of managed care and how it operates, managed care contracts, a hands-on simulation of office procedures such as making and rescheduling appointments, entering procedure charges, and posting payments from var-
ied sources. Practice exercises will be provided throughout the course in order to afford the student the opportunity to apply learned concepts. Upon completion, the student is able to perform computerized management duties as an entry-level practitioner.

**CMA 236 Clinical Experience I**
1 Class Hour 9 Field Hours 4 Quarter Credit Hours
Prerequisites: AHS 102, AHS 201, BIO 100, BIO 120, BIO 131, CMA 100, CMA 124, CMA 126, CMA 132, CMA 134, CMA 137, CMA 217, CMA 218, CMA 219, CMA 225, MGT 118, MGT 119, EN 101, EN 102, MA 100/110, PS 201
Preparation for the Clinical Experience begins with an in-class overview of the entire experience. The student will be guided through the completion of job-seeking documents to include the resume, reference list, cover letter, and thank you letter. Selection of site by the student according to personal interests is supported and completion of necessary documents and contracts are done in conjunction with the chosen site and the department chair. The student will use the administrative and clinical skills acquired through the technology to work as an entry-level professional clinical medical assistant in a hospital, clinic, laboratory, or physician’s office. The student will complete 90 hours at the site and be independently evaluated as well as perform daily self-evaluation.

**CMA 237 Clinical Laboratory Applications II**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours
Prerequisites: AHS 102, AHS 201, BIO 100, BIO 120, BIO 131, CMA 100, CMA 124, CMA 126, CMA 132, CMA 134, CMA 137, CMA 217, CMA 218, CMA 219, CMA 225, MGT 118, MGT 119, EN 101, EN 102, MA 100/110, PS 201. (Students are expected to be in their final quarter of the program)
This competency-based course is designed to assist the student to develop the skills necessary to perform routine laboratory procedures in the clinical environment. Topics will include: laboratory safety, microscope use, blood collection methods, pertinent immunology, hematology and blood chemistry tests. Included are correlated theory and supervised laboratory practice. Quality assurance methods will also be discussed. A comprehensive review is included to prepare the student to sit for the National Certification Exam for Medical Assistants.

**CMA 240 Clinical Experience II & Clinical Project**
1 Class Hour 11 Field Hours 5 Quarter Credit Hours
Prerequisites: AHS 102, AHS 201, BIO 100, BIO 120, BIO 131, CMA 100, CMA 124, CMA 126, CMA 132, CMA 134, CMA 137, CMA 217, CMA 218, CMA 219, CMA 225, MGT 118, MGT 119, PS 201, EN 102, MA 100/110
This course is a continuation of CMA 236 Clinical Experience I. The student completes an additional 90 hours of more complex experience at the chosen site, completes a midpoint evaluation and final evaluation of the clinical experience as well as self assessments. The student will communicate daily clinical experiences through various media, including both written and electronic methods. Candidates for this course will be expected to be at or near completion of the associate degree.

**CONSTRUCTION MANAGEMENT**

**CMT 311 Construction Management Principles**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: CMT 311, ABT 314
This course introduces the student to the field of construction management relative to construction contracting and the construction industry. Topics will include fundamental relationships between construction costs, resources, scheduling, the concept of scope of work, careers in construction management, qualifications for professional construction managers, and professional organizations within the industry.

**CMT 331 Specifications and Quality Control**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: CMT 311, ABT 314
In this course, students will continue their study of construction project specifications relative to contract delivery and quality requirements. Students will perform case studies of construction contracts, examine accepted formats and requirements for specifications, and study the legal, social and financial ramifications of adherence to contract specifications. Additional topics will include field monitoring, enforcement and modification of specifications and the resulting impact upon the construction management process.

**CMT 411 Project Scheduling**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: CMT 311
This course exposes students to the fundamentals of project scheduling. Topics will include project diagramming, activities and activity relationships, critical path, WBS, and formal schedule preparation using state of the art computer scheduling software. Class projects will include developing and preparing schedules for architectural and/or civil engineering projects.

**CMT 412 Construction Practice**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: CMT 311
This course explores business and construction practices related to the management of a construction company. Topics will range from perspectives on the financial and operational side of a construction firm to the management of personnel and customer satisfaction. Students will study the organizational structure of a construction company and focus on the roles and responsibilities of individuals throughout the business. Physical assets of a construction company, both in the field and office, will be introduced. Students will gain an understanding of typical contract administration correspondence including progress reports, meeting minutes, letters of record, change orders and letters of acceptance. The procedure for conducting a field visit, project meeting and public workshop will also be covered.

**CMT 421 Advanced Estimating**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: ABT 127, CMT 411
This course focuses on the interpretation of plans and specifications and the subsequent preparation of construction estimates. Methods to determine resource requirements and resource costs using state of the art analytical tools will be conducted for projects varying from residential building systems to large scale public works projects such as highways and bridges.

**CMT 422 Construction Site Safety**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: CMT 311
This course will examine safety within the construction industry and construction methods for conducting operations in close proximity to potential hazards such as electrical and gas lines, railroads. Compliance with OSHA regulations and other safety policies will be examined. Methods to establish safety committees and organizational safety goals, objectives and performance measures are covered through class exercises. Lectures include presentations by safety experts and officials from both the public and private sector.

**CMT 434 Ethics and the Construction Industry**
3 Class Hours 3 Quarter Credit Hours
In this course, students will examine and formalize the concepts of ethical practices within the construction industry. In both the classroom, team, and roundtable settings, students will analyze and discuss case ethical concepts, corruption officials from both the public and private sector.
Courses are listed alphabetically by course code.

**CMT 435 Senior Thesis**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisites: CMT 411, CMT 421  
This is a direct studies course in which students must demonstrate to the architectural and construction faculty, their understanding of and ability to utilize and synthesize the technical and engineering concepts they have developed throughout their college experience. In ABT 422, students will submit in proposal format, a project for review and approval by the faculty. Students will work independently with periodic interaction with a faculty member. The term will culminate with a formal presentation to a jury of faculty and critics.

**VIDEO & AUDIO PRODUCTION**

**COM 101 Video Techniques/Studio 1**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Co-requisite: COM 118  
Students are introduced to shooting, editing, studio, lighting, and sound principles. A live studio project introduces all roles of studio production and team building skills. Students write, produce and edit a one-minute montage on a digital edit system and learn the basic skills needed to edit on an analog system.

**COM 105 Visual Design**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Co-requisite: COM 101  
Students learn fundamental design principles that apply to all visual art. This will enable them to create visuals/graphics that fulfill specified communications requirements. The application of these principles of design will be demonstrated through the analysis of an array of media and by incorporating them in assigned lab projects.

**COM 106 Motion Graphics**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: COM 105  
Eye-catching animated graphics are a growing trend in broadcast and non-broadcast television. Motion Graphics will introduce students to motion design aesthetics and professional animation software programs. This class will focus on designing for specific elements used in video projects — logo, titles, IDs, informational graphics and symbolic images.

**COM 118 Scriptwriting**
2 Class Hours 2 Quarter Credit Hours  
Co-requisite: COM 101  
Various script format styles for video production are analyzed. Students prepare scripts for the COM 101 projects.

**COM 125 Digital Editing**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: COM 101  
Co-requisite: COM 127 by section  
Students will analyze the principles of continuity editing and become familiar with the special functions found in non-linear editing through assigned tutorials. Students will edit the projects shot in COM 127, focusing on techniques to speed editing while practicing pacing and storytelling.

**COM 127 Field Shooting/Lighting**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: COM 101  
Co-requisite: COM 125  
In this course, students will discuss the elements that make for a visually informative and eye-catching field camera style. Students will learn to shoot to edit, plan for well-composed shots; light for on-the-run shooting as well as more controlled situations. Focus will also include recording good audio in the field, both for interviews and natural sound. Students will understand the variety of shooting styles and script formats for ENG and EFP productions. Projects include shooting a continuity project and an EFP or ENG news story. Both of these projects will include storyboarding the concept.

**COM 134 Studio Production**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisite: COM 101  
Building on the basic studio skills learned in COM 101, students learn about the elements of pre-production involved in live studio work, the technical jobs required to carry out a live production and the responsibilities of the producer and director. Studio lighting approaches such as 3-point lighting, chroma-key, use of gels, high and low key lighting using the studio lighting grid are discussed. Use of the waveform monitor and vectorscope will be introduced. Students will carry out two studio productions — a talk show and a commercial or PSA. Preparing a script, lighting plot as well as planning for other pre-production elements such as graphics and audio will be covered. Each student will experience the role of the director by directing his/her own talk show as well as participating as crewmember for other students’ productions.

**COM 136 Audio Recording**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Audio recording capabilities are a critical skill in the video/radio business and audio/music industry. Students will learn audio recording techniques, microphone specifications, selection and placement as well as the basics of audio engineering. Students learn the basics of Pro-Tools, a digital audio program, using this program to produce their own commercial.

**COM 146 Audio Recording II**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: COM 136  
The concepts of multi-track recording are studied and implemented on-location and in-studio. The use of mixers, mics and audio processing effects will be examined. Students will record and mix a simple music track and add sound effects to an existing movie. Using Pro-Tools, students will edit man-on-the-street interviews.

**COM 211 Media Ethics**
3 Class Hours 3 Quarter Credit Hours  
This course is a critical thinking class about ethical issues in the mass media. The media landscape is constantly changing and students must understand the ethical issues that still face practitioners on a daily basis. Students will present research findings on assigned topics.

**COM 215 Corporate Media**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisites: COM 118, COM 125, COM 127  
How to take a project from development to execution to evaluation is the objective of this course. Different styles of production will be examined for promotional, educational and motivational videos. Two productions will be completed based on the approaches discussed in the lecture. Scripting and storyboarding for the projects is a critical factor. Using the shooting and editing skills learned in Quarter II, students will practice making informative and convincing media.

**COM 223 Broadcast Sales and Video Distribution**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
In the first half of this course, students will be introduced to the business of broadcast sales. Students will examine and analyze how media is bought and sold in television, radio, cable, and the Internet. Students will also become familiar with the proper sales terms and approaches by preparing and delivering a sales presentation for an assigned client. In the second half of the course, students will practice the fundamentals of website creation as a way to distribute their portfolios to potential employers. By distributing video to the web, mobile devices and DVD, students will learn about the variety of encoding systems used today and which systems are most appropriate.

**COM 227 Radio 1 – Programming**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: COM 136  
Programming aspects of the radio industry will be discussed. Students will create, write, and produce a one-hour weekly radio show. Programs will be recorded and evaluated. Students will also execute a format clock.
COM 230 Cooperative Work Experience
15 Lab Hours 3 Quarter Credit Hours
Prerequisites: COM 134, COM 136, COM 215
Students receive credit for practical work experience in the field with a commercial (or equivalent) company. Students must make a written application to the department chair with selection based on academic achievement, attendance and defined job skill requirements.

COM 231 Digital Filmmaking
3 Class Hours 6 Lab Hours 6 Quarter Credit Hours
Prerequisite: COM 215
Examples of personal approaches to storytelling will be analyzed. Elements like story structure, visual and sound style, thematic transitions, and edit pacing are all a part of the narrative style of film. The digital medium is fast becoming a useful tool for visual storytellers whether videographers or filmmakers because of cost, speed and avenues of distribution like the web. Students will become adept at the use of digital effects and apply video post-production tools such animation, layering and compositing. Students will plan and produce a digital “film” that demonstrates their ability to tell a story and prepare it for presentation in a studio-produced magazine-style show.

COM 232 Associate Final Project
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisites: COM 146, COM 231
A video or audio program is produced that exhibits the student’s abilities in developing a project from concept to completion. A detailed proposal for the project must be submitted for approval to a designated faculty member.

COM 237 Radio 2 – Talk and Information
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: COM 227
In this course, the student will work on a team and produce, host, and board operate a radio talk show. Students will produce a remote audio production to incorporate into their shows. Lecture material will cover how to program and develop an interview program for radio. Selected shows will be aired on the on-campus radio station WNET.

COM 250 Associate Portfolio
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: COM 231
This is a career-planning course that goes over the essentials of resume creation, resume reel production, interview and job-hunting skills for the media field. Students will design a resume reel.

BUILDING CONSTRUCTION

CR 114 Technical Fundamentals of Building Construction
5 Class Hours 5 Quarter Credit Hours
The basic procedures involved in estimating materials, costs, and critical measurements are studied. Basic construction math and its applications are introduced.

CR 116 Tool and Site Work Lab
8 Lab Hours 2 Quarter Credit Hours
Selected projects are built in the lab with emphasis on safety and proper tool usage. Transit work is performed and its use in the building trade is demonstrated.

CR 117 Introduction to Blueprint Reading
2 Class Hours 2 Quarter Credit Hours
This course is designed to introduce the student to architectural blueprints. Types of prints, symbols, dimensions, and lines will be discussed.

CR 121 House Framing I Lab
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: CR 114, CR 116
Full-size interior treatments are covered. Exercises include dry wall work, molding installation and window casing. Stair and rafter layouts are practiced for various construction applications.

CR 122 House Framing I
5 Class Hours 5 Quarter Credit Hours
Prerequisites: CR 114, CR 116
Standard framing procedures, wall construction, headers, center beams, floor and ceiling joists, stairs, and common rafters are studied. Blueprint reading and takeoffs resulting in accurate material estimates are emphasized. Sustainable construction methods and materials are emphasized.

CR 124 Construction Safety Practices and OSHA
1 Class Hour 1 Quarter Credit Hour
This course is designed to stress the importance of developing and practicing safe work habits associated with the construction and cabinetmaking industries. Occupational Safety and Health Administration (OSHA) regulations that apply to the building industry will be examined in depth.

CR 126 Introduction to Building Codes
2 Class Hours 2 Quarter Credit Hours
This course is designed to introduce students to the One- and Two-Family Dwelling Code. Comparisons between Rhode Island, Massachusetts and other states will be discussed.

CR 131 House Framing II
4 Class Hours 4 Quarter Credit Hours
Prerequisites: CR 121, CR 122
Varied structural problems involved in custom houses are presented. Structural designs and layouts are done from basic prints for a house. Particular attention is paid to proper sizing of structural members and beams for support. Cost estimates of alternate methods are done for comparison. Insulation, exterior and interior treatments are also presented. Sustainable construction methods and materials are emphasized.

CR 132 House Framing II Lab
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: CR 121, CR 122
A structure, approximately 8’x10’, is built. The building includes roofing, siding, and trim work. Work on a job site may be substituted if appropriate. Sustainable construction methods and materials are emphasized.

CR 136 Introduction to Computer Estimating
3 Class Hours 3 Quarter Credit Hours
Prerequisites: CR 121, CR 122 (may be waived with appropriate experience)
Students will study basic computer estimating techniques and develop detailed construction cost estimates from blueprints and/or specifications using the designated software.

CR 209 Introduction to Computer Aided Design (CAD) for Construction
4 Class Hours 4 Quarter Credit Hours
Prerequisites: CR 121, CR 122
An entry-level theory and lab course introducing students to the basics of computer-aided design. Sustainable construction methods and materials are emphasized.

CR 210 Lead Abatement Worker Training
2 Class Hours 2 Quarter Credit Hours
This 24-hour class will train students in the principles and practices of lead abatement as set forth in the Lead Hazard and Mitigation Act in Chapter 42-128.1 of the general laws of the State of Rhode Island. A final score of 70% on the final exam will certify the student for a permanent lead abatement worker license.

CR 211 Cabinetmaking I Lab
6 Lab Hours 2 Quarter Credit Hours
Operations are performed and a project built that involves numerous cabinetmaking joints and assembly procedures. Emphasis is placed on the safe operation and set up of basic cabinetmaking equipment. Scale drawings are made of selected projects.
Courses are listed alphabetically by course code.

CR 212 Cabinetmaking I
4 Class Hours 4 Quarter Credit Hours
Cabinetmaking I deals with the properties of wood, elements of joinery, gluing and clamping, and machining methods. As theory is presented, operations are performed and projects are built by the students to incorporate classroom work into actual practice.

CR 217 Professional Seminar
1 Class Hour 1 Quarter Credit Hour
This course will prepare students to participate in the Externship component of the Building Construction Technology Program. It will benefit all students who are seeking employment upon graduation. The course will include resume preparation, interviewing skills research, job research, and (for those entering externships) documentation of contacts to potential employers to procure a position. The student is responsible for securing his or her own externship site. This course is mandatory for all students taking externships and is an option for night students who take labs in lieu of externships.

CR 222 Introduction to Computerized Numerical Control (CNC) Programming
3 Class Hours 3 Quarter Credit Hours
This is an entry-level course to familiarize students with Computerized Numerical Control processes and operations. Set up, operation, and principles of CNC techniques, principally routing, will be discussed and demonstrated.

CR 223 Introduction to Computerized Numerical Control (CNC) Lab
2 Lab Hours 1 Quarter Credit Hour
Students demonstrate in a laboratory situation the set up, operation and principles learned in CR 222.

CR 226 Sustainable Design and Construction Methods
3 Class Hours 3 Quarter Credit Hours
This class will introduce students to the design, practices and methods of sustainable building. Using the National Green Building Standard, ICC700, students will learn to design to bronze, silver, gold and emerald levels of sustainable design. Various methods of construction choices will be discussed using the ‘what if’ concept to determine the result of each choice made and how it impacts other design choices.

CR 230 Cabinetmaking II
4 Class Hours 4 Quarter Credit Hours
Prerequisites: CR 211, CR 212
Routers and templates, veneering, frame, and panel construction are studied and incorporated in projects. Creating a bill of materials and cut list will also be discussed. Scale drawings are made of selected projects.

CR 231 Cabinetmaking II Lab
8 Lab Hours 4 Quarter Credit Hours
Prerequisites: CR 211, CR 212
Projects are built in the lab using prints drawn or prints studied in the classroom. Projects are designed to implement principles, practices, and theory taught in CR 222 and reinforce material from CR 212 and CR 211.

CR 236 Introduction to Finishing and Spraying
2 Class Hours 3 Lab Hours 3 Quarter Credit Hours
Students are introduced to the principles and practices of spray finishes. Both HVLP and conventional HP spray techniques will be used. Both lacquer and water based products will be studied. Mixing proportions and colors will be discussed as well as the variety of clear finishes available. Students will spray projects built throughout the cabinetmaking curriculum.

CR 237 Cabinetmaking III
4 Class Hours 4 Quarter Credit Hours
Prerequisite: CR 230
Radius work, compound angles, and dovetails are studied and incorporated in projects to be built. Factory built kitchen cabinets are discussed and plans are drawn for different kitchen layouts.

CR 238 Cabinetmaking III Lab
8 Lab Hours 2 Quarter Credit Hours
Prerequisites: CR 230, CR 231
Advanced projects are built in the lab using prints drawn or supplied in the classroom. Operations studied in all related courses, including CNC if desired, are incorporated in lab assignments. This course is required for all CAB students.

CR 241 Kitchen and Bath Design and Installation
2 Class Hours 3 Lab Hours 3 Quarter Credit Hours
This class will introduce students to accepted kitchen and bath design from a conceptual, practical and building code perspective. Using 20/20 software, students will design kitchens and baths using the industry’s premier software. Students will also learn the various installation techniques whether new construction or remodeling.

CR 250 Externship I
15 Field Hours 3 Quarter Credit Hours
Students will gain hands-on experience working with an employer with an approved Externship agreement.

CYBER SECURITY

CYB 371 Digital Forensics
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: NE 267
In this course, students will learn the techniques related to the collection and analysis of digital data to track user and intruder activity that could possibly be used in a civil or criminal proceeding. Students will use industry-leading software and hardware to properly collect and preserve evidence using sound forensic techniques. Acquisition and analysis of evidence that can be obtained from servers, workstations and laptops is emphasized.

CYB 373 Penetration Testing
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: NE 267
In this course, the student will learn how to properly use techniques employed by professional penetration testers to validate information assurance. In addition to validation techniques, students will learn anti-hacking techniques, network reconnaissance tools, buffer overflows, password cracking and other concepts related to testing and validating network defenses.

CYB 392 Mobile Forensics
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: CYB 371
In this course, students will use industry-leading hardware and software to preserve and acquire digital evidence from mobile devices for possible use in civil or criminal proceedings. Proper forensic methodology related to working with cell phones, tablets and other mobile devices are emphasized.

CYB 394 Windows Security
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: NE 381
The student will learn how to properly collect and preserve evidence from Windows-based Active Directory network environments through an integrated system of skill-building lessons, hands-on exercises, and self assessment tools.

CYB 408 Linux Security
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: NE 402
Students in this course learn network & host security concepts, the proper configuration of Linux, how to secure Linux for use in a variety of environments, and how to secure Linux hosts against attacks. In addition to covering traditional network security, this course covers the security issues related to Linux systems.
**CYB 410 Introduction to Senior Project**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: CYB 394, CYB 408, NE 406
Students will team together in groups to create a proposal for the design of a highly secure network system for a given case scenario. The groups will use critical thinking skills to select appropriate technologies for specific functional requirements. Each group will be required to meet certain documentation progress points as well as do a final proposal presentation.

**CYB 412 Network Security**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: NE 406
In this course, the student will learn the fundamentals and skills related to network security. Topics such as IPSec, Network Access Control, network asset vulnerabilities, encryption techniques used on the Internet, security certificates, phishing, spoofing, browser configuration, network perimeter security and wireless network security are covered.

**CYB 422 Web Application Security**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: NE 395, CYB 412
Students of this course will learn common security pitfalls in web applications as well as how to avoid them. Topics include use of encryption, spoofing, phishing, session management, secure data storage and other techniques related to ensuring the protection of the application and customer data.

**CYB 423 Incident Response**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: NE 267, CYB 394
Students will learn how to use forensic techniques in order to investigate and document system and network intrusions as well as malicious software incidents. System restoration techniques are also covered. Students will become adept at investigating advanced persistent threats, rogue employees, remote data breeches and other security violations.

**CYB 424 Senior Project**
6 Lab Hours 3 Quarter Credit Hours
Prerequisites: CYB 410, CYB 412
Students will configure, test and analyze a complex, real-world security topology based on a given scenario in a group setting. The students will be required to draw upon knowledge introduced in all of the previous courses, provide documentation at various progress points and make a final presentation.

**DIGITAL RECORDING ARTS**

**DRA 302 Introduction to Digital Audio (5 weeks)**
1 Class Hours 2 Lab Hours 2 Quarter Credit Hours
DRA 302 is a five-week class that introduces the MWD student to the terminology, processing techniques, and software associated with digital audio production. Students will use Pro Tools, the digital audio workstations introduced in VAP and continued in DRA. This class, coupled with their other 5-week, Quarter VII course, DRA 328 Music Recording Techniques, would allow the MWD student to move seamlessly into DRA Quarter VII, to begin their Music Video Project.

**DRA 305 Digital Editing 2**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
In this course, students learn the operation of the AVID non-linear editing system through the use of tutorials and editing a short project. AVID is a primary editing tool in broadcast television.

**DRA 307 Visual Design 2**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Students learn advanced visual design principles that apply to video graphics design. These principles will be applied to the creation of typical informational video graphics such as charts, graphs and maps. Students will also be expected to assimilate the principles presented in the course to further enhance the compositional quality of their videography.

**DRA 321 Digital Production Techniques**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
This course is for MWD students entering the bachelor’s DRA program that may not be familiar with all the concepts and practices involved in video production. Students will learn about pre-production and production techniques, as well as the personnel and equipment involved in making any kind of video project. Students will write a project proposal, objectives, script and storyboard as well as produce their concept from shooting through to editing.

**DRA 325 Remote Radio Production (5 weeks)**
1 Class Hour 2 Lab Hours 2 Quarter Credit Hours
In this five-week course, students will use portable audio digital recorders in field and create radio-style documentaries. Students will write, produce, record, and edit interviews, natural sound, music, and voice over and create a short radio documentary.

**DRA 328 Music Recording Techniques (5 weeks)**
1 Class Hour 2 Lab Hours 2 Quarter Credit Hours
Prerequisite: COM 146 for VAP
Co-requisite: DRA 302 for GMW students
Additional exploration of music production is provided in DRA 328. This will offer the student more practice in the selection, and placement of microphones, as well as session setup and editing techniques as they relate to music recording. This additional experience is required to better prepare the student for DRA 336, where they will begin their music video project.

**DRA 331 News Production**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
This course covers all essential areas of television news reporting including story planning and development, script preparation, writing for television news, field production techniques, visual storytelling, videography, editing theory, field reporting and interviewing, as well as newsroom terminology. Students learn how to produce, direct and block a studio news program.

**DRA 336 Multi-Track Recording**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: DRA 328
This course examines the functional design and operation of professional studio equipment used in the recording of multi-track masters. Students will explore a variety of recording situations using digital recorders, computer systems, and signal processing equipment.

**DRA 337 Sound Reinforcement 1**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
An introduction to the principles of sound reinforcement provided in clubs, theaters and concert halls. Students will be introduced to the equipment and techniques used during a live performance at a venue.

**DRA 338 Broadcast Pre-Production (5 weeks)**
2 Class Hours 2 Quarter Credit Hours
Prerequisite: DRA 336
In this five-week course, students will formulate concepts for producing a music video from which a proposal, production schedule, budget, and storyboard will be developed. Students will base their concepts on the music recorded in DRA 336 Multi-Track Recording. The student will then present their concepts to the class and produce the music video the following quarter in DRA 421 Video Post-Production.
Courses are listed alphabetically by course code.

**DRA 357 Field Audio Production**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
This course presents the theory, hardware, and techniques used for field audio recording (in-camera) for video/television. Students will learn about the differences between studio and location recording, the equipment used, and techniques for producing optimum sound in the field. Emphasis will be placed upon the use of portable audio mixers and peripheral gear. Skill will be developed at using the equipment under diverse conditions and interfacing with a variety of field production devices.

**DRA 380 Visual Effects**  
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours  
This course is an in-depth look at sound design for motion picture, video, and dialogue replacement, sound effects including Foley effects, processing and surround sound mixing.

**DRA 401 Documentary Filmmaking**  
3 Class Hours 4 Lab Hour 5 Quarter Credit Hours  
Prerequisite: DRA 357  
In this course, students will produce a 3-5 minute mini-documentary based on a project proposal and budget. The structure of documentaries will be analyzed by watching a variety of different documentary styles. Students will read about people currently working in the documentary field to better understand current production issues.

**DRA 402 Freelance Project Pre-Production**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: DRA 447, DRA 423  
In preparation for DRA 455 Freelance Production, students will secure an outside client in need of a video program. A detailed program proposal will be developed along with a production schedule, budget, and script.

**DRA 406 The Business of Music and Radio Station Management**  
2 Class Hours 2 Quarter Credit Hours  
This course will take students through the management structure of the radio and music industries. Topics will include radio station music management, voice tracking, station imaging, on air promotion, podcasts, blogs as well as copyright and legal issues in the music business.

**DRA 410 Sound for Picture**  
1 Class Hour 2 Lab Hours 2 Quarter Credit Hours  
This course is an in-depth look at sound design for motion picture and digital video. Topics include postproduction editing and dialogue replacement, sound effects including Foley effects, processing and surround sound mixing.

**DRA 416 Production Practicum**  
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours  
Prerequisite: DRA 402  
This course requires students to act as freelancers by having them find an outside client in need of a video program. Pre-production tasks will include producing the program’s treatment, budget, production schedule, and script. During the production and post-production phase, students are expected to make use of the full complement of audio, graphic and video workstations available in the department to demonstrate their ability in producing a program that satisfies the client’s program objectives and production expectations. This class can only be taken with department chair permission.

**DRA 421 Video Post-Production**  
4 Lab Hours 2 Quarter Credit Hours  
Prerequisite: DRA 358  
In this course, students will edit their music video, concentrating on editing style, structure and pacing. Students will be expected to make use of compositing techniques available in non-linear editing programs. Based on planning and production in the previous quarter, students will spend their time editing and then refining their edit for final presentation.

**DRA 423 Advertising**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: DRA 423  
This course is an in-depth look at sound design for motion picture, video, and radio advertising and discuss the creative and strategic thinking behind the advertising. This course will examine advertising strategies and what makes an advertising campaign effective. A brief history of advertising will also be covered in this course. During the lab, students will develop and design advertising campaigns (print/WWW, television and radio commercials) for an assigned product that is based on the advertising strategies discussed in lecture. Working in small groups, the students will create two different campaigns for the assigned product and then “pitch” the two campaigns to the “client”. After the presentation, one of the two campaigns will be selected by the “client” to be produced in DRA 426 Commercial Production.

**DRA 426 Commercial Production**  
1 Class Hour 2 Lab Hour 2 Quarter Credit Hours  
Prerequisite: DRA 423  
Students will produce the print/internet, television and radio commercials from the selected advertising campaign(s) presented in DRA 423. Following the production, students will present the finished campaign to the “client”.

**DRA 431 Remote Production**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: DRA 440  
Using portable digital recording equipment, students will plan and technically organize a remote location field shoot. Shoot will utilize three cameras and multiple audio inputs to record a live event direct to a hard drive. Students will learn set-up and techniques particular to field production.

**DRA 440 Career Preparation**  
2 Class Hours 2 Quarter Credit Hours  
This course focuses on the mixdown process as it applies to multi-track recordings used in the audio, music, and film industries. Students will prepare fully-mixed master recordings through the functional use of modern studio technology, from conceptual understanding of spectral and spatial balancing, to the application of equalizers, compressors, limiters, and effects processors.

**DRA 444 Mixdown**  
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours  
Prerequisite: DRA 357  
This course focuses on the mixdown process as it applies to multi-track recordings used in the audio, music, and film industries. Students will prepare fully-mixed master recordings through the functional use of modern studio technology, from conceptual understanding of spectral and spatial balancing, to the application of equalizers, compressors, limiters, and effects processors.

**DRA 445 Sound Reinforcement 2**  
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours  
Prerequisite: DRA 337  
In this hands-on follow-up to Sound Reinforcement 1, students practice setup and mixing of live ensembles. Topics include commonly encountered technical problems and an investigation of equipment and techniques used to overcome them. Instruction includes effective interaction with talent, managers and venue personnel.

**DRA 447 Audio Post Production**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: DRA 336  
This course focuses on the mixdown process as it applies to multi-track recordings used in the audio, music, and film industries. Students will prepare fully-mixed master recordings through the functional use of modern studio technology, from conceptual understanding of spectral and spatial balancing, to the application of equalizers, compressors, limiters, and effects processors.

**DRA 449 Mixdown**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: DRA 447  
In this course, students will continue to explore and practice the mixdown process. Special emphasis is placed on critical listening and aesthetic considerations. Topics covered include common DAW procedures and data management, use of a virtual console, use of a control surface, signal flow, and digital signal processing. Weekly studio lab time consists of mixing prerecorded multi-track material.
DRA 451 Digital Portfolio
2 Class Hour 2 Lab Hours 3 Quarter Credit Hours
In this course, students will prepare a resume and a portfolio demonstrating highlights from their productions. Special attention will be paid to selecting, refining, and tailoring portfolios for a variety of job opportunities.

DRA 455 Freelance Production
6 Lab Hours 3 Quarter Credit Hours
Prerequisite: DRA 402
Students in Freelance Production will combine all their previous experience and knowledge of video, audio, and graphic production into the creation of a video program for an outside client identified in DRA 402. By using the full complement of equipment and software available in the department, students will demonstrate their ability in producing a program that satisfies a client’s objectives, while measuring their progress against the production schedule and budget developed in DRA 402.

ECONOMICS (SOCIAL SCIENCES)

EC 203 Principles of Economics
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
Introduces the fundamental principles of microeconomics and macroeconomics, such as scarcity, supply and demand, growth, fiscal and monetary policies, and the public and the private sectors.

EC 301 The Global Economy
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course is an exploration of the increasingly complex global economy with particular attention to the competing political economies of Europe, the United States, and the Pacific Rim.

EC 311 Personal Finance
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
EC 311 is designed to help both non-business and business students develop an understanding of the personal financial planning process and the relevant issues that confront individuals as they plan their financial future. Topics covered will include personal financial statements, budgeting, cash and credit management, investments and a comprehensive look at health insurance, life insurance and home and auto insurance.

ELECTRONICS ENGINEERING TECHNOLOGY

EET 314 C++ Programming
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
This course will focus on variables, input and output objects, if-else structures, switch statements, while and do looping structures, functions and scope of variables, one and two dimensional arrays, pointers, and character strings. The use of flowcharts will be used as a visual aid in solving problems.

EET 360 Embedded Microcontrollers
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EET 236 or EST 236
An analysis of microprocessor based systems which include the Intel Family of chips. A detailed analysis of the Arduino microcontroller will be covered. This includes programming the microcontroller to control many different external input and output devices. Use of a computer based logic analyzer to study buses and I/O ports will be introduced.

EET 362 Embedded Microcontrollers Lab
4 Lab Hours 2 Quarter Credit Hours
Prerequisite: ELY 246/247 or EST 236
This course will focus on the Arduino Microprocessor and instruction set. The students will write C++ code for labs that require the use of timers, serial communication, and interrupts. Control of sensors and electronic devices will also be covered.

EET 364 Digital Circuit Design
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: ELY 222 or EST 226
This course covers digital circuit functions, the synthesis of logic functions with PLDs and simulation of PLD designs.

EET 374 Circuit Analysis I
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 210
This course covers nodal and mesh analysis of circuits, applications of Kirchhoff’s current and voltage laws, superposition, Norton and Thevenin equivalent circuits. These theorems are used to solve passive and active circuits, which contain both dependent and independent sources. Basic AC circuit analysis is introduced as well as complex numbers. PSpice analysis techniques are used to model both DC and AC circuits.

EET 384 Circuit Analysis II
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: EET 374, MA 310
This second course in electrical circuit analysis extends the principles developed in Circuit Analysis I to circuits which are stimulated by transient and periodic voltage and current sources. This calculus based course will continue the use of PSpice programming to examine passive and active filters, op-amp circuits, transfer functions, frequency response and the characteristics of periodic waveforms.

EET 463 Sensors and Signal Conditioning
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: EST 226 and EST 138 or ELY 222 and ELY 221, MA 310
This course will cover the elements of a control system which will include sensors, transducers and actuators used in process control systems. The analog and digital signal conditioning and instrument calibration with these I/O devices will also be covered. Laboratory assignments will be on sensor signal conditioning, instrumentation calibration and networking of these devices.

EET 472 Introduction to Senior Project
2 Class Hours 2 Quarter Credit Hours
This course results in the definition of the Senior Project. The senior project proposal is written and presented at this time. The proposal completely describes the technical content of the senior project, including theory of operation, what is being delivered, a schedule, specification, parts list, system block diagram, schematics, graphs and flow charts.

EET 480 Senior Project
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: EET 472
Co-requisite: EET 482
This course gives each student the opportunity to design, fabricate, test troubleshoot, and document a project of their choice. This is primarily a lab course where the student is expected to use all their skills to demonstrate their technical abilities learned in the bachelor’s program. This experience simulates the work environment by requiring the student to follow a plan, meet the technical specification for their deliverable, and produce a working system on time.

EET 482 Senior Project Seminar
2 Class Hours 2 Quarter Credit Hours
Prerequisite: EET 472
Co-requisite: EET 480
This companion course to the Senior Project (EET 480) provides the student the opportunity to communicate progress on the senior project in both oral and written reports. In a final session, all projects are presented and demonstrated to the class and faculty.

EET 486 LabVIEW Programming
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
This course will use LabVIEW, a graphical programming language, for data acquisition and control of I/O and instruments. Students will learn to apply standard VIs (virtual instruments) and design applications. Interface to external devices and instruments will also be covered.
ELT 112 Electrical Foundations I & Lab
5 Class Hours 2 Lab Hours 6 Quarter Credit Hours
This basic course in electricity introduces the student to atomic theory; the fundamental units of volts, amps, ohms and watts; Ohm’s Law and the power equations; scientific notation and metric prefixes; circuit analysis of series, parallel and series-parallel circuits; Kirchhoff’s laws for series and parallel circuits; and troubleshooting. Special emphasis is placed on formula transposition and algebraic notations for voltage and current. Students participate in laboratory analysis of DC series, parallel and series-parallel circuits using analog VOMs and digital multimeters with a DC power source. They are taught protoboard techniques and use the resistor color code extensively. Shorts, opens and various troubleshooting techniques are included. Students will also be familiarized with occupational trends and careers in the electrical industry.

ELT 116 Introduction to Residential Wiring/NEC I
3 Class Hours 3 Quarter Credit Hours
Students practice navigating through the National Electrical Code standards as they learn code and trade terminology and the minimum code requirements for such topics as: switching, conductor sizing, overcurrent protection, box fill, voltage drop, grounding and bonding, and wiring methods. Individual state amendments to the Code are also studied. Students diagram basic electrical branch circuits in variety of configurations.

ELT 117 Basic Wiring Techniques Lab
2 Lab Hours 1 Quarter Credit Hour
This course supports ELT 116. It is designed to introduce the student to the tools of the trade. The students practice wiring techniques which will include mounting and wiring boxes and installing receptacles, lights and switches using non-metallic sheathed cable and metallic-sheathed cable. Safe work practices are emphasized as part of preparation to enter the workforce.

ELT 122 Electrical Foundations II & Lab
6 Class Hours 2 Lab Hours 7 Quarter Credit Hours
Prerequisites: ELT 112, MA 100/110
Three key topics are covered in this course: 1) Inductance and Capacitance: topics include magnetism, coils, electromagnetic induction, capacitors, RL and RC time constants and transient voltages and currents. 2) Alternating Current Circuits: topics include sine wave analysis, RL and RC series and parallel circuit analysis, power factor and power factor correction methods. 3) Power and Generation: topics include DC and AC generation including basic armature winding theory, power and efficiency calculations showing the relationships among heat, light and power units. Throughout the course, students will construct, connect, and troubleshoot AC resistive, inductive, and capacitive circuits and analyze the circuits using measuring instruments that include the oscilloscope and frequency generator.

ELT 126 Residential Wiring/NEC II
1 Class Hour 1 Quarter Credit Hour
Prerequisites: ELT 116, ELT 117
Students continue in their studies of the National Electrical Code standards. Minimum requirements for general lighting, small appliance, laundry, and bathroom branch circuits are explored. Other topics include the required receptacle and lighting locations, attic and basement cable installation, circuit protection (fuses and circuit breakers), personnel protection (GFCI and AFCI) and device protection (TVSS). Students explore the science of light basics as well as the different types of lamps (incandescents, CFLs and LEDs) to better comprehend the importance of energy management and energy efficiency.

ELT 127 Residential Wiring Lab II
4 Lab Hours 2 Quarter Credit Hours
Prerequisites: ELT 116, ELT 117
Students wire a variety of scenarios to authentically experience working in residential situations. From given specifications, they create a set of blueprints and calculate box fill. They then rough in and trim each lab. With guidance and under supervision, they energize and test each lab wearing the appropriate PPE. Students are required to work in a neat and workmanlike manner which includes housekeeping practices. Lastly, students create invoices that detail the material used with prices and labor costs.

ELT 132 Transformers & Lab
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: ELT 122, MA 125
Students study the construction, operation and connections for single phase transformers, three phase transformers, autotransformers, current and potential transformers. Current, voltage and power relationships are examined. Phasing techniques, polarity checking, and closure testing are also investigated. A variety of cooling methods are also explored. Areas of practice include series and parallel connections, single-phase polarity checks, three-phase transformer connections and buck-boost connections. National, Massachusetts and Rhode Island Electrical Code requirements are studied.

ELT 134 OSHA Construction Safety & Health
1.5 Class Hours 1 Quarter Credit Hour
Prerequisites: ELT 122, EN 101
As part of OSHA’s Construction Safety and Health training initiative, this course examines a variety of construction industry standards that entry level graduates will be required to apply on construction sites. Required topics include: Introduction to OSHA; electrical safety; fall protection, materials handling, storage, use and disposal; stairways, ladders, and scaffolding, excavations, confined spaces; fire prevention and protection; and occupational health and environmental controls. Students will also be required to take an off-campus CPR training course. In order to obtain their OSHA 10-hr card, students need to pass the course with a “C” average. Attendance is mandatory.

ELT 136 Advanced Wiring/NEC III
4 Class Hours 4 Quarter Credit Hours
Prerequisites: ELT 126, ELT 127
The topics covered include residential service entrance installation and calculations, conductor resistance, conductor insulation and conduit fill calculations, low voltage structured wiring, fire alarms and voltage drop calculations. All pertinent National, Massachusetts, and Rhode Island Electrical Code articles are covered. Code software will supplement the text material throughout the course.

ELT 137 Advanced Wiring III Lab
4 Lab Hours 2 Quarter Credit Hours
Prerequisites: ELT 126, ELT 127
Areas of practice include installation and test of residential service entrance and advanced general lighting and individual appliance circuits. Additional topics covered are fire alarms, low voltage structured wiring, conduit installation, wire pulls and basic construction techniques. Other areas of practice include the use of power tools such cutting conduit with bandsaws and sawsalls, threading conduit with manual and power threaders, and drilling concrete with hammerdrills for anchoring purposes.

ELT 212 Motor Theory
4 Class Hours 4 Quarter Credit Hours
Prerequisites: ELT 132, MA 125
This course is a study of motor action theory, motor construction, operation, installation and speed control. Areas of DC motors covered are the shunt, series, compound motor and permanent magnet motors; areas of AC polyphase motors covered are the squirrel cage induction motor, the wound rotor induction motor and the synchronous motor; and the areas of single-phase motors covered are the shaded pole, squirrel cage, and universal motors. Specialty motors such servo motors, stepper motors and self-synchronous motors are introduced.

ELT 214 Motor Controls & Lab
1 Class Hour 6 Lab Hours 4 Quarter Credit Hours
Prerequisites: ELT 132, MA 125
Students explore manual and magnetic starters and control
circuit areas. Areas of study include starting and running over-current protection, various two-wire and three-wire control schemes, timer applications, reversing controls, multi-speed control, pilot devices and the similarities and differences of NEMA and IEC controls. Emphasis is placed on drawing and reading schematic and wiring diagrams as well as the construction, connection, testing, and troubleshooting of various motor control circuits. Sizing of motor control equipment is performed in accordance with the National Electrical Code.

**ELT 216 AutoCAD Electrical**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
The AutoCAD Electrical course will give students the necessary AutoCAD instruction so they can implement AutoCAD fundamentals into the AutoCAD Electrical software package. Students will be using the latest version of AutoCAD Electrical for the design of control system schematics and connections, control panel layout, PLC systems and electrical distribution systems.

**ELT 222 Industrial Controls**
6 Class Hours 6 Quarter Credit Hours
Prerequisites: ELT 132, ELT 212, ELT 214
Students study introductory digital electronics, electromechanical sensors and electronic sensors and their applications. Topics covered include the theory and application of semiconductor diodes, transistors, SCRs, TRIACS and similar devices. Power supplies, half and full wave rectification, filtering and voltage regulation are investigated. The course includes comparing digital to analog devices, digital logical testing and voltage regulation are investigated. The course will include closed loop control methods and the sensors used in motor control. Proportional, Integral, Derivative (PID) control will be introduced and rotary optical encoders will be used for closed loop motor control.

**ELT 233 Advanced Industrial Controls Lab**
4 Lab Hours 2 Quarter Credit Hours
Prerequisites: ELT 222, ELT 223
Students continue to work on installation and wiring of single and three phase motor branch circuits for various motor control configurations. Also included are labs which involve the wiring and/or programming of such devices or systems as: Students will study the technologies of the FMS-200 Flexible Manufacturing System, a complete, automated assembly system utilizing PLCs, variable speed motor drives, various sensing technologies, pneumatic driven control systems, and Industrial networks. DC drives, AC variable frequency drives, and troubleshooting labs. Other areas of practice include the use of power tools such as cutting conduit with band-saws and reciprocating saws.

**ELT 236 Advanced Programmable Logic Controllers & Lab**
2 Class Hour 6 Lab Hours 5 Quarter Credit Hours
Prerequisite: ELT 226
Using the Allen-Bradley SLC500, Micrologix 1500 and RSLogix 500 software, the student learns advanced programming techniques. Topics include SLC500 advanced instruction set, analog control, operator interface using Panelview displays, introduction to SCADA systems, and the interfacing PLCs with other automation devices such as Variable Frequency Drives. Industrial networking which incorporates Ethernet IP, Control-Net and DeviceNet will also be introduced. Students create, write and wire programs using the Allen-Bradley SLC500 PLC and the panelview operator interface to interface the PLC with AC drive systems. Students will practice advanced analog programming, such as temperature control using thermocouples. Additional lab projects will incorporate 24 volt DC wiring of sinking and sourcing inductive sensors to the SLC 500 PLC.

**ELT 280 Photovoltaic Systems & Lab**
4 Class Hours 4 Lab Hours 6 Quarter Credit Hours
Prerequisites: Students in Electrical Technology with Renewable Energy (ELRE) must achieve a cumulative grade point average of 2.50 throughout the program and hold their OSHA card in order to enter the seventh quarter of the program. This course focuses on photovoltaic systems for residential, commercial, and industrial systems. Topics include: introduction to photovoltaics; solar radiation; site surveys and planning; system components and configurations; cells, modules and arrays; stand-alone systems and grid-tied systems with or without battery storage capability; inverters; system sizing; system integration; permitting and inspection; commissioning, maintenance and troubleshooting; and economic analysis. The course will include an in-depth exploration of the mathematical equations to ensure that the photovoltaic system design and installation is appropriate for its intended use and will meet all NEC Article 690 code requirements. Students will be required to prepare a quarter-long project that will require them to research all components necessary for a “Stand Alone PV System.” The labs will include desktop trainers which will simulate the “real world” applications of PV systems and reinforce the principles of photovoltaics. Once students understand basic PV theory, they will then design and build a grid tied life size mockup utilizing the actual components of a grid tied PV system: PV module, PV combiner box, inverter, disconnects, metering, grounding.

**ELT 290 Wind Turbine Technology and other Renewable Energy Sources**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: Students in Electrical Technology with Renewable Energy (ELRE) must achieve a cumulative grade point average of 2.50 throughout the program and hold their OSHA card in order to enter the seventh quarter of the program. This course focuses on wind power and explores other renewable energy sources, such as hydro-electric. Students will examine turbine components, installation, power in the wind, environmental impact, maintenance, practicality, site sustainability, and local regulations. The installation of NEIT’s 100kw wind turbine will also be studied including the data provided.
Courses are listed alphabetically by course code.

by on-line live monitoring of turbine. Students will also participate in a quarter-long project culminating with group presentations on the pros and cons of fossil fuels, including nuclear, versus various renewable energy fuels. Students will also complete hands on exercises to explore some of the wind technology topics.

**ELT 310 Programmable Automation Controllers and Lab**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: ELY 246/247 or EST 254
This course will cover advanced PLC programming using the Allen Bradley Compact Logix PAC and RSLogix 5000 software. Students will use several PLC languages including Ladder Logic, Sequential Function Chart, Function Block Diagram and Structured Text. Students will also be introduced to Ethernet IP I/O control and VFD network control. Students will develop working automation systems using the Allen Bradley Compact Logix PAC. Students will develop these programs in several different PAC programming languages. Labs will also consist of "Remote I/O" systems over Ethernet IP.

**ELT 320 Supervisory Control And Data Acquisition (SCADA) and Communication Systems and Lab**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: ELT 310
This course will show students the use of SCADA software in various industries. Students will investigate the uses of SCADA systems and how they are used in today's industrial world for system control and data collection. Topics will include: system communications such as system alarming, wireless systems, radio telemetry, Ethernet networks; and data communication systems for computers and industrial network protocol standards. The lab will show the student how to develop SCADA software systems for interaction with specific industrial/commercial systems such as water/wastewater. Rockwell Software's Factory Talk SE and Intellution's IFix software will be used for these systems. Visual Basic (VB) will be also be used. Data networks, such as Ethernet IP, will be implemented for as part of the SCADA programming.

**ELT 410 Electrical Design & Energy Management & Lab**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: ELT 216
This course will explore the process of monitoring, auditing, controlling and conserving energy in a building or organization. Students will learn how to meter and analyze energy consumption in order to find and quantify routine energy waste, and will investigate ways to mitigate these losses by replacing equipment (e.g. Lighting and VFDs). These changes will also be tracked by analyzing the metered data to see how well energy saving efforts has worked. Topics will include: building automation, power quality, interaction with utility companies and renewable energy sources, building electrical systems, circuit design, power distribution, service equipment, communication systems, security systems, fire alarm systems and NEC and building codes. Industrial/commercial equipment, such as Motor Control Centers, Switchgear, Co-Generation, and renewable energy systems will also be discussed. Students will do a complete energy analysis of actual building systems on campus by collecting data, evaluating systems, and analyzing power through power monitoring hardware and control systems, then writing their recommendations based on their findings.

**ELT 420 Building Management Systems & Lab**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: ELT 410
This course focuses in the devices that monitor and control building automation systems, such HVAC, boiler & pump controls, elevators, lighting and security and fire suppression systems. Topics will include the operation, signaling and functions of the common sensors, actuators, and other control devices that commonly used in building automation systems. Building Automation Network Protocols, such as BACnet, will also be discussed. Students will learn how “Smart” buildings control their respective systems with little to no intervention from building personnel. Students will design and build their own building and all systems using AutoCAD Electrical and manufacturer configuration software for all systems. Programming of these devices for total control and interaction of these systems will be done for system optimization and communications.

**ELT 475 Automation and Process Control & Lab**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: ELT 310, ELT 320, EET 384, EET 463, MA 310
This course includes the study of closed loop process control techniques as applied to automation, distributed control, and systems control. Topics include linear systems analysis, proportional, integral, and derivative control analysis, temperature controllers, composite controller analysis including PID control, transient response analysis, and digital systems design techniques. Students will also learn the principles, components and networks of a Distributed Control System (DCS). The lab will use PID controllers and Programmable Automation Controllers (PAC), driven automation control to demonstrate the closed loop control of automated systems. DCS system design and implementation will be done on a small scale using a “Delta V” distributed control system.

**ELT 481 Internship**
20 Hours per week 4 Quarter Credit Hours
Students will have the opportunity to integrate career-related experience into the undergraduate program by participating in planned, supervised employment in a related field. This will contribute to the student's personal and professional growth in an Electrical Engineering Technology field and provide invaluable career awareness for the student. The internship will also complement what has been learned in the classroom. The internship will include a reflection or evaluation by the student at the completion of the internship. This internship may be paid or unpaid and requires a minimum of 20 hours per week.

**ENGLISH (COMMUNICATIONS CORE)**

**EN 101 English I**
4 Class Hours 4 Quarter Credit Hours
Placement: Based on an evaluation of a writing sample or successful completion of EN 030.
English 101 is an introductory course designed to enhance students’ basic writing skills and to expose students to the type of writing they will face in the workplace. Students will gain practical experience with research, planning, and revising texts and will learn to produce effective memos, e-mails, letters, faxes, and short reports. At the conclusion of the course, students will assemble and submit a Final Portfolio of revised workplace writing and deliver an oral presentation based on their writing and research.

**EN 102 English II**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 101 or placement based on evaluation of a writing sample.
English 102 is a college freshman-level course designed to immerse students in critical thinking and the writing process. Topics will focus on issues prevalent in an individual student's home town, local region, or state and emphasis will be placed on civic engagement through studying local laws and ordinances as well as news accounts and editorial pieces. Through drafting, revising, and writing to learn, students will strengthen their ability to interpret, analyze, and evaluate the ideas presented in the course readings, lectures and discussions.

**EN 110 Healthcare Communication Skills**
4 Class Hours 4 Quarter Credit Hours
This general education course is designed to introduce students to the principles of effective communication in the healthcare professions. Class meetings involve considerable attention to group dynamics, teamwork, listening and response techniques, and communication patterns. Through
role-playing/simulations, small group, and individual presentations, students will be given opportunities to practice critical competencies in therapeutic communication necessary to ensure quality care outcomes.

**EN 211 Oral Communications**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 101 or placement
EN 211 is an introductory course with an emphasis on oral communication theory and practice. The course provides a basic understanding of the significance of oral communication as well as instruction and practice in the basic skills of public speaking. The course is intended to help students develop skills in speaking, organizing thoughts, and critical analysis. Major emphasis is placed on the preparation and presentation of formal speeches.

**EN 331 Research Writing**
4 Class Hours 4 Quarters Credit Hours
Prerequisite: EN 102
English 331 Research Writing introduces students to the process of discovery through scholarly writing and research. Beginning with the idea that academic writing is a conversation, a collegial exchange of ideas to pursue new knowledge, this course breaks the process down into a series of comprehensible habits of mind and investigative skills: active reading, critical analysis, argumentation, research, and communication. In this course, students don’t merely write a term paper; they join an ongoing conversation about ideas in a spirit of collaboration. Valuing complexity and creativity, they transform information by adapting it and creating something new. The central goal for students in this course will be to produce a research paper that presents an argument based on critical thinking – original inquiry, thoughtful reflection, lucid synthesis, and persuasive reasoning.

**EN 421 Technical Communications**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
Technical communications is, in essence, explaining complex content. It encompasses writing for a broad range of technical and general audiences in virtually all media. It involves analyzing audience, purpose, and content, planning and organizing content to meet goals, effective use of graphics, and effective oral presentation. EN 421 is an advanced writing course that focuses on these areas.

**EN 422 Writing in the Health Sciences**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
Writing in the Health Sciences is an advanced writing course focusing on written communication common in the health science professions. To better prepare students for the challenges of successful professional communication, Writing in the Health Sciences targets the three main audiences of the health provider: other professionals, patients and clients, and the public. For each of these audiences, students will learn writing techniques and practices to ensure that their message is being understood and that their professional voices are being heard at all levels of the health care organization.

**Electronic Systems Engineering Technology**

**EST 110 Electrical Circuit Theory I**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
The concepts of current, voltage, power, energy, and resistance are studied along with their relationships using Ohm’s Law and series and parallel concepts. Topics also include DC sources and magnetism. In the lab portion of the course, the student will construct selected circuits, following schematic diagrams – then test and evaluate the circuits using the appropriate test equipment.

**EST 111 Instruments and Basic Circuit Construction**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
An introduction to the use of the basic electronic test equipment used in industry, to include power supplies, digital multimeters, function generators, and oscilloscopes. PC board through-hole soldering and surface mount devices (SMD) will be practiced. Other topics include AC sources, safety, basic electronic circuit construction on breadboards, fabrication of electronic connection cables and troubleshooting concepts. Students will fabricate and test a PC board-based project. Computer-aided circuit simulation is introduced.

**EST 112 Introduction to Engineering Technology**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course is an introduction to engineering technology that gives an overview of the engineering profession with sample applications of typical duties, tasks, and environment of the engineer and technologist today. The future of engineering technology is also discussed.

**EST 120 Electrical Circuit Theory II & Lab**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisites: EST 110, EST 111, MA 100/110
In this course, students will gain the necessary skills to analyze and evaluate inductors and capacitors in both AC and DC circuits. The concept of reactance and impedance in sinusoidal circuits are studied along with transformers, resonant circuits, and passive filters. Students will study the function as well as the applications of the devices. The use of circuit simulation and computer-aided analysis are used in the classroom.

**EST 126 Digital Logic Systems I**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: EST 110, EST 111, MA 100/110
The primary objective of this course is to have the student understand basic digital gates and circuits. The student will become proficient at understanding and interpreting an IC data specification sheet’s parameters and truth tables. This course introduces binary and hexadecimal numbers, Boolean algebra, truth tables, combinational logic gates, adders, flip-flops, encoders, decoders, comparators, multiplexers and demultiplexers as well as basic ripple counters. 7-segment displays are studied. Circuit simulation and computer aided analysis are used in the classroom. Digital circuits will be constructed and analyzed that include the use of function tables and manufacturers’ data sheets. The student will develop skills in the use of specialized test equipment used to analyze and troubleshoot digital circuits.

**EST 131 Semiconductor Theory**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisites: EST 110, EST 111, MA 100/110
This course will give the student the necessary skills to analyze and evaluate the operation and performance of solid state electronic circuits. Areas of study will include diodes, DC power supplies, voltage regulators, and transistors (BJT, JFET, and MOSFET) used in switching and in signal amplifiers. Laboratory work and computer aided analysis are designed to correlate with the theory. Included will be a project that will consist of fabricating a variable voltage regulated power supply.

**EST 138 Linear Integrated Circuits**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: EST 110, EST 111, MA 100/110
In this course, the student will learn the basics of operational amplifiers (op-amps) which are the most versatile and widely used of all linear integrated circuits. Topics will include open and closed-loop response, inverting and non-inverting amplifiers, comparators, level detectors, summing amplifiers, instrumentation amplifiers, isolations amplifiers, and active filters. Lab experiments, circuit simulation and computer-aided analysis will be used to analyze and evaluate the various op-amp circuits.

**EST 167 Robotic Control Systems**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
In this course, the student will be introduced to the versatility and construction of robots. The students will engage in hands-on robot construction and control emphasizing technological systems that include the electrical, mechanical, microcontroller programming and sensor applications. Students will
Courses are listed alphabetically by course code.

be challenged to get a robot to perform specific and exacting tasks as assigned by the instructor.

**EST 226 Digital Logic Systems II**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: EST 126
This course covers a higher level of chip integration such as synchronous counters, storage registers and shift registers, astable and monostable multivibrators, analog to digital and digital to analog circuits and computer and microprocessor memory systems. Lab experiences will include simulation of designs with MultiSim as well as building, testing and troubleshooting circuits on a protoboard.

**EST 236 Microprocessor Control Systems**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
The concepts of how a microprocessor processes and stores data will be studied. The interfacing and control is presented from a hardware and software view. Computer to peripheral interfacing and troubleshooting is emphasized. Students will study assembly language programming to control several systems.

**EST 242 Industrial Systems**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: EST 131, EST 138, MA 125
In this course, the student will study the operation and use of the electronic and electro-mechanical devices used in industrial control circuits. Topics will include thyristors (SCR, DIAC, TRIAC, UJT, PUT) DC and AC motor control, stepper motors and drivers.

**EST 246 Data Acquisition Systems**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: EST 131, EST 138, EST 236, MA 125
This course is designed to introduce the student to the transducers, sensors and circuits used in industry for the purpose of controlling a manufacturing process. Topics of study will include analog and digital signal conditioning (ADC/DAC) and sensors. Sensors to be studied will include thermal, proximity, optical, ultra sonic, position, and pressure. The lab portion of the course is designed to give the student the experience of working with and implementing the sensors and circuits studied.

**EST 250 Telecommunications Systems**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: EST 126, EST 131, EST 138, MA 125
A course designed to give the student an understanding to the complexity of a telecommunications network. The student will explore the signal conditioning need from the originating signals to the options of various transmissions mediums. Topics of study will include transmission lines, electromagnetic propagation, tuned circuits, oscillators, AM and FM principles, PCM, multiplexing, and fiber optics. Laboratory projects will include the construction of an RF transmitter/receiver, fiber optic fusion slicing techniques, and TDR and OTDR operation. Circuit simulation and computer aided analysis will also be used.

**EST 254 Introduction to Programmable Controller (PLC) Systems**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MCT 136 or EST 242
This course will provide the student with a broad-based working knowledge of programmable controllers and how the PLC is connected to external components of an operating control system. Sample programs are initially used that demonstrate how control systems and control programs for the programmable logic controller training unit constitutes the major portion of the lab. The students will enter their programs into the training unit, debug the programs, and verify the correct operation.

**EST 255 Renewable Energy Systems**
2 Class Hours 2 Lab Hours 3 Credit Hours
Prerequisites: EST 110, EST 111, EST 120, MA 125
In this course, the student will explore the concepts of renewable energy and the components that comprise various renewable energy systems. The focus is primarily on smaller residential systems, less than 10KW. The student will gain an appreciation for how a system can be expanded by adding a wind turbine to construct a hybrid system.

**EST 258 Printed Circuit Board Design**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: EST 236, EST 250, EST 254
This course presents to the students the design flow for mainstream professional Printed Circuit Board (PCB) design. All the steps in PCB layout are studied from schematic capture, netlisting, importing and setup to component placement, trace and copper placement, routing and editing, solder mask, and output for manufacturing and assembly. Students work in a simulated corporate environment in teams and present and demonstrate the final capstone project.

**EST 260 Biomed Systems**
2 Class Hours 2 Lab Hours 3 Credit Hours
Prerequisites: EST 110, EST 111, EST 120, EST 138, MA 125
This course introduces the student to basic functions of the human body, biomedical instrumentation and measurement, sensors and the typical types of biomedical equipment used in the medical field in surgical procedures, monitoring, diagnostics, and therapy, as well as test equipment and safety requirements.

**FINANCE**

**FIN 410 Financial Management**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: ACC 311
Students review financial accounting principles and statements and study the analysis of financial statements using profitability, liquidity, debt, asset activity, and market value ratios. Also, students produce pro forma financial statements for forecasting and learn the concepts of the time value of money. The course also focuses on how to make long-term financial decisions by examining capital structure basics and looking at long-term financing instruments such as corporate bonds, preferred stock, and leasing options. In addition, short-term financing decisions such as working capital, managing cash, accounts receivable and inventory are covered.

**FIN 430 Investments**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: ACC 311
This course provides insight into the importance of financial planning and investing as well as exposure to various analytical tools helpful in making investment decisions. Students learn the process of planning in order to create a budget and to use credit wisely. Students also learn business organization, risk and potential return, and to buy and sell stock in the Business Management Trading Room using a real-time online trading software simulation and the Wall Street Journal. Additionally, criteria for creating a balanced portfolio are covered as is calculating present yield.
GAME DEVELOPMENT & SIMULATION PROGRAMMING

GDS 110 Introduction to Game Programming
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
C++ will be used as the vehicle to introduce flowcharting, control structures, calculations, interactive programming techniques, functions, and array processing. Students will learn to write programs that implement techniques and theory necessary for basic game development. Laboratory projects will grow in complexity as the student gains hands-on experience. Both personal and gaming applications will be provided.

GDS 111 XHTML/Javascript
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
In this course, students will gain an introduction to internet technologies and basic programming logic through the study of HTML 5, XHTML, Cascading Style Sheets, and Javascript. File organization and implementation of web graphics will be stressed throughout this course.

GDS 114 Introduction to Game Development
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course is an overview of the game development industry. Students will learn what is involved in developing a professional game from start to finish. Topics include the game development life cycle, developing a budget and game specification documents. Students will also be exposed to important physics, math and artificial intelligence concepts relevant to game development.

GDS 121 Intermediate Game Programming
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 110
A study of intermediate game programming using C++ will be covered. Topics include: string handling, intermediate array processing, passing by reference, pointers, and an introduction to creating, editing, and updating data files.

GDS 125 Flash I
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: MWD 112
This course is an introduction to game development for the Internet using Adobe Flash. Students will learn the principles of two-dimensional animation, vector graphics, tweening, objects, and Flash video compression applicable to Web delivery.

GDS 131 Advanced Game Programming
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 121
A study of advanced game programming topics will be covered. Topics include: sorting/searching libraries, and advanced pointer techniques. This course will also teach student object-oriented principles and implementations including inheritance, composition, encapsulation, data hiding, overloading, overriding, and polymorphism.

GDS 134 Game Persistence
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 121
This course will expose students to database design principles such as relational databases, normalization and entity relationship diagrams. These principles will be applied to contemporary database management systems such as MySQL or Access and accessed through a modern object-oriented language such as C++. The student will learn to connect a C++ program to a database to store pertinent game information.

GDS 137 Flash II
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: GDS 110, GDS 125
Using Adobe Flash, students learn additional game animation techniques, interactive game processing using Action Scripting, third-party gaming tools, distribution output for the web and disc-based media.

GDS 240 Game Design
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 114
Topics include game design, game play, game balance and team development. Students will learn how to design a professional game within a team environment.

GDS 243 MOD
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 114
This course will enable students to rapidly prototype their vision for a game. Students will learn how to create good assets and integrate them. This builds student’s management skills and they will learn how to collaborate with a group, and work within a timeframe toward specific deadlines and goals. Also, this course will offer students a taste of the experience of being a game developer. It will help them understand how to iterate to tune the core mechanic of the game to ensure the final game will be polished and fun.

GDS 241 API Programming
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 131
This course will teach students to create a game program using an industry standard graphics API. Using C++ and a graphics library such as DirectX or OpenGL students will learn the fundamentals of 2D programming. Topics include scrolling, sprites and collision detection and incorporating sound effects.

GDS 252 Algorithms and Data Structures
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 131
This course includes an overview of the algorithms and data structures used in gaming and simulation applications today. Topics include, but are not limited to, linked lists, queues, stacks, user input as well as a variety of AI techniques used in game development.

GDS 261 Game Architecture
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 252
Students will study current game development methods. Topics include an overview of game architecture, game engines, and graphic libraries. Students will develop simple games using a popular game engine.

GDS 266 Game Studio for Game Developers
6 Lab Hours 3 Quarter Credit Hours
Prerequisites: GDS 241, GDS 252
This course is designed to challenge the organizational and programming skills of a GDS student. Students will be part of a small development team of designer and programmers, and tasked with producing the code necessary to complete a full game product.

GDS 267 Portfolio Development
2 Lab Hours 1 Quarter Credit Hour
Prerequisites: GDS 111, GDS 137
Students will put together a portfolio that will be used to demonstrate their school work to potential employers.

GDS 370 Advanced Game Design
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 240
Students will study advanced aspects of game design. Topics include genre-specific design issues, storytelling, level design, puzzle design as well as the game development life cycle.

GDS 371 Tools and Engine Development
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: GDS 243, GDS 261
Students will learn the development of tools for the game industry and the development of the primitive components of game engine. Topics include editing tools, asset pipeline management system, converters, database management, networking, interpreter, and defect tracking systems.
Courses are listed alphabetically by course code.

**GDS 373 Advanced Algorithms and API**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: GDS 241, GDS 252
This course builds on GDS 252 and incorporates advanced algorithms with the use of an API such as DirectX. The focus will be on the practical application of these techniques to design efficient algorithms. Topics include: asymptotic notation, recurrences, lower bounds for worst case and average case, dynamic programming, searching algorithms, sorting algorithms, advanced computation and related research issues.

**GDS 375 Simulation and Serious Games**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 266 or VGD 269
This course involves the exploration, design, and development of simulation games and serious games. The questions that will dominate this course are these: How do we represent reality in a simulation? How do we balance simplicity, efficiency, and playability against realism, richness and complexity? Students will also create a serious game in which education (in its various forms) is the primary goal, rather than entertainment.

**GDS 381 Software Testing and Quality Assurance**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: GDS 261
Testing is an integral part of the system development function. Students will gain an appreciation of why software testing and quality assurance is so important. Topics include the types of testing, the testing team, defect tracking, test software automation, and the testing philosophy.

**GDS 383 Console Game Programming I**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 241
This course emphasizes developing games that could be deployed on a popular console system as well as PC systems using industry standards languages like C# and frameworks like XNA. Students will learn how to dissect existing 2D games, interact with console controllers, keyboards, and mice, and manage output using boundary handling, collision detection, texturing, and character animation.

**GDS 399 Console Game Programming II**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 383
Students will expand their skills by implementing intermediate 2D gaming topics like level design, handling multiple players, and porting their games to consoles. Topics include networks, writing/reading packets, latency, network libraries, and publishing games to a console. Students are also introduced to 3D gaming concepts, where they will explore 3D gaming architecture, modeling via code, texturing, lighting, and camera positioning. Through the use of class discussion and gaming projects, students will create compelling game experiences through environments by designing their own 2D and 3D games.

**GDS 402 Level Design and Gameplay Development**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: GDS 243, SE 393
This class is the continuation of MOD class with a twist. Using a popular game engine, the student will design and develop a multi-player, first-person shooter level that is different from what the engine was designed to do. Using displacements or other techniques, these environments include underwater, Mars, Moon, or inside the human body. Students also need to create a unique gameplay mechanic through coding or custom modeling. The team project seeks to outline a heuristics of level design in FPS shooters. This class will also include the examination of a game’s gameplay, its agents, and spatial components which is necessary for the development of a design method that will lead to ultimate level design.

**GDS 404 Artificial Intelligence**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 373
This course will explore artificial intelligence as a coherent body of ideas and methods to acquaint the student with the classic programs in the field and their underlying theory. Students will explore this through problem-solving paradigms, logic and theorem proving, language and image understanding, search and control methods, and learning. Other topics include intelligent agents, state-space search, game playing, knowledge representation, reasoning under uncertainty, machine learning, and data mining.

**GDS 405 Console Game Programming III**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 399
Students will explore 3D gaming architecture, level design, object transformations, and environmental animation and learn to implement industry shortcuts that deal with design issues having to do with 3D hardware, programming objects and camera motions, collision detection, character animation, special effects, and 3D game networking. Through the use of class discussion and gaming projects, students will create compelling game experiences through environments by designing their own 3D games.

**GDS 410 Introduction to Senior Project**
2 Class Hours 8 Lab Hours 5 Quarter Credit Hours
Prerequisites: GDS 370, GDS 402, GDS 405
The objective of the senior project is to integrate skills learned during the students’ time at New England Institute of Technology. Within a team of at least 2 and no more than 4 students, students will develop an industrial-strength game. The introduction to the Senior Project spans the first 10 weeks of this period and the focus of this course is on the design of the game.

**GDS 413 Advanced Portfolio Development**
1 Class Hours 1 Quarter Credit Hour
Prerequisites: GDS 402, GDS 405
Students will put together a portfolio that will be used to demonstrate their school work to potential employers.

**GDS 420 Senior Project**
2 Class Hours 8 Lab Hours 6 Quarter Credit Hours
Prerequisite: GDS 410
This course provides an opportunity for each student to develop a substantial project in an area of interest as proposed in GDS 410. The culmination of this course is a major presentation of the project. The project will be evaluated by three faculty members.

**GDS 422 Emerging Technologies in Game Development**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: GDS 370, GDS 402, GDS 405
This course is a discussion of emerging and future technologies that are likely to impact the industry. Topics chosen by the instructor will include advances in hardware, software, networking, gaming, the Internet, and leaders in the game development industry. In-depth research of the chosen topics will be conducted and students will work on hands-on projects that involve specific emerging technologies.
**COURSE DESCRIPTIONS**

**GXD 102 Digital Illustration**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 112, MWD 123
This is an introductory studio course that presents visual ideas using digital illustration. The course focuses on computer-based drawing and design techniques. Technical aspects of industry-standard illustration software will be studied, and studio projects will be developed from concept through completion. Course completion will result in a strong working foundation in the rudiments of digital illustration for professional practice.

**GXD 200 Digital Pre-Press**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 112, MWD 123, GXD 102, GXD 201
Digital Pre-press is a course designed to introduce students to the technical requirements for bringing digital files to press. Emphasis will be placed on color, image and font management, and awareness of paper and printing stocks. Students will also study image and file resolutions, printing methods and special effects, and preparation of digital files for print production.

**GXD 201 Intro. to Typography**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 112, MWD 123
This course explores aspects of the anatomy of type and letterform characters, typeface/typestyle recognition and type measurements. Also covered are legibility, readability, type terminology and appropriate usage for multimedia applications. The class will analyze the ways in which type is used as a design element, and complete design projects that exhibit a professional awareness and appreciation of typographic expression. Computer applications will be used as typographic layout and design tools.

**GXD 205 Digital Photography II**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: MWD 100, MWD 112, MWD 123
This course follows the techniques begun in MWD 110 Digital Imaging. Students will progress with their use of full manual exposure controls. Topics include professional techniques for creating product shots, portraits, and stock photography. Students will complete the course with a strong foundation in digital camera techniques for various print photography and e-publishing applications.

**GXD 212 Digital Graphics II**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: GXD 101, MWD 112, MWD 123
Digital Graphics II is an advanced course that continues the topics covered in MWD 112 Digital Graphics. Using Photoshop, students will analyze images to obtain the best output results for web and print distribution. Topics to be covered include: camera RAW formats, analyzing and correcting portrait photographs, using channels to make complex selections, and using Photoshop’s automate features to expedite workflow. Students will use photographs taken in GXD 205 Digital Photography II to prepare portfolio-ready photography pieces with detailed digital enhancements.

**GXD 232 Digital Publishing II**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: GXD 102, GXD 201, MWD 112, MWD 141, MWD 231
Co-requisite: GXD 270
Digital Publishing II builds on skills learned in MWD 231 Digital Publishing I, including advanced software techniques and features, and layout/design concepts. File preparation and aesthetic design awareness for digital publishing such as ebooks and interactive e-readers will be covered. Through a combination of quizzes, exams and a capstone studio project, the student’s knowledge and expertise with digital publishing will be strengthened and refined.

**GXD 233 Package Design**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 141, MWD 231
Every package is seen by 100% of a brand’s consumers. This course introduces students to the 3-D design, art, and technology of enclosing, protecting, and promoting products for distribution, sale, and branding. Three dimensional packages will be printed and constructed.

**GXD 270 Associate Portfolio**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: GXD 201, GXD 102, GXD 205, GXD 212, MWD 131, MWD 141, MWD 231
Co-requisite: GXD 232
Associate Portfolio prepares students to build a graphic design portfolio with professional quality, business-oriented design projects, and also addresses portfolio presentation techniques for an interview situation. Topics such as self-evaluation, personal branding, choosing the right portfolio format and pieces, arranging pieces in the portfolio and executing a well-paced, detailed oral presentation will be covered. Students will leave the course with a strong understanding of their own strengths and talents that may be brought to the workplace, and the skills to present or e-deliver their work with confidence.

**HEALTH CARE MANAGEMENT**

**HCM 310 Introduction to Health Care Management**
4 Class Hours 4 Quarter Credit Hours
Students will be introduced to the managerial role in health care. This course will provide an overview on conflict management, organization design, the importance of teamwork, quality improvement strategies and the future of health care.

**HCM 311 Health Care Systems**
4 Class Hours 4 Quarter Credit Hours
This course will examine the healthcare delivery system in the United States and around the world. The history and evolution of world health care systems will be explored as well as the continuum of care, current concepts and future developments of health and health care systems will be researched.

**HCM 320 Health Care Law**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: HCM 310
Course will cover essential concepts regarding legal issues that will arise in the provision of health care services. Review of legislative process, and legal bases for existence and administration of public health programs. The regulatory role of government in health services system and ethical issues will also be presented. Case studies will be presented and discussed.

**HCM 321 Public Health**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: HCM 310
This four-credit course will provide an introduction to public health, including an overview of health care delivery and its relationship to the practice of public health. Topics covered include defining public health, examining the framework governing the responsibilities of local public health systems, policies and the policy-making process, principles of epidemiological investigations, and preventive measures.

**HCM 330 Health Care Economics**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: HCM 310
This course will examine basic economic concepts, the cost of health care, the demand for health insurance, expectations of consumers, the ever-changing health care market, the effect of competition on quality patient care, linking value to the cost of health care and cost-effectiveness analysis. We will focus on the market for health care and its financing, the role of government, the impact of innovation, incentives for quality, and economic evaluation.
HCM 339 Mental Health and Well Being
3 Class Hours 3 Quarter Credit Hours
Presents a historical review of the attitudes toward mental illness; reviews roles and functions of professionals working with individuals with emotional, behavioral, addiction, and/or social problems, studies various treatment procedures used in the mental health/human services field, and investigates different facilities where treatment and services are available.

HCM 410 Health Care Marketing
4 Class Hours 4 Quarter Credit Hours
Prerequisite: HCM 310
This course introduces the aspects of marketing and sales necessary in health care. Introduces the concept of marketing, the nature of marketing strategy. Students will be required to perform analysis of environmental and internal opportunities and threats as well as creation of a marketing plan. The use of Total Quality Management will also be introduced as an important aspect of marketing and maintaining consumer base.

HCM 411 Health Care Finance
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: HCM 310, MA 300
Students will learn financial theories to allow them to make managerial decisions within the health care environment. Principles of for profit vs. not-for-profit finance will be reviewed. Computerized spreadsheets to assist in financial analysis, capital budgeting, financial planning and managing operating budget will be demonstrated. Budgetary issues and development of revenue/expense reports as well as financial implications of public health policy and health care reform will be emphasized.

HCM 415 Introduction to Health Care Externships
1 Class Hour 1 Quarter Credit Hour
Prerequisites: Completion of Quarters VII - IX
Students will be taught essential professional skills, and educated on how to attain externships within the field. Guidance will be provided to ensure students explore internships that are most appropriate to their career goals.

HCM 420 Health Care Externship I
24 Lab Hours 8 Quarter Credit Hours
Prerequisites: Completion of Quarters VII - X
This externship will be in public health, or other managerial setting where the student will be required to perform the duties required of managers. Locations will be identified and selected by the student. The site must be approved by department chair prior to student placement.

HCM 421 Long Term Care Management
3 Class Hours 3 Quarter Credit Hours (This is a five week course)
Co-requisite: HCM 422
This course educates students on the managerial needs of long-term care agencies as well as those within the hospice, home care and informal care-giving environments. Residential care management, environmental management and governance issues are discussed in depth. Ethical issues are studied with emphasis on the physical, emotional, and spiritual needs of clients and families.

HCM 422 Long Term Care Management Externship *
12 Lab Hours 4 Quarter Credit Hours (This is a five week course)
Prerequisites: Completion of Quarters VII - X
Co-requisite: HCM 421
This externship will be in a long term care facility where the student will be required to perform the duties required of managers. Locations will be identified and selected by the student. The site must be approved by department chair prior to student placement.

HCM 430 Senior Seminar
2 Class Hours 2 Quarter Credit Hours
Prerequisites: Completion of Quarters VII - XI
Co-requisite: HCM 431 or HCM 433
In this course, students will demonstrate how they integrated their managerial skills that they developed throughout their academic and externship experiences. Students will submit an externship project that they were involved in for review and approval by the department chair. Students will work independently with periodic interaction with the department chair. Students will give a formal presentation of their project to the class at the end of the quarter.

HCM 431 Health Care Externship II
24 Lab Hours 8 Quarter Credit Hours
Prerequisites: Completion of Quarters VII - XI including HCM 420
Co-requisite: HCM 430
This externship will be in a clinical setting where the student will be required to perform the duties required of managers. Locations will be identified and selected by the student. The site must be approved by department chair prior to student placement.

HCM 433 Long Term Care Management Externship II *
24 Lab Hours 8 Quarter Credit Hours
Prerequisites: Completion of Quarters VII - XI including HCM 421 and HCM 422
Co-requisite: HCM 430
This externship will be in a long term care facility where the student will be required to perform the duties required of managers. Locations will be identified and selected by the student. The site must be approved by department chair prior to student placement.

*NOTE: 350 hours of Externship in Long Term Care is needed for RI licensing of Nursing Home Administrators. Students interested in pursuing their RI License in Nursing Home Administration need to complete BOTH externships in a Licensed Nursing Facility, training must be in the following areas: Administration, Human Resources, Nursing Department, Rehabilitation Department, Medical/Patient Records, Activities Department, Social Services/Admissions, Business Office, Dietary Department, Housekeeping/Laundry, Environment/Maintenance.

HISTORY (SOCIAL SCIENCES CORE)

HI 211 United States History I: 1600-1877
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This course examines the most important international, political, economic, and social developments during key phases of U.S. history from 1600-1877. The course focuses on contexts of the two greatest political crises in American history: the tensions between American colonists and the British imperial government and the preservation of the Union and the dispute over slavery between the north and the south that culminated in the Civil War.

HI 231 Contemporary History
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This course encourages students to explore economic, political, social and cultural developments throughout the world since World War II, particularly in developing nations including spiritual, scientific and intellectual developments.

HI 235 Architectural History
4 Class Hours 4 Quarter Credit Hours
This course is a study of the major periods and styles of architecture from Egyptian through postmodern. Styles studied will include Egyptian, Greek, Roman, early Christian, Byzantine, Romanesque, Gothic, Renaissance, Baroque, 18th, 19th and
20th century. Through a series of lectures, discussions, and readings, students will gain a fundamental understanding of the history of architecture including the historical and social context of each period respectively.

**HI 240 History of Aviation**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This course will examine how aviation technology has developed over time, and the impact it has had on culture and society. We will start with the first balloon flight in 1783 but our focus will be the major technological discoveries – such as the Wrights’ solution of the control problem, the improved reliability of engines, jet propulsion, the development of small aircraft for sport and personal use, the growth of commercial aviation for civil transport, the technology of military aircraft and unmanned aerial vehicles, and the launch of the “new space race,” which takes technology developed for sport airplanes and transforms it into spacecraft.

**HI 280 The Holocaust**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
In this course, students will study genocide and mass murder in modern history. The focus of this course is the Jewish Holocaust of 1933-1945. Through film, photographs, and readings, the course will provide students with a basic understanding of the establishment of the Nazi Party and its attitudes, beliefs, and laws that were put into action during this period. Students will compare the Holocaust to current genocidal acts in the world today, including the effects of genocide on society.

**HI 311 The History of the American Family**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
An examination of the American family and the historical changes it has experienced with particular focus on socialization, gender, and sexuality.

**HEALTH INFORMATION MANAGEMENT**

**HIM 120 HIPAA and Patient Confidentiality**
2 Class Hours 2 Quarter Credit Hours
Prerequisite: AHS 102
An overview of the Health Insurance Portability and Accountability Act (HIPAA) of 1996 will be presented. This course is geared towards the roles and responsibilities of the HIPAA officer. Topics will include standards for electronic transactions, electronic health record (EHR) privacy and security, patient rights, and protected health information.

**HIM 122 Introduction to Electronic Health Records**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: AHS 102
This is an introductory course that will provide an overview of the electronic health record (EHR). Topics will include terminology, prescription/medication management including e-prescribing, standard naming conventions, and discrete data fields as compared to scanning and patient disease registries. Practical hands-on experience in a computer lab setting will provide activities similar to what will be encountered in the workplace setting.

**HIM 250 Comprehensive Heath Information Management I**
4 Class Hours 4 Quarter Credit Hours
These course modules provide a comprehensive overview of the Health Information Management knowledge needed to perform at the specialist level. Topics will include healthcare delivery systems, transition and maintenance of EHRs in diverse medical office settings including regulatory compliance. Legal and ethical considerations will be presented and a preparation for the national CEHRS examination administered by the National Healthcareer Association will be included.

**HIM 256 Comprehensive Heath Information Management II**
4 Class Hours 4 Quarter Credit Hours
These course modules provide a comprehensive overview of the HIT, EHR, and HIE knowledge needed to perform at the technician level. The legal and regulatory aspects, the migration path, and change management for these areas will be covered. There is a primary focus on data management, patent safety, CPOE, e-Rx, BC-MAR, PHRs and care coordination, interoperability, clinical decision support, and electronic document management for EHR systems. Meaningful Use will be presented and a preparation for the national CPEHR examination administered by Health IT Certification will be included.

**HIM 262 Externship**
10 Lab Hours 2 Quarter Credit Hours
Prerequisite: HIM 250
Co-requisite: HIM 260
This HIMT externship will allow students to develop the basic knowledge, skills, and professional practices introduced in the HIMT curriculum through hands-on experience in a medical office environment. Students will be expected to perform procedures established by current HIMT guidelines and professional standards.

**HUMANITIES (HUMANITIES CORE)**

**HU 202 Introduction to the Arts**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This course offers students the opportunity to explore the arts: theater, music, dance and the visual arts including painting and sculpture. We will discuss the formal qualities of each expressive medium, and look at/listen to examples of each type of art produced in different times and places. We will develop critical facilities that will allow us to perform formal and contextual interpretations. Most importantly, we will develop an ability to appreciate a wide range of art in many media and in many styles.

**HU 207 Introduction to Literature**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This course is a survey of short fiction, poetry, and drama. Through interpreting literature, students become more insightful readers of texts and the world around them. Lively class discussion helps students understand important elements of life, such as self and society, love and hate, and peace and war. Evaluation is based on class participation and short writing assignments.

**HU 208 Rap/Rock and Poetry**
4 Class Hours 4 Quarter Credit Hours
Core Fulfillment: Both Communications Core and Humanities Core
Prerequisite: EN 102
What do Eminem, Tupac, Bob Marley, Bob Dylan and WB Yeats have in common? All five wordsmiths are poets who use rhyme, rhythm, figurative language and poetic structure to craft language. In this course, students will explore poetic devices and important global themes through examination of poetry, written by Nobel Prize and Grammy Award winning writers. Focusing on aspects of poetic form will build students’ understanding of and appreciation for the power of language.
Courses are listed alphabetically by course code.

**HU 209 Film and Dance**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 101

Film has played a significant role in shaping 20th century dance in the United States through exposing artists and audiences to European, African, Asian and Latin movement styles. This course will look at both the use of dance in film and the influence of film on the development of jazz, tap, modern dance, American modern ballet, and new social dance forms like jitterbug, mambo and break-dancing. Although students will not be dancing in this class, they will develop an appreciation for various dance forms through video clips and discussion. Students will also explore the connection between film and the use of artistic dance practice in athletic activities such as gymnastics, ice skating and the martial arts.

**HU 210 Art for Game Design**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: MWD 112 or permission of the instructor

This course will focus on basic principles of art and design. It will also introduce students to the general progression of Western art styles through time. Students will master the vocabulary of basic art and design principles and will learn to recognize major art history styles and important artists within each historic period. The goal for the course will be to help students become proficient in recognizing and talking about art. Their ability to work successfully with artists will be enhanced so that, as game developers, they will be able to successfully translate the artist's vision into a compelling game. Course performance will be evaluated on student effort and growth as opposed to artistic talent.

**HU 211 Introduction to Film**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

The focus of the course will be on what goes into the reading and analysis of a film. Film is comprised of several arts, and the objective of this course is to learn to appreciate films and to see them as important social documents that tell us much about ourselves and our world.

**HU 212 Documentary Film**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

This course will expose students to the techniques and artistry of making interesting non-fiction films. Students will view and analyze significant documentary films and become familiar with the work of important filmmakers.

**HU 215 Popular Culture**
4 Class Hours 4 Quarter Credit Hours  

This course will analyze cultural expressions of intellectual and social trends since 1950. Students will investigate literature, comics, movies, television, music, advertising, painting, computer games, and the Internet to probe the forces that shape our world. In this course, students will identify and evaluate the popular entertainment we consume and ask how our choices define us and shape our values. Understanding our values and culture enables us to understand why we buy what we buy, why we do what we do, and why we think the way we do.

**HU 216 Music and the Media**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

This course will trace the long relationship between visual media and music. Students will study the movie industry from silent movies to the sound tracks that are an integral part of the movies of today. They will also study the importance of music in television, radio and the recording industry, particularly its role in commercials and the “selling” of products, people and programming. In addition, a substantial portion of the course will be devoted to the technology that has led to today’s sophisticated performances and recording techniques.

**HU 242 The Automobile and American Culture**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

Undeniably, the automobile has had an enormous impact on American culture. A majority of Americans rely on individual transportation on a daily basis. But the car is more than a means of heading to work. Automobiles impact our personal independence, our choice of employment, the country and world economies, the environment, and our social culture. “The Automobile and American Culture” is a course designed to study the broad impact that the automobile has and continues to have on our nation and the world. We will examine the automobile through historical documents, films, photographs, and music.

**HU 243 The American Dream**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

This course explores the theme of work and identity by raising questions about who we are in relationship to our work and to the society in which we live. Who am I? What do I want? What is my place in the world and my status within it? Am I useful? Am I fulfilled? Can I change my circumstances? The readings for the course consist of contemporary short stories and short personal narratives in which different people talk about their jobs. Through the lens of fiction and non-fiction, students will begin to understand how literature relates to the everyday workplace and to our pursuit of the “American Dream.”

**HU 244 Science Fiction**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

Isaac Asimov called science fiction “the literature of change.” The course will analyze films, short stories, and a classic science fiction novel to understand the ways this popular genre entertains us and gives us insight into the impact science and technology has had on us.

**HU 250 Cribs: The American Home**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

This course explores the American home in an interdisciplinary way. Our focus is the history of the twentieth-century home that incorporates a discussion of the social and cultural aspects of domestic space. As part of this analysis, we will explore humanities texts, such as photography and film. In addition to providing students with a basic understanding of domestic history (i.e., when and why did suburbs begin?), they will be prompted to ask other questions (i.e., what forces have excluded some Americans from that suburban way of life?). Students are encouraged to think about the American home as much more than four walls and a roof. It defines who we are... and it determines how we define others.

**HU 291 Critical Thinking and Chess**
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102

This course teaches critical thinking and problem-solving skills by using the game of chess as an empirical model for evaluating situations, calculating risks, predicting the consequences of possible actions, solving problems efficiently, and investigating the benefits and limits of reasoning and creative play. Students will demonstrate those skills by solving a wide variety of tactical and strategic problems in chess, by writing a thoughtful analysis of the qualities necessary for a successful thinker/problem solver, and by applying those qualities to situations in one’s personal life and career. Chess will be used as a model for critical thinking skills and life skills.
**HU 311 The Art of Film**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 331 or its equivalent  
This course is a survey of films that have significantly contributed to the development of film as an art and as an industry. Topics of discussion include filmmaking techniques and theories of criticism.

**HU 313 World War II in Film**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 331  
The Second World War has remained a great thematic source for today’s filmmakers. This course will examine films made about World War II. After watching each film, students will analyze the way the films address such themes as patriotism, leadership, moral responsibility, heroism, cowardice, survival, comradeship, and readjustment to peacetime conditions. The films will also be analyzed through discussion, reading, research and writing, in terms of the contribution of these films in developing a better understanding of current military conflicts.

**HU 321 Representations of Gender**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 331 or its equivalent  
HU 321 is an advanced course that analyzes portrayals of gender in both written and visual text including literature, film, and television to find patterns of meaning that illuminate human nature and society. Additionally, it will explore how gender intersects with other social constructs like race, ethnicity, and sexual orientation.

**HU 331 Ethics and Technology**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 331 or its equivalent  
This course will explore the basic concepts of ethical theories and ethical values; we will apply these to technologically based dilemmas through case studies. We will consider these dilemmas in terms of their implications both for individuals, and for professionals involved in creating and maintaining technology, and we will develop mechanisms to guide ethical discussions and decision-making.

**HU 341 World Religions**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 331 or its equivalent  
In this course, we will examine religious practices surrounding life passages (birth, marriage, death), and the food, clothing, sacred calendars, sacred texts, and ethics of several major world religions.

**HU 350 Literature and Health**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 331 or its equivalent  
Through the study of fiction and poetry students broaden their understanding of two important perspectives in healthcare – that of patient and caregiver. With the ultimate goal of engendering empathy for both parties, this course requires students to read a variety of literary texts that address the social, cultural, psychological, familial, institutional, and professional dimensions of healthcare. Course requirements include close reading, lively class discussion, short oral presentations, original research, and thoughtful writing.

**HU 352 History of Rock and Roll**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102  
This course will trace the various musical forms and technological advances that have led to the American popular music of today. Particular emphasis will be given to blues and jazz and their influence on early rock and roll. In addition, a substantial portion of the course will be devoted to the technology that has led to today’s sophisticated performance and recording techniques. Students will also experience some “hands-on” musical activities with instruments such as the guitar and keyboard that are vital components of today’s music.

**HU 353 History of Western Art**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102  
This course offers students the opportunity to explore the visual arts throughout Western history. Students will develop knowledge of artists and artistic development, and increase their ability to critically appreciate a wide range of art across media, styles, and time periods. We will emphasize painting, and will additionally examine sculpture, architecture and photography, as time permits.

**HU 354 Encountering 20th Century Art**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102  
In this course, students will explore and apply interior design theory and techniques by solving an assigned interior design problem from programmatic format through design development. Problem emphasis will be on residential interiors. Topics will include theory of design, program resolution, concept formulation, selection of finishes, lighting, existing conditions, and the role of the client. Students will make a graphic and verbal presentation representing their solution to a jury of critics at the end of the quarter.

**ID 121 Interior Building Systems**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: ABT 112, ABT 115  
This course is an introduction to building systems and construction materials relevant to the interior design profession. Topics covered will include wall, ceiling, and floor systems, cabinets, countertops, finish carpentry, stair systems, and associated materials. Also included is an overview of plumbing, heating, air conditioning, and electrical systems and their impact on interior layouts. Case studies of residential and commercial projects will be presented and analyzed.

**ID 132 Interior Design Studio I – Residential**  
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisites: ID 121, ABT 122  
In this course, students will explore and apply interior design theory and techniques by solving an assigned interior design problem from programmatic format through design development. Problem emphasis will be on residential interiors. Topics will include theory of design, program resolution, concept formulation, selection of finishes, lighting, existing conditions, project documentation, investigation of existing conditions, building codes, and the role of the client. Students will make a graphic and verbal presentation representing their solution to a jury of critics at the end of the quarter.

**ID 134 Color and Composition**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ABT 110  
This course will introduce students to the theory and technical properties of color relative to composition and light. Through assigned vignettes and projects, students will explore the functions of color and its use to create desired human response and comfort, perceptions, form and space.
Courses are listed alphabetically by course code.

**ID 136 Introduction to Environmental Systems**
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ID 121  
An introduction and qualitative study of typical plumbing, heating, air conditioning, lighting, and electrical systems in buildings. The emphasis will be on light commercial construction.

**ID 212 Programming**
2 Class Hours 2 Quarter Credit Hours  
Prerequisite: ABT 110  
This course introduces the student to the concepts and theory of building programming. Topics will include client objectives, collection, organization, and analysis of facts, evaluation of alternative concepts, determination of space requirements, and the final problem statement.

**ID 225 History of Interior Design I**
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ABT 110  
This course is a survey of the history of interior design from ancient Egypt to the end of the 19th century. Topics will include interior design styles and furniture and furnishings of each major era. The focus of study will be on the major styles of interior design and furniture, understanding the social climate that formed them, and the relationship to present day context.

**ID 226 Finishes & Materials I**
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ID 121  
This course is an introduction to finishes and materials typically specified for the residential interiors. Topics include wall and floor finish materials, paint and coatings, acoustical treatments, fibers and textiles, and criteria used for their selection.

**ID 228 Interior Design Studio II – Retail**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisites: ID 132, ID 212  
In this course, students will explore and apply interior design theory and techniques by solving an assigned interior design problem from programmatic format through design development. Problem emphasis will be on commercial interiors in the retail sector. Topics will include theory of design, program resolution, concept formulation, selection of finishes, lighting, fixture selection, existing conditions, sales psychology, project documentation, investigation of existing conditions, building codes, and client programming and image. Students will make a graphic and verbal presentation representing their solution to a jury of critics at the end of the quarter.

**ID 232 Professional Practice for Interior Designers**
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ID 132  
This course provides the student with an overview of the general practice of interior design. Topics will include office organization, project coordination, legal requirements, contractual agreements, consultants, and fee structures. Discussions pertaining to professional development, personal goals, and career options are also included.

**ID 233 Computer Graphics & Applications**
3 Class Hours 3 Quarter Credit Hours  
This course will introduce students to advanced computer programs typical to the profession and their application. Topics will include spreadsheets, graphics, and business programs.

**ID 234 Portfolio Review**
1 Class Hour 1 Quarter Credit Hour  
Prerequisite: ID 228  
In this course, students will develop a professional portfolio of their work. Quality shall be suitable to the interview process. Along with weekly development critiques from the instructor, students will make a final presentation at the end of the quarter.

**ID 235 Interior Design Studio III – Office**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisites: ID 132, ID 212  
In this course, students will explore and apply interior design theory and techniques by solving an assigned interior design problem from programmatic format through design development. Problem emphasis will be on commercial interiors in the office sector. Topics will include theory of design, program resolution, concept formulation, psychology of the business environment, selection of finishes, lighting, fixture selection, existing conditions, project documentation, investigation of existing conditions, building codes, and client programming and image. Students will make a graphic and verbal presentation representing their solution to a jury of critics at the end of the quarter.

**ID 314 History of Interior Design II**
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ID 225  
This course is a continuation of ID 225 History of Interior Design I covering the end of the 19th century through present day. Topics will include the interior design styles, furniture and furnishings of each style period including present and future trends. The student will be introduced in detail to the “modern period” of furniture design including examining systems furniture in the office environment and other specialized systems.

**ID 315 Interior Construction Documents**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: ID 132, ABT 124, ABT 218, ABT 236  
In this course, students will be introduced to the process of preparing construction documents for interiors projects. The focus will be on the application of analytical methods and technical concepts developed throughout the curriculum. Topics covered will include building systems, building materials, finishes and working drawings.

**ID 320 Interior Design Studio IV – Space Planning**
2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisite: ID 235  
Students will develop a fluent approach to allocating space through a series of design problems. Strategies based on existing conditions, geometric organization, circulation and furnishing patterns, code requirements, adjacency requirements, public vs. private space, and enclosed vs. open design will be explored.

**ID 322 Textiles**
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ID 226  
This course examines the science of textiles and their applications in the built environment. Topics will include textile engineering, coloring, printing, finishes, and properties of both man-made and natural fabrics. Additional topics will include quality, costs, performance, and regulatory compliance.

**ID 324 Advanced Lighting**
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ABT 421  
This course expands upon the theory, criteria, and techniques studied in ABT 421. Emphasis will be on lighting design, selection of interior lighting systems, and computerized software programs applicable to lighting design. Students will apply theories and techniques by executing solutions for assigned problems.
**ID 330 Interior Design Studio V – Hospitality**

2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisite: ID 320  
In this course, students will explore and apply interior design theory and techniques by solving an assigned interior design problem from programmatic format through design development. Problem emphasis will be on the hospitality sector. Topics will include theory of design, program resolution, concept formulation, psychology of the hotel and restaurant environments, selection of finishes, lighting, fixture selection, project documentation, investigation of existing conditions, building codes, and client programming and image. Students will make a graphic and verbal presentation representing their solution to a jury of critics at the end of the quarter.

**ID 331 Furniture, Fixtures, & Equipment**

3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ID 315  
The course develops the student’s knowledge of the categories of furniture including ready-made, custom-designed, and built-in. Furniture types including seating, tables, workstations, storage, beds and systems furniture, selection criteria, materials, construction methods and standards will be discussed.

**ID 410 Interior Design Studio VI – Institutional**

2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisite: ID 320  
In this course, students will explore and apply interior design theory and techniques by solving an assigned interior design problem from programmatic format through design development. Problem emphasis will be on institutional sector. Topics will include theory of design, program resolution, concept formulation, psychology of the environment, selection of finishes, lighting, fixture selection, project documentation, investigation of existing conditions, building codes, and client programming and image. Students will make a graphic and verbal presentation representing their solution to a jury of critics at the end of the quarter.

**ID 420 Project Estimating & Scheduling**

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: ID 315, MA 125  
In this course, students will explore and apply interior design theory and techniques by solving an assigned interior design problem from programmatic format through design development. Problem emphasis will be on residential and light commercial construction. Topics covered will include the organization, classification, and quantity surveys of materials and labor costs, subcontracted work, overhead and profit, and project scheduling.

**ID 421 Portfolio Review**

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: ID 320, ID 330, ID 410  
In this course, students will develop a professional portfolio of their junior and senior level work. Quality shall be suitable to the interview process. Along with weekly development critiques from the instructor, students will make a final presentation at the end of the quarter to a review committee of faculty members.

**ID 430 Interior Design Studio VII – Senior Thesis**

2 Class Hours 6 Lab Hours 5 Quarter Credit Hours  
Prerequisite: ABT 422  
This is a directed studies course in which students must demonstrate to the department faculty, their understanding of and ability to utilize and synthesis the technical and design concepts they have developed throughout their college experience. Prior to the commencement of the quarter, students will submit in proposal format through ABT 422, a project for review and approval by the faculty. Students will work independently with weekly interaction with a faculty advisor. The quarter will culminate with a formal presentation to a jury of faculty and critics.

**ID 431 Professional Issues in Interior Design**

3 Class Hours 3 Quarter Credit Hours  
Prerequisite: ID 235  
A survey course of current topics in the interior design profession.

**INFORMATION TECHNOLOGY**

**IT 111 Introduction to Information Technology**

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
The basic concepts of computer hardware and systems are presented as tools used to provide services and solve problems in businesses. Additionally, students will be exposed to various operating systems that are popular in business, and will learn to use office suite applications; word processing, spreadsheet, presentation.

**IT 206 Externship**

15 Field Hours 3 Quarter Credit Hours  
Prerequisite: Requires Department Chair approval  
The student will gain practical experience through work experience at a local company within an Information Technology department or industry. The student will use the knowledge through previous coursework in his/her technology to work in an entry-level position within a programming or networking environment.

**IT 265 Introduction to Information Security**

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: NE 120  
This course provides a broad overview to the field of information security. The course covers history, terminology and strategies involved in securing information assets and serves as a foundation course for more advanced studies in information, network and computer security. General and specific threats to information assets and defensive strategies for protecting those assets are covered. The course employs an integrated system of skill-building lessons, hands-on exercises, and self-assessment tools.

**IT 267 IT Ethics and Professional Development**

3 Class Hours 3 Quarter Credit Hours  
The course will cover the development and need for issues regarding social, legal, privacy and the application of computer ethics to information technology. This course offers extensive and topical coverage of issues such as file sharing, infringement of intellectual property, security risks, Internet crime, identity theft, employee surveillance, privacy, and compliance. Students will gain a foundation in ethical decision-making for current and future business managers and IT professionals. In addition, the student will be exposed to approaches that effective people take to attain fulfillment and learn to methods to build their character and shape their life more deliberately.

**IT 372 UNIX/Linux Concepts**

3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisite: IT 111  
During this course, the student will be introduced to the installation, configuration, and management of a Linux operating system. At the end of this course, the student will be able to understand the basic functions of the Linux operating system including the role of the system administrator. The course will discuss such topics as running the Linux system, using the graphical user interface (GUI), the Linux command line system, the Linux shell and text files and basic administration tasks.

**IT 374 IT Project Management**

3 Class Hours 3 Quarter Credit Hours  
Students will learn what is involved in becoming a successful project manager. The course covers the foundations of IT project management: project integration, scope, time, cost, quality, human resources, communications, risk and procurement and will include case studies of multiple projects, both successful and failed.
IT 375 Information Systems Management
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: IT 111 or MGT 113
This course provides students with an overview to the field of information technology. Course topics include an introduction to how information systems are used in organizations; hardware and software; organizing data and information; telecommunications, the Internet, intranets and extranets; electronic commerce and transaction processing systems; information and decision support systems; specialized information systems; systems development; and security, privacy, and ethical issues in information systems and the Internet.

IT 378 Database Management
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: NE 120
Students will learn to administer a major DBMS such as Oracle or SQL Server. At the end of the course, the student will be able to assume the role of a DBA in performing tasks such as installation of the DBMS, user management, backing up and restoring databases, replication, maintaining high availability, performance monitoring, automating administrative tasks and database security.

IT 502 Data Warehousing and Data Analytics
4 Class Hours 4 Quarter Credit Hours
This course will build upon the student’s database knowledge by examining data warehousing and data mining techniques. This course will examine database architecture and implementation necessary to enable corporations to maximize their investment within their business intelligence departments. Students will compare and contrast product offerings from major vendors as well as analyze case studies of organizations using these technologies to drive their business. Students will also gain experience with the latest tools and techniques through a series of hands-on exercises.

IT 504 IT Finance
4 Class Hours 4 Quarter Credit Hours
Students will examine key financial accounting principles and describe the purpose and structure of financial statements and the terms and principles used to create them. An analysis of financial statements using profitability, liquidity, debt, asset activity, and market value ratios will be covered to show how informed financial decisions are made about a company. Also, students will learn the concepts of the time value of money and will be introduced to the basics of capital budgeting and how to make long-term financing decisions by analyzing IT capital expenditures. In addition, the course will cover short-term financing decisions such as managing cash and inventory.

IT 512 Network Infrastructure and Design
4 Class Hours 4 Quarter Credit Hours
The course will enhance and build upon the student’s knowledge of networking. By examining the network infrastructure from the perspective of the customer’s needs and goals, students will learn the practical aspects of network design. Students will learn how to characterize, classify and interpret existing networks and traffic. Students will learn how the characteristics are impacted by logical network design and physical network design. Students will discover the appropriate methodologies and acumen for examining the technologies and devices needed for a campus network and an enterprise network. Students will also gain experience with the latest tools and techniques through a series of hands-on exercises.

IT 514 IT Leadership
4 Class Hours 4 Quarter Credit Hours
This course prepares students for leadership skills required in IT management positions. Leadership is about creating change by making decisions and influencing individuals and teams. This course focuses on knowledge and skills related to catalyzing action, making sense of context, using power and influence, building momentum for change, and developing leadership capabilities in others. Students will also examine the complexities and challenges of IT as related to business goals and influencing managers outside of the IT function. Students will develop their communications, critical thinking, and presentation skills.

IT 522 Software Architecture and User Interface Design
4 Class Hours 4 Quarter Credit Hours
This course reviews some of the most successful strategies for building a software system, including data-flow, data-centered, hierarchical, component-based and distributed architectures. Students will gain a thorough understanding of software components, connectors and configurations and learn how to apply user interface design principles for developing systems that are intuitive and meet the client’s requirements.

IT 524 Information Systems Security
4 Class Hours 4 Quarter Credit Hours
Prerequisite: IT 512
Students in this course will get a high-level overview of the information security topics in which today’s corporations need competencies. Essential security topics in this course cover network fundamentals and applications, standards, privilege management, environmental security issues, defense in depth, risk management, vulnerability assessments, business continuity planning, security policies, incident handling, web application security and advanced persistent threats.

IT 532 IT Project Management
4 Class Hours 4 Quarter Credit Hours
Topics include project management life cycle and process; identifying and selecting projects; developing a project proposal; techniques for planning, scheduling, resource assignment, budgeting, and controlling project performance; project risks; project manager responsibilities and skills; project team development and effectiveness; project communication and documentation; and project management organizational structures. The concepts in the course support the project management knowledge areas of the Project Management Institute’s A Guide to the Project Management Body of Knowledge (PM-BOK® Guide).

IT 534 Implications of Digitization
4 Class Hours 4 Quarter Credit Hours
This course aims to increase the student’s awareness of the implications of the digitization of data, information, and communications on organizations and society. Topics include but are not limited to globalization, outsourcing and ethical issues such as information privacy, accessibility, property, and accuracy.

IT 542 Emerging IT Infrastructure Developments
4 Class Hours 4 Quarter Credit Hours
Prerequisites: IT 512
This course will explore emerging hardware and software trends and their impact upon the business environment. Emphasis will be placed upon challenges and opportunities presented by the emerging technologies. Students will be expected to actively participate in researching and presenting course material.

IT 544 Cloud Computing
4 Class Hours 4 Quarter Credit Hours
Prerequisite: IT 512
This course provides the student with a detailed exploration of the cloud-computing paradigm. After studying the cloud architecture, students will study the strategic, risk and financial impact of utilizing this platform. Pertinent topics also include design, implementation and security aspects of applications stored in the cloud. The class will cover the entire spectrum of moving applications into the cloud.
**IT 552 Information Technology and the Law**
4 Class Hours 4 Quarter Credit Hours
This course is designed to provide a broad-based analysis of the legal issues confronted in today's information technology (IT) arena. It provides a foundation of the basic intellectual property concepts upon which IT activities and transactions are based; the transactions, such as the licensing of software or information resources, the outsourcing or hosting of services or information, development of software or websites; and the challenges posed by e-commerce. It also addresses existing and pending laws and regulations impacting the use of IT systems, including electronic privacy and security mandates and the use of electronic signatures. The course examines potential liabilities based on the operation of IT systems, including Internet-based problems (e.g., hacking, denial of service, cyber-torts), domain name/trademark issues, and intellectual property concerns, including the impact of the Digital Millennium Copyright Act.

**IT 554 Master's Project**
4 Class Hours 4 Quarter Credit Hours
This course focuses on (1) the design and management of an IT infrastructure that aims to support the enterprise's structure, core processes, and relationships with external entities such as customers, suppliers, and outsourcers; (2) the IS function and its role in marshalling information technologies and information assets to support the strategy of the organization, and (3) the information technology architecture consisting of the organization's networks, hardware, data, and applications. The student will learn how to integrate and synthesize these three aspects of the enterprise, how IT must be aligned with the strategy of the organization, and how to make appropriate choices about architecture in relationship to overall organization goals.

**JAPANESE (ARTS/FOREIGN LANGUAGE CORE)**

**JP 201 Introduction to Japanese**
4 Class Hours 4 Quarter Credit Hours
Students will be introduced to the basics of Japanese, (speaking, listening, reading, and writing) with an emphasis on comprehension and speaking. Vocabulary used in everyday communication in the workplace, school, and common social situations will be covered. Contemporary Japanese society will be addressed in class discussions and video presentations including, but not limited to art, education, film (in particular anime), food, literature, music, sports, and technology. Japanese technological invention and know-how, as well as the unique challenges of doing business with the Japanese will be studied. Japanese guest speakers will be invited to share their expertise and experiences.

**MATHEMATICS (MATH/SCIENCE CORE)**

**MA 070 Dosage Calculations**
2 Class Hours 2 Quarter Credit Hours, which do not count toward degree requirements
This course is designed to assist your understanding of the proper techniques needed to perform accurate dosage calculations in order to ensure patient safety. This course will focus on using critical thinking and quantitative reasoning methods to apply medical language and systems of measurement to successfully interpret drug orders and understand drug labels.

**MA 100 Introduction to College Math**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: Placement exam
Topics to be covered in this introductory algebra course include operations with signed numbers, rules for exponents, polynomial operations, solutions to linear equations in one variable, and several applications important to various technical areas.

**MA 110 Introduction to College Math**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: Placement exam
Topics to be covered in this introductory algebra course include operations with signed numbers, rules for exponents, polynomial operations, solutions to linear equations in one variable, and several applications important to various technical areas.

**MA 121 Business Math**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110
This is an elementary applied course studying such business topics as interest rates, discounts, payrolls, markups, depreciation, insurance, mortgages, and basic statistics.

**MA 125 Technical Math I**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110
Topics to be studied include the analytic geometry of a straight line, systems of linear equations, trigonometry, vectors and their applications, and quadratic equations.

**MA 130 Applied Concepts in Mathematics**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 125 PLEASE NOTE: Credit cannot be earned for both MA 130 and MA 210
The following major topics will be studied: functions and graphs, determinants and matrices, law of the sines and law of the cosines, logarithmic and exponential functions, and introduction to probability and statistics. These topics are important in many technical fields and for the future study of more advanced mathematics topics.

**MA 200 Applied Math for Business**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110
MA 200 is designed to help with the transition from basic algebra to more advanced business-related courses, such as statistics and finance. Applications will be stressed throughout the course. Specific topics include linear functions, quadratic functions, descriptive statistics, exponential functions, and annuities.

**MA 210 Technical Math II**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 125
The following four major topics and their applications will be studied: Cramer's Rule, exponential and logarithmic functions, trigonometry, and complex numbers.

**MA 300 Statistics**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 125 or MA 130 or MA 200
This introductory course stresses the use of statistics as a management tool for decision-making. The focus is on descriptive statistics, communicating statistical data, concepts of probability distribution, estimation, and hypothesis testing.

**MA 310 Calculus I**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 210
Limits will be introduced and the derivatives and integrals of algebraic functions will be studied at length. Applications include rectilinear motion, curve sketching, maxima and minima problems, related rates, and area under a curve.

**MA 315 Math for Game Developers**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 310
The student will study the essential math necessary to become a successful game developer. Topics include vectors, matrices, transformations, collision detection, random numbers, rendering techniques and optimizations.

**MA 320 Calculus II**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 310
This continuation of Calculus I begins with derivatives of transcendental functions and proceeds with their integration. Additional topics include integration by parts, partial fractions, and numerical methods. Applications of the integral to area, volume, motion, and work will be stressed.
Courses are listed alphabetically by course code.

MECHANICAL ENGINEERING TECHNOLOGY

MCT 112 Introduction to Mechanical Engineering Technology
2 Class Hours 2 Quarter Credit Hours
This course is an introduction to engineering technology that gives an overview of the engineering profession with sample applications of the typical duties, tasks, and environment of the engineer and technologist today. The opportunities for and duties of various related engineering and technology specialists are illustrated. The future of engineering and technology is also discussed.

MCT 113 Design Principles
3 Class Hours 3 Quarter Credit Hours
Students are introduced to methods and procedures for design and product development. Basic principles and approaches to design are covered with emphasis on methods of concept generation, prototyping and testing, reverse engineering, and other different approaches used in product development. A design project is introduced that is carried through the curriculum and will be completed in Quarter VI in MCT 237 Design Project.

MCT 115 Computer Aided Design I
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
An introduction to computer design that utilizes a three-dimensional solid modeling software package that allows the student to immediately create "solid" objects in virtual reality. Emphasis will be placed on design intent. Topics include 3D features, revolve, sweep, and lofted features, shell and coil features, orthographic drawing production, and assembly drawing.

MCT 124 Computer Aided Design II
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MCT 115
This course is a continuation of MCT 115 Computer Aided Design I with an emphasis on the basic principles of mechanical drawing. Drafting topics include orthographic projection, basic dimensioning and tolerancing, sections, threads, 2D design layout, single auxiliary views, and assemblies. The essentials of 2D CAD will be covered along with additional 3D modeling topics.

MCT 125 Manufacturing Processes
4 Class Hours 4 Quarter Credit Hours
This course introduces the fundamentals of machine technology, with step-by-step analysis of how to turn materials into products. Topics include the traditional methods of material removal (maching operations and machine tools), material deformation (cutting, bending, forming, and rolling), sheet metalworking (stamping), joining (welding and fastening), casting, molding, forging, and conditioning.

MCT 130 Engineering Materials
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 125
Material properties will be discussed as they apply to product design, manufacturing process design and control. Theories will be discussed in class and reinforced through lab problems.

MCT 134 Computer Aided Design III
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MCT 124
This course is a continuation of MCT 115 Computer Aided Design I and MCT 124 Computer Aided Design II with emphasis on design layout and intent utilizing a three-dimensional solid modeling software package. Projects will include advanced assemblies. Students will be provided a deeper understanding about presenting a design with presentation mode and animation.

MCT 136 Electricity/Electronics
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 125
This course investigates basic electrical and electronics theory and provides an introduction of circuit analysis. It contains the following topics: electron theory, conductors and insulators, current and voltage, the properties of resistors, capacitors, and inductors, work and power, the principles of series circuit, parallel circuit and series-parallel circuits, and the concepts of capacitance and inductance.

MCT 212 Metrology
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: MA 125
The science of measurement in the manufacturing environment will be studied with emphasis on measurement methods, precision, and accuracy, tolerance control, standards, and inspection techniques. Economics and its relationship to measurement are covered. Both manual measurement techniques and automated techniques will be taught.

MCT 215 Statics
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 210
The principles of statics as applied to design. The purpose of the course is to provide a clear and thorough presentation of the theory and application of mechanics. Topics include vector algebra, Newton’s Laws of Motion, equilibrium of forces and moments, friction, centroids and moments of inertia. Laboratory assignments will support all the key topics.

MCT 224 Mechanics of Materials
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: MA 210, MCT 215
This course provides coverage of important topics in strength of material with an emphasis on application, problem solving, and design of structural members, mechanical devices, and systems. Study of the principles of the strength of materials is based on an understanding of the relationship between stress and strain associated with the application of compression, tension, torsional, shear, and bending forces. Laboratory exercises will support these concepts.

MCT 226 Electricity/Electronics II
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: MCT 136
This course builds on MCT 136 theory and practice by engaging the student in practical applications. The course work is geared toward building a System Response Project using sensors, actuators, semiconductor devices and microcontrollers.

MCT 233 Kinematics
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MCT 134, MCT 215
Analysis of machine parts and linkages for proper design are presented. Topics include design of linkages, gear drives, belt and chain drives, and cams. The course also includes analysis of velocity, acceleration, and static and inertia forces in machines.

MCT 235 Automation
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 210
This course focuses on the utilization of robotics, CNC, and automated controls for assembly and manufacturing processes. Levels of automation, as well as flexible and hard automation, open and closed loop control, Adapter control and material handling will also be discussed.

MCT 237 Design Project
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: MCT 112, MCT 113, MCT 125, MCT 130, MCT 134, MCT 212, MCT 224
Students produce a design utilizing the knowledge gained from the principles covered in the design-related courses. Preparation for this course starts with MCT 113 Design Principles and is reinforced in subsequent courses. Students are required to submit electronic and paper documentation of their design and give a presentation explaining their approach to the design process.
<table>
<thead>
<tr>
<th>COURSE DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>MCT 239 Quality</strong></td>
</tr>
<tr>
<td>3 Class Hours 2 Lab Hours 4 Quarter Credit Hours</td>
</tr>
<tr>
<td>Prerequisite: MA 210</td>
</tr>
<tr>
<td>This course includes the organization, methodology and responsibility of quality assurance programs in manufacturing industries. Topics included are statistical analysis, control charts, process capability, cost of quality and other quality related topics.</td>
</tr>
</tbody>
</table>

| **MCT 240 Manufacturing Planning** |
| 4 Class Hours 4 Quarter Credit Hours |
| Prerequisite: MA 210 |
| This course studies the concepts and techniques used to improve manufacturing performance in order to gain a competitive advantage. Topics include production planning, capacity planning, production control, master production scheduling, and forecasting. |

| **MCT 313 Engineering Economics** |
| 4 Class Hours 4 Quarter Credit Hours |
| Prerequisite: MA 210 |
| This course studies the optimal relationship between value and function of products and the cost and availability of resources. Topics include valuation, appraisal and capital budgeting, capacity, load and service life, cost minimization problems, depreciation and economic worth, utilization and rate bases, demand factors, original and reproduction costs, labor/machinery costs, and engineering economics. |

| **MCT 314 Mechatronics** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisites: MCT 136, MCT 226, MCT 233, MCT 235, and MA 210 |
| Mechatronics integrates mechanical, electrical/electronic, and computer/programming systems in the design of products. This course will allow the student to apply mechatronics principles to the design, build, test of electromechanical systems and demonstrate new products and devices. |

| **MCT 317 CAD/CAM in Design and Manufacturing** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisites: MCT 124, MCT 125, MCT 134 |
| Utilization of computer-aided manufacturing software with 3D solids modeling design capabilities to produce parts on computerized numerical control machines is presented. Topics include computerized generation of rapid prototypes and principles of reverse engineering. |

| **MCT 322 Fluid Power** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisite: MA 210 |
| This course covers the theory and practical use of fluid power and pneumatics. Topics include circuit diagrams, valves, cylinders, actuators, pumps, system losses, fluid logic and standards. |

| **MCT 324 Design for Manufacture and Assembly** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisite: MCT 125 |
| The principles of effective design for manufacture and assembly is applied to product design leading to simplified designs, reduced part counts, reduced assembly operations, and overall cost reductions without sacrificing quality. Topics include design for manual and automated assembly and design for assembly and handling by industrial robots. |

| **MCT 336 Dynamics** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisites: MA 310, MCT 215 |
| Dynamic forces, balancing, and the synthesis of mechanisms and motion will be discussed. This course provides an understanding of the theory and application of engineering mechanics. Topics will include kinematics of a particle, force and acceleration, work and energy, impulse and momentum, and rigid bodies. Theories will be discussed in class and reinforced through lab sessions. |

| **MCT 416 Operations Management** |
| 4 Class Hours 4 Quarter Credit Hours |
| A management course specifically tailored for mechanical engineers that includes the principles of project management (CPM PERT, Gantt Charts), traditional management principles, total quality management (TQM), and materials management (Independent Demand vs. Dependent Demand). |

| **MCT 418 Advanced Computer Applications** |
| 2 Class Hours 2 Lab Hours 3 Quarter Credit Hours |
| An overview of computer applications and management information systems that are used in mechanical engineering is presented. Laboratory assignments emphasize mechanical engineering design applications. |

| **MCT 420 Thermodynamics** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisite: MA 210 |
| This course studies energy systems and the relationships between heat and work. Topics include the perfect gas laws, enthalpy, entropy, thermodynamic principles of boilers, turbines, internal combustion engines, and gas mixtures. Laboratory exercises will support these principal concepts. |

| **MCT 422 Manufacturing Processes II** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisites: MCT 125, MCT 130, MA 210 |
| Advanced manufacturing process technology, management technology, and material technology will be discussed. Topics covered will be metal casting, powder metallurgy, bulk deformation processes, advance chip removal processes, nontraditional machining and thermal cutting processes, and processing of integrated circuits. |

| **MCT 424 Design with Plastics** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisite: MCT 422 |
| This course studies the design of plastic components. Properties of different resins are covered along with the unique characteristics of plastic as a design material. Design considerations relative to the different types of plastic processes are also covered along with tooling considerations and cost analysis. Design of products made of composite material is included. |

| **MCT 425 Engineering Capstone Project Seminar** |
| 2 Class Hours 2 Quarter Credit Hours |
| Prerequisites: Completion of Quarters VII – X |
| An integration of the student’s design and mechanical engineering education applied in a single analytical project. Students will be expected to present a formal proposal with a problem that is clearly identified followed by the development of a solution(s). Students will complete the project in MCT 451 Engineering Capstone Project. |

| **MCT 431 Machine Design** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisite: MCT 233 |
| Emphasis in this course is placed on machine design utilizing stress analysis, failure modes, and the integration of machine components to develop manufacturing processes appropriate to the raw material and the final product. |

| **MCT 434 Heat Transfer** |
| 3 Class Hours 2 Lab Hours 4 Quarter Credit Hours |
| Prerequisite: MCT 420 |
| This course studies basic principles of heat transfer. Topics include steady and transient heat conduction, forced external and internal convection, natural convection, heat exchangers, radiation heat transfer, and mass heat transfer. |
Courses are listed alphabetically by course code.

**MGT 112 Introduction to Office Software**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course is designed to give the student basic to intermediate knowledge of e-mail, word processing, spreadsheet, and presentation software. The student is introduced to Blackboard academic software as a repository for course materials as well as for grades and other resources. Additionally, an emphasis is put on file management to enable the student to save and organize work in this course and in others in a systematic fashion.

**MGT 113 Computer Concepts**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Students learn computer concepts and vocabulary. Emphasis is placed on the use of the personal computer and the business application software most commonly used today. The Windows operating system is introduced as is word processing, spreadsheet, and presentation software. File management is taught and used throughout the course as is the use of the college’s email, Blackboard, and Web for Students. Students use the Web as a tool to find information for three short presentations.

**MGT 118 Keyboarding (5-week course)**
1 Class Hour 2 Lab Hours 2 Quarter Credit Hours
Designed for the beginning student, the objectives of this course are to develop touch control of the keyboard and proper keyboarding techniques in order to build basic speed and accuracy.

**MGT 119 Business Document Processing (5-week course)**
1 Class Hour 2 Lab Hours 2 Quarter Credit Hours
Prerequisite: MGT 118
This course continues the development of keyboarding skills and provides practice in applying those skills to the formatting of emails, reports, letters, memos, tables, and other kinds of personal and business communication. Proofreading is stressed as is speed and accuracy.

**MGT 120 Word Processing**
.5 Class Hour 1 Lab Hour 1 Quarter Credit Hour (5 Week Course)
Students are introduced to the concepts of word processing software. Topics include creating, editing, and formatting text files. Output consists of letters, memos and reports. An emphasis is put on file management to enable students to save and organize their work in this course and in others in a systematic fashion.

**MGT 122 International Business**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course introduces students to the world of global business. It covers the basics of our global economy, cultural influences on business, importing and exporting goods and services, and international marketing topics. The emphasis will be on the analysis of cross-cultural attitudes towards management, business relationships, negotiations, status, rules and motivation when working and communicating in international business.

**MGT 124 Proofreading and Editing for Business**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
The student receives an intensive review of language arts skills including abbreviations, capitalization, possessives, spelling, grammar, and usage. In the lab portion of the course, students use word processing software to edit and proofread documents.

**MGT 127 Accounting I**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
The accounting cycle, debits and credits, journals, and ledgers for a service business are introduced. Accounting for general office records and the preparation of financial statements are also covered. In addition, students are exposed to computerized accounting, which reinforces the accounting cycle and accounting theory.

**MGT 134 Office Administration**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Students concentrate on developing work proficiency and professionalism. Topics include telephone communication and conference and travel arrangements using the Web. Handling mail, setting priorities, and planning meetings are also covered. Record management is introduced. Students use an electronic calendar for appointment scheduling and contact lists. Customer service is an integral part of this course.

**MGT 135 Business Communication I**
4 Class Hours 4 Quarter Credit Hours
Students examine fundamental concepts of communication in the business environment, including understanding purpose, audience, strategy, medium, and writing for clarity. Basic composition skills, including sentence and paragraph structure, are reviewed and practiced. Students gain experience composing business correspondence, including various types of letters and memos, and examine the appropriate use of email communication.

**MGT 140 Introduction to Business**
4 Class Hours 4 Quarter Credit Hours
Major emphasis is on the interrelationships of management, human resources, finance, marketing, global business issues, and economics. Using the Web and computer applications, students study and discuss actual companies as well as create a business plan. Using a virtual simulation, students are challenged to successfully operate a business.

**MGT 150 Principles of Management I**
3 Class Hours 3 Quarter Credit Hours
Management and human relations skills relating to the career paths graduates of the program may pursue are discussed. The student explores the history and functions of management, organizational environments and strategies, with an emphasis on teamwork in a diverse workplace.

**MGT 210 Financial Planning**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
Students develop an understanding of financial planning and the relevant issues that confront individuals as they plan for their financial future. Also, this course introduces students to the appropriate software tools to use when making financial decisions. Topics include identifying financial goals, budgeting, cash and credit management, purchasing and owning a house, effective insurance buying, an introduction to investments, and retirement planning. The lab portion teaches students the use of Excel to track financial decisions.

**MGT 212 Desktop Publishing**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
This course provides a practical, hands-on approach to developing skills in the use of word processing. After completing this course, students are able to use desktop publishing to develop professional-looking publications including newsletters, advertisements, stationery, and flyers.
MGT 222 Accounting II
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MGT 127
In this course, the accounting cycle is completed and applied to a retail business which covers merchandise inventory and cost of goods sold. Various transactions are introduced including those for cash receipts, cash payments, sales, and purchases. In addition, students use accounting software, which reinforces the accounting cycle and accounting theory.

MGT 227 Spreadsheets
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
The student develops beginner to intermediate skills in preparing worksheets for the business environment. Students create and modify worksheets, learning to use formulas and functions to manipulate data and to create charts. Formatting for readability and working with multiple worksheets is emphasized, as well as file management skills.

MGT 230 Principles of Marketing
3 Class Hours 3 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
Students examine the role of marketing within business and society and focus on the concepts, functions, and institutions involved in the process of developing, pricing, promoting, and distributing products and services. Students learn the importance of the Web as a marketing tool.

MGT 232 Database Management
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
After a review of file management techniques, the use of database software in business is discussed. Students create, revise, and extract decision-making information from various databases. Report and form creation are also included.

MGT 236 Business Communication II
4 Class Hours 4 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
Oral and written communication skills are honed in this course. Topics include nonverbal communication, listening skills, and interviewing skills. Students make oral presentations to include an employment interview and various types of speeches. Employment correspondence is covered to include the resume, cover letter, and thank-you letter. Students compile a portfolio of their work to be used as an employment tool.

MGT 238 Principles of Management II
3 Class Hours 3 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
Through lecture, class discussion, and case study, current management and human relations skills are covered. Topics include equal employment opportunity laws, diversity management, job analysis, recruiting and selection, training, development, compensation and benefits, performance appraisal, motivation and leadership.

MGT 245 Professional Sales Techniques
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
This course presents students with various selling tools and techniques and teaches the use of presentation software. Through role-playing and oral presentations, students learn the psychology of the buyer and how to sell a product or service and how to handle consumer objections. They also learn how to qualify a buyer, to close a sale, and to eliminate “buyer’s remorse.” Students prepare sales presentations to be given to the class in the lab section of the course.

MGT 250 Office Productivity Software
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisites: MGT 113, MGT 118, MGT 119, MGT 122, MGT 124, MGT 127, MGT 134, MGT 135, MGT 140, MGT 150
An office productivity suite including word processing, database, spreadsheet, calendar and presentation software is used to create business documents in an office simulation. Students are encouraged to build their portfolios with their work from this course.

MGT 280 Externship
15 Field Hours 3 Quarter Credit Hours
Prerequisites: The student must have taken a minimum of three MGT quarters and receive Department Chair permission. Students use the skills acquired in the program to gain practical work experience as an entry-level support professional in a business setting. Students do the externship in Quarter V or Quarter VI and are required to work a minimum of 150 hours in the field. Student progress is evaluated by the site supervisor as well as by the MGT department chair. Although the externship is highly recommended, it is optional. The externship may be substituted for MGT 250 in Quarter V or MGT 232 in Quarter VI.

MGT 313 Human Resource Management
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Students examine the many roles of human resource managers in an organization. The course combines the study of human resource theory with its practical application to management situations. Students step through the staffing process as part of a management team. Students review important laws and regulations and examine current issues in human resource management with an emphasis on equal employment opportunity.

MGT 331 Sales and Customer Management
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
To be prepared to compete successfully for customers in today’s highly competitive business environment, students are immersed in the sales process. Students practice prospecting, setting appointments, making effective sales calls, determining customer needs, preparing a sales proposal and making a persuasive presentation to win business. Students also learn to use database management and presentation software to enhance sales efforts.

MGT 334 Introduction to ePortfolio
1 Class Hour 1 Quarter Credit Hour
This course is an introduction to the electronic portfolio, an online showcase for student work. Students save and manage samples of their best work that reflect the skills they master throughout the Business Management Technology program. Students learn to develop an online presentation portfolio, which will be presented in the capstone course of the student’s last quarter. The course is designed to be taken with MGT 337 Applied Spreadsheets.

MGT 337 Applied Spreadsheets
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisite: MGT 113 or IT 111
Students learn to develop effective spreadsheets through a progression of exercises, from basic spreadsheet skills to more advanced functions and apply those skills to support managerial decision making. Students learn to evaluate common business scenarios, then organize, analyze, and present data effectively using spreadsheet software. Emphasis is on critical analysis, including error checking and creating effective charts.

MGT 340 Managerial Decision Making
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Students examine the role of management in an organization and focus on the skills managers must develop to become ethical decision makers and effective leaders in an age of global competition and constant change. Case studies and self-assessments are used to illustrate and analyze managerial topics including organizational behavior, innovation, motivation, and leadership.
Courses are listed alphabetically by course code.

**MGT 346 Project Management**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MGT 113 or IT 111
Students develop an understanding of the specific skills needed to manage projects for organizations. The project management process is examined in theory, then practiced using current business software to manage a small project. Each student researches and plans a unique project using project management software to plan, track, and communicate information about the project.

**MGT 360 Negotiations**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Students learn negotiation methodology intended to improve the efficiency and outcomes of negotiations. Students develop negotiation skills, analyze negotiating situations using the methodology covered in class, and apply this methodology during simulated and actual negotiating situations.

**MGT 375 Cooperative Learning**
20 Field Hours 4 Quarter Credit Hours
Prerequisites: Students must have successfully taken a minimum of three MGT BS quarters and receive Department Chair permission.
Students use the skills and knowledge acquired in the program to gain practical work experience in a business setting. Students take MGT 375 Cooperative Learning upon completion of three quarters of BS coursework and are required to work a minimum of 200 hours in the field. Student progress is evaluated by the site supervisor as well as by the MGT department chair. Although Cooperative Learning is highly recommended, it is optional. MGT 375 Cooperative Learning may be substituted for MGT 355 Internet Marketing in Quarter X.

**MGT 420 Production/Operations Management**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: MA 300
In an increasingly competitive global economy, firms must produce high quality, low cost products and services. These products and services must be delivered when, where, and how customers demand them. This course introduces the most important theories and tools used to manage world-class firms to achieve competitive advantage. A balance in emphasis between managerial issues and analytical techniques strengthens both critical thinking and problem-solving skills. Topics covered include operations strategy, process design, quality, inventory theory, and project management.

**MGT 425 Entrepreneurship I**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: ACC 311, MGT 313, MGT 331, MGT 337, MGT 346, MGT 340, MGT 420, MGT 310, MGT 355 and MGT 360 or permission of the department chair.
Entrepreneurship I begins the process of building a successful business plan for an existing business or a new product or service. Focus is on competently composing and persuasively presenting the plan to a potential investor. Writing, presenting, strategic thinking, and financial evaluation skills are honed. Students use word processing, spreadsheet, and presentation software to demonstrate their business capabilities to prospective “investors.”

**MGT 435 Entrepreneurship II**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: ACC 311, FIN 410, MGT 313, MGT 331, MGT 337, MGT 340, MGT 346, MGT 360, MGT 420, MGT 425, MGT 310, and MGT 355, or permission of the department chair.
While Entrepreneurship I began the process of building a successful business plan, Entrepreneurship II completes this process with the creation of its financial data. Focus is on presenting the written plan to a potential investor. Writing, presenting, strategic thinking, and financial evaluation skills will be honed. Students use word processing, spreadsheet, and presentation software to demonstrate their business capabilities to prospective “investors.”

**MGT 481 ePortfolio Presentation**
1 Class Hour 1 Quarter Credit Hour
This course, a follow-up to MGT 334 Introduction to ePortfolio, is designed for the student to refine and present a final ePortfolio. The student will finalize samples of academic work saved throughout the program and will utilize an online ePortfolio tool to prepare a presentation portfolio suitable for review by potential employers. The course will culminate in a student presentation of the final ePortfolio.

**MGT 482 Strategic Management: Capstone**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: ACC 311, FIN 410, MGT 313, MGT 331, MGT 337, MGT 340, MGT 346, MGT 360, MGT 420, MGT 425, MGT 310, and MGT 355 or permission of the department chair.
This course in strategic management is intended as a challenging capstone that integrates the knowledge students have gained in many disciplines throughout the undergraduate program. Using a Web-based simulation, students gain experience operating a business for several “years” as a member of a management team. Students analyze the competitive environment and determine strategy for the team’s own company, making decisions about marketing, research and development, production, quality, human resources, and related functions of the business. These decisions affect the company’s profitability and its ultimate success or failure. Major emphasis is placed on the alignment of functional decision making with overall company strategy.

**MARKETING**

**MKT 310 Product and Service Marketing**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Students examine the process of bringing products and services to market by analyzing the marketing environment for a chosen industry, developing a new product or service concept, identifying competitive positioning, and planning an appropriate marketing mix. In addition to studying marketing theory, students use the computer lab to research, develop, and present a marketing plan for the chosen product. Presentation software skills are taught and used to prepare the final presentation.

**MKT 355 Internet Marketing**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
This course studies advertising and public relations of a product or service using the Web. Students use marketing techniques to promote and build websites in the lab portion of the class.

**MARINE**

**MT 105 Introduction to Marine Technology**
2 Class Hours 2 Quarter Credit Hours
Students will be introduced to the operation of the marine lab and program, the potential job opportunities and the working environments of Marine Technology. Students will become familiar with the tools used in the repair of marine vessels and safety practices to be used. Students will also practice information retrieval as well as record-keeping. Topics covered are safety in the lab, measuring tools, service manuals, computerized information retrieval, tool identification and use, and fastener identification and use. Students will also be asked to demonstrate proficiency using appropriate shop equipment.

**MT 114 Marine Welding and Cutting**
1 Class Hour 3 Lab Hours 2 Quarter Credit Hours
This course is intended to teach students the fundamentals of using both oxy/acetylene and electric welding equipment. Students will learn the three different classes of welding, safety precautions associated with each class and will practice basic welding, brazing and cutting techniques. Course instruction will include both MIG and TIG welding techniques.
## COURSE DESCRIPTIONS

### MT 116 Introduction to Engine Theory
3 Class Hours 3 Quarter Credit Hours
This course is the study of two- and four-cycle internal combustion engine operation and design. This course will cover in-board, outboard and diesel engine design. Topics covered are: engine identification, internal components, cooling systems, lubrication systems and preliminary diagnosis of internal noises and excessive smoke. The course will also cover basic maintenance practices, as well as major and minor component replacement.

### MT 117 Introduction to Engine Lab
4 Lab Hours 1 Quarter Credit Hour
Students will practice compression and vacuum testing, oil pressure, cooling system examination, and engine noise analysis. Students will learn to identify different engine configurations through the use of VIN or model numbers and will practice finding specifications in service manuals or by using computerized information systems. Students will practice basic maintenance procedures as well as component replacement.

### MT 118 Introduction to Electricity Fundamentals
3 Class Hours 3 Quarter Credit Hours
This course covers electrical fundamentals from “What is Electricity?” to basic troubleshooting techniques. Topics covered will be: how electricity is produced, types of electricity, Ohm’s Law, basic circuit construction, conductors, insulators, induction, electrical testing tools and diagnosis of circuit problems.

### MT 119 Introduction to Electricity Fundamentals Lab
4 Lab Hours 1 Quarter Credit Hour
In the lab, students will learn the use of multimeters, and other test equipment to diagnose and repair electrical circuits and components including lights, gauges, solenoids, relays, voltage regulators, motors and generators. Students will be instructed in the correct methods of constructing circuits for both the marine and recreational environment.

### MT 120 Advanced Marine Electricity and Electronics Installation
4 Class Hours 6 Lab Hours 7 Quarter Credit Hours
Prerequisites: MT 118/119
This course prepares students to both install and troubleshoot marine-specific electrical systems. Topics studied and lab exercises include USCG and ABYC standards, wire designs, corrosion factors, AC/DC circuit panels, battery switches and isolators, inverters, RFI suppressors, multi-wire systems, lighting, electric pumps, amperage and power requirements. Lab work will expose students to many forms of marine electronic equipment including: VHF radios, depth finders, GPS and RADAR. Students will also learn how to interface and install today’s marine navigation and communications equipment. Lab exercises will include wire and cable installations, antenna designs, RFI suppression and the limitations of the NMEA 0183 standard.

### MT 127 Marine Engine Applications
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MT 116/117
Four-stroke gasoline engine designs, nomenclature, maintenance and diagnostics will prepare students for future courses. Students will perform inspection and service procedures to ignition, fuel, cooling, exhaust and internal engine systems specific to marine applications.

### MT 138 Outboard Engine Overhaul and Systems Diagnosis
4 Class Hours 8 Lab Hours 8 Quarter Credit Hours
Prerequisites: MT 116/117, MT 118/119
Routine outboard maintenance and repair problems associated with one- and two-cylinder outboard engines will be the focus of this course. Lectures will cover two- and four-cycle theory, basic troubleshooting procedures, synchronization procedures, seasonal maintenance and winterizing. Students will perform extensive diagnostic work on various engine systems, with emphasis on in-line and “V” configuration engines. Students will perform routine maintenance procedures and become proficient with the use of reconditioning procedures on internal engine components and return their engines to factory running specifications.

### MT 215 Fuel Systems Theory and Introduction to EFI Applications
4 Class Hours 4 Lab Hours 5 Quarter Credit Hours
Prerequisites: MT 116/117, MT 118/119 and either AUT 105/106 or MT 120 and MT 127
Students are introduced to carburetor theory of operation, CFM requirements, mechanical fuel pumps, electric fuel pumps, fuel injection systems and their related components. Topics covered will include throttle bodies, multi-port injection systems, direct fuel injection, pressure regulators, electronic sensors and controls. Students will practice fuel tank removal and replacement of fuel pumps, fuel system troubleshooting and injection cleaning. Students will remove, rebuild, reinstall and adjust traditional carburetors as well as diagnose and repair TBI, MPFI, and DFI fuel injection systems. Lessons will also cover all USCG, ABYC regulations and standards for fuel tanks, lines, filters, pumps and installations.

### MT 216 Marine Drive Systems Theory and Service
4 Class Hours 4 Lab Hours 5 Quarter Credit Hours
Students will work with a variety of inboard engine reverse gear assemblies and drive systems. Students will gain experience with removal, testing, rebuilding and diagnosis of sterndrive and inboard assemblies. Lessons and lab work include pressure and vacuum testing, disassembly procedures, internal component cleaning, inspection, and evaluation. Students will set gear height, lash, and bearing pre-load and rolling torque to factory specifications. Typical “two-shaft” and planetary gear assemblies will be disassembled, inspected and reassembled to factory specifications. Both manual and hydraulic shift controls will be discussed and studied as part of the lab experience. Shafts, cutlass bearings and shaft sealing methods and procedures will be covered at length and students will practice routine service to these systems as part of the lab experience.

### MT 217 Diesel Engine Service and Maintenance
2 Class Hours 6 Lab Hours 4 Quarter Credit Hours
Prerequisites: MT 116/117 or AUT 103/104
This course introduces students to the operating principle of diesel engines. Course studies will include: two and four cycle engines, combustion chamber designs, low and high pressure fuel delivery systems, cold start aids, supercharging, intake/exhaust requirements, engine diagnostics, and re-powering considerations. Students will gain experience in lab by performing maintenance and engine performance troubleshooting on a variety of popular engine designs.

### MT 218 Marine Systems
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Common systems of both marine and recreational vehicles will be designed and installed by students. System components include water and MSD tanks, manual and electric pumps, AC/DC lighting fixtures, electric, alcohol, LPG and CNG appliances. Students will learn proper service and installation procedures with emphasis on all applicable industry safety codes and standards.

### MT 245 Marina and Boatyard Management
3 Class Hours 3 Quarter Credit Hours
Students will learn the practices and procedures necessary to successfully operate a marine business. The course will cover the special circumstances specific to a marine business such as insurance considerations, environmental control, and storm preparation considerations. The course will follow the guidelines and recommendations found in the ABBRA (American Boatbuilders and Repairers Association) Boatyard & Marina Operator’s Manual.
MT 255 Marine Industry Externship
20 Lab Hours 4 Quarter Credit Hours
Prerequisites: Completion of all Quarter I through Quarter V
MT required technical courses
Students will work off-site at an approved marine related
business. These businesses will be selected based upon their
suitability to provide a valuable learning experience for the
student in a variety of related specialty areas within the indus-
try. Student progress will be monitored weekly by the Marine
Technology Department to ensure compliance with experien-
tial learning criteria established by the department.

MT 258 Elements of Marine Surveying
1 Class Hours 3 Lab Hours 2 Quarter Credit Hours
Prerequisites: MT 120, MT 127, MT 138, MT 215, MT 216, MT 217, MT 218
This course covers the details of the marine survey for both
sail and power small craft. Students will learn what to look
for in evaluating a boat for pre-purchase and valuation as
required by financial institutions and insurance companies.
Students will learn the procedures for both invasive and non-
invasive methods of determining hull and deck integrity, elec-
trical, mechanical and systems integrity and compliance with
accepted standards and regulations. Design and completion of
the survey form will be covered and practiced by the students.
Students will be introduced to the codes and standards of both
SAMS (Society of Marine Surveyors) and NAMS (National As-
sociation of Marine Surveyors). USCG regulations will be cov-
ered at length.

MT 260 OSHA Maritime Industry Safety
(Ship Yard)
3 Class Hours 3 Quarter Credit Hours
This course will provide entry-level marine technicians infor-
mation about their rights and employer responsibilities. The
content focuses on the type of work involved in marina opera-
tions. Topics covered will be hazard identification, avoidance,
control and prevention. Other topics included will be: walking
and working surfaces, personal protective equipment, fall pro-
tection/scaffolding, electrical, confined and enclosed spaces,
fire protection, material handling, blood borne pathogens, ma-
chine guarding, ergonomics, and proper lifting techniques.

MT 261 Fiberglass Fabrication and Repair
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This is an introductory course teaching the essentials for fabri-
cating and repairing damaged composite laminates. Students
will work with polyester, vinylester and epoxy resins and a
variety of fiberglass cloth materials to learn proper mixing and
lay-up procedures for making effective repairs and new
parts. Curing considerations and special procedures required
when working with cored laminates and resin infused/vacu-
um-bagged laminates will be discussed and practiced by the
students.

MT 262 Advanced Composites and Fabrication
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: MT 261
This advance course teaches the essentials of fabricating
plugs (male molds), female molds and repairing complex dam-
aged composite laminates. Students will learn the complexity
of building plugs and molds with wood, resins and fiberglass
fabric materials. Students will also study curing consider-
ations and special procedures required when making molds.
Vacuum-bagging and “Splash” laminates will be discussed.

MULTIMEDIA & WEB DESIGN

MWD 100 Digital Imaging
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
This course introduces the MWD student to the technology
and techniques of digital image creation using SLR cameras.
Starting with “what is digital” theory and principles, this
course will train students in basic digital still camera photog-
raphy, composition, and storage technique. It will then con-
tinue with each student shooting and editing their own photo
easy, to be used as a first portfolio piece.

MWD 110 Introduction to Web Design
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: MWD 100, MWD 112, MWD 123
Co-requisite: MWD 223
This course is an exploration of the Internet and World Wide
Web technology. Search strategies, web page design and
construction, SEO copywriting, and social media integration
will be covered. Dreamweaver, HTML, and Photoshop will be
used.

MWD 112 Digital Graphics
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Students will develop a working knowledge of how 2D images
are manipulated on the desktop, using Adobe Photoshop. Top-
ics consist of: image creation, retouching, color correction, and
compositing images together to form a final design.

MWD 120 Desktop Video Production
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: MWD 100, MWD 112, MWD 223
Students explore the concepts of working with portable digital
video and audio. They will learn how to shoot, and edit video
footage, mix in digital audio tracks, and then output the foot-
age for short-form on-line media such as web page inclusion
and YouTube.

MWD 123 Design I
4 Class Hours 4 Quarter Credit Hours
This course teaches the foundation guidelines that enable the
creative design of graphics to fulfill specified communications
requirements.

MWD 124 2-D Animation
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: MWD 112, MWD 223
This course explores how to manipulate and composite moving
images using Adobe After Effects. The focus is on generating
animations using images created in Photoshop. Students will
also learn methods to compress and render animations to fit
different media.

MWD 129 Project Planning and Estimating
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Students will plan and price multimedia projects. Focus will be
on the design and implementation of concepts through pro-
duction planning and budgeting for a multimedia project.

MWD 131 Web Animation
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: SE 122, MWD 223 and MWD 112 for GDSA Ma-
jors OR MWD 100, MWD 110, MWD 112 and MWD 223 for
MWD Majors
This course is an introduction to Adobe Flash. Students learn
the principles of two-dimensional animation, vector graphics,
and Flash video compression applicable to Web delivery.

MWD 141 Design III
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 112, MWD 123, MWD 223, GXD 102,
MWD 129
Co-requisite: MWD 231
This course encourages and develops student’s creative skill,
self-confidence, and technical and design ability to create a
personal graphic, visual identity as the basis for each student’s
personal brand. Topics include branding, typography and font
use, resolution and color for printing applications, and graph-
ics manipulation for print, e-publishing, and web delivery.

MWD 215 Web Content Management With
Wordpress
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisites: Quarters I through IV technical courses
Co-requisite: MWD 272
The course explores the overwhelming popularity of Content
Management Systems (CMS) to display and manage content
for the web. We explore the options that are available in man-
agement systems reviewing Joomla, and Drupal and using
Wordpress.
MWD 223 Design II
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: MWD 100, MWD 112, MWD 123
Co-requisite: MWD 110
Students will integrate the elements and principles of interactive design and use them to solve specific design problems.

MWD 231 Digital Publishing I
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: MWD 100, MWD 112, MWD 223
Co-requisite: MWD 141
Students will learn the principles, process and techniques of digital publishing Quark and Adobe InDesign.

MWD 251 Special Topics: Multimedia
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 131, MWD 141, MWD 231
This is a capstone course that focuses upon the newest and most pressing issues that affect multimedia. Subject matter in this course may vary from quarter to quarter.

MWD 252 3D Animation
1 Class Hour 6 Lab Hours 4 Quarter Credit Hours
Prerequisites: MWD 112, MWD 124, MWD 223
Students learn how 3D images and animation are created. The first half of the course focuses on preliminary steps of 3D creation: modeling, texturing and scene set up. Geometric objects will be modeled, textured, lit and rendered to look realistic or stylized. During the second half of the quarter, students will take objects they have previously built and create animations out of them. Topics to be covered will include rendering methods and compositing and combining 3D animations with other animated or video footage.

MWD 272 Associate Portfolio
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 131, MWD 141, MWD 231
Co-requisite: MWD 215
This is a career-planning course that reviews the essentials of resume creation, portfolio production, interview and job-hunting skills for the media field.

MWD 280 Cooperative Work Experience
15 Lab Hours 3 Quarter Credit Hours
Prerequisites: MWD 129, MWD 141, MWD 231 (For Multimedia students), or MWD 234, SE 244, MGT 230 (for Web Design students)
The student shall gain practical work experience through employment in a local company or organization. Students must submit a written application to a designated faculty member, with approval based on the student’s academic achievement, attendance, and demonstrated skill sets as they match the employer’s defined job skill requirements.

NETWORK ENGINEERING

NE 120 Windows Networking Essentials
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: IT 111
Students are introduced to a desktop operating system. They perform the installation of the operating system as well as implementing and conducting the administration of resources, the implementation, management and troubleshooting of hardware devices and drivers, the monitoring and optimizing of system performance and reliability, and configuring and troubleshooting the desktop environment.

NE 122 Hardware Fundamentals
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course examines the basic components of computer hardware systems, as well as upgrading and troubleshooting computers. An introductory approach is applied to the discussions of each primary component so that students learn how each component functions, along with the key installation and troubleshooting tips related to that component. Detailed coverage also explores moving and storing data, networking computers, and remote communications.

NE 134 Cisco I
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
This course introduces students to concepts such as the seven layers of the OSI model, network addressing, data encapsulation and the TCP/IP protocols.

NE 243 Cisco II
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: NE 134
The course focuses on initial router configuration, Cisco IOS Software management, routing protocol configuration, TCP/IP, and access control lists (ACLs).

NE 244 Desktop OS Troubleshooting
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: NE 120
This course provides the student with theoretical and hands-on experience with the maintenance, troubleshooting and preventative maintenance of a modern personal computer operating system.

NE 248 Linux Fundamentals
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: IT 111
During this course, the student will be introduced to the installation, configuration, and management of a Linux operating system. At the end of this course, the student will be able to understand the basic functions of the Linux operating system including the role of the system administrator. The course will discuss such topics as running the Linux system, using the graphical user interface (GUI), the Linux command line system, the Linux shell and text files and basic administration tasks.

NE 253 Cisco III
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: NE 243
The course focuses on the following advanced IP addressing techniques such as Variable Length Subnet Masking (VLSM), Intermediate routing protocols such as RIP v2, single-area OSPF, EIGRP, Command-line interface configuration of switches, Ethernet switching, Virtual LANs (VLANs), Spanning Tree Protocol (STP), and VLAN Trunking Protocol (VTP).

NE 262 Server Administration
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: NE 120
Students will learn to install a network server. They perform the installation, configuration and troubleshooting of access to resources, the configuration and troubleshooting of hardware devices and drivers, the management, monitoring and optimizing of system performance, reliability and availability, and the managing, configuring and troubleshooting of storage use.

NE 265 AS Capstone Project
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisites: NE 262, NE 253
This course features integration of the topics covered in the IT Networking Associate Degree Program. The course emphasizes teamwork in the design, construction, configuration and troubleshooting of a simple network infrastructure, to include network servers, workstations, routers and switches.

NE 267 Introduction to Information Security
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: NE 120
This course provides a broad overview to the field of information security. The course covers history, terminology and strategies involved in securing information assets and serves as a foundation course for more advanced studies in information, network and computer security. General and specific threats to information assets and defensive strategies for protecting those assets are covered. The course employs an integrated system of skill-building lessons, hands-on exercises, and self-assessment tools.

NE 381 Design and Implementation of an Active Directory Network
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: NE 262
The student will learn how to configure and manage a Microsoft Windows-based Active Directory network environment through an integrated system of skill-building lessons, hands-on exercises, and self-assessment tools.
Courses are listed alphabetically by course code.

**NE 393 WAN Technologies**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: NE 253  
In this course, students will develop skills in the configuration of advanced IP addressing techniques, WAN technology evaluation, WAN design, WAN protocol configuration and troubleshooting, packet analysis, and network management.

**NE 395 Internet Servers**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisites: IT 372, NE 120  
This course studies the administration of web servers and other Internet servers. The student will learn to install and maintain Internet servers on various platforms. Topics include the installation and configuration of popular web servers such as IIS and Apache as well as managing DNS, FTP and mail servers.

**NE 402 Linux System Administration**
4 Class Hours 4 Lab Hours 6 Quarter Credit Hours  
Prerequisite: IT 372  
Students will learn the basics of Linux technology and be exposed to the maintenance a Linux server that other users rely on for e-mail, Web, database, networking, or other system services. In addition to the theoretical issues covered, the student will gain much practical knowledge through the use of hands-on projects designed to reinforce those concepts.

**NE 404 Heterogeneous Network Administration**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: NE 381, NE 402  
This course will cover advanced system administration topics in operating systems. Subjects include but are not limited to configuring, networking and troubleshooting the Mac OS, Linux and Microsoft operating systems in a heterogeneous (mixed) environment.

**NE 405 Mail Servers**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisite: IT 414 or NE 395  
In this course, students will develop skills in implementing and supporting current Mail servers used in business. Students will explore techniques to fulfill the messaging and collaborative needs of a networked environment; working with the Windows, Linux OS to provide email services, instant messaging services, data conferencing services, and more. Students will also become familiar with most features of e-mail settings and protocols (SMTP, POP, IMAP).

**NE 406 Router Security and Firewall Management**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: NE 253  
This course introduces the student to firewall management and basic router security. Topics include password protection, securing VTY connections, logging, SSH, firewall management using the ASA 5510 Adaptive Security Appliance.

**NE 407 Virtualization**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: IT 372, NE 381  
This course explores the use of virtualization. Concentration is on the implementation and maintenance of virtual machine infrastructures with emphasis on server-class virtual images. The differing virtualization techniques, such as full, OS, and paravirtualization will be examined. In addition, vendor offerings and open source options will be compared. The techniques used to move physical machines to the virtual domain will be evaluated and applied, as well as system security, patch management, backups, disaster recovery, and system runtime and response.

**NE 414 Cooperative Learning I**
30 Field Hours 10 Quarter Credit Hours  
Prerequisite: Requires Department Chair approval  
The student will use the knowledge gained through previous coursework in his/her technology with mostly paid, planned and supervised work experiences in the public or private sector. The course allows students to enhance the practical skills necessary for success by being exposed to the reality of the world of work beyond the boundaries of the campus, enhancing their self-confidence and career direction.

**NE 416 Introduction to Network Engineering Senior Project**
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: IT 378, CYB 394 or NE 381, NE 402, NE 395, NE 405  
Students will work within technology groups to create a proposal for the design of a functioning physical network infrastructure based upon a case scenario. The technology groups will use critical thinking skills to identify alternative solutions to these designs and select an appropriate plan. Each technology group will complete specific documentation reflecting their response to the course scenario. Students will be required to provide progress reports, final course documentations and presentations.

**NE 420 Cooperative Learning II**
33 Field Hours 11 Quarter Credit Hours  
Prerequisites: Requires Department Chair approval and NE 414  
This course allows students to continue and expand on the experiences started in the NE 414 course. Here, hopefully in the same public or private sector organization, students increase the scope and depth of their real world technical experiences.

**NE 425 Network Engineering Senior Project**
6 Lab Hours 3 Quarter Credit Hours  
Prerequisite: NE 416  
Students will configure, analyze, test and troubleshoot a complex, real-world heterogeneous physical network topology based upon a course scenario within a group setting. The heterogeneous network infrastructure will include CISCO devices and server technology, to include: routers, switches, firewalls, Windows servers, mail servers, Linux servers, database servers and others. Students will be required to provide written progress reports, final course deliverables and presentations.

**NURSING**

**NUR 110 Introduction to Nursing**
3 Class Hours 3 Quarter Credit Hours  
This course prepares the nursing student with foundational knowledge as it relates to the role of the professional Registered Nurse in contemporary healthcare environments. Nursing philosophy and theory are presented as a framework for understanding the scientific knowledge and technologic skill nurses need to provide ethical, caring, and evidence-based patient care. Nursing terminology and effective interpersonal communication skills are discussed. Students will be introduced to the theoretical foundations of basic nursing care, the role of the nurse in health promotion, and the role of the nurse in as manager and leader.

**NUR 120 Nursing Fundamentals I**
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: NUR 110, BIO 103/104 and MA 100/110 (or higher)  
This course is a combination of lecture, clinical, and skills lab to provide the clinical knowledge and basic skills and concepts of nursing practice. The course promotes nursing as an evolving art and science directed to human health and well-being. It will challenge students to use critical thinking and blended skills, practiced within the nursing process, to serve patients and the public. Nursing students will be directed to combine cognitive, technical, interpersonal, and legal and ethical skills to promote the four aims of nursing including promoting health, preventing illness, restoring health and facilitating coping with illness or death.
NUR 121 Nursing Fundamentals I Clinical
4 Lab Hours 2 Quarter Credit Hours
Prerequisite: NUR 110
Co-requisite: NUR 120
Practicum: Nursing students will be directed to combine cognitive, technical, and interpersonal communication skills to promote the four aims of nursing including promoting health, preventing illness, restoring health and facilitating coping with illness or death.

NUR 130 Nursing Fundamentals II
Class Hours 4 Quarter Credit Hours
Prerequisites: NUR 120, NUR 121, BIO 124/125
Co-requisite: NUR 131
This course is a combination of lecture, clinical, and skills lab. The focus is on the nurse as the caregiver in evidence-based practice. RN competencies will continue from Fundamental I course. Throughout the course, students will be encouraged to identify with their selected profession and share in its rewards by developing caring relationships with patients and being accountable for their actions.

NUR 131 Nursing Fundamentals II Clinical
6 Lab Hours 2 Quarter Credit Hours
Co-requisite: NUR 131
Practicum: The focus is on the nurse as the caregiver in evidence-based practice. Core competencies will continue from the Fundamentals I course. Throughout the course, students will be encouraged to identify with their selected profession and share in its rewards by developing caring relationships with patients and being accountable for their actions.

NUR 242 Medical Surgical & Assessment I
4 Class Hours 4 Quarter Credit Hours
Prerequisites: NUR 130, NUR 131
Co-requisites: NUR 243, BIO 133
This course is part I of a two-part series focusing on in-depth care for hospitalized adults. Students learn through lab and clinical experiences focusing on assessment, physiology, dysfunctions, disease conditions and care planning for clients with alterations in immune, respiratory, integumentary, gastrointestinal, urinary, musculoskeletal, endocrine, and male reproductive systems. The course covers concepts associated with quality nursing practice, including critical thinking, cultural competence, health history and assessment, client teaching, stress and pain management, end of life care, inflammation, infection, healing, immune response, fluid and electrolyte balance and life span influences. Students explore decision-making, prioritizing care and applying skills and knowledge to patient care in various settings.

NUR 243 Medical Surgical & Assessment I Clinical
2 Quarter Credit Hours 6 Clinical Hours Off-Site
Prerequisites: NUR 130, NUR 131
Co-requisites: NUR 242, BIO 133
This course is part I of a two-part series focusing on in-depth care for hospitalized adults. Students learn through lab and clinical experiences focusing on assessment, physiology, dysfunctions, disease conditions and care planning for clients with alterations in immune, respiratory, integumentary, gastrointestinal, urinary, musculoskeletal, endocrine, and male reproductive systems. The course covers concepts associated with quality nursing practice, including critical thinking, cultural competence, health history and assessment, client teaching, stress and pain management, end of life care, inflammation, infection, healing, immune response, fluid and electrolyte balance and life span influences. Students explore decision-making, prioritizing care and applying skills and knowledge to patient care in various settings.

NUR 252 Medical Surgical & Assessment II
4 Class Hours 4 Quarter Credit Hours
Prerequisites: NUR 242, NUR 243 and BIO 133
Co-requisites: NUR 253, NUR 254, NUR 255, BIO 233
This course provides an understanding of the nurse’s role in health and illness within evolving practice environments and across the spectrum of health and illness. This course will address nursing care issues from a physiological, pathophysiological, and psychosocial context. The course content covers concepts of advanced medical-surgical nursing with management and planning of the nursing process and nursing diagnoses. Students explore decision making, prioritizing care, applying skills and knowledge to patient care.

NUR 253 Medical Surgical & Assessment II Clinical
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: NUR 252, NUR 254, NUR 255, BIO 233
Co-requisites: NUR 252, NUR 253, NUR 255, BIO 233
Practicum: Application of the nursing process in the care of individuals and families with childbearing and reproductive experiences.

NUR 254 Mental Health
2 Class Hours 2 Quarter Credit Hours
Prerequisites: NUR 242, NUR 243, BIO 133
Co-requisites: NUR 252, NUR 253, NUR 255, BIO 233
This course is a combination of lecture and clinical experience and focuses on developing, implementing, and evaluating psychotherapeutic interventions for clients across the lifespan with mental health and psychiatric problems.

NUR 255 Mental Health Clinical
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: NUR 242, NUR 243, BIO 133
Co-requisites: NUR 252, NUR 253, NUR 254, BIO 233
Practicum: Application of the nursing process and the use of self as the therapeutic agent with individuals and groups of clients. Emphasis is on developing, implementing, and evaluating psychotherapeutic interventions for clients across the lifespan with mental health and psychiatric problems.

NUR 260 Maternal Child Health
2 Class Hours 2 Quarter Credit Hours
Prerequisites: NUR 252, NUR 253, NUR 254, NUR 255, BIO 233
Co-requisites: NUR 261, NUR 262, NUR 263
This course builds on the concepts of previous nursing courses with emphasis on utilizing the nursing process in dealing with women’s health focus during child-bearing years, antepartum, intrapartum, postpartum, and the health of newborns. Students will explore the concepts of health promotion, disease prevention and alterations in health related to women in these phases and the newborn infant. Emphasis is on whole person care of the patient. Management and planning of the nursing process will include concepts from a variety of culturally diverse settings to include nursing in the community.

NUR 261 Maternal Child Health Clinical
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: NUR 252, NUR 253, NUR 254, NUR 255, BIO 233
Co-requisites: NUR 260, NUR 262, NUR 263
Practicum: Application of the nursing process in the care of individuals and families with childbearing and reproductive experiences.

NUR 262 Pediatric
2 Class Hours 2 Quarter Credit Hours
Prerequisites: NUR 252, NUR 253, NUR 254, NUR 255
Co-requisites: NUR 260, NUR 261 and NUR 263
The focus of this course is the nursing needs of children and families. The course offers clinical experience in hospital as well as clinic and family settings while caring for infants, toddlers, preschoolers, school-age children, pre-adolescents, and adolescents.

NUR 263 Pediatric Clinical
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: NUR 252, NUR 253, NUR 254, NUR 255
Co-requisites: NUR 260, NUR 261, NUR 262
Practicum: Focus is on the impact of acute and chronic illness on children and adolescents and their families. Emphasis is on the developmental needs of children and adolescents.
Courses are listed alphabetically by course code.

**NUR 271 Preceptored Synthesis Clinical**
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: NUR 260, NUR 261, NUR 262, NUR 263
Co-requisites: NUR 272, NUR 274, NUR 278
Practicum: Synthesis of management, organizational culture and interpersonal relationship principles are applied with developing independence in the practice of nursing.

**NUR 272 Preceptored Synthesis**
2 Class Hours 2 Quarter Credit Hours
Prerequisites: NUR 260, NUR 261, NUR 262, NUR 263
Co-requisites: NUR 271, NUR 274, NUR 278
This is the culminating clinical practice course. Students apply concepts of management, application of the nursing process, leadership, delegation, and supervision in caring for patients through in-depth learning experiences in selected hospital placements with a preceptor nurse. The caregiver role of the professional nurses with patients and their families is emphasized. For clinical practice experience, each student is assigned to a nurse preceptor on a one-to-one basis, and must complete 60 clinical hours. Faculty members guide the student in caring for patients in an acute care or long term practice setting.

**NUR 274 Nursing Capstone Course**
5 Class Hours 5 Quarter Credit Hours
Prerequisites: NUR 260, NUR 261, NUR 262, NUR 263
Co-requisites: NUR 272, NUR 271, NUR 278
The Capstone experience is an activity for graduating a student that is designed to demonstrate comprehensive learning through the use of a portfolio. This course is designed to help students integrate their knowledge of nursing into practice. The second focus of this course is preparation for the National Council Licensure Examination (NCLEX-RN) and successful transition into employment as a registered nurse. The course covers strategies to recognize and overcome testing anxiety as well as effective test-taking strategies.

**NUR 278 Nursing Leadership**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: NUR 260, NUR 261, NUR 262, NUR 263
Co-requisites: NUR 272, NUR 271, NUR 274, NUR 278
This course focuses on the concepts of leadership management, accountability, responsibility, decision making, time management, change management, conflict resolution, strategic planning, continuous quality improvement, multidisciplinary care, evidence-based practice, Nurse Practice Act rules of conduct, bioethics, reality shock, application of the nursing process, leadership, delegation, and supervision in caring for clients.

**NUR 370 Concepts of Professional Nursing**
3 Class Hours 3 Quarter Credit Hours
This is the first course in the RN-BSN Program. Students apply concepts as they transition to the professional nurse role at the baccalaureate level. The focus of this course is on helping nurses explore selected concepts of nursing professionalism and examine strategies to assist them in self-assessment of leadership potential; develop skills and competencies to embrace the challenges of being in a leadership/followership role, and examine strategies to move oneself forward to accomplish lifelong learning. This course also introduces learners to key concepts and strategies to be successful in the online learning community.

**NUR 372 Leadership and Management**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: NUR 370
The focus of this course is on organizational and systems leadership and models, and quality improvement and safety principles essential to promote high quality patient care outcomes. The course focuses on key concepts for transformational nursing leadership in complex healthcare delivery settings including ethical and critical decision-making, initiating and maintaining effective working relationships, using mutually respectful communication and collaboration within intra and inter-professional teams, coordination of care, delegation, accountability, and conflict resolution strategies.

**NUR 380 Regulatory Environments**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: NUR 370
The purpose of this course is to provide students with working knowledge of the healthcare system, both in the United States and globally. The focus will be healthcare organization, financing, policy and regulation as well as service delivery from both the private and public perspectives. Critical thinking skills and strategies needed by professional nurses to participate in health care planning and health consumer advocacy for improved health outcomes is emphasized.

**NUR 382 Informatics and Healthcare Technology**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: NUR 370
The focus of this course is on providing an overview of the history and integration of informatics and healthcare technology as it relates to the professional nurse working with healthcare system and consumer-centered aspects of healthcare technology. There is specific emphasis on the application of technology in delivering quality patient care in a variety of healthcare delivery settings.

**NUR 390 Ethical and Legal Issues**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: NUR 370
This RN-BSN courses focuses on increasing awareness and application of a code of ethics and legal constructs as central and necessary foundations of the nursing profession that also shapes healthcare delivery systems. There is specific emphasis on how the professional code of ethics for nursing serves as a general guide for the profession’s members and as a social contract with the public that nursing serves in a socially just manner to improve patient safety and outcomes for a diverse population in a global society.

**NUR 392 Quality and Safety**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: NUR 370
The focus of this course is on key concepts of patient quality and safety as well as measurement of outcomes of quality and safety interventions in healthcare delivery settings. There is specific emphasis on knowledge, skills, and attitudes that shape continuous improvement principles applied to quality improvement and principles of process management and improvement underpinning quality and safety in diverse healthcare delivery systems.

**NUR 400 Principles of Prevention and Population Health**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: NUR 370
The focus of this course is on key concepts and general principles of population-focused care and to facilitate application of those concepts and principles in nursing practice for aggregate populations in a global society. There is specific emphasis on fundamental principles of epidemiology, levels of prevention, health promotion and disease prevention, risk management, application of these concepts in relevant and cost-effect ways to populations, diverse settings for healthcare delivery and intervention, and effective evidence-based best practice and processes to foster and promote sustainable behavior change to influence and shape healthy lifestyles.

**NUR 402 Applications of Research to Clinical Practice**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: NUR 370, MA 300
This RN-BSN course will focus on concepts related to the process of research as well as the application of evidence to practice. Discovery of research as well as critical appraisal will be included in order to prepare the baccalaureate nurse for application to an evidence-based clinical practice where quality and outcomes are essential role functions.
**NUR 410 Inter-Professional Collaboration**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: NUR 370
The focus of this course is on identification and exploration of key concepts and competencies of the nursing profession as an integral member of intra and inter-professional health-care teams providing care to individuals and populations in a variety of global healthcare settings. There is specific emphasis on examination of values and ethics for inter-professional practice, roles and responsibilities for effective patient outcomes for collaborative practice, inter-professional communication strategies, and intra and inter-professional teamwork and team-based, culturally congruent, patient/family-centered care to improve safety and outcomes.

**NUR 412 Capstone Practicum**
3 Class Hours 6 Lab Hours 5 Quarter Credit Hours
Prerequisites: NUR 370, EN 331, NUR 372, NUR 380, NUR 382, NUR 390, NUR 392, NUR 400, MA 300, NUR 402, NUR 410, Required Electives.
The focus of this course is on a final educational opportunity in a selected clinical practice setting in which the RN-BSN learner is able to reinforce and apply the learning from all courses in the RN-BSN Program through an intensive clinical immersion. The course provides a learning opportunity that is unique to each individual learner exposing him/her to practice issues including but not limited to technological innovations, transitions and coordination of care within and among health-care providers and facilities, applying knowledge, skills, and competencies as a nurse leader managing issues in complex systems, changing practice/policy based on translation of research into practice, or adoption of clinical guidelines to shape and inform contemporary health care delivery in a variety of clinical practice settings. A clinical immersion experience provides the RN-BSN learner an opportunity for building professional nursing leadership capacity through clinical reasoning, nursing leadership and management skills and competencies, and evaluation skills.

**OCCUPATIONAL THERAPY**

**OT 310 Service Delivery Models in Occupational Therapy**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: OT 310, EN 331, BIO 440
This course provides students with an advanced understanding of concepts that underlie the provision of occupational therapy services. Analysis of the financial, legal, and regulatory contexts in which OT services are provided will serve as a basis for managing OT services including clinical and administrative decision-making.

**OT 320 Theoretical and Clinical Reasoning in Occupational Therapy**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: OT 310, EN 331, BIO 440
This course provides students with an in-depth understanding of the influence of theory on occupational therapy practice. Various types of clinical reasoning will be analyzed and applied to students’ practice experiences. Students will become familiar with the ways in which theory is developed and begin the process of using theoretical information to make clinical decisions. Use of the current Occupational Therapy Practice Framework will be included.

**OT 325 Kinesiology**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course will provide students with advanced knowledge of human movement including joint motions and muscle actions, biomechanics and movement analysis. Manual muscle testing, goniometry and other biomechanical assessment techniques will be taught. Emphasis will be on the analysis of normal movement; creating treatment plans to maintain and restore musculoskeletal functions and the development of intervention planning for orthopedic conditions, including an introduction to modalities.

**OT 410 Critical Analysis of Scientific Literature**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331, OT 310, OT 320
This class is the first in the sequence addressing research competency. The goal of this course is that students be able to locate and understand a research article. Topics include identifying and understanding the components of a research article, judging its relevance to practice situations and understanding the components of evidence-based practice. Examples will utilize both qualitative and quantitative research methods. Students should be able to critique an article for possible inclusion in a literature review.

**OT 530 Service Management in Mental Health**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisites: BIO 440, MA 300
This is the first course in the occupational therapy service management sequence. Emphasis is on evaluation and treatment planning for OT intervention with people who have disorders in the psychosocial realm. This course will serve as an introduction to the procedures, terminology and statistics associated with the use of assessment tools. Students will select and apply appropriate frames of reference for use with case studies that are presented on paper or in interactive media. Students will practice leading the occupational therapy team in settings such as psychiatric hospitals, geropsychiatric units, adult day programs, and other community-based programs.

**OT 536 Level I A Fieldwork**
3 Class Hours 1 Quarter Credit Hour
Prerequisites: MA 300, OT 320
Co-requisite: OT 530
This is the first of three Level I fieldwork experiences. Students will be placed in a setting in which they can focus on psychosocial issues with a variety of populations. This will allow engagement with the populations and concerns being addressed in the concurrent service management course. The students will experience the role of the occupational therapist in health care and wellness, with an emphasis on evaluation, intervention and program planning and development of advanced practical skills. A total of three (3) distinct Level I fieldwork experiences are required.

**OT 540 Service Management in Pediatrics**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisites: OT 410, OT 530, OT 536
This is the second course in the service management sequence. Emphasis is on evaluation and treatment planning for OT intervention with children and adolescents. Students will select and apply appropriate frames of reference for use with case studies that are presented on paper or in interactive media. Students will practice leading the occupational therapy team in settings such as schools, early intervention, and pediatric rehabilitation.

**OT 545 Theoretical and Clinical Reasoning in Pediatrics**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisites: OT 310, EN 331, BIO 440
This course provides students with an advanced understanding of the influence of theory on pediatric therapy practice. Various types of clinical reasoning will be analyzed and applied to students’ practice experiences. Students will become familiar with the ways in which theory is developed and begin the process of using theoretical information to make clinical decisions. Use of the current Pediatric Occupational Therapy Practice Framework will be included.

**OT 546 Critical Analysis of Scientific Literature in Pediatrics**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331, OT 310, OT 320
This class is the first in the sequence addressing research competency. The goal of this course is that students be able to locate and understand a research article. Topics include identifying and understanding the components of a research article, judging its relevance to practice situations and understanding the components of evidence-based practice. Examples will utilize both qualitative and quantitative research methods. Students should be able to critique an article for possible inclusion in a literature review.
Courses are listed alphabetically by course code.

**OT 546 Level I B Fieldwork**
3 Class Hours 1 Quarter Credit Hour  
Prerequisites: OT 410, OT 530, OT 536  
Co-requisite: OT 540  
This is the second of three Level I fieldwork experiences. This fieldwork experience will allow student engagement with the pediatric population being addressed in the concurrent service management courses. Students will experience the role of the occupational therapist in healthcare and wellness, with an emphasis on evaluation, intervention and program planning and development of advanced practical skills. A total of three (3) distinct Level I fieldwork experiences are required.

**OT 548 Research Design**
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: OT 410, EN 331, MA 300  
This is the second class in the research sequence, in which students focus on designing a beginning level research project in an area of interest. Students will demonstrate an understanding of qualitative and quantitative research designs and methods used in healthcare, education, and community-based programs. They will identify the strengths and weaknesses in research designs for varied types of clinical questions.

**OT 550 Service Management for Adult Rehabilitation**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours  
Prerequisites: OT 310, OT 530, OT 540, BIO 440  
This is the third course in the occupational therapy service management sequence. Emphasis is on evaluation and treatment planning for OT intervention with adults who have physical, cognitive and perceptual disorders. Students will apply advanced knowledge in rehabilitation including the use of physical agent modalities, ergonomics, post-surgical procedures, design and fabrication of orthotics, and assistive technology. Students will select and apply appropriate frames of reference for use with case studies that are presented on paper or in interactive media. They will practice leading the occupational therapy team in settings such as acute-care hospitals, rehabilitation units, and outpatient settings.

**OT 552 Leadership and Advocacy**
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: OT 310, OT 555  
This is a course designed to provide students experience and knowledge in leading teams, programs and forging new ideas in which occupational therapy practitioners may positively influence people’s lives. Leadership requires student knowledge of management and administration. Advocacy requires student knowledge for fostering change and new initiatives within internal and external environments such as facility management, reimbursement and legislative action.

**OT 555 Wellness and Participation in Populations**
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: OT 540, OT 546, OT 548  
This is a course focused on student engagement in preventative care and exploring methods to engage populations, throughout the lifespan, in meaningful occupations of choice. This course is centered on the philosophy that active participation increases the likelihood of wellness and continued health while maximizing the overall well-being of the individual involved. This course does not deal with disabilities or limitations, but focuses instead on the abilities of individuals and group to remain active participants in their roles and in society.

**OT 556 Level I C Fieldwork**
3 Class Hours 1 Quarter Credit Hour  
Prerequisites: OT 540, OT 546, OT 548  
Co-requisite: OT 550  
This is the last of three Level I fieldwork experiences. This fieldwork experience will allow student engagement with the adult rehabilitation or geriatric population being addressed in the concurrent service management courses. The students will experience the role of the occupational therapist in health care and wellness, with an emphasis on evaluation, intervention and program planning and development of advanced practical skills. A total of three (3) distinct Level I fieldwork experiences are required.

**OT 560 Service Management in Geriatrics**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours  
Prerequisites: OT 310, OT 320, OT 530, OT 550, BIO 440  
This is the last course in the occupational therapy service management sequence. Emphasis is on evaluation and treatment planning for OT intervention to enhance occupational participation for people aging with or without disabilities. Students will practice leading the occupational therapy team to meet the unique needs of this population in current practice in settings such as skilled nursing and assisted living facilities, adult day programs, and home care. Students will select and apply appropriate frames of reference for use with case studies that are presented on paper or in interactive media.

**OT 565 Practicum in Population-Based OT Services**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours  
Prerequisites: OT 410, OT 540, OT 548, OT 550, OT 554, BIO 440  
This is a course dedicated to the development of leadership roles in an emerging, community-based program providing students the chance to actively promote wellness and participation across the lifespan. This course will allow students to select a population of interest, while employing strategies learned in previous courses to engage and encourage participation in meaningful activities, and facilitate the participants’ engagement in occupations of choice. Program design for the selected population will be a focus of this course.

**OT 567 Capstone Project**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisites: All Occupational Therapy program courses for Quarters I through VII  
This is the third class in the research sequence, focusing on participation in beginning level research. Research projects will be faculty facilitated and may be completed individually or in small groups. This is the final culminating project of the program and may include the research and development of a new program or social initiative emphasizing occupational therapy leadership and emerging practice.

**OT 688 and OT 698 Level II Fieldwork**
35-40 Hours Per Week for 12 Weeks 2 Placements  
Prerequisites: All Occupational Therapy program courses for Quarters I through VII  
Level II fieldwork will be provided in two distinct settings in the community to allow students the opportunity to experience the role of the occupational therapist while focusing on assessment and evaluation of clients and client populations, development of programs and leadership roles in the health care community. Level II Fieldwork is offered after the completion of all MSOT coursework outlined in the curriculum. Each course will run for 12 consecutive weeks, full time. Part-time fieldwork (at least 50% of full-time equivalent) opportunities may be available in some cases. Two distinct (2) Level II fieldwork experiences are required.
This course introduces the student to occupational therapy process, evaluation and treatment intervention in the area of pediatrics. Students will explore various assessments and treatment interventions used by the occupational therapy assistant in the pediatric practice area. Content will include postural control, feeding, positioning, and handling techniques, caregiver training, age appropriate activities of daily living, play and leisure, and the student role. Instruction in performance areas for occupational therapy intervention for the pediatric population is provided.

OTA 131 Principles of Therapeutic Intervention for Children/Adolescents Lab
4 Lab Hours 2 Quarter Credit Hours
Prerequisites: AHS 102, BIO 100/101, BIO 120/121, OTA 110/111, OTA 122/123, EN 101, EN 102
Co-requisites: OTA 130, OTA 132, OTA 136
This is the practical applications course for OTA 130. Content focuses on the treatment plan and treatment interventions and activity/environmental adaptations for the pediatric population.

OTA 132 Occupational Therapy for Pediatrics/Developmental Disabilities
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AHS 102, BIO 100/101, BIO 120/121, OTA 110/111, OTA 122/123, EN 101, EN 102
Co-requisites: OTA 130, OTA 131, OTA 136
This course focuses on the study of pediatrics and the common disabilities treated in occupational therapy. The various environments in which occupational therapists practice with children will be explored. Students will gain an understanding of the pathology and dysfunction commonly treated in this population and will look at the occupational roles of normal as well as developmentally disabled individuals from infancy to adolescence. Human occupation and the occupational role of the child and adolescent will be reviewed in the context of living with disabling conditions. Legal and ethical considerations in pediatric practice will be discussed.

OTA 134 Occupational Therapy for Psychosocial Function and Dysfunction
3 Class Hours 3 Quarter Credit Hours
Prerequisites: AHS 102, BIO 100/101, BIO 120/121, OTA 110/111, OTA 122/123, EN 101, EN 102
Co-requisite: OTA 135
This course will explore psychosocial development across the life span and will describe the impact of mental illness and psychosocial dysfunction on the individual’s ability to maintain occupational roles. The symptoms and characteristics of common mental health problems will be presented. Occupational therapy practice models and interventions for the mental health practice arena will be described and applied through case studies. The importance of addressing psychosocial issues as a component of the holistic approach of occupational therapy will be reinforced in course work and in the concurrent lab.

OTA 135 Occupational Therapy for Psychosocial Function and Dysfunction Lab
4 Lab Hours 2 Quarter Credit Hours
Prerequisites: AHS 102, BIO 100/101, BIO 120/121, OTA 110/111, OTA 122/123, EN 101, EN 102
Co-requisite: OTA 134
This lab is taken concurrently with OTA 134. Group dynamics and the use of groups in practice will be the primary focus of the lab experience. The student will also have the opportunity to integrate concepts learned in OTA 134 and practice assessment techniques and interventions common to psychosocial practice. Observation and documentation skills will be an important aspect of the lab experience to adequately prepare students for the clinical setting.

OTA 136 Level I Fieldwork A and Seminar
1 Class Hour 3 Field Hours 2 Quarter Credit Hours
Prerequisites: AHS 102, BIO 100/101, BIO 120/121, OTA 110/111, OTA 122/123, EN 101, EN 102, CPR Certification for Health Care Providers, completed medical requirements, and BCI
Co-requisites: OTA 130/131, OTA 132
Level I fieldwork offers students direct experience in a clinical practice setting. Through observation and selected participation, the student will begin to integrate academic course work, creating an opportunity for professional growth and development. This course allows students to observe clients in actual treatment environments, interact with individuals involved in various programs, share the appreciation of occupations with other professionals involved in OT services and experience direct contact with individuals involved in various service delivery systems. The primary focus of this fieldwork experience will be pediatrics or mental health. Students also share and process their experiences in a weekly seminar.

OTA 236 Level I Fieldwork B and Seminar
1 Class Hour 3 Field Hours 2 Quarter Credit Hours
Prerequisites: OTA 136
Co-requisites: OTA 240/241, OTA 242
Course content and structure are similar to OTA 136, with an emphasis on more active participation whenever possible. An alternate practice environment will be provided to allow students direct experience in an adult physical disability setting.
OTA 240 Principles of Therapeutic Intervention for Adults
3 Class Hours 3 Quarter Credit Hours
Prerequisites: OTA 130/131, OTA 132
Co-requisites: OTA 236, OTA 241, OTA 242
This course focuses on evaluation and treatment interventions for the occupational therapy assistant working with adults with physical and cognitive/perceptual disabilities. Content includes roles of the adult in the family, work and society. Emphasis is placed on purposeful activities and occupations to enhance role function. Treatment interventions will utilize various practice models and include documentation and the treatment planning process. Use of adaptive equipment, splinting and modalities will be explored.

OTA 241 Principles of Therapeutic Intervention for Adults Lab
6 Lab Hours 3 Quarter Credit Hours
Prerequisites: OTA 130/131, OTA 132
Co-requisites: OTA 236, OTA 240, OTA 242
This is the concurrent lab course for OTA 240. Students will participate in assessment, treatment planning and implementation of occupational therapy for adults with physical and cognitive/perceptual disabilities. Students will plan, grade and perform enabling, adaptive and purposeful activities to facilitate performance and function of the adult client in all performance areas. Adaptation to person, task and environment will be incorporated into course content.

OTA 242 Occupational Therapy for Adults/Physical Disabilities
4 Class Hours 4 Quarter Credit Hours
Prerequisites: OTA 130/131, OTA 132
Co-requisites: OTA 236, OTA 240/241
This course focuses on the pathology and dysfunction of the adult population treated by occupational therapy practitioners. It includes common conditions seen in occupational therapy. Students will explore the various occupations and occupational roles of adulthood and the effects of dysfunction on the adult. The study of environment and adaptations will be explored. Work, activities of daily living and leisure will be addressed.

OTA 250 Occupational Therapy in Gerontology
3 Class Hours 3 Quarter Credit Hours
Prerequisites: OTA 134/135
This course is designed to provide students with an understanding of the unique needs of the older adult. Students will apply principles of physical rehabilitation and psychosocial practice in an effort to gain an understanding of geriatric occupational therapy. Students will learn therapeutic interventions aimed at both prevention of dysfunction and restoration of health in older adults. They will demonstrate an understanding of occupational roles in later life. Students will study treatment interventions, adaptive techniques, and environmental technology utilized to remediate dysfunction and maximize independence in elders. Student will discuss cultural issues and professional ethics as they relate to this population.

OTA 255 Practice Issues for the Occupational Therapy Assistant
4 Lab Hours 2 Quarter Credit Hours (Meets in the first three weeks of Quarter V)
Prerequisites: OTA 130/131, OTA 132, OTA 134/135, OTA 136, OTA 236, OTA 240/241, OTA 242, OTA 250, MA 100/110, SS/Humanities Electives
The foundation of occupational therapy practice lies in the ability to problem solve for a variety of conditions or situations to restore, remediate or maintain function. Students will gain the additional knowledge needed to understand and apply clinical reasoning in the field of occupational therapy. Students will demonstrate their clinical reasoning with case-based projects. Students will be introduced to administrative duties typically required of an occupational therapy assistant in the practice areas they will enter for Level II fieldwork. Laws and ethical standards governing the practice of occupational therapy will also be discussed during this hands-on application course.

OTA 258 Level II Fieldwork I
35-40 Hours per week for 8 weeks, 10 Quarter Credit Hours
Prerequisites: OTA 130/131, OTA 132, OTA 134/135, OTA 136, OTA 236, OTA 240/241, OTA 242, OTA 250, MA 100/110, SS/Humanities Electives.
Co-requisite: OTA 255
The Level II Fieldwork is the final phase of the OTA program. Working with occupational therapy recipients, the student will participate in the evaluation process, planning and implementing treatment programs, communicating effectively, and developing professional relationships. Students will work under the supervision of a COTA or OTR who meets criteria as a clinical educator. The student and academic fieldwork coordinator will collaboratively select the practice environment. All practice environments must have a signed contract with the college. This is a full-time placement in a facility for 8 weeks. Actual contact time is 35-40 hours per week.

OTA 263 Senior Capstone and Practice Development Seminar
4 Class Hours 4 Quarter Credit Hours
Prerequisites: OTA 130/131, OTA 132, OTA 134/135, OTA 136, OTA 236, OTA 240/241, OTA 242, OTA 250, OTA 255, OTA 258, MA 100/110, SS/Humanities Electives.
This course provides students the opportunity to complete a capstone project in an area of interest. Through a combined partnership with faculty, students will select a project of their choice and complete the project with faculty as advisors. The students will be given the opportunity to present the final projects in a senior colloquium. This final course of the OTA curriculum will allow students to expand their knowledge of legal, ethical and professional considerations in occupational therapy with application to the fieldwork they have just completed. Professional licensure requirements, resume writing and job searching, and preparation for the national certification exam will be emphasized.

OTA 268 Level II Fieldwork II
35-40 Hours per week for 8 weeks 10 Quarter Credit Hours
Prerequisites: OTA 130/131, OTA 132, OTA 134/135, OTA 136, OTA 236, OTA 240/241, OTA 242, OTA 250, OTA 255, OTA 258, MA 100/110, SS/Humanities Electives.
This second Level II Fieldwork experience will offer students further exposure to occupational therapy practice. The second practice environment will provide a different experience for the student to continue to develop skills as an occupational therapy assistant. Opportunities to engage in an emerging practice environment may be offered for either of the Level II Fieldwork courses. Supervision in these environments will be shared with occupational therapy practitioners and other health care providers. All practice environments must have a signed contract with the college. This is a full-time placement in a facility for 8 weeks. Actual contact time will be 35-40 hours per week.

PHYSICS (MATH/SCIENCE CORE)

PHY 126 Applied Physics & Lab
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 100/110
This course studies the applications of fundamental concepts of physics. The topics covered include: the motion of objects, the forces that cause motion, velocity, acceleration, Newton’s Laws, torques, work, power, and energy. The laboratory component is designed to give students the opportunity to have hands-on experience with the fundamental concepts of physics studied in the theory portion of the course.
**PHY 200 Physics I & Lab**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisite: MA 125  
This course is a non-calculus approach to the study of fundamental physics and includes kinematics and dynamics of bodies, velocity, acceleration, and Newton’s laws of motion, forces in equilibrium, concurrent and non-concurrent forces, work, power, energy, and torque. Labs are performed within the course to reinforce concepts.

**PHY 300 Physics II & Lab**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisites: MA 210, PHY 200  
This is an algebraic approach to a second course in physics. The topics include: centripetal force, temperature, heat energy, mechanical waves, sound, electrostatics, and basic circuit elements. The laboratory component is designed to give students the opportunity to have hands-on experience with the fundamental concepts of physics studied in the theory portion of the course. Laboratory experiments will be performed to reinforce these concepts.

**PLUMBING**

**PL 114 Pipe Fitting Basics**
4 Class Hours 4 Quarter Credit Hours  
Co-requisite: MA 100/110  
Students are introduced to a variety of piping material, fabrication techniques, tools of the trade, safety, and mathematical approaches.

**PL 117 Pipe Fitting Basics Lab**
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Co-requisite: PL 114  
Students produce piping projects utilizing tools, piping materials and the applied mathematical procedures put forth in PL 114.

**PL 118 Blueprint Reading and Drafting**
3 Class Hour 3 Quarter Credit Hours  
This segment covers basic drawing techniques and proper use of drafting equipment. Students will be introduced to different types of drawings, associated symbols and terminology.

**PL 123 Drainage, Waste and Vent, and Potable Water System Lab**
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Prerequisites: PL 114/117, PL 118  
Co-requisites: PL 124, PL 126  
Students are required to install their drainage, waste and vent and potable water plumbing designs in a laboratory setting. The designs must be fully operational and conform to code.

**PL 124 Drainage, Waste and Vent Design**
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: PL 114/117, PL 118  
Students are introduced to the different elements of plumbing design. Various codes and their requirements are covered. Student’s designs are presented in a formal drawing.

**PL 126 Potable Water Piping Design**
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: PL 114/117, PL 118  
Students study load calculations and appropriate sizing of domestic water systems. Various codes and methods are covered. Formal drawing presentation is a required portion of the course.

**PL 230 Plumbing Fixture, Appliance and Appurtenance**
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: PL 123, PL 126  
This segment introduces the student to fixtures, appliances and other related devices that are found in residential and commercial buildings. Code requirements and applications are also studied in order to balance fixture utility, rough-in needs and building design.

**PL 232 Troubleshooting and Repair**
1 Class Hour 2 Lab Hours 2 Quarter Credit Hours  
Prerequisites: PL 124/123, PL 126  
Co-requisites: PL 230, PL 233  
This course explores the repair, service and retrofit aspects of the plumbing business. Attention is given to structural concerns, repair approaches, product selection, and customer and trade relationships.

**PL 233 Plumbing System Design and Fixture Installation Lab**
2 Class Hours 4 Lab Hours 3 Quarter Credit Hours  
Prerequisites: PL 124/123, PL 126  
Co-requisite: PL 230  
The student is required in this lab to design and install various plumbing systems from rough-in to finished fixtures. These will be actual working systems and meet all code requirements as well as trade practices.

**PL 240 Pump System Design**
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: AH 123, PL 114/117, PL 118  
Students are introduced to residential and light commercial pumps and pumping systems. Students are required to design and size systems based on pump types and general requirements.

**PL 242 Final Project**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisites: PL 230/233, PL 232  
The final project is the summation of all the previous quarters presented in a plumbing design which incorporates estimating and pricing. Students are required to design and draw a complete building project based on supplied specifications.

**PSYCHOLOGY (SOCIAL SCIENCES CORE)**

**PS 140 Life-Span Development**
4 Class Hours 4 Credit Hours  
The purpose of Life-Span Development is to introduce students to the broad concepts of human growth and development from conception to death. Students will be introduced to human development from the prenatal stage to death with particular emphasis placed on early childhood, adolescence and old age. The course is especially designed for students entering the healthcare professions as the slant is toward practical application of all stages. Upon completion of the course, students should be able to demonstrate a basic knowledge of the developmental stages of life.

**PS 201 Introduction to Psychology**
(This course is major-restricted to CMA and ST students only.)  
4 Class Hours 4 Quarter Credit Hours  
Prerequisite: EN 102  
This introductory course in psychology is a survey of the multiple aspects of human behavior. It includes, but is not limited to, such topics as the history of psychology, the biological foundations of behavior, memory, learning, personality, psychological disorders and treatment and social behavior. Importantly, this course will be geared to stress those areas of more practical significance for those in medical service fields.

**PS 202 Psychology of Healthcare**
4 Class Hours 4 Credit Hours  
Prerequisite: EN 101  
This course addresses the human element of clinical competence in providing health care. Students will explore the psychodynamics of interactions between health care workers and patients, the psychological influences of illness and pain, the psychosocial factors that impact one’s effectiveness as a health care team member, the impact of families on a patient’s treatment plan, the role of body image in patient responsiveness to treatment, and a variety of other psychosocial factors.
that influence health care delivery.

**PS 203 Psychology of Happiness**
4 Class Hours 4 Credit Hours
This course will explore the psychological principles associated with the experience, feelings and thoughts of happiness. Students will be exposed to a variety of research investigations that have studied different variables that impact happiness. Some of the subtopics discussed in this course include ways to define and measure happiness, differences and similarities in happiness across cultures, happiness and money, and ways to increase happiness.

**PS 210 Human Relations in the Workplace**
4 Class Hours 4 Quarter Credit Hours
Major skill areas covered in the course include making a good impression with your employer, managing conflict with difficult coworkers, working on a team with diverse groups of people, providing exceptional customer service, and managing on-the-job stressors. This course provides a set of practical human relations techniques that will help students increase the likelihood of job security and career advancement in any current or future job.

**PS 320 Developing Leadership in the Workplace**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course addresses a wide range of leadership skills that will help prepare students to become effective managers in any work setting. Major course topics include understanding group interactions, training employees, managing conflict, evaluating employees, communicating expectations, facilitating employee satisfaction, and team building. Students will gain a strong understanding of the management process and will learn the key ingredients for developing a productive team of employees.

**PS 330 Marriage and the Family**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102 or its equivalent
This course is a review of psychological concepts relevant to understanding marital and family functioning. Topics will include mate selection, marital communication, intimacy, conflict resolution, transition to parenthood, managing crises, family violence, divorce, and balancing work, leisure and family.

**PHYSICAL THERAPIST ASSISTANT**

**PTA 111 Foundations of Physical Therapy**
4 Class Hours 4 Quarter Credit Hours
This course focuses on the principles and philosophies that guide the profession of physical therapy. Disablment Models and the Guide to Physical Therapy Practice will be studied as the paradigm for physical therapy. This course establishes the foundation of knowledge for the physical therapist assistant.

**PTA 112 Foundations of Physical Therapy Lab**
4 Lab Hours 2 Quarter Credit Hours
The focus of this course is on using hands-on experiences to understand human movement and the language and concepts of the profession. Physical therapy skills covered include body mechanics, bed mobility and positioning, transfer training, basic gait training, range of motion exercises, physical therapy documentation, and communication with patients.

**PTA 123 Data Collection Skills**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisites: PTA 111/112, MA 100/110
Content includes current tests and measures from the PT Guide to Practice. Emphasis is placed on a lifespan approach. Treatment interventions will utilize various practice models and include documentation and the treatment planning process.

**PTA 124 Clinical Kinesiology**
2 Class Hours 2 Quarter Credit Hours
Prerequisites: PTA 111/112, BIO 100/101
The focus of this course is to lay the foundation for movement analysis. Students learn biomechanics, physical task skill analysis, and kinesiology, the study of human movement. Joint motion and muscle action are explored describing prime movers.

**PTA 125 Clinical Kinesiology Lab**
4 Lab Hours 2 Quarter Credit Hours
Prerequisites: PTA 111/112, BIO 100/101
This lab is offered concurrently with PTA 124 as the practical applications course for the understanding of normal movement, kinesiology, gait, and body mechanics. Students will learn to assess strength as well as to analyze movement during activities.

**PTA 136 Level I Clinical Education A**
1 Class Hour 3 Clinical Lab Hours 2 Quarter Credit Hours
Prerequisites: AHS 102, PHY 126, PTA 123, PTA 124/125, BIO 120/121 and CPR Certification for Health Care Providers and completed medical requirements.
Level I Clinical Education offers students direct experience in a clinical practice setting. Through observation and selected participation, the student will begin to integrate academic course work, creating an opportunity for professional growth and development. This course allows students to observe clients in actual treatment environments, interact with individuals involved in various programs, and experience direct contact with individuals involved in various service delivery systems. The primary focus of this clinical education experience will be musculoskeletal system interventions. Students also share and process their experiences in a seminar.

**PTA 138 Physical Agents & Lab**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: PHY 126, PTA 124/125, BIO 120/121
Content focuses on the treatment plan and treatment interventions for modalities and soft tissue mobilization. Students develop knowledge of the physiological effects, indications, contraindications, and precautions of physical therapy interventions such as deep heat, cold, ultrasound, electrotherapeutic modalities, and whirlpool. Lab content focuses on modalities and soft tissue mobilization. Students develop the skills necessary to safely apply the physical therapy interventions such as deep heat, cold, ultrasound, electrotherapeutic modalities, and whirlpool.

**PTA 139 Advanced Data Collection Skills**
0 Class Hours 4 Lab Hours 2 Quarter Credit Hours
Prerequisites: PHY 126, PTA 123, PTA 124/125
Students will engage in physical therapy documentation and procedures including goniometry and manual muscle testing. Statistics and journal article critique will be covered.

**PTA 142 Principles of Musculoskeletal Physical Therapy Intervention and Lab**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: PTA 124/125, BIO 120/121
This course will explore musculoskeletal physical therapy procedures across the lifespan. The symptoms and characteristics of common musculoskeletal conditions from infancy to adolescence to later adulthood will be presented. Physical therapy practice models and interventions for the musculoskeletal practice area will be described and applied through case studies. The importance of addressing patient cultural issues as a component of the holistic approach of physical therapy will be reinforced. Gait, locomotion and balance impairments associated with amputation will be covered. The primary focus of
the lab experience will be musculoskeletal physical therapy interventions including orthotic and prosthetic intervention. The student will also have the opportunity to integrate concepts learned in Data Collection Skills with selected interventions common to musculoskeletal practice.

**PTA 237 Level I Clinical Education B**

6 Clinical Lab Hours 2 Quarter Credit Hours
Prerequisites: PTA 136, PTA 138, PTA 139, PTA 142, BIO 131, EN 101

Course content and structure are similar to PTA 136, with an emphasis on more active participation whenever possible. An alternate practice environment will be provided to allow students direct experience in a cardiopulmonary system or neuromuscular system treatment setting.

**PTA 240 Principles of Neuromuscular Physical Therapy Intervention and Lab**

4 Class Hours 4 Lab Hours 6 Quarter Credit Hours
Prerequisites: BIO 131, PTA 136, PTA 138, PTA 139, PTA 142, EN 101

This course introduces the student to physical therapy treatment intervention in the area of neuromuscular disorders including central nervous system disorders and peripheral nerve injury. Students will explore various tests, measures, and interventions used by the physical therapist assistant in neuromuscular practice; normal human development in relationship to environment and culture; and, intervention for the pediatric and geriatric population. The importance of addressing patient cultural issues will be reinforced in course work and in the concurrent lab. The various environments in which neuromuscular physical therapists practice with children, adults, and older adults will be explored. Students will look at the physical roles of normal as well as developmentally-disabled persons from infancy to adolescence to later adulthood including the use of adaptive equipment and splinting.

**PTA 242 Principles of Cardiopulmonary Physical Therapy Intervention and Lab**

4 Class Hours 4 Lab Hours 6 Quarter Credit Hours
Prerequisites: BIO 131, PTA 136, PTA 138, PTA 139, PTA 142, EN 101

Students will learn therapeutic interventions aimed at both prevention of dysfunction and restoration of patients with cardiopulmonary disorders. Students will study treatment interventions, adaptive techniques, and environmental technology utilized to remediate dysfunction and maximize independence. Bariatrics and lymphatic system disorders are included. Students will discuss cultural issues and professional ethics as they relate to this patient population. In the lab course, students will participate in data collection, treatment planning and implementation of physical therapy interventions related to the cardiopulmonary system. Integumentary system disorders and treatment interventions will be covered.

**PTA 253 Practice Issues for the Physical Therapist Assistant**

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours (Meets the first 4 weeks of Quarter V)
Prerequisites: PS 202, PTA 237, PTA 240, PTA 242, EN 102

The foundation of physical therapy practice lies in the ability to problem solve for a variety of conditions or situations to restore, remediate or maintain function. Students will gain the additional knowledge needed to understand and apply clinical reasoning in the field of physical therapy. Students will demonstrate their clinical reasoning with in class projects. Students will expand their knowledge of legal, ethical and professional considerations in PT. Laws governing the practice and standards of practice will be emphasized during this hands-on application course.

**PTA 258 Level II Clinical Education A**

40 Clinical Hours per Week for 6 Weeks 8 Quarter Credit Hours
Prerequisites: PTA 253, PTA 258 and Humanities or Arts/Foreign Language core elective

Level II Clinical Affiliation is the final phase of the PTA program. Working with physical therapy patients/clients, the student will participate in data collection, planning and implementing treatment interventions, communicating effectively, and developing professional relationships. Students will work under the supervision of a PTA or PT who meets criteria as a clinical educator. The student and academic coordinator of clinical education will collaboratively select the clinical site. All clinical sites must have a signed contract with the College.

**PTA 260 Senior Capstone**

2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: PTA 253, PTA 258 and Humanities or Arts/Foreign Language core elective

This course provides students the opportunity to explore research that supports the practice of physical therapy and allow students to expand their knowledge of legal, ethical and professional considerations in physical therapy with application to the fieldwork they have completed. Students will select a topic of their choice and complete an evidence-based practice literature review. Students will complete a professional portfolio that summarizes and highlights their accomplishments in the PTA program. Students will present the final projects in a senior colloquium. Professional licensure requirements, resume writing, job searching, and preparation for the national licensure exam will be emphasized.

**RESPIRATORY CARE**

**RC 110 Foundations of Respiratory Care**

3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: Admission into the RC program

This course provides an orientation to respiratory care and healthcare organizations. Topics will include the history of respiratory care and the development of the profession's core values and ethics, the respiratory therapist's role in patient assessment, education, and the promotion of wellness within diverse patient populations and communities. An overview of healthcare reimbursement, credentialing, licensure, accreditation, and evidence-based practices will be included.

**RC 111 Introduction to Respiratory Care Clinical**

1 Class Hour 2 Lab Hours 2 Quarter Credit Hours
Prerequisites: Admission into the RC Program

This course prepares students for clinical experience. Topics will include an orientation to clinical concepts such as pre-employment screening, background checks, immunizations, professionalism, ethics, diversity, effective communication, medical record review and charting, workplace safety, disease transmission and infection control practices, patient assessment skills, and patient confidentiality. Students will be provided the opportunity to take the American Heart Association Cardiopulmonary Resuscitation Healthcare Provider certification (CPR-C).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>RC 120</td>
<td>Principles of Cardiopulmonary Physiology</td>
<td>3 Class Hours 3 Quarter Credit Hours</td>
<td>RC 110, RC 111, BIO 103/104, MA 100/110</td>
<td>This course provides an in-depth analysis of the circulatory physiology of the heart and lungs. Applied respiratory chemistry, physical properties of fluids and gases, pulmonary mechanics, hematology, hemodynamics, and renal function will be included. Cardiopulmonary diagnostics and therapeutics such as pulmonary function testing, bronchoscopy, central venous lines, pulmonary artery catheters, arterial blood gases, electrocardiograms (ECGs), and cardiac arrhythmias will be introduced.</td>
</tr>
<tr>
<td>RC 121</td>
<td>Respiratory Care Pharmacology</td>
<td>1 Class Hour 2 Lab Hours 2 Quarter Credit Hours</td>
<td>RC 110, RC 111, BIO 103/104, MA 100/110</td>
<td>This course focuses on the assessment, administration, and patient education associated with the safe delivery of pharmacological agents specific to the cardiopulmonary system. Drug classifications, dosage calculations, indications and contraindications will be covered. Students will learn how to select the appropriate pharmacological agents, administer the agents utilizing the appropriate equipment and technique, and apply pre-, peri-, and post-assessment skills to determine the effectiveness and/or adverse effects associated with the treatment.</td>
</tr>
<tr>
<td>RC 130</td>
<td>Theory &amp; Application of Respiratory Care I and Lab</td>
<td>3 Class Hours 4 Lab Hours 5 Quarter Credit Hours</td>
<td>RC 120, RC 121, BIO 124/125</td>
<td>This course prepares students with the basic knowledge and skills for holistic patient assessment, diagnostic, and therapeutic modalities. Students will learn the fundamentals of evidence-based respiratory care assessment, protocols, and the safe use of equipment. Topics will include oxygen, humidification and aerosol therapies, airway management, manual ventilation, hyperinflation and bronchopulmonary hygiene procedures, noninvasive monitoring, and laboratory data analysis.</td>
</tr>
<tr>
<td>RC 131</td>
<td>Respiratory Care Clinical I</td>
<td>12 Lab Hours 4 Quarter Credit Hours</td>
<td>RC 120, RC 121, BIO 124/125, Completion of preclinical core competency testing</td>
<td>This entry-level I respiratory care practicum will allow students to develop the basic knowledge, skills, and core competencies introduced in the RC courses through observation and hands-on clinical experience. Students will perform evidence-based practices established by current clinical practice guidelines and published research.</td>
</tr>
<tr>
<td>RC 132</td>
<td>Respiratory Care Pathophysiology I</td>
<td>3 Class Hours 3 Quarter Credit Hours</td>
<td>RC 120, RC 121, BIO 124/125</td>
<td>Co-requisite: BIO 122</td>
</tr>
<tr>
<td>RC 240</td>
<td>Theory &amp; Application of Respiratory Care II &amp; Lab</td>
<td>3 Class Hours 4 Lab Hours 5 Quarter Credit Hours</td>
<td>RC 130, RC 131, RC 132, BIO 122</td>
<td>This course prepares students with more advanced knowledge and skills for holistic patient assessment, diagnostic, and therapeutic modalities. Students will develop more in-depth patient assessment skills utilizing both invasive and noninvasive procedures such as intubation, arterial blood gases, pulmonary function testing, pulse-oximetry, transcutaneous monitoring, capnography, bronchoscopy, central venous lines, pulmonary artery catheters, ECGs, and medical imaging.</td>
</tr>
<tr>
<td>RC 241</td>
<td>Respiratory Care Clinical II</td>
<td>12 Lab Hours 4 Quarter Credit Hours</td>
<td>RC 130, RC 131, RC 132, BIO 122, Completion of preclinical core competency testing</td>
<td>Co-requisite: RC 240</td>
</tr>
<tr>
<td>RC 242</td>
<td>Respiratory Care Pathophysiology II</td>
<td>3 Class Hours 3 Quarter Credit Hours</td>
<td>RC 130, RC 131, RC 132, BIO 122</td>
<td>This course is a continuation of RC 132 with an emphasis on adult critical care, pediatric and neonatal respiratory disorders. Students will analyze clinical patient data and recommend the appropriate diagnostic and therapeutic procedures. Students will learn to develop patient care plans, respiratory care protocols, and disease management models.</td>
</tr>
<tr>
<td>RC 252</td>
<td>Theory &amp; Application of Respiratory Care III &amp; Lab</td>
<td>3 Class Hours 4 Lab Hours 5 Quarter Credit Hours</td>
<td>RC 240, RC 241, RC 242</td>
<td>Co-requisite: RC 252</td>
</tr>
<tr>
<td>RC 253</td>
<td>Respiratory Care Clinical III</td>
<td>18 Lab Hours 6 Quarter Credit Hours</td>
<td>RC 240, RC 241, RC 242, Completion of preclinical core competency testing</td>
<td>Co-requisite: RC 252</td>
</tr>
<tr>
<td>RC 254</td>
<td>Specialty Principles &amp; Practice of Respiratory Care</td>
<td>2 Class Hours 2 Quarter Credit Hours</td>
<td>RC 240, RC 241, RC 242</td>
<td>This course focuses on the advanced and specialty practices of respiratory care such as Advanced Cardiac Life Support (ACLS), Pediatric Advanced Life Support (PALS), Neonatal Resuscitation (NR), and extracorporeal membrane oxygenation (ECMO). Advanced modes of mechanical ventilation for the adult, pediatric, and neonatal patient populations will be included.</td>
</tr>
<tr>
<td>RC 261</td>
<td>Theory &amp; Application of Respiratory Care IV &amp; Lab</td>
<td>3 Class Hours 4 Lab Hours 5 Quarter Credit Hours</td>
<td>RC 252, RC 253, RC 254</td>
<td>This course provides students with the knowledge and skills to practice respiratory care in neonatology, polysomnography, homecare, chronic care, and rehabilitation. A senior capstone project and simulated advanced-level preparation exam by the NBRC will be included.</td>
</tr>
</tbody>
</table>
**RC 262 Respiratory Care Clinical IV**
24 Lab Hours 8 Quarter Credit Hours
Prerequisites: RC 252, RC 253, RC 254, Completion of preclinical core competency testing
Co-requisite: RC 261
This advanced and specialty Level II respiratory care practicum will allow students to develop advanced and specialty knowledge, skills, and core competencies introduced in the RC courses through observation and hands-on clinical experience. Students will perform evidence-based practices established by current clinical practice guidelines and published research on the adult, pediatric, and neonatal patient populations within the critical care, homecare, chronic care, polysomnography, and rehabilitation care environments.

**SCIENCE (MATH/SCIENCE CORE)**

**SCI 110 Environmental Science**
4 Class Hours 4 Quarter Credit Hours
This course will focus on man’s interaction with his environment. It will cover current issues like global warming, human population growth, and pollution.

**SCI 114 Meteorology**
4 Class Hours 4 Quarter Credit Hours
This course introduces students to meteorology. The course focuses on basic terminology of what weather is, how it acts and interacts with our environment. The student will learn how to read weather maps and weather information critical in flying an aircraft. The course will also teach the fundamental principles in weather forecasting.

**SCI 304 Development of Western Science**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331
This course centers on the interaction of science, scientists, technology and society over the past five hundred years, primarily focusing on the development of Western science. The scientific method will be examined utilizing selected case studies. Underlying principles and methodologies of science will be illustrated by comparing and contrasting both the successes and failures of science. Factors affecting the acceptance and use of science and related technologies will be examined.

**SCI 320 Understanding Flight**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331
This course explores a variety of real world examples of objects moving through the air. While not an applied math course, the concepts that help understand the flight of objects are explored. Freefall, gliding, ballistics, and powered flight will be explained and studied. Both the historical development of manned flight as well as examples of flight in nature as exemplified by both birds and seeds will be investigated.

**SCI 330 Our History and Future in Space**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331
A course investigating the history, current programs, and future of space exploration. Topics will focus on our solar system, the current search for water on Mars, and evidence of life on other planets and moons. Current events related to space exploration and Near Earth Objects will be incorporated whenever possible. Weekly writing assignments pertaining to weekly reading assignments will be required.
Courses are listed alphabetically by course code.

SOFTWARE ENGINEERING

**SE 114 Programming Essentials Using C++**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
C++ will be used as the vehicle to introduce flowcharting, control structures, calculations, interactive programming techniques, functions, and arrays. Students will learn to write high quality programs that implement techniques and theory necessary for business applications. Laboratory projects will grow in complexity as the student gains hands-on experience. Both personal and business applications will be provided.

**SE 122 XHTML**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course will familiarize students with the construction of web pages using the eXtensible HyperText Markup Language (XHTML). Students will construct web documents using XHTML without the aid of a design tool. Topics may include images, tables, forms, XML, and style sheets.

**SE 124 Intermediate Programming Using C++**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: SE 114
Using C++, students will study advanced topics in programming. Topics include string handling, intermediate array processing, passing by reference, pointers, and an introduction to creating, editing, and updating data files.

**SE 132 Access Programming**
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
This class will prepare the student to analyze data and solve real-life business problems using Microsoft Access as a tool to succeed in business. Moving beyond the basic “point and click” focus of most computer applications courses, this course will challenge the student to use critical thinking and analysis to find efficient and effective solutions to real-life business situations. The student will then learn how to build the database, analyze data for effective decision making, collect data with well-designed forms, and develop effective reports. Finally, the student will learn how to automate database processes, and enhance user interaction through programming.

**SE 240 Javascript – Client-Side Web Development**
1 Class Hour 4 Lab Hours 3 Quarter Credit Hours
Prerequisites: SE 114, SE 122
This course offers the student an introduction to JavaScript. JavaScript is the programming language used to extend the capabilities of the web browser to include animation, interactive forms, object control, and basic decision-making. Emphasis will be placed on client-side form validation.

**SE 245 C#**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: SE 124
This first programming course in C# introduces students to topics that may include an overview of a microcomputer system, an introduction to control structures, beginning the problem-solving process, completing the problem-solving process and getting started with C#, variables, constants, arithmetic operators, and assignment statements, built-in functions, program-defined value-returning functions, and program-defined void functions.

**SE 246 Database Design and SQL**
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: SE 132
The class covers concepts of both relational and object-relational databases and SQL. Students will learn how to design databases that are void of data redundancies. Students are taught to create and maintain database objects and to store, retrieve, and manipulate data.

**SE 252 Systems Analysis and Design**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: IT 111
An overall understanding of systems analysis skills and their application to industry are the key objectives of this course. The student learns the design of systems processing and controls, and develops skills to present the completed system to management.

**SE 255 Advanced C#**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: SE 245
Students will study advanced topics in C#. At the end of the course, the student will be able to write C# programs that include classes, polymorphism, operator overload, templates and exception handling. Special attention will be given to object-oriented design principles.

**SE 256 Web Development Using .NET**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: SE 122, SE 240, SE 245
Students will learn the use of server-side scripting to create dynamic, database driven sites using the .NET platform.

**SE 265 AS Capstone Project**
6 Lab Hours 3 Quarter Credit Hours
Prerequisites: SE 255 and (SE 256 or SE 266)
This course provides an opportunity for each student to develop a substantial project in an area of interest. The resulting project, in conjunction with a faculty member, can include work conducted with companies in the area. The culmination of this course is a major presentation of project results.

**SE 266 Web Development Using PHP and MySQL**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisites: SE 122, SE 240, SE 246
Students will learn the use of server-side scripting to create dynamic, database driven sites using PHP and MySQL. Emphasis is placed on applications that are user-friendly and secure.

**SE 385 Java**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: SE 255
Students will be introduced to the concepts of object-oriented programming using Java. In addition to a further development of programming constructs and concepts, students will be exposed to programming methods unique to object oriented languages such as classes, inheritance and polymorphism.

**SE 388 Embedded Microcontroller Programming**
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: SE 255
This course explores how a microprocessor/microcontroller processes data. Arithmetic, logic, control functions and structures will be studied using C/C++ language instructions. External hardware such as banks of lights and switches, stepper motors, DC motors, servo motors, and other devices will be interfaced and controlled through the Arduino microcontroller.

**SE 389 Open Source Frameworks**
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: SE 255
Students will learn to compare and contrast Open Source frameworks and learn techniques that will assist them in making informed decisions on using a particular framework within an organization. Students will choose one particular framework to implement a solution for a given scenario.

**SE 393 Design Patterns**
3 Class Hours 4 Lab Hours 5 Quarter Credit Hours
Prerequisite: GDS 252 or SE 385
In software engineering, a design pattern is a general repeatable solution to a commonly-occurring problem in software design. Design patterns can speed up the development process by providing tested, proven development paradigms. This course will introduce the student to this state-of-the-art software development methodology.
**SE 394 Algorithms in Software Engineering**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: SE 285  
This course includes an overview of the algorithms and data structures used in software applications today. Topics include but are not limited to linked lists, queues, stacks and trees. Students will learn to analyze the complexity of different algorithms and gain an appreciation for efficient computing.

**SE 396 Advanced PHP Programming**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: SE 266  
Students will learn how to create robust, object-oriented web applications in PHP. The course includes in-depth coverage of stored procedures in MySQL as well as an overview of popular application frameworks.

**SE 398 Advanced SQL**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: SE 246  
Students will study advanced topics in SQL, including views, triggers, indexes and stored procedures. The course emphasizes SQL do’s and don’ts for these topics and students are introduced to a multitude of database standards: Military, ANSI, ISO, Industry

**SE 407 Advanced .NET**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisites: SE 256, IT 378  
Students will use the .NET framework to develop highly interactive and robust web applications in teams of two or three students. Robustness of the applications is ensured by utilizing database layers, component based development and proper use of advanced error handling techniques.

**SE 408 Programming Mobile Devices**  
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours  
Prerequisite: GDS 131 or SE 385  
Students will learn how to develop applications for mobile devices such as cell phones, handhelds (PDAs) and tablets. Students will use languages such as C#, Obj-C, C++ or Java to develop applications that will run on a mobile device. Topics include memory management, user interfaces, storage cards, sounds and graphics.

**SE 410 Cooperative Learning I**  
30 Field Hours 10 Quarter Credit Hours  
Prerequisite: Requires Department Chair Approval  
The student will use the knowledge gained through previous coursework in his/her technology with mostly paid, planned and supervised work experiences in the public or private sector. The course allows students to enhance the practical skills necessary for success by being exposed to the reality of the world of work beyond the boundaries of the campus, enhancing their self-confidence and career direction.

**SE 414 Introduction to Senior Project**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisites: SE 407, SE 421  
The objective of the senior project is to integrate skills learned during the students' time at New England Tech. Within a team of at least 2 and no more than 4 students, a real world application is developed over a period of 20 weeks. The Introduction to the Senior Project spans the first 10 weeks of this period and in this class, a proposal, a functional specification and a database design is created and implemented. In addition, Microsoft Project is used to develop and create a Gantt Chart that specifies in detail how the project will be implemented during the last 10 weeks of the senior project. The final project will be presented to the faculty and is evaluated by three faculty members.

**SE 417 Software Security**  
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours  
Prerequisite: SE 385  
This course studies known problems in the field of software security. The focus will be on awareness of security risks in software development and students will learn methods to avoid these issues when they write their own applications. Topics include unvalidated input, buffer overflows, injection flaws, insecure storage and improper error handling.

**SE 421 Unified Modeling Language**  
3 Class Hours 3 Quarter Credit Hours  
Prerequisite: Requires Department Chair Approval  
Students will explore the concepts of Unified Modeling Language (UML). Topics include, but are not limited to: use case diagrams, class diagrams, and activity diagrams. Concepts discussed will be applied to real-world problems.

**SE 425 Senior Project**  
6 Lab Hours 3 Quarter Credit Hours  
Prerequisites: SE 414, SE 426  
This course provides an opportunity for each student to develop a substantial project in an area of interest as proposed in SE 414. The resulting project, in conjunction with a faculty member, can include work conducted with companies in the area. The culmination of this course is a major presentation of project results.

**SE 426 Web Services**  
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours  
Prerequisite: SE 255  
Students will learn how to design and build web services using the .NET framework. The course covers an introduction to web services as well as topics such as XPath, Web Services Description Language (WSDL), JSON and Windows Communication Foundation.

**SE 427 Cooperative Learning II**  
33 Field Hours 11 Quarter Credit Hours  
Prerequisites: Requires Department Chair approval and SE 410  
This course allows students to continue and expand on the experiences started in the SE 410 course. Here, hopefully in the same public or private sector organization, students increase the scope and depth of their real world technical experiences.

**SE 428 Emerging Technologies in Software Engineering and Web Development**  
3 Class Hours 3 Quarter Credit Hours  
This course is a discussion of emerging and future technologies that are likely to impact the industry. Students will study a variety of emerging technologies, write a paper on a topic of interest and present this paper to their peers.
Courses are listed alphabetically by course code.

**SO 203 Social Problems**
4 Class Hours 4 Quarter Credit Hours
This course will examine contemporary social issues from multiple perspectives. Attempts to see the ethics, the arguments and the policy outcomes involved in problems such as drug abuse, crime, poverty and the global environment.

**SO 220 Internet and Society**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: B- or better in EN 102
Internet and Society is an online course that focuses on the impact of the Internet on our lives. The goal of this course is to encourage students to think deeply and critically about the reality of living in a technology-driven society and how technological change influences work, families, social lives, education, and privacy.

**SO 231 Crime and Deviance**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course will examine the historical development of crime and deviance. A review of the social, physiological, and psychological theories of crime are examined. Topics such as the history of policing and the history of corrections are also reviewed.

**SO 321 Sociology of Aging**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course provides an overview of the significant sociological perspectives, social issues, and social science research pertaining to the phenomenon of aging in society. The course will 1) examine the major theories of social aging, 2) analyze the changing demographic trends and the political economy issues facing aging societies; 3) describe how the broader societal context affects the nature of family relationships, community involvement, and the experiences of retirement and widowhood among the elderly; and 4) examine the current issues in health and social service delivery for care of the elderly.

**SO 333 Sport in Society**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
While most people see sport as an “escape” from life’s pressures, in reality, sport plays a significant role in modern life and is connected to issues of power, money and culture. In this class, we will look at modern sport practices as they reflect these dimensions of society. We will look substantively at issues such as discrimination in sport, violence in sport, money in sport and sport and politics. The course will help students gain a more complete understanding of this increasingly important social institution.

**SO 461 Language and Society**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course provides students with knowledge about the role that language plays in our cognitive and social development in order to give us greater power over our interactions with others at home, at work, and elsewhere. Topics covered include: how we speak and why; is language biological or cultural; do men and women speak differently; and what is the connection between language and thought.

**SPANISH (ARTS/FOREIGN LANGUAGE CORE)**

**SP 201 Introduction to Spanish**
4 Class Hours 4 Quarter Credit Hours
This course will introduce students to the Spanish language with an emphasis on the use of Spanish in the workplace. Students will learn to communicate with customers and other employees in Spanish with a focus on basic vocabulary words used in everyday interactions at the workplace. Topics covered include: conversational skills as well as key principles of Spanish grammar and cultural traditions in Spanish-speaking countries. The course is designed for students with no prior knowledge of Spanish. Students who speak Spanish fluently will not be eligible to take the course.

**SP 203 Spanish for Healthcare Workers**
4 Class Hours 4 Quarter Credit Hours
This course will introduce students to the Spanish language with an emphasis on the use of Spanish in the workplace. Students will learn to communicate with Spanish speaking patient and family and other employees in Spanish with a focus on basic vocabulary words used in everyday interactions at the workplace. While each class will emphasize conversational skills, the course will also cover some key principles of Spanish grammar and provide some exposure to a variety of cultural traditions in Spanish-speaking countries. The course is designed for students with no prior knowledge of Spanish.

**SOCIAL SCIENCES (SOCIAL SCIENCES CORE)**

**SS 140 Criminal Investigations**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
In this course, students will get exposure to a wide range of interpersonal and scientific factors that are explored by criminal investigators in their efforts to support hypotheses developed to solve a variety of crimes. Some of the course topics will include the appropriate collection of evidence at a crime scene, techniques for interviewing witnesses and suspects, the role of the crime lab, the science of fingerprinting, forensic medicine, and the preparation of testimony that leads to the conviction of criminals.

**SS 201 American Government in Action**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This is an introductory course that will help students understand how the pieces of American government fit together, and how politics continuously affects their lives. Students will examine the roles of interest groups, the media, political parties and the three branches of government. Class discussions about relevant and current political issues will be encouraged.

**SS 203 Terrorism and National Security**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This course examines the challenge contemporary terrorism presents for U.S. national security. It investigates the causes of terrorism and inquires into the motives, objectives, methods, and effectiveness of contemporary terrorist groups with an emphasis on al Qaeda. Analysis of the determinants of American counter-terrorism policies and evaluation of the effectiveness of these initiatives are central themes of the course. As such, evaluation of the roles the invasion of Afghanistan, the Iraq War, covert operations, domestic and foreign internal security initiatives, and global law enforcement operations have played in addressing the terrorist threat are major points of emphasis.
SS 204 Juvenile Justice System in America
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
The course is designed to explore the components of the juvenile justice system in America. The various features, characteristics, policies and concerns about the juvenile justice system are carefully examined. As part of the review, adolescent behavior and influence of the family dynamic will be discussed. The detention of juveniles, the various programs focused on the diversion of youths from the juvenile justice system, rehabilitation programs and prevention programs will also be reviewed.

SS 206 Constitutional Values in the 21st Century
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
This course is an introduction to constitutional law and will utilize a historical examination of major United States Supreme Court decisions to better understand contemporary federal and state judicial interpretations of constitutional theory and individual freedoms. It will focus on government powers, the federal court system and judicial review. It will also closely examine those individual freedoms guaranteed under the Bill of Rights, and will critically analyze the controversial issues of gun control and the death penalty. Students will also understand how the interpretation of the Constitution involves the application of individual and societal values. These topics will be reinforced through case briefs, persuasive essays, current event worksheets, group activities, debates and media presentations.

SS 221 Technology and American Life
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
The course, based on abstract thinking and analysis, examines the interactive relationship between technology and society over historic time and across geographic space. The class will address basic questions about technology and its place in society. Students will be able to evaluate the impact of social change on their lives, and the impact of their technology on changing the social system.

SS 301 U.S. Foreign Policy Challenges
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course examines critical contemporary foreign policy challenges facing the United States and American responses to these developments. Key issues addressed will include the dilemmas of responding effectively to Arab-Israeli conflict, rampant anti-Americanism, foreign economic competition, nuclear proliferation, and terrorism. Students will investigate how these issues influence American national interests as well as the costs and benefits of a variety of policy options available for responding to them.

SS 302 The United States Legal System
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course will critically analyze whether the American legal system is truly providing equal justices for all members of our society. We will examine how legal disputes are handled and the influences that shape the structure, process and personnel of the legal system.

SS 303 Communication in the Global Workplace
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331 or its equivalent
This course is designed to acquaint students with intercultural communication issues that arise in the workplace, culminating in a final project: making a business/occupational presentation to an audience from another culture.

SS 304 Contemporary Social Issues
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 331
This course will examine contemporary social issues from multiple perspectives. Attempts to see the ethics, the arguments and the policy outcomes involved in problems such as drug abuse, crime, poverty and the global environment.

SS 350 Everything is a Negotiation
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 102
Program Restriction: This course not open to students in the Business Management Technology program. This course is intended to help students develop the skills they need to successfully negotiate their way through their work situations. Students will practice both face-to-face negotiations and negotiations carried on electronically.
Courses are listed alphabetically by course code.

**ST 130 Surgical Procedures I**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: ST 120, BIO 122  
Fundamentals of surgical patient care essential to the work in the surgical suite are presented in class. Selected topics included are wound healing, environmental design and safety, biohazards, care of specimens, preparing and functioning in a sterile field, needle and suture classification, draping, legal responsibilities, and skill acquisition in gowning and gloving. Roles of team members in the operating room are highlighted.

**ST 131 Surgical Procedures I Lab**  
6 Lab Hours 3 Quarter Credit Hours  
Prerequisites: ST 120, BIO 122  
Students practice topics covered in ST 130. Skill acquisition and instrument handling are stressed. The on-campus laboratory is open to students for additional practice.

**ST 200 Surgical Procedures II**  
4 Class Hours 4 Quarter Credit Hours  
Prerequisites: Completion of the first academic year including general education courses  
The knowledge, skills and professional behavior of a surgical technologist are developed in this course. It describes common health problems requiring surgical intervention, surgical procedures, interoperative complications, instrumentation supplies, and aseptic and special techniques. Surgery of the abdomen, genitourinary, operative obstetrics, gynecological surgery, cancer (breast) surgery, orthopedic surgery and interoperative medications are some of the topics presented.

**ST 201 Surgical Procedures II Lab**  
6 Lab Hours 3 Quarter Credit Hours (5 Week Course)  
Prerequisites: Completion of first academic year and eligible for clinical placement.  
Laboratory practice of topics presented in ST 200 Surgical Procedures II leading to skill acquisition.

**ST 203 Professional Communication Skills**  
1 Class Hour 1 Quarter Credit Hour (5 Week Course)  
Prerequisites: Completion of the first academic year including general education courses and completion of ST 201  
Co-requisite: ST 204  
The course will cover topics in conflict resolution, teamwork, and group dynamics. Clinical topics will also be discussed.

**ST 204 Operating Room Laboratory I**  
12 Lab Hours 4 Quarter Credit Hours (5 Week Course)  
Prerequisites: Completion of the first academic year including general education courses and completion of ST 201  
Co-requisite: ST 203  
Practicum is a pre-arranged scheduled experience in the operating room for the student surgical technologist. It provides the student with the actual experience in the following areas: teamwork, flexibility, organization, economy of time, and motion and materials. The preparation of all supplies and equipment used for surgical procedures in the operating room is also included.

**ST 205 Advanced Topics in Surgical Technology**  
1 Class Hour 1 Quarter Credit Hour  
Prerequisite: ST 200  
This course includes basic terms and principles of electricity, physics, and robotics as they relate to safe patient care practices in the surgical environment.

**ST 220 Operating Room Laboratory II**  
24 Lab Hours 8 Quarter Credit Hours  
Prerequisites: ST 200, ST 204  
Co-requisite: ST 223  
A pre-arranged, scheduled experience in the operating room for the student surgical technologist. It provides the student with actual experience in teamwork, flexibility, organization, economy in time, motion and materials and preparation of supplies and equipment used in the operating room. A student will experience scrubbing first and second scrub roles on surgical procedures under the supervision of operating room personnel or instructor.

**ST 222 Surgical Seminar I**  
1 Class Hour 1 Quarter Credit Hour  
Prerequisites: ST 200, ST 203  
Co-requisite: ST 222  
Current topics in surgery will be presented. In addition, students will combine their surgical technology theory with their clinical experience through various methods of instruction.

**ST 230 Operating Room Laboratory III**  
12 Lab Hours 4 Quarter Credit Hours (5 Week Course)  
Offered in the Winter and Summer Quarters only  
Prerequisites: Completion of Quarters I-V including all general education courses  
Co-requisite: ST 233  
Students gain clinical experience in affiliated hospital operating rooms during various surgical procedures. Scrub skills during these various procedures are the focus of this experience. Previously learned concepts and procedures are applied daily during operative procedures.

**ST 232 Advanced Applications of Surgical Technology**  
6 Class Hours 6 Quarter Credit Hours  
Offered in the Winter and Summer Quarters only  
This course is the culmination of the surgical technology program of study. Knowledge from all core ST courses is integrated for a total application of principles acquired in the technology. Fast-breaking developments in the field will be approached as well as review of fundamental axioms. Only students who have completed Quarters I through V may enroll.

**ST 233 Surgical Seminar II**  
2 Class Hours 2 Quarter Credit Hours (5 week course)  
Prerequisite: Completion of Quarters I-V including all general education courses  
Co-requisite: ST 230  
This is a continuation of ST 223. Students will be required to do a research paper on a surgically related topic. A more in depth look at the surgical procedures that the students are performing in the field will be discussed.
**TRANSPORTATION TECHNOLOGY**

**TT 105 Introduction to Transportation Technology**
2 Class Hours 2 Quarter Credit Hours
This course is designed for the incoming student to familiarize him/her with the operation of the Automotive/Automotive Collision Repair and Marine labs and programs. Students will be introduced to the potential job opportunities and the working environments of the different Transportation Technologies. Students will become familiar with the tools used in the repair of transportation vehicles and safety practices to be used. Students will also practice information retrieval as well as record keeping. Topics covered are safety in the lab, measuring tools, service manuals, computerized information retrieval, tool identification and use, and fastener identification and uses. Students will also be asked to demonstrate proficiency using shop equipment such as lifts, racks, jacks and jack stands.

**VETERINARY TECHNOLOGY**

**VET 110 Introduction to Veterinary Technology**
4 Class Hours 4 Quarter Credit Hours
This course prepares the veterinary technology student with the foundational knowledge necessary to succeed in veterinary technology courses as well as the role of veterinary technicians as members of the veterinary health care team. It includes the role of veterinary technicians in clinics, hospitals, and research labs; medical terminology; professional ethics and legal regulation; pet loss, bereavement and euthanasia; occupational hazards; and professional organizations.

**VET 112 Veterinary Anatomy and Physiology I**
3 Class Hours 3 Quarter Credit Hours
This course is the first of two courses where the veterinary technology student will comprehensively study the structure and function of the animal body. Topics will include the fundamentals of chemistry, dynamic equilibrium between the animal’s body and the external environment, levels of organization in the animal body, properties and distribution of body fluids, the components of blood, and the integumentary, musculoskeletal and cardiovascular systems.

**VET 113 Veterinary Anatomy and Physiology I Lab**
3 Lab Hours 1 Quarter Credit Hour
The laboratory is designed to assist in learning the material presented in Veterinary Anatomy and Physiology I lecture through hands-on activities which will include examination of cells and tissues under a microscope, bones, anatomical models, and dissection of animal specimens. Units covered include general introductory material, histology, integumentary system, skeletal system, muscular system, and the cardiovascular system.

**VET 120 Animal Management**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: VET 110
This course covers the care and management of companion animals, exotic animals, ruminants, horses, and poultry. Emphasis will be on husbandry including handling, care, feeding, breeding, behavior, and disease prevention.

**VET 122 Veterinary Anatomy and Physiology II**
3 Class Hours 3 Quarter Credit Hours
Prerequisite: VET 112
A continuation of Veterinary Anatomy and Physiology I, this course concentrates on the digestive system, respiratory system, endocrine system, urinary system, reproductive systems. Also covered are the special senses, and the anatomy and physiology of birds, reptiles and amphibians.

**VET 123 Veterinary Anatomy and Physiology II Lab**
3 Lab Hours 1 Quarter Credit Hour
Prerequisite: VET 113
The laboratory is designed to assist in learning the material presented in Veterinary Anatomy & Physiology II lecture through hands-on activities which will include preparation and examination of blood cells under a microscope, anatomical models, and dissection of animal specimens. Units covered include the sensory organs, nervous system, respiratory system, digestive system, urinary system, reproductive system, endocrine system, and avian anatomy.

**VET 130 Veterinary Pharmacology**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: VET 122/123, MA 100/110
Principles of veterinary pharmacology including pharmacokinetics, pharmacodynamics, drug indications, side effects, contraindications and practical applications of drugs including drug handling, dosing calculation, administration methods, prescription writing and terminology.

**VET 137 Laboratory Animal Technology and Lab**
2 Class Hours 3 Lab Hours 3 Quarter Credit Hours
Prerequisites: VET 122/123
This course introduces the field of laboratory animal science, with an emphasis on the biology, breeding, care, management, health, research use, and welfare of laboratory animal species. The laboratory portion of the course reinforces important concepts and principles, and engaging students in the following: measurements in laboratory animal science, biomethodology of the mouse, rat, and rabbit including handling, restraint, oral gavage, injections, anesthesia, surgical techniques, euthanasia, necropsy, and other techniques.

**VET 138 Veterinary Practicum I**
6 Lab Hours 2 Quarter Credit Hours
Prerequisites: VET 120 and permission of Veterinary Technology Program Director
Practicum: This is an introductory structured practical experience in the application of veterinary technology at an off-campus site which may include a veterinary hospital, clinic, animal research facility, or other appropriate site. The student works under the supervision of a veterinarian or credentialed veterinary technician while mastering the appropriate “essential skills” required by the American Veterinary Medical Association. Practical experience will include rotations through local veterinary facilities and may occur on days/times other than scheduled class days.

**VET 240 Animal Diseases**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: VET 122/123
This course covers the principles of disease as they apply to veterinary medicine. Topics include classification of causes of disease, response to injury, sources and transmission of agents of disease, common diseases of companion, farm, avian, and exotic animals. Additionally, students will study veterinary parasitology, toxicology and the epidemiology of major zoonotic diseases.

**VET 242 Animal Nursing**
4 Class Hours 4 Quarter Credit Hours
Prerequisite: VET 137
Co-requisite: VET 243
This course introduces clinical skills for the veterinary technician. Topics include handling and restraint, general nursing care of the patient, examination room procedures, drug administration, client education and communication. Additional clinical nursing skills covered include venipuncture, bandaging, electrocardiograph recording and other clinical techniques. Veterinary nursing procedures and teamwork are emphasized.
Courses are listed alphabetically by course code.

**VET 243 Small Animal Nursing Lab**
3 Lab Hours 1 Quarter Credit Hour
Prerequisite: VET 137
This laboratory provides hands-on experience in clinical skills for the veterinary technician including handling, restraint, general nursing care of the patient, examination room procedures, drug administration, client education and communication. Additional clinical nursing skills covered include venipuncture, bandaging, electrocardiograph recording and other clinical techniques. Veterinary nursing procedures and teamwork are emphasized. Practical experience through rotations at off-campus facilities may be required.

**VET 248 Veterinary Practicum II**
6 Lab Hours 2 Quarter Credit Hours
Practicum: This continuation of VET 138 is a practical experience in the application of veterinary technology at an off-campus site which may include a veterinary hospital, clinic, animal research facility, or other appropriate site. The student works under the supervision of a veterinarian or credentialed veterinary technician while mastering the appropriate “essential skills” required by the American Veterinary Medical Association. Practical experience will include rotations through local veterinary facilities and may occur on days/times other than scheduled class days.

**VET 250 Large Animal Nursing Laboratory**
3 Lab Hours 1 Quarter Credit Hour
Prerequisite: VET 130
This laboratory provides hands-on experience in equine and bovine techniques including handling & restraint, husbandry, collecting diagnostic specimens, bandaging, and equine radiography. Practical experience through rotations at off-campus farms will be required.

**VET 252 Veterinary Imaging**
3 Class Hours 3 Quarter Credit Hours
Prerequisites: VET 242 & VET 243
Co-requisite: VET 253
This course provides knowledge of the basic concepts of veterinary radiology including x-ray generation, image recording, film handling and processing, positioning and restraint, radiation safety, and special procedures.

**VET 253 Veterinary Imaging Laboratory**
3 Lab Hours 1 Quarter Credit Hour
Prerequisites: VET 242, VET 243
Co-requisite: VET 252
This laboratory provides hands-on experience with the entry-level skills for veterinary technicians in radiology including x-ray generation, image recording, film handling, film processing, positioning, restraint, special procedures, radiation safety, ultrasonography and endoscopy.

**VET 254 Veterinary Anesthesia and Surgical Nursing and Lab**
4 Class Hours 3 Lab Hours 5 Quarter Credit Hours
Prerequisites: VET 242, VET 243
This course provides knowledge and practical experience in surgical assisting, postoperative care, and anesthesiology. Topics include anesthesia administration and monitoring, anesthetic and surgical instrumentation, preparation of the surgical patient, preparation of the surgeon and surgical assistant, dentistry, and postoperative monitoring. **Practical experience may include rotations through local veterinary facilities and may occur on days/times other than scheduled class days.** Overtime in the lab may occur due to prolonged patient recovery from anesthesia.

**VET 258 Veterinary Practicum III**
6 Lab Hours 2 Quarter Credit Hours
Prerequisite: VET 248
Practicum: This continuation of VET 248 is a practical experience in the application of veterinary technology at an off-campus site which may include a veterinary hospital, clinic, animal research facility, or other appropriate site. The student works under the supervision of a veterinarian or credentialed veterinary technician while mastering the appropriate “essential skills” required by the American Veterinary Medical Association. **Practical experience will include rotations through local veterinary facilities and may occur on days/times other than scheduled class days.**

**VET 260 Veterinary Management**
3 Class Hours 3 Lab Hours 4 Quarter Credit Hours
Prerequisite: VET 254
This course provides knowledge of economics in veterinary practice, management of veterinary facilities, technician utilization, marketing, record keeping, inventory control, professional ethics, malpractice issues, medical emergency management, OSHA standards, practice safety, client communication and bereavement.

**VET 262 Veterinary Clinical Laboratory Procedures**
4 Class Hours 4 Quarter Credit Hours
Prerequisites: VET 254, VET 255
Co-requisite: VET 263
This course provides study in the principles and procedures for the veterinary practice laboratory. Topics include veterinary parasitology, microbiology, immunology, hematology, cytology, urinalysis, and blood chemistry.

**VET 263 Veterinary Clinical Laboratory Procedures Laboratory**
3 Lab Hours 1 Credit Hour
Prerequisites: VET 254, VET 255
Co-requisite: VET 262
This laboratory provides hands-on experience in veterinary clinical laboratory procedures including veterinary parasitology, microbiology, immunology, hematology, cytology, urinalysis, and blood chemistry.

**VET 268 Veterinary Practicum IV**
6 Lab Hours 2 Quarter Credit Hours
Practicum: This continuation of VET 258 is a practical experience in the application of veterinary technology at an off-campus site which may include a veterinary hospital, clinic, animal research facility, or other appropriate site. The student works under the supervision of a veterinarian or credentialed veterinary technician while mastering the appropriate “essential skills” required by the American Veterinary Medical Association. **Practical experience will include rotations through local veterinary facilities and may occur on days/times other than scheduled class days.**
VIDEO GAME DESIGN

VGD 133 3D Modeling I
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: MWD 112
This course will cover the fundamentals of rendering, animation, and modeling using Autodesk’s 3ds Max. It will start with the application’s basics, then go on to discuss many of the key features of 3ds Max, including an emphasis on creating low-polygon static objects optimized for video game use. The topics taught in this course include creating and modifying a mesh through polygon and spline modeling, applying modifiers, unwrapping an object and creating custom texture maps.

VGD 242 3D Modeling II
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: VGD 133
This course will provide advanced training in computer modeling and rendering and animation. Topics covered along with advanced modeling techniques include advanced materials, lighting, and levels of detail. Autodesk’s Mudbox will also be incorporated into the model development pipeline for texture map and model creation.

VGD 244 Unity I
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
This course will provide a foundation in the tools, techniques, and production methods for creating game environments and successfully using Unity 3D in a production situations.

VGD 253 3D Modeling III
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: VGD 242
The emphasis of this course is the design and development of low-polygon 3D characters. The course’s emphasis will be on character rigging for animation utilizing standard bones along with 3ds Max’s Biped and CAT. Rigging fundamentals will include forward and inverse kinematics, vertex assignment and mesh weighting. Finished models with rigs will be ready for creating animations and implementation into game engines.

VGD 255 Unity II
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
Prerequisite: VGD 244
This course will expand the use of the Unity3D tool in a production. Students will use JavaScript, C#, to enhance interactivity and gameplay, while also deploying characters, objects, sounds and textures required for the development of a basic 3D game.

VGD 257 Animation I
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course addresses the core fundamentals, history and terminology of traditional animation using modern video game and interactive media production techniques as the context. The goal of this course is not only to teach students technical skills, but also to help them form a rich understanding of animation concepts that can be utilized regardless of future technological capabilities and limitations. Examples of animation from film, television, games and websites will be shown and discussed frequently throughout this course to demonstrate and reinforce key points. Industry standard 2D and 3D content creation tools will be utilized to aid students in demonstrating their understanding of the topics covered.

VGD 259 Storyboard and Design
2 Class Hours 2 Lab Hours 3 Quarter Credit Hours
This course introduces students to the concepts and techniques of visual storytelling through storyboard rendering. Students will execute storyboards of simple sequence events through to cinematic scenes. The class also covers storyboard pitching and presentation techniques. Students will also learn basic principles of design, composition and layout.

VGD 263 Digital Audio and Video Editing
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: GDS 137, VGD 253, VGD 255
This course is designed to challenge the organizational and design skills of a VGD student. Students will be part of a small development team of designer and programmers, and tasked with producing the material assets necessary to complete a full game product.

VGD 269 Game Studio for Game Designers
6 Lab Hours 3 Quarter Credit Hours
Prerequisites: GDS 137, VGD 253, VGD 255
This course is designed to challenge the organizational and design skills of a VGD student. Students will be part of a small development team of designer and programmers, and tasked with producing the material assets necessary to complete a full game product.
Board of Trustees

**Thomas J. Celona**  
North Kingstown, RI  
B.S., Bryant University – 1969  
President and Owner, Thrifty Car Sales

**William Croasdale, Vice Chairman**  
Kingston, RI  
B.A., University of Rhode Island – 1959  
M.S., University of Pennsylvania – 1962  
Ed.D., Columbia University – 1966  
Professor Emeritus – University of Rhode Island

**Joseph DeAngelis, Esq.**  
Cranston, RI  
B.A., Providence College – 1968  
J.D., Suffolk University Law School – 1973  
Lawyer and partner in the firm of Adler Pollock & Sheehan P.C.  
Professor Emeritus – University of Rhode Island

**Francis X. Flaherty, Esq.**  
Warwick, RI  
B.A., Providence College – 1968  
J.D., Suffolk University Law School – 1975  
Justice, Supreme Court of the State of Rhode Island  
Professor Emeritus – University of Rhode Island

**Marcia R. Gilman – Emerita**  
Palm Beach, FL  
B.A., Simmons College – 1942  
Administration:  
Founding Member: National Association of Trade and Technical Schools (NATTS)

**Richard I. Gouse**  
Barrington, RI  
B.A., Brown University – 1968  
University of Poitiers, France  
President, New England Institute of Technology

**Phillip Kydd**  
Warwick, RI  
B.A., University of Rhode Island – 1981  
Deputy Director, Rhode Island Department of Transportation

**Seth A. Kurn**  
Providence, RI  
B.A., Brown University  
M.B.A., University of Massachusetts  
Executive Vice President, New England Institute of Technology

**Steven L. Meltzer, Esq., Chairman**  
Potomac, MD  
B.A., Brown University – 1968  
J.D., Harvard University Law School – 1973  
M.B.A., Harvard University Business School – 1973  
Lawyer and partner in the firm of Pillsbury Winthrop Shaw Pittman LLP  
Washington, D.C.

**William H. Rizzini**  
Bristol, RI  
B.A., Providence College – 1955  
M.A., University of Rhode Island – 1965  
M.Ed., Rhode Island College – 1972  
President Emeritus, Roger Williams University
Administrative Staff
Executive Committee of the College

Richard I. Gouse
President
B.A., Brown University
University of Poitiers, France

Cheryl C. Connors
Senior Vice President for Financial Affairs and Endowment Management
B.A., Brown University
M.A., Brown University
B.S., Roger Williams College, Accounting

Catherine Kennedy
Vice President for Student Support Services
B.A., University of Rhode Island
M.A., Rhode Island College

Steven H. Kitchin
Vice President for Corporate Education and Training
B.A., Rhode Island College

Seth A. Kurn
Executive Vice President
B.A., Brown University
M.B.A., University of Massachusetts

Philip G. Parsons, Esq.
Vice President and General Counsel
B.A., University of Rhode Island
M.A., University of Rhode Island
J.D., New England School of Law

Robert R. Theroux
Vice President of Finance and Business Administration
B.S., Bryant College
M.B.A., Bryant College

Thomas F. Wylie
Senior Vice President and Provost
A.A.S., Mohawk Valley Community College
B.A., State University of New York at Buffalo
M.A., University of Massachusetts
Ed.D., University of Massachusetts

Douglas H. Sherman
Associate Provost and Special Assistant to the President
B.S., University of Rhode Island
M.S., University of Rhode Island
COLLEGE DIRECTORIES
Other administrative staff follow in alphabetical order.

Paola Allen
Administrative Assistant, Student Accounts
MTTI
Becker Junior College

Karen Arnold Schultz
Assistant Provost
B.A., St. Mary’s College of Maryland
M.S., University of Rhode Island

Stanley Bailey
Chief Information Officer
B.A., Northern Michigan University
B.S., Rhode Island College
M.B.A., Bryant University

Caitlin Beagan
Records Coordinator
B.A., Franklin Pierce University

Michele Berard
Financial Aid Officer
Rhode Island College

Patricia A. Blakemore
Director of Career Services
A.S., Hesser College
B.A., Bryant College

Lauren Blanchette
Admissions Officer
B.S., New England Institute of Technology

Mary Boiani
Assistant to the Registrar
Plus School of Business

Cheryl-Anne Booker
Training Coordinator, Center for Technology and Industry
University of Rhode Island
B.S., New England Institute of Technology

Laura Bourgeois
High School Representative
B.A., Roger Williams University
M.A., Assumption College

Laurence Bouthillier
Director of Online Learning
B.A., University of Rhode Island

J. Benjamin Bradley
Director of Clinical Sites
A.S., Community College of Rhode Island
B.S., University of Rhode Island

Linda Braleewski
Human Resources Representative
Sawyer School
A.S., New England Institute of Technology

Carol F. Brawn
Math Tutor, Academic Skills Center
University of Rhode Island

Joan Bundy
Assistant Loan Coordinator

Matthew Campanelli
High School Representative
B.A., Williams College
M.P.E., Springfield College

Michael Caruso, Jr.
National Admissions Coordinator
Assistant Admissions Director
A.S., Johnson & Wales College
B.S., Johnson & Wales College

Sharon J. Charette
Assistant to the Provost
B.A., Rhode Island College
M.L.S., University of Rhode Island

Linda Chevian
Registration Coordinator
B.A., University of Rhode Island

Keri Cioe
Admissions Officer
A.S., New England Institute of Technology

Donna J. Clark
Operation Specialist, MIS
B.S., New England Institute of Technology

Patrick Collins
Payroll Accountant
B.S.A., Bryant College

Rebecca Cote
Assistant Registrar
B.A., Eastern Nazarene College
M.S., Long Island University

Loni R. Cramer
Program Analyst
B.A., University of Minnesota – Twin Cities

Donna Daigle
Office Manager, Office of Teaching and Learning
A.S., New England Institute of Technology

Anne-Marie Dean
Student Advisor
B.S., Rhode Island College
M.Ed., Providence College

Bridget Dessaint
Coordinator of Assessment and Placement
A.S., Providence College
M.A., Assumption College

Karen Devine
Future Starts Coordinator, Admissions Office
Community College of Rhode Island

Kathleen Dohoney
Career Services Advisor
B.S., Bryant University

Melanie Donnachie
Lab Assistant / Clinical Site Coordinator
A.S., St. Petersburg College
B.S., Purdue University
Sherry L. Dow-Clukey  
Accounts Receivable Coordinator  
New England Institute of Technology

Meaghan E. Estes  
High School Representative  
B.S., University of New Hampshire

Catherine A. Fabrizi  
International Student Advisor  
Hampshire College  
B.A., Rhode Island College

Maxine L. Factor  
Mail and Records Coordinator  
Johnson & Wales University

Eileen S. Flaherty  
Collections Coordinator  
Johnson & Wales University

Rhonda Foley  
Manager of Admissions Outreach and Events  
B.A., Rhode Island College  
M.Ed., Rhode Island College

Anthony Fossa  
Student Accounts Representative  
B.A., Brown University

Jodi Furtado  
Admissions Communication Coordinator  
B.S., New England Institute of Technology

Deana Games  
Lab Assistant, Electrical Technology  
A.S., New England Institute of Technology

Yrleni Garcia  
Administrative Assistant, Access Road  
A.S., New England Institute of Technology

John Gauthier  
Assessment and Placement Advisor  
B.A., Rhode Island College

Shirl Creighton Gerlach  
Career Services Advisor  
B.A., University of San Diego

Frederick Gill  
Project Manager

Linda Gizzarelli  
International Admissions Specialist  
Community College of Rhode Island

Robert Goulet  
Facilities Manager

James Graves  
Automotive Lab Assistant  
Rhode Island Trades Shops School

Lori Graves  
Financial Aid Officer  
B.S., Rhode Island College

Melissa Hague  
Student Activities Coordinator  
B.S., University of Rhode Island

Rosanne Hammond  
Lab Assistant, Physical Therapist Assistant Technology  
A.A.S., Becker College  
B.A., Rhode Island College

Marjorie Hewitt  
High School Representative  
B.S., Bridgewater State College  
M.A., Fairfield University

Rachel Hill  
Director of Clinical Education  
B.S., Worcester State College  
M.S., Boston University

Elaine Hopkins  
Registration Coordinator  
B.A., Providence College  
M.A., Providence College

Erica Hoyt  
High School Representative  
B.A., University of North Carolina, Asheville  
M.A., Johnson State College

James Jessup  
Director of Admissions  
A.S., Platt College  
Everest College

Anna Kelly  
Director of Financial Aid  
B.A., Massachusetts College of Liberal Arts  
M.P.A., Northeastern University  
C.A.G.S., Suffolk University

Kay Kimball Gruder  
High School Representative  
B.A., Bennington College  
M.Ed., Lesley College

Jessie LaBerge  
College Work Study Coordinator  
Rhode Island College

Robert J. Larrabee  
Senior Account Executive  
B.S., New England Institute of Technology

Doreen Lasiewski  
Registrar  
B.A., Montclair State College  
M.A., Johnson State College  
Ed.D., University of Massachusetts, Boston

David Lincoln  
Admissions Officer  
B.A., Ambassador College

Cheryl Lloyd  
Lab Assistant, Clinical Medical Assistant Technology  
A.S., New England Institute of Technology

David Loranger  
Admissions Officer  
A.A., Bristol Community College  
B.A., University of Massachusetts at Dartmouth
Cheryl MacDonald
Fiscal Office Administrator
Community College of Rhode Island
New England Institute of Technology

Mark Mainella
High School Representative

Lauren Malinowitzer
High School Representative
A.A., Suffolk Community College
B.A., Dowling College

Robert Mammona
Student Advisor
B.A., Western Connecticut State University
M.A., Sacred Heart University

Michael Markarian
Director of Plumbing/Heating/Refrigeration Air Conditioning
A.S., Burdett College
B.S., Suffolk University
M.B.A., Suffolk University

Cheryl Maynard
Admissions Resource Coordinator
Community College of Rhode Island

William Menard
Purchasing Agent
A.S., Community College of Rhode Island

Amanda Metzger
Special Events Coordinator, Admissions Office
Moorpark College

Antonio M. Monteiro
Collection Assistant, Student Accounts
Community College of Rhode Island

Eddie Morales
Network Assistant, MIS
B.S., New England Institute of Technology

Karen Morgenstein
Lab Assistant, Occupational Therapy Assistant Technology
A.A.S., Erie Community College

Donna L. Morin
Admissions Coordinator

Pierre R. Morin
Director of Student Accounts
B.S., Providence College

Mary Ann Neary
Student Advisor
B.A., University of Bridgeport
M.Ed., Rhode Island College

Kaila Nicolia
High School Representative
B.A., Newbury College

Theresa Noe
Administrative Assistant to the President
Lynn Benton Community College

Jeffrey P. Norman
Outside Admissions Officer
B.A., University of Rhode Island

Shonna-Jene O'Neill
Student Loan Coordinator
A.S., International Fine Arts College
New England Institute of Technology

Michelle Paiva
Bookstore Manager
B.S., Elon College

Cynthia A. Pankiewicz
Catalog Librarian
B.A., University of Rhode Island
M.L.S., University of Rhode Island

Lisa Pecchia
Financial Aid Officer

Leslie Peck
Marketing Director
Katharine Gibbs School
Northeast Broadcasting School
Emerson College

Lee Peebles
Director of Student Life
B.S., University of Rhode Island
M.S., University of Rhode Island

Carolyn A. Piette
Administrative Assistant Business Office
Sawyer School
A.S., New England Institute of Technology

Thomas F. Piette
Admissions Officer
B.A., Rhode Island College
M.A., Columbia University

Mary Preziosi
Network Administrator
B.S., University of Rhode Island

Denise Provost
Financial Aid Officer

Janice M. Pulsifer
Allied Health Clinical Coordinator
A.S., New England Institute of Technology

Francis M. Quinn
Supervisor of Buildings and Maintenance
New England Institute of Technology

Catherine Ratliff
Administrative Assistant, Financial Aid
Middlesex Community College

Brenda Reid
Registration Coordinator
A.S., New England Institute of Technology

Rebecca Renaud
Director of Scheduling, Registrar's Office
A.S., New England Institute of Technology
A.S., Community College of Rhode Island

Ann M. Ricci
Director of Academic Skills
B.S.N., Rhode Island College
M.Ed., University of Rhode Island

Maria Riccio
Assistant Director of Financial Aid
Katharine Gibbs School
Allied Technical Institute

Pamela Rossi
Assistant Director of Financial Aid
A.S., Community College of Rhode Island
Anne Ryan
Coordinator of the English Lab
B.S., State University of New York Cortland
M.S., Elmira College

Diane Sadlier
Assistant Director of Financial Aid
Costin’s Warwick Academy of Beauty Culture Inc.

Alfred Santaniello
Account Executive
B.A., Rhode Island College
M.Ed., Rhode Island College

Eric Schaper
High School Representative
Trident Technical College

Ellyn J. Scott
Student Advisor
B.A., University of Rhode Island
M.A., University of Rhode Island

Mark Seltzer
International Admissions Officer
B.A., Franconia College

Timothy Shirley
Student Advisor
B.A., Rhode Island College
M.A.T., Rhode Island College

Lorna Simpson
Loan Assistance Representative
Community College of Rhode Island

Cindy Skavron
Assistant Director Student Accounts
Nasson Institute

Andrea Smith
Administrative Assistant, Financial Aid
Rhode Island College

Michele Stabile
Admissions Officer
Rhode Island College
University of Rhode Island

Joseph Stelmach
Tool Room Attendant, Automotive Collision Repair/Marine Technologies

Carolyn Stiles
Operations Manager, MIS
B.S., New England Institute of Technology

Dawn Tanzi
Financial Aid Officer

Barbara Tassone
Admissions Officer

Kassandra Tate
Financial Aid Officer

Kerri Taylor
Administrative Assistant, Academic Skills Center
B.S., Johnson & Wales University

Norma Taylor
Admissions Officer
B.S., University of Rhode Island

Thomas Thibodeau
Assistant Provost
B.A., Rhode Island College
M.S., Boston University

Richard J. Tobin
Educational Technologist
A.S., New England Institute of Technology
B.S., New England Institute of Technology

Gerard Tonno
Director of Transportation Technologies
B.S., Ferris State University

Tara Totoro Rugg
Coordinator of High School Programs
B.A., Rhode Island College

Leslie E. Tracey
Technical Services Assistant, Library
B.A., Providence College

Patrick Tracey
Director of Auxiliary Services
A.A., Community College of Rhode Island

Nancy Ucci
Administrative Assistant, Admissions
Bryant College

Cheryl Walason
Veterans Representative
A.S., Community College of Rhode Island

Kimberly Wallace
Business Office Cashier
Nasson Institute

Susan Warthman
Director of the Library and Information Commons
B.A., Rhode Island College
M.L.I.S., Simmons College

Pamela Wilkinson
Administrative Assistant, Office of Teaching and Learning
A.S., Bryant College

Gina Winn
Senior Accountant
B.S., Johnson & Wales University
M.S., Johnson & Wales University

Richard Winstanley
Assistant Provost
B.A., Barrington College
M.B.A., Capella University

Julanne C. Wright
Assistant to the Fiscal Office
B.A., Colby College

Judy A. Zaino
Re-Entry Coordinator
A.S., Community College of Rhode Island
B.A., Providence College
DEPARTMENT CHAIRS

Architectural Building Engineering Technology/Interior Design
Philip Marks, Chair
Michael Hayes, Associate Chair

Automotive Technology/Automotive Collision Repair Technology/Marine Technology
Gerard Tonno, Director
Virgilio Tavares, Assistant Chair

Aviation Science Technology
Joseph Ranone, Program Coordinator

Building Construction Technology
Felix Carlone, Chair

Business Management Technology
Elizabeth C. Hoeh, Chair

Clinical Medical Assistant Technology
Jo-Ann Z. Fielding, Chair

Criminal Justice Technology
Raymond J. Angell III, Esq., Chair

Electrical Technology/Electrical Technology With Renewable Energy Systems
Margaret McKenna, Chair

Electronic Systems Engineering Technology/Electrical Engineering Technology/Mechanical Engineering Technology
Dean A. Plowman, Chair

Graphics, Multimedia and Web Design Technology
Warrick Mitchell, Chair

Humanities and Social Sciences
Robin Schutt, Ph.D., Chair
David Cranmer, Ph.D., Assistant Chair

Information Technology/Game Development and Simulation Programming Technology
Erik van Renselaar, Chair
Joseph Ranone, Associate Chair
E. Martin Truchon, Assistant Chair

Mathematics and Sciences
John Burger, Chair

Nursing
Darlene Del Prato, Ph.D., Director
David John Becker, Assistant Director of the RN Program

Occupational Therapy
Carol Doehler, Chair

Physical Therapist Assistant Technology
Laurie A. Miner, Ph.D., Chair

Plumbing, Heating, and Refrigeration/Air Conditioning Technologies
Michael Markarian, Director

Heating Technology
Ron Como, Chair

Refrigeration/Air Conditioning Technology
Richard J. Heffernan, Program Coordinator

Respiratory Care
Paul Mangino, Ed.D., Chair

Surgical Technology/Health Care Management
Lisa Reed, Chair

Veterinary Technology
Darlene Jones, DVM, Chair

Video and Audio Production Technology/Digital Recording Arts Technology
Thomas Strolla, Chair

FACULTY

Architectural Building Engineering Technology/Interior Design
Philip Marks
Associate Professor and Chair
B. of Arch. Eng., Southern Polytechnic State University
LEED AP

Michael Hayes
Assistant Professor and Associate Chair
B.A., University of Rhode Island
LEED AP

Mia Alwen
Assistant Professor
B.A., Hobart and William Smith Colleges
M.I.A., Rhode Island School of Design

Paul Champigny
Associate Professor
B.S., Roger Williams College
M.A., University of Rhode Island

Dawn Edmondson
Assistant Professor
B.S., Atlantic Union College
M.S., Goddard College

Eric Kirton
Associate Professor
A.S., Hartford State Technical College
B. of Arch., New York Institute of Technology
M. of Arch., University of Michigan

Thomas Lonardo
Assistant Professor
B. of Arch., University of Miami

Gordon W. Preiss
Assistant Professor
B.S.M.E., University of New Haven
M.S.M.E., University of Massachusetts
LEED AP
Paul Satas  
Assistant Professor  
B. of Arch., University of Illinois, Chicago

Henry Young  
Associate Professor  
B.S., Virginia Polytechnic Institute and State University  
M.S., University of Rhode Island  
LEED AP

Automotive Technology/Automotive Collision Repair Technology

Gerard Tonno  
Assistant Professor and Director  
A.A.S., Ferris State University  
B.S., Ferris State University

Virgilio Tavares  
Assistant Professor and Assistant Chair  
A.A., Community College of Rhode Island  
B.S., Rhode Island College

Christopher Bannister  
Professor  
B.S., Rhode Island College  
M.S., Rhode Island College

Manuel Couto  
Assistant Professor  
B.S., Rhode Island College  
M.S., Rhode Island College

Kevin DiGiovanni  
Assistant Professor  
B.S., Rhode Island College

Edwin Egge  
Assistant Professor  
B.S., Roger Williams College

Herbert A. Gowdey, Jr.  
Instructor  
B.S., Rhode Island College

Michael Isabella  
Assistant Professor  
B.S., Rhode Island College

Robert Kennedy  
Assistant Professor  
B.A., Rhode Island College

Mark Lite  
Assistant Professor  
B.S., Worcester Polytechnic Institute  
M.S., Lesley College

Raymond Mann  
Assistant Professor  
B.S., Rhode Island College

Derek Martel  
Assistant Professor  
A.S., New England Institute of Technology  
B.S., New England Institute of Technology

Norman F. Messinger, Jr.  
Assistant Professor  
A.A., Johnson and Wales College  
B.S., Rhode Island College

Daniel Perry, Jr.  
Instructor  
A.S., Ferris State University  
B.S., New England Institute of Technology

Ronald L. Potvin  
Assistant Professor  
B.S., Rhode Island College

Raymond Stevens, Jr.  
Assistant Professor  
B.S., Roger Williams University

Arthur Testa, Jr.  
Assistant Professor  
B.S., Rhode Island College

Aviation Science Technology

Joseph Ranone  
Associate Professor and Program Coordinator  
B.S., Johnson and Wales University  
M.S., Johnson and Wales University

Building Construction Technology

Felix Carlone  
Associate Professor and Chair  
B.S., University of Rhode Island

Joseph Sepe  
Instructor  
A.S., New England Institute of Technology  
B.S., New England Institute of Technology

Business Management Technology

Elizabeth C. Hoch  
Associate Professor and Chair  
B.A., Emmanuel College  
M.A.T., Rhode Island College

Heidi Allen  
Associate Professor  
B.A., Brown University  
M.Ed., Rhode Island College  
J.D., Suffolk University Law School

Daniel Peres  
Associate Professor  
B.A., Providence College  
M.B.A., Bryant University

Christine Stevens  
Associate Professor  
B.S., Pennsylvania State University  
M.B.A., University of Rhode Island

Clinical Medical Assistant Technology

Jo-Ann Z. Fielding  
Associate Professor and Chair  
B.S.N., Rhode Island College

Criminal Justice Technology

Raymond J. Angell III, Esq.  
Associate Professor and Chair  
B.S., Roger Williams University  
B.A., Rhode Island College  
J.D., Roger Williams University
Robin Winslow
Assistant Professor
B.S., Salve Regina University
M.S., Salve Regina University
M.A., University of Rhode Island

Electrical Technology/Electrical Technology with Renewable Energy Systems

Margaret McKenna
Professor and Chair
A.S., New England Institute of Technology
B.A., Barrington College
M.Ed., Rhode Island College
Master and Journey Electrician, RI

Michael T. Eggeman
Assistant Professor
A.S., New England Institute of Technology
B.S., University of Rhode Island

Lester A. Shulman
Instructor
B.A., University of Rhode Island
B.S., Roger Williams University

Paul V. Westrom
Associate Professor
B.S., New School for Social Research
M.S., Capella University
Journey Electrician, RI

Electronic Systems Engineering Technology/Electrical Engineering Technology

Dean A. Plowman
Assistant Professor and Chair
A.S., Community College of Rhode Island
Roger Williams College
B.S., University of Massachusetts, Dartmouth
M.B.A., Providence College

Antonio Coelho
Instructor
A.S., Community College of Rhode Island
B.S., University of Rhode Island
B.S., New England Institute of Technology

Terry Goffe
Associate Professor
A.S., New England Institute of Technology
B.S., New England Institute of Technology
M.Ed., Rhode Island College

Daniel Masterson
Associate Professor
B.S.E.E., Roger Williams University
M.S., Johnson and Wales University

Michael Recorvitz
Professor
A.S.E.E., Community College of Rhode Island
B.S., Rhode Island College
B.S.E.E.T., Roger Williams College
M.A., Rhode Island College

Graphics, Multimedia and Web Design Technology

Warrick Mitchell
Associate Professor and Chair
B.S., Boston University
M.S., Rhode Island College

Anthony Coletta
Assistant Professor
B.A., University of Massachusetts, Lowell
M.S., Marlboro College

John Szymkowicz
Assistant Professor
A.S., New England Institute of Technology
B.S., New England Institute of Technology
M.A., Rhode Island College

Humanities and Social Sciences

Robin Schutt
Associate Professor and Chair
B.A., University of Rhode Island
M.A., University of Rhode Island
Ph.D., University of Rhode Island

David Cranmer
Professor and Assistant Chair
B.A., Brown University
M.A., Cornell University
Ph.D., Cornell University

Suzanne Gemma
Assistant Professor
B.A., University of Rhode Island
J.D., Boston College

Sarah Holmes
Assistant Professor
B.A., State University of New York, Fredonia
M.A., State University of New York, Brockport
Ph.D., University of Rhode Island

Moira Keating
Assistant Professor
B.A., College of the Holy Cross
M.A., University of Rhode Island
Ph.D., University of Rhode Island

William Murphy
Assistant Professor
B.A., Harvard University
M.A., University of Pennsylvania
Ph.D., University of Pennsylvania

Joanne M. Walsh
Assistant Professor
B.S., St. Joseph’s University
Ph.D., New York University

Information Technology/Game Development and Simulation Programming Technology

Erik van Renselaar
Professor and Chair
M.S., University of Groningen, The Netherlands

Joseph Ranone
Associate Professor and Associate Chair
B.S., Johnson and Wales University
M.S., Johnson and Wales University
Mathematics and Sciences

John Burger
Professor and Chair
B.S., Rochester Institute of Technology
M.A., Rhode Island College

Robert Dubuc, Jr.
Associate Professor
B.A., Fordham University
M.A., Boston University
M.A., Rhode Island College

Justine Moore
Assistant Professor
B.A., Rhode Island College
M.A., University of Rhode Island

Nicholas Murgo
Assistant Professor
B.S., Roger Williams University
M.S., Rhode Island College
M.S., University of Rhode Island

John P. Mycroft
Associate Professor
B.A., Rhode Island College
Ph.D., University of Rhode Island

Sharon Ryan
Assistant Professor
B.S., University of Rhode Island
M.A., Providence College
M.A.T., Providence College

Mechanical Engineering Technology

Bruce A. Feodoroff
Associate Professor
B.S., Lowell Technological Institute
M.Ed., Bridgewater State College
M.S., University of Massachusetts, Amherst
M.B.A., Suffolk University

Jennifer Hurley
Assistant Professor
B.S., University of Massachusetts, Dartmouth
M.S., University of Massachusetts, Dartmouth

Timothy M. Henry
Associate Professor
B.S., United States Coast Guard Academy
M.S., Old Dominion University
Ph.D., University of Rhode Island

E. Martin Truchon
Associate Professor and Assistant Chair
B.A., St. Leo’s College
M.S., Johnson & Wales University

Jason Aguiar
Instructor
A.S., New England Institute of Technology
B.A., Emersn College

Clark Alexander
Associate Professor
B.S., University of the State of New York
M.S., University of Rhode Island
M.S., Capitol College

Mary Jean Clapp
Professor
B.S.Ed., Eastern Illinois University
M.S., Capella University
M.Ed., Rhode Island College

William Culbertson
Assistant Professor
B.A., Towson State University
M.A., Rhode Island School of Design

Timothy Culhane
Associate Professor
B.A., University of Rhode Island
M.A., University of Rhode Island

Patricia DaSilva
Assistant Professor
B.S., University of Rhode Island
M.B.A., Bryant College

Robert R. Fogarty
Assistant Professor
A.S., Community College of Rhode Island
B.S., Bryant College

David Johnson
Assistant Professor
B.A., Rhode Island College
M.F.A., Lesley University

R. Scott Lambert
Associate Professor
A.S., Community College of Rhode Island
B.A., Rhode Island College
M.S., Nova Southeastern University

James McClure
Assistant Professor
B.A., Cogswell Polytechnical College

George Saban
Assistant Professor
B.S., Cebu Institute of Technology
M.S., Bryant University

Bruce E. Staehle
Associate Professor
B.A., Culver-Stockton College
M.S., Nova Southeastern University

Lee A. Wesolowski
Assistant Professor
B.S., University of Rhode Island

Marine Technology

Theodore D. Chamberlin
Instructor
A.S., Florida Institute of Technology
B.S., University of Rhode Island

Robert Kachanis
Assistant Professor
A.S., New England Institute of Technology
B.S., Rhode Island College
Steven V. Seminara
Assistant Professor
A.S., Hudson Valley Community College
B.S.M.E., Rensselaer Polytechnic Institute
M.S.M.E., Rensselaer Polytechnic Institute

Christopher Vasconcelos
Instructor
A.S., Bristol Community College
B.S., New England Institute of Technology

Nursing
Darlene Del Prato
Professor and Director
B.S., Mercy College
M.S., Syracuse University
Ph.D., Syracuse University

David John Becker
Associate Professor and Assistant Director of the RN Program
B.S., Sonoma State University
M.S., University of California, San Francisco
C.A.G.S., Nova Southeastern University

Mary Barlas
Academic Fieldwork Coordinator and Instructor
R.N., Helene Fuld School of Nursing/Camden County College
B.S., South University
M.S., South University

Michael Clark
Simulation Lab Coordinator and Instructor
A.S., Community College of Rhode Island
B.S., Rhode Island College
M.S., University of Rhode Island

Linda J. Del Vecchio-Gilbert
Associate Professor
B.S.N., University of Rhode Island
M.S.N., Emory University
D.N.P., Simmons College

Debra L. Furtado
Assistant Professor
B.S., Rhode Island College
M.S., Excelsior College
M.S., University of Rhode Island

Deborah L. Milton
Instructor
B.S., Rhode Island College
M.S., University of Phoenix

Darlene E. Noret
Instructor
A.S., Community College of Rhode Island
B.S., Salve Regina University
M.S., University of Phoenix

Patricia Schneider
Instructor
B.S., Fisher College
M.S.N., Excelsior College

Mary Catherine Wharton
Assistant Professor
B.S., Georgetown University
M.S.N., University of Texas
M.A./C.A.G.S., Salve Regina University

Occupational Therapy
Carol A. Doehler
Professor and Chair
B.S., Quinnipiac University
M.S., University of New Hampshire

Mary Brinson
Assistant Professor
B.S., Indiana University
M.S., Boston University
O.T.D., Boston University

Nancy Dooley
Professor and Program Director for M.S. in Occupational Therapy Program
B.S., Quinnipiac University
M.A., New York University
Ph.D., New York University

Randal Fedoruk
Associate Professor
B.S., University of Alberta
M.A., New York University

Joanne Jones
Assistant Professor
A.S., Johnson and Wales University
B.S., University of Texas, Galveston
M.S., Texas Tech University

Rebecca Simon
Academic Fieldwork Coordinator and Assistant Professor
B.A., Stonehill College
M.S., Tufts University

Physical Therapist Assistant Technology
Laurie A. Miner
Assistant Professor and Chair
B.S., Ithaca College
M.S., State University of New York, Albany
Ph.D., State University of New York, Albany

Debra Adams
Instructor
B.S., Quinnipiac University

Russell Benoit
Assistant Professor
B.S., University of Massachusetts, Lowell
M.S., University of Massachusetts, Lowell

Michael A. Favocci
Academic Coordinator of Clinical Education and Assistant Professor
A.A.S., Newbury College
B.S., University of Rhode Island

Plumbing, Heating, and Refrigeration/Air Conditioning Technologies
Michael Markarian, Director
B.S., Suffolk University
M.B.A., Suffolk University
**Heating Technology**

**Ron Como**  
Associate Professor and Chair  
B.S., Rhode Island College

**Clinton J. Shurtleff**  
Associate Professor  
B.S., Rhode Island College

**Plumbing Technology**

**John Tavanian**  
Instructor  
A.S., New England Institute of Technology  
B.A., Rhode Island College

**Refrigeration/Air Conditioning Technology**

**Richard J. Heffernan**  
Assistant Professor and Program Coordinator  
A.S., New England Institute of Technology  
B.S., Rhode Island College

**Ernest Savastano**  
Assistant Professor  
B.S., Rhode Island College

**Brian Sullivan**  
Assistant Professor  
A.S., New England Institute of Technology

**Respiratory Care**

**Paul Mangino**  
Assistant Professor and Chair  
B.S., Northeastern University  
M.Ed., Johnson & Wales University  
C.A.G.S., Johnson & Wales University  
Ed.D., Johnson & Wales University

**Surgical Technology/Health Care Management**

**Lisa Reed**  
Professor and Chair  
A.S., Bristol Community College  
B.S., Rhode Island College  
M.S., Salve Regina University

**Paula T. Cantwell**  
Associate Professor  
A.A., Community College of Rhode Island  
A.S., Holyoke Community College  
B.S., Westfield State College  
B.S.N., University of Rhode Island  
M.A., University of Rhode Island

**Charlene DiNobile**  
Professor  
A.S., Community College of Rhode Island  
B.S.N., Rhode Island College  
M.Ed., Rhode Island College

**Debra Lundin**  
Assistant Professor  
B.S., Eckerd College  
M.S., University of Rhode Island

**Nicola Ricker**  
Instructor  
A.S., Three Rivers Community College  
B.S., The University of Connecticut  
M.S., The University of New Haven

**Michael Thomson**  
Assistant Professor  
B.S., University of Rhode Island  
M.S., University of Rhode Island

**Megan S. Treloar**  
Instructor  
A.S., New England Institute of Technology  
B.A., University of Massachusetts, Dartmouth

**Veterinary Technology**

**Darlene Jones**  
Associate Professor and Chair  
B.S., Louisiana State University  
D.V.M., Louisiana State University

**Amy D’Andrea**  
Associate Professor  
A.S., Mount Ida College  
B.S., Mount Ida College  
M.Ed., American Intercontinental University

**Donna Fortin Davidson**  
Assistant Professor  
B.S., University of Rhode Island  
D.V.M., Tufts University

**Video and Audio Production Technology/Digital Recording Arts Technology**

**Thomas P. Strolla**  
Professor and Chair  
B.A., State University of New York at Oswego  
M.A., Rhode Island College

**John Cormier**  
Associate Professor  
A.A.S., Wentworth Institute of Technology  
B.S., Rhode Island College  
M.Ed., Rhode Island College  
C.A.G.S., Rhode Island College

**Michael Davis**  
Associate Professor  
B.S., Lyndon State College  
M.A., University of Massachusetts

**Sally Kingsbury**  
Professor  
B.A., Bucknell University  
M.A.T., George Washington University

**James Locke**  
Associate Professor  
B.A., Alma College  
M.S., Indiana University

---

The Office of Teaching and Learning has available the official college directory of adjunct faculty, updated quarterly.
# College Calendar

*New students will be notified by mail of the exact date, time and location of new student registration. Registration dates listed here are tentative.*

<table>
<thead>
<tr>
<th>Winter Quarter, 2013</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>January 7, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martin Luther King Day Holiday</td>
<td>January 21, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February Vacation</td>
<td>February 17 thru 24, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>March 23, 2013</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter, 2013</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>April 1, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memorial Day Holiday</td>
<td>May 27, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>June 8, 2013</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Intersession, 2013</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>June 10, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence Day Holiday</td>
<td>July 4, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>July 13, 2013</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Quarter, 2013</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>October 7, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbus Day Holiday</td>
<td>October 14, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran’s Day Holiday</td>
<td>November 11, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thanksgiving Vacation</td>
<td>November 24 thru 1, 2013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>December 21, 2013</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter, 2014</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>January 6, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martin Luther King Day Holiday</td>
<td>January 20, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February Vacation</td>
<td>February 16 thru 23, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>March 22, 2014</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter, 2014</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>March 31, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memorial Day Holiday</td>
<td>May 26, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>June 7, 2014</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Intersession, 2014</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>June 9, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence Day Holiday</td>
<td>July 4, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>July 12, 2014</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Quarter, 2014</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>July 21, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor Day Holiday</td>
<td>September 1, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>September 27, 2014</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Quarter, 2014</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>October 6, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbus Day Holiday</td>
<td>October 13, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran’s Day Holiday</td>
<td>November 11, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thanksgiving Vacation</td>
<td>November 23 thru 30, 2014</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>December 20, 2014</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Winter Quarter, 2015</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>January 5, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martin Luther King Day Holiday</td>
<td>January 19, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>February Vacation</td>
<td>February 15 thru 22, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>March 21, 2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Spring Quarter, 2015</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>March 30, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memorial Day Holiday</td>
<td>May 25, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>June 6, 2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Intersession, 2015</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>June 8, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independence Day Holiday</td>
<td>June 8, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>June 8, 2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Summer Quarter, 2015</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>July 20, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor Day Holiday</td>
<td>September 7, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>September 26, 2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Quarter, 2015</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Classes Begin</td>
<td>October 5, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Columbus Day Holiday</td>
<td>October 12, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Veteran’s Day Holiday</td>
<td>November 11, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thanksgiving Vacation</td>
<td>November 22 thru November 29, 2015</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classes End</td>
<td>December 19, 2015</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
AAA of South Central New England
ABC 6
Abel Womack
AC Technologies
Aerovox
AH Harris & Sons
Air & Energy Systems
Airhart Electric
Alden Yachts
American Power Conversion
Amica Mutual Insurance
Amgen
Analysis & Technology
Aquidneck Management
ARC Electronics
Artificial Kidney Centers
Astro-Med
Atlantic Comfort Systems
Atrion Networking
Autocenter Enterprises
AVIS
Ayoub Engineering
Bald Hill Dodge
Balse
Bank of America
BankRI
Barker Steel
Barry Automotive Group
Bayside OB-GYN
Bertrand Refrigeration
Blackstone Valley SurgiCenter
Blount
Blue Cross & Blue Shield of RI
Bluestreak.com
BMW of North America
BOCH Enterprises
BOSE Corp.
Brennan Oil
Bridge Technical Solutions
Brigham & Women’s Hospital
Brown University
Butler Hospital
CAM HVAC & Construction
Cardi’s Furniture
Care New England
Carousel Industries
Cedar Crest Nursing Center
Century Drywall
Charlton Memorial Hospital
Chase Manhattan Bank
Citadel Communications
Citizens Bank
Clair Motors
Climate Air
Coldmasters Temperature Control
Collette Tours
Composite Technical Alloys
Computer Sciences Corp.
Conservation Services Group
Continental Field Service
Cox Communications
Cramer Productions
Creative Environment
Crown Lift Trucks
Cryptic Studios
Cumberland Farms
CVS
CW 28
Datel
Davis Manufacturing
Day Kimball Hospital
DeBlois Oil
Delta Dental of RI
Diebold
DiLeonardo International
Disney World
Douglas Lumber
Dovetail Woodworking
Drain Genius
Eagle Electric Supply
East Coast Plumbing
Eastern Butcher Block
Eastern Propane Gas
East Greenwich Yacht Club
Electric Boat
Elizabeth Webbing
Elmhurst Engineering
EMC2 Corporation
Emon Plumbing & Heating
ENGITEK
ESPN
Ethan Allen Interiors
EVAS
Extraction Systems
Fastenal
Federal Aviation Administration
Fenwal Electronics
Ferland Corp.
Ferland Woodworking
Fidelity Investments
FM Global
Fox Toyota
East Greenwich Campus

Clinical Medical Assistant Technology
Healthcare Management
Information Technology
Game Development and Program Simulation Technology
Graphics, Multimedia and Web Design Technology
Nursing
Occupational Therapy
Occupational Therapy Assistant Technology
Physical Therapist Assistant Technology
Surgical Technology

Directions to the East Greenwich Campus heading North on Route 95

- 95 North to Exit 8A
- Take exit 8A and merge onto Rt 2., Quaker Lane
- At the first traffic light, turn right onto Division Road.
  New England Tech is on the left.

Directions to the East Greenwich Campus heading South on Route 95

- 95 South to Exit 8 and bear right onto Rt. 2 south, Quaker Lane
- At the first traffic light, turn right onto Division Road.
  New England Tech is on the left.

Legend
1. Parking
2. Entrances
3. Visitor Parking
Directions

Julian B. Gouse Warwick Campus

2500 Post Road, Warwick, RI

From I-95 North or South
Take airport exit (Exit 13)
Follow signs for Post Road (U.S. Rt. 1)
Turn right onto Post Road south;
1 mile. Julian B. Gouse Campus is on the left

Access Road Campus

100-110 Access Road, Warwick, RI

From Post Road North or South
Turn left opposite the airport parking garage
onto Coronado Road. At the first light,
turn right onto Jefferson Blvd.
At the next traffic light, turn left onto Service Avenue. Take first left onto Plan Way, then first right onto Access Road. The Access Road Campus is on the left.

Legend

1. Center for Technologies
2. Gouse Building
3. Automotive Technology Building
4. Autobody Technology
5. Electrical Technology
   Marine Technology
6. Automotive High Performance Lab
7. Criminal Justice
Admission to the Bachelor’s Degree Programs

Admission to the Associate Degree Programs

Admission with Advanced Standing

Admissions Tour

Alpha Chi Honor Society

Annual Security Report

Appeal of Dismissal

Application Fee

Application Procedure

Application Requirements

Associate Degree in Applied Technical Studies

Board of Trustees

Books and Equipment Policy

Campuses

Cancellation of Courses

Cancellation Policy

Career Services Office

Charter

Choice of Curriculum

Class Attendance

Class Size

College Calendar

Course Codes

Course Descriptions

Credit for Life, Military and Work Experience

Credit Hour

Curriculum (Program of Study)

Curriculum Requirements and Liberal Arts Core

Dean’s List and Honors

Definition of an Educated Person

Department Chairs and Faculty

Drop and Add Policy

Dual Degree Policy

Educational Philosophy

Federally Defined Full-Time Status

Fees

Feinstein Enriching America Program

Financial Aid Awarding Policy

Financial Aid Programs Available

Financial Assistance

Full-Time Students

General Education/Liberal Arts Core Requirements

General Graduation Information

Grade Point Average

Grading System

Graduation with a Bachelor’s Degree

Graduation with a Master’s Degree

Graduation with an Associate Degree

History of the College

Housing

Institutional Financial Aid Policy

Institutional Tuition and Fees Refund Policy

International Admissions

Laboratory Fees

Liberal Arts Core Electives

Library and Information Commons

Map: East Greenwich Campus

Map: Julian B. Gouse Campus / Access Road Campus

Message from the President

Non-Matriculated Status

Non-Matriculated Students

Office of Student Support Services

Office of Teaching and Learning

Other Fees

Part-Time Students

Partial List of Employers

Phi Theta Kappa

Plus-Two Bachelor Degree Division

Program Rate Charge for an Individual Course

Programs of Study

Progress Reports

Refunds to Federal Aid Programs (Title IV)

Registration and Administrative Fees

Repeating a Course

Required Levels of Academic Achievement

Return of Funds

Satisfactory Academic Progress Policy

Schedule of Classes

Starting Dates

Statement of Mission and Objectives

Student Activities

Student and Technology Fee

Student Conduct

Student Consumer Information

Student Disciplinary Policy

Student Services

Students’ Right to Privacy and Access to Records

Students’ Rights and Responsibilities

Technical Advisory Committees

Transcripts and Letters of Technical Proficiency

Transfer of Credit

Tuition

Veterans Benefits