NEW ENGLAND TECH

Refrigeration/Air Conditioning/Heating Technology
Associate in Science Degree
(For students entering their program
April 2020 – 202030 or later)

General Information

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 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 three ten-week terms. Topics in ground source geothermal and the use of heat pumps are also offered.

In the heating portion of the program (distributed over three terms), various 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 and commercial application. Included in the Heating Program are courses in the installation of heating systems, gas technology, and introduction to welding.

All parts 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 portions of the program.

Graduates are prepared for positions as technicians in the refrigeration, air conditioning, and heating fields. In addition, graduates of this program are eligible to continue on for a Bachelor of Science degree in Business Management.

Program Mission, Goals and Outcomes

REFRIGERATION /AIR CONDITIONING DEPARTMENT

Program Mission
The mission of the Refrigeration/Air Conditioning/Heating Technology program is to provide an associate degree program that will prepare students with entry-level skills in refrigeration and air conditioning. The study of thermodynamics, through theory lessons and applied labs, will prepare the student for advancement through apprenticeship programs and continued education to qualify for HVAC license tests at state and federal levels.

Program Goals
1. To provide an appropriate learning environment to acquire theoretical knowledge, applicable hands on skills, and the interpersonal attributes to function as an entry level HVAC assistant.
2. To prepare students to qualify for testing in HVAC competency exams and certifications.
3. To encourage students to continue to gain additional educational knowledge and experience for a successful and rewarding career.

Program Outcomes
Graduates of the RAC program will have acquired the skills to:
1. Take pressure and temperature readings with a manifold gauge set and various temperature meters.
2. Flare and braze copper tubing.
3. Diagnose various problems in an HVAC system using an electrical schematic diagram and various test meters.
4. Charge air conditioning and refrigeration systems with the proper refrigerants using manufacturer's instructions.
5. Identify components of air conditioning and refrigeration systems and explain their function.
6. Install and troubleshoot temperature, pressure and digital controls, including wi-fi to control residential and commercial air conditioning and refrigeration systems.

HEATING DEPARTMENT

Program Mission
The mission of the Heating Technology Program is to provide an integral component to the Associate Degree programs in Refrigeration, Air-Conditioning, Heating Technology and Plumbing Heating Technology. The Heating Technology program is focused on providing basic essential training to students in preparation for their entry into the fields of oil and gas heating and pipefitting. This training is designed for those students who have recently graduated from high school as well as adults who are seeking a different career path to follow. Through a combination of classroom theory and hands-on laboratory training, students are given the opportunity to acquire the skills required for entry-level employment in the heating industry.

Program Goals
The Heating Technology Program will provide the appropriate training for students to:
1. Develop theoretical knowledge of systems, their components and function.
2. Gain an understanding of tools and equipment used in the heating field and how to put them to proper use.
3. Use the knowledge acquired in the classroom and display proficiency in the lab while working on equipment readily found in real-life installations.
4. Qualify for the Rhode Island Oil Burner Journeyperson Technician's license.
5. Enter the workforce with the ability to interact appropriately with customers, vendors and fellow tradespersons.

Program Outcomes
Graduates of this program will be able to:
1. Exhibit knowledge of combustion efficiency testing using instruments.
2. Demonstrate a procedure for testing electrical circuits by using a Volt-OHM-Milliamp Meter.
3. Calculate heat loss for a single-family dwelling and small commercial buildings and properly design a multi-zone series loop system for that structure.

4. Design a fuel delivery system with natural gas and propane for a residential and light commercial application and develop a complete parts list for the installation of that system in accordance with NFPA 54.
5. Install and troubleshoot heating controls for the following parameters: temperature, humidity, pressure and ventilation to create an efficient system.
6. Install furnaces and boilers with ductwork and piping.

Curriculum

Term I

Course No.		*Course Title*	*C*	*L*	*T*
AH	101	Introduction to the P-RACH Industry	1	0	1
AH	114	Refrigeration Systems Fundamentals	4	0	4
AH	116	Refrigeration Systems Fundamentals Lab	0	6	3
AH	125	Basic Electricity	2	0	2
AH	118	Basic Electricity Lab	0	4	2
ELY	135	OSHA Construction Safety & Health	2	0	2
			9	**10**	**14**

Term II

Course No.		*Course Title*	*C*	*L*	*T*
AH	126	Electricity for Refrigeration & Air Conditioning	4	0	4
AH	128	Electricity for Refrigeration & Air Conditioning Lab	0	6	3
AH	212	Refrigeration Technician Certification	2	0	2
AH	214	Air Conditioning	3	0	3
AH	215	Air Conditioning Lab	0	6	3
			9	**12**	**15**

Term III

Course No.		*Course Title*	*C*	*L*	*T*
AH	134	Commercial and Industrial Refrigeration	3	0	3
AH	138	Commercial and Industrial Refrigeration Lab	0	6	3
AH	140	System Electrical Controls I	1	0	1
AH	141	System Electrical Controls I Lab	0	2	1
MA	*105*	*Basic College Math with Lab (MA/SCI Core)*	*4*	*2*	*5*
			8	**10**	**13**

Term IV

Course No.		*Course Title*	*C*	*L*	*T*
AH	144	System Electrical Controls II	2	0	2
AH	143	System Electrical Controls II Lab	0	2	1
AH	234	Modern Heating Systems	4	0	4
AH	235	Modern Heating Systems Lab	0	4	2
ELECTIVE		*100-200 Level Humanities Core*	*4*	*0*	*4*
EN	*106*	*Service Industry Communications (COM Core)*	*5*	*0*	*5*
			14/15	**6**	**17/18**

Term V

Course No.		Course Title	C	L	T
AH	238	Gas Heating Systems	4	0	4
AH	242	Gas Heating Systems Lab	0	6	3
AH	240	Blueprints, Pipe Fitting and Duct Layout	4	0	4
AH	241	Blueprints, Pipe Fitting and Duct Layout Lab	0	4	2
MT	114	Marine Welding and Cutting	1	3	2
EN	*100*	*Introduction to College Writing (COM Core)*	*4*	*0*	*4*
			13	**13**	**19**

Term VI

Course No.		Course Title	C	L	T
BU	*236*	*Small Business and the Law (SS Core)*	*4*	*0*	*4*
MA	*125*	*Technical Math I (MA/SCI Core)*	*4*	*0*	*4*
ELECTIVE		*100-200 Level Humanities Core*	*4*	*0*	*4*
CHOOSE ONE SET					
AH	244	Oil Heating Systems	4	0	4
AH	246	Oil Heating Systems Lab	0	6	3
or					
AH	250	Renewable Energy Systems	4	0	4
AH	251	Renewable Energy Systems Lab	0	6	3
			16	**6**	**19**
Total Quarter Credit Hours = 97/98					

Legend
C = Number of lecture hours per week
L = Number of laboratory hours per week
T = Total Quarter Credit 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 MA 105/110 must still take 32 credits of core courses.

Subject to change.

Liberal Arts Core Electives

All programs must meet certain minimum requirements in both the major and in the liberal arts. Course requirements for each program are listed in each curriculum along with liberal arts selections. Courses listed as "Core Electives" in a curriculum can be chosen by students from one of the several core areas listed below. Each core area provides a variety of courses for student choice. Students must take a minimum of 32 credits in core electives for the associate degree and an additional minimum of 28 credits for the bachelor's degree. Individual majors have specific requirements and may require more than the minimum number of liberal arts credits or may specify certain courses in a particular core area. All liberal arts core elective courses are 4 credits. Please refer to the curriculum of the major for specific requirements.

Associate Degree Core Elective Areas[1]

To obtain a minimum of 8 courses (32 credits), students may choose from the following course selections:

- **2 courses (minimum) from the Communications Core**
- **2 courses (minimum) from the Math/Science Core**
- **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**

Associate Degree Courses by Core[1]

Communications Core Electives (Minimum 8 Credits)
EN 100 Introduction to College Writing
EN 106 Service Industry Communications
EN 110 Healthcare Communications
EN 200 Workplace Communications
EN 211 Oral Communications
HU 208 Rap/Rock and Poetry

Math/Science Core Electives (Minimum 8 Credits)
CHM 101 Life Science Chemistry
MA 105 Basic College Math with Lab
MA 110 Introduction to College Math
MA 109 Math for Life Science
MA 121 Business Math
MA 124 Technical Math I with College Algebra
MA 125 Technical Math I
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

Arts/Foreign Language Core Electives (Maximum of 4 Credits in Place of a Humanities Course)
AR 203 Introduction to Drawing
AR 206 3D Sculpture: An Adventure in the Third Dimension
AR 207 Introduction to Applied Music
AR 209 The Art of Collage
JP 201 Introduction to Japanese
SP 201 Introduction to Spanish
SP 203 Spanish for Healthcare Workers

Humanities Core Electives (Minimum 4 Credits)
HU 208 Rap/Rock and Poetry
HU 211 Introduction to Film
HU 212 Documentary Film
HU 215 Popular Culture
HU 216 Music and the Media
HU 240 Graphic Design in the 20th Century
HU 242 The Automobile and American Culture
HU 244 Science Fiction
HU 289 Racing Through Film
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 231 Contemporary History
HI 235 Architectural History
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 221 Technology and American Life
SS 222 Mindful Living

1. Subject to Change

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Degree Progress Checklist

Check off each completed course.

Program Requirements

T1	AH	101	_____
	AH	114	_____
	AH	116	_____
	AH	118	_____
	AH	125	_____
	ELY	135	_____
T2	AH	126	_____
	AH	128	_____
	AH	212	_____
	AH	214	_____
	AH	215	_____
T3	AH	134	_____
	AH	138	_____
	AH	140	_____
	AH	141	_____
T4	AH	143	_____
	AH	144	_____
	AH	234	_____
	AH	235	_____
T5	AH	238	_____
	AH	240	_____
	AH	241	_____
	AH	242	_____
	MT	114	_____
T6	Options		
Oil	AH	244	_____
	AH	246	_____
	or		
Renewable Energy	AH	250	_____
	AH	251	_____

Liberal Arts Core Requirements
7 Required Courses

	Communications Core		
#1	EN 106	T4	_____
#2	EN 100	T5	_____

	Math/Science Core		
#3	MA 105	T3	_____
#4	MA 125	T6	_____

*If you placed into MA 044, take MA 105 instead of MA 110.

	Humanities Core*		
#5	100-200 level HU elective	T4	_____
#6	100-200 level HU elective	T6	_____

*You may use one Arts/Foreign Language Core Elective to fulfill your Humanities Core.

	Social Sciences Core		
#7	BU 236	T6	_____

Subject to change.
Please see your advisor for any questions.

Students are advised to take courses in the order and in the term in which they appear on this checklist. Any deviation may result in an extended time required to complete your degree as well as additional tuition and fees. Please contact your Student Advisor prior to making any changes to the course sequence.

Course Descriptions

AH 101 Introduction to the P-RACH Industry
1 Class Hour 1 Quarter Credit Hour
Students entering the Plumbing, Heating, and Refrigeration trades will be introduced to technology-related personal skill development that affects their employability. They will investigate the daily tasks and career opportunities their chosen trades will present to them, including the physical abilities and requirements associated with these technologies. Students will take an historical look at these technologies to get a better understanding of how these technologies make life better for others, develop an intrinsic satisfaction of working with their hands to perform specialized tasks, and the importance of lifelong learning to develop and apply new skills in these ever-changing technologies.

AH 114 Refrigeration Systems Fundamentals
4 Class Hours 4 Quarter Credit Hours
This course studies basic refrigeration and air conditioning systems. Topics covered include systems designed as freezers, refrigerators and air conditioning. The course is intended to explain the theory of heat transfer, thermodynamics, and the components used to accomplish the cooling of products. This course is intended for those seeking the knowledge and understanding necessary to advance to a more intense program.

AH 116 Refrigeration Systems Fundamentals Lab
6 Lab Hours 3 Quarter Credit Hours
Areas of hands-on 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 118 Basic Electricity Lab
4 Lab Hours 2 Quarter Credit Hours
Pre/Co-requisite: AH 125
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 will be exposed to reading wiring diagrams, building circuits from a wiring diagram, and taking readings and testing of the circuits they build to include both line and low voltage devices.

AH 125 Basic Electricity
2 Class Hours 2 Quarter Credit Hours
Basic Electricity is intended to familiarize RACH and PLBH students with the basic theoretical and practical knowledge of electricity they will encounter in their respective technologies, as well as preparing students for more complex wiring commonly found in their technology. Course goals will be achieved through lectures, self-study, and an extensive laboratory experience to draw together the students' skills to master the curriculum. Components of this course are required to prepare students for the Rhode Island "PJF" license exams.

AH 126 Electricity for Refrigeration & Air Conditioning
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AH 114/116, ELY 135 and (AH 118/125 or ELY 122, ELY 126, ELY 127)
Students study basic electricity and its relationship to working refrigeration and air conditioning systems. Topics include 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 safely employed to diagnose electrical problems; compressor drives, fan motor circuitry and hermetic circuits with their associated starting relays, and motor starting capacitor circuitry.

AH 128 Electricity for Refrigeration & Air Conditioning Lab
6 Lab Hours 3 Quarter Credit Hours
Prerequisites: AH 114/116, ELY 135 and (AH 118/125 or ELY 122, ELY 126, ELY 127)
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, 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 134 Commercial and Industrial Refrigeration
3 Class Hours 3 Quarter Credit Hours
Students will study advanced refrigeration principles involving motor starters and relays, pump-down, safety interlock, oil protection controls and defrost systems. System components and their practical applications in commercial and industrial refrigeration will be examined. Students will study the operation of commercial equipment such as walk-in coolers, freezers, and commercial ice machines.

AH 138 Commercial and Industrial Refrigeration Lab
6 Lab Hours 3 Quarter Credit Hours
Students will apply hands-on practice with advanced refrigeration principles including motor starters and relays, pump-down, safety interlock, oil protection controls and defrost systems. Detailed examination and practical study of system components and their applications, and the operation and troubleshooting of commercial equipment such as walk-in coolers, freezers, and commercial ice machines.

AH 140 System Electrical Controls I
1 Class Hour 1 Quarter Credit Hour
Prerequisites: AH 126/128, ELY 135
This course builds on the concepts learned in Basic Electricity and Electricity for Refrigeration, Air Conditioning and Heating. Topics covered are temperature and pressure controls, switches, relays and solenoids. Also discussed are thermocouples, thermistors, overload protection devices and motorized valves and dampers.

AH 141 Systems Electrical Controls I Lab
2 Lab Hours 1 Quarter Credit Hour
Prerequisites: AH 126/128, ELY 135
Students obtain hands-on experience wiring electrical controls into circuits, measuring voltages, current and resistance, and troubleshooting problems placed into the circuits by faculty. Projects begin with single controls in each circuit and progress to multiple controls as found in systems in the field.

AH 143 Systems Electrical Controls II Lab
2 Lab Hours 1 Quarter Credit Hour
Prerequisites: AH 125, ELY 135
The Electrical Controls and Systems Lab will afford students hands-on opportunities to identify various controls and their functions, build the circuits from a wiring diagram, and explain how all of the various controls and devices operate in conjunction with each other. To develop/build troubleshooting skills, various service situations will be incorporated into their projects, requiring them to troubleshoot using their VOM Meters.

AH 144 System Electrical Controls II
2 Class Hours 2 Quarter Credit Hours
Prerequisites: AH 125, ELY 135
This course is designed to illustrate the various electrical safety and operating controls and devices that direct the modern heating system in a safe and efficient manner. Students are exposed to pressure devices, water level controls, hydronic controls, air temperature and humidity control, relays, valves, and how these controls and devices interact with each other to operate the entire system.

AH 212 Refrigeration Technician Certification
2 Class Hours 2 Credit Hours
Prerequisites: AH 114/116
This course is intended to familiarize students 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. Other topics include 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. Students also receive training and certification testing for the safe handling of R-410A refrigerant.

AH 214 Air Conditioning
3 Class Hours 3 Quarter Credit Hours
Topics studied include: air and its properties; psychometric 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 215 Air Conditioning Lab
6 Lab Hours 3 Quarter Credit Hours
Students apply the principles of psychometrics in testing an operating air conditioning system; study the various components that make up the system; trace 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 234 Modern Heating Systems
4 Class Hours 4 Quarter Credit Hours
Plumbing and RAC students will be exposed to the various heating systems they will encounter in their respective technologies. Students will briefly explore the steam plant and its operation and components within the setting of a commercial application. Students will continue their exploration with warm air heating system variations within conventional systems, including heat pumps and hybrid hydro-air systems. The final system studied will be the hydronic systems used in conventional settings. These hydronic systems studies include low mass boilers with hydraulic separators, radiant systems utilizing boilers, water heaters, and solar. Included in this course will be heat loss calculations and hydronic system design, with emphasis on pipe sizing, head pressure calculations, and layout of a series baseboard system.

AH 235 Modern Heating Systems Lab
4 Lab Hours 2 Quarter Credit Hours
Co-requisite: AH 234
Students service steam, hot water, and warm air heating systems in the laboratory. Accessories and energy-conservation devices are installed as part of students' lab work. Troubleshooting procedures are analyzed on the burners. Complete combustion testing is done on operational heating units. Students make recommendations to improve the operation of these units.

AH 238 Gas Heating Systems
4 Class Hours 4 Quarter Credit Hours
Gas Technology is designed to give students 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 set forth in the National Fuel Gas Code.

AH 240 Blueprints, Pipe Fitting and Duct Layout
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AH 234/235
Students will study the requirements and methods for the installation of piping systems and ductwork that would be required in their respective trades. A review of blueprint reading as it pertains to these two courses of study will be presented. Proper piping materials, fittings, techniques, and fabrication will be discussed. Sheet metal design and installation considerations will also be presented. This will include cutting and fabricating ducts, installing plenums, and the installation of trunk work and take-offs.

AH 241 Blueprints, Pipe Fitting and Duct Layout Lab
4 Lab Hours 2 Quarter Credit hours
Prerequisites: AH 234/235
The Lab component will allow the students, from a blueprint, to calculate, cut, and install gas piping, near boiler piping and connections to radiation. Students will also be exposed to radiant floor heating using the newest materials used for this type of system. Students will install piping and duct to create complete operational systems.

AH 242 Gas Heating Systems Lab
6 Lab Hours 3 Quarter Credit Hours
Co-requisite: AH 238
Gas Technology Lab students are able to apply the theory learned in class to live units in the lab. The lab experience affords students valuable hands-on application in areas such as testing, troubleshooting, and servicing on the same type of equipment that is the currently used in the field.

AH 244 Oil Heating Systems
4 Class Hours 4 Quarter Credit Hours
Prerequisite: AH 125
Various oil burner designs will be studied. Every major oil burner component will be examined as to its function, operational testing, and replacement. Chimneys and alternate venting methods will be presented. Combustion chambers, draft and combustion analysis are studied in detail. Students will study various methods of improving combustion efficiency.

AH 246 Oil Heating Systems Lab
6 Lab Hours 3 Quarter Credit Hours
Prerequisite: AH 125
Co-requisite: AH 244
This course provides challenging lab projects, giving students hands-on experience in diagnostic testing and analysis, and repair through the installation and replacement of oil burner components.

AH 250 Renewable Energy Systems
4 Class Hours 4 Quarter Credit Hours
Prerequisites: AH 125/118, AH 143/144, AH 234/235
The Renewable Energy course will explore the use of solar energy for the production of domestic hot water and heating for a residential application. Instruction will include the use of geo-thermal energy for the same purpose. Included in this course will be discussions of locating true solar south, altitude and azimuth, as well as determining proper panel placement for different types of systems. A discussion of controls, components, and types of piping systems are covered. There will be a component that will cover both passive and active types of systems used in heating buildings.

AH 251 Renewable Energy Systems Lab
6 Lab Hours 3 Quarter Credit Hours
Prerequisites: AH 125/118, AH 143/144, AH 234/235
In the lab portion of this course, students will design a solar collector, and determine the proper location and solar altitude for producing the best results for their collectors. The collectors will also be combined to produce heat with the use of a radiant underfloor heating system. Included will be an opportunity for students to design and build a parabolic solar concentrator and take measurements to determine its efficiency. Students will also be able to monitor the production of hot water from our active solar domestic hot water collector system.

ELY 135 OSHA Construction Safety & Health
2 Class Hours 2 Quarter Credit Hours
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. In order to obtain their OSHA 10-hr card, students need to pass the course with a "C" average. Attendance is mandatory.

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.

Liberal Arts Courses

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 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.

AR 209 The Art of Collage
4 Class Hours 4 Quarter Credit Hours
Powerful imagery is a combination of technical skill and imagination. Students will exercise their ability to manipulate composition and color as well as cultivate the power of imagination in this studio class with a focus on collage, a technique where compositions are crafted by adhering various materials to a backing surface. Creativity and the development of ideas will be explored while acquiring a working knowledge of the elements and principles of art. The assemblage process of collage will be the design tool used to investigate, generate and express ideas. Students will research collage as an art form and examine the creative processes of various artistic disciplines. No prior experience is necessary. Students will be evaluated on their effort and creative growth as opposed to artistic talent.

Business (Social Sciences Core)

BU 236 Small Business and the Law
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
This course is designed for those students who intend to 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.

Chemistry (Math/Science Core)

CHM 101 Life Science Chemistry
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 105 or MA 110 or MA 109
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.

Community Enrichment

CE 101 Community Enrichment
1 Class Hour 1 Quarter Credit Hour
This online course is offered through the Feinstein Enriching America Program. Weekly assignments include topics such as B Corporations, civic and social responsibility, and Non-Governmental Organizations. A 15-hour community enrichment project is also required. Community engagement six months prior to taking the course may be accepted with proper documentation. Current or prior military service and concurrent clinical experiences are accepted in lieu of the community enrichment project. After successful completion of the course, students are eligible to apply for a Feinstein Scholarship, which is awarded each term.

Economics (Social Sciences Core)

EC 203 Principles of Economics
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
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.

English (Communications Core)

EN 100 Introduction to College Writing
4 Class Hours 4 Quarter Credit Hours
Placement: Based on an evaluation of a writing sample or successful completion of EN 030.
EN 100 is an introductory writing course designed to immerse students in the writing process and sharpen their critical thinking skills. In this course, students will practice using writing as a tool for learning by responding to readings, composing essays, and reflecting on the writing process itself. 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. Conducting, evaluating, and integrating research (through summarization, quotations, and paraphrasing) is a major component of this course. Additionally, students will be introduced to APA citation style, and will improve essential writing skills such as grammar, punctuation, and standard usage.

EN 106 Service Industry Communications
5 Class Hours 5 Quarter Credit Hours
In today's competitive service industry technicians must possess a mastery of both technical and nontechnical skills. EN 106 will introduce and equip students with the nontechnical or "soft skills" needed to succeed and advance in their field. Topics will include written and verbal communication, professionalism, team collaboration, critical thinking, and problem-solving skills. Because learning to write and communicate effectively requires practice, the course provides numerous opportunities; including writing workshops, role play, and group activities, for students to apply the fundamentals of written and oral communication.

EN 110 Healthcare Communications
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
EN 110 builds off the foundation established in EN 100 and focuses on the necessity of clear written and oral communication in the allied health arena. Through role play, small group work, and presentations students will develop the communication and critical thinking skills they will need daily when communicating with other health care providers, clients, and their families. Additionally, by continuing in the writing process (researching, drafting, and revising) students will further their ability to write clear, concise, error free prose with attention given to audience and message.

EN 200 Workplace Communications
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100 or EN 110 or placement based on evaluation of a writing sample.
EN 200 builds off the foundation established in EN 100 and focuses on the necessity of clear written and oral communication in professional settings. Students will be exposed to a variety of business writing genres including memos, emails, business letters, and proposals. By continuing their engagement in the writing process (researching, drafting, and revising), students will compose several professional documents, reinforcing students' attention to audience and their aptitude to develop an effective workplace document. Additionally, this course strengthens students' ability to document in APA citation style, and hone essential writing skills such as grammar, punctuation, and standard usage.

EN 211 Oral Communications
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100 or EN 110 or placement
This is an introductory course with an emphasis on oral communication theory and practice, providing 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.

History (Social Sciences Core)

HI 231 Contemporary History
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
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 280 The Holocaust
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
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 time period. Students will compare the Holocaust to current genocidal acts in the world today, including the effects of genocide on society.

Humanities (Humanities Core)

HU 208 Rap/Rock and Poetry
4 Class Hours 4 Quarter Credit Hours
Core Fulfillment: Both Communications Core and Humanities Core
Prerequisite: EN 100
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.

HU 211 Introduction to Film
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
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 100
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 100
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 240 Graphic Design in the 20th Century
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
Throughout history, artists and designers have created visual works that help to define historical eras. In this course, students will examine and analyze the most prominent design styles of the past one hundred years. They will learn the defining features and major proponents of each style as well as how each style fits within its historical context. They will then use the knowledge gained to produce designs that respond to past styles in an engaged, knowledgeable way. Course performance will be evaluated on student effort and growth as opposed to artistic talent.

HU 242 The Automobile and American Culture
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
Undeniably, the automobile has had an enormous impact on American culture. A majority of Americans rely on individual transportation daily, 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. Students 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 100
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 100
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 289 Racing Through Film
4 Class Hours 4 Quarter Credit Hours
Racing Through Film is a course dedicated to examining how the sport of motor racing has been explored through film. Through reading, discussion and viewing films we will consider such issues as the history of racing, questions of masculinity and the often countercultural and rebellious nature of racing, with particular interest in the anti-hero figure.

HU 291 Critical Thinking and Chess
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
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.

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 animé), 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 100 Introduction to College Math with Lab
2 Class Hours 4 Lab Hours 4 Quarter Credit Hours
Prerequisite: Placement exam
Topics to be covered in this lab-based 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 programs.

MA 105 Basic College Math with Lab
4 Class Hours 2 Lab Hours 5 Quarter Credit Hours
Prerequisite: Placement exam
Topics to be covered in this lab-based 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 programs.

MA 109 Math for Life Science
4 Class Hours 4 Quarter Credit Hours
This course is designed to assist in the understanding of the proper techniques needed to perform accurate dosage calculations; vital signs in order to ensure patient safety. This course will focus on developing the mathematical skills, critical thinking and quantitative reasoning methods needed to apply medical language and systems of measurement to solve problems in a variety of healthcare settings.

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 programs.

MA 121 Business Math
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 105 or MA 110 or MA 109
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 105 or MA 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 200 Applied Math for Business
4 Class Hours 4 Quarter Credit Hours
Prerequisite: MA 105 or MA 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.

Physics Courses (Math/Science Core)

PHY 126 Applied Physics & Lab
3 Class Hours 2 Lab Hours 4 Quarter Credit Hours
Prerequisite: MA 105 or MA 110 or MA 109
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.

Psychology (Social Sciences Core)

PS 140 Life-Span Development
4 Class Hours 4 Quarter 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
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
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 Quarter Credit Hours
Prerequisite: EN 100 or EN 110
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 Quarter 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.

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.

Sociology (Social Sciences Core)

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 100
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 100
This course traces 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.

Spanish (Arts/Foreign Language Core)

These courses are designed for students with no prior knowledge of Spanish.

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.

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.

Social Sciences (Social Sciences Core)

SS 140 Criminal Investigations
4 Class Hours 4 Quarter Credit Hours
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 100
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 100
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 100
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 221 Technology and American Life
4 Class Hours 4 Quarter Credit Hours
Prerequisite: EN 100
The course, based on abstract thinking and analysis, examines the interactive relationship between technology and society over historic time and across geographic space. The course 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 222 Mindful Living
4 Class Hours 4 Quarter Credit Hours
On a single day, how often do you find yourself pulled in multiple directions? In a world inundated with information, and increasingly demanding of our time and attention, it can be overwhelming to know how to even begin prioritizing what is important. What if there were something you could do to increase your productivity, reduce anxiety and stress, and be more fully present in your daily experiences? Welcome to the practice of mindfulness –sustained, purposeful, moment-to-moment attention without judgement. Research studies have shown that a regular mindfulness practice yields concrete

physical and emotional benefits, including reduced stress, decreased physical pain, increased concentration, and a happier mindset. In this course, you will learn different ways to practice mindful living.

Questions & Answers

1. **When do my classes meet?**

Day Classes: Technical classes normally meet for at least three hours a day for up to five days a week. Classes normally begin in the early morning (7:45 a.m.), late morning (usually 11:25 a.m.), or mid-afternoon. The time slot for your program may vary from quarter to quarter.

Evening Classes: Technical classes meet on the average of three nights a week, although there may be times when they will meet four nights a week. Classes normally begin at 5:45 p.m.

In addition, to achieve your associate degree, you will take a total of approximately eight liberal arts courses, which will be scheduled around your technical schedule over the course of your entire program. Each liberal arts course meets approximately four hours per week. Liberal arts courses are offered days, evenings, and Saturdays.

At the beginning of each quarter you will receive a detailed schedule giving the exact time and location of all your classes. 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.

When a regularly scheduled class falls on a day which is an NEIT observed holiday (Columbus Day, Veterans Day, Martin Luther King, Jr. Day, and Memorial Day), an alternate class will be scheduled as a make up for that class. The make up class may fall on a Friday. It is the student's responsibility to take note of when and where classes are offered.

2. **How large will my classes be?**

The average size for a class is about 20 to 25 students; however, larger and smaller classes occur from time to time.

3. **How much time will I spend in lab?**

Almost half of your technical courses consist of laboratory work. In order for you to get the most out of your laboratory experiences, you will first receive a thorough explanation of the theory behind your lab work.

4. **Where do my classes meet?**

Students should be prepared to attend classes at any of NEIT's classroom facilities: either at the Post Road, Access Road, or East Greenwich campus.

5. **I have not earned my high school diploma or GED: can I enroll in an Associate Degree Program?**

A candidate for admission to an associate degree program must have a high school diploma, have earned a recognized equivalency diploma (GED), or meet the federal home school requirements.

6. **How long should it take me to complete my program?**

To complete your degree requirements in the shortest possible time, you should take the courses outlined in the prescribed curriculum. This technology is a six-quarter curriculum, and a student may complete the requirements in as little as 18 months.

To complete all your degree requirements in the shortest time, you should take at least one liberal arts course each quarter. Students who need more time to complete their curriculum may postpone some of the liberal arts courses until after the completion of the technical requirements. Students are provided up to two additional quarters of study to complete the liberal arts requirements without any additional tuition assessment fee. During these additional quarters of study, students are required to pay all applicable fees.

Students may also elect to complete some of their liberal arts requirements during Intersession, a five-week term scheduled between Spring and Summer Terms. Students will not be assessed any additional tuition for liberal arts courses taken during the Intersession but may be assessed applicable fees.

Students wishing to extend the number of quarters needed to complete the required technical courses in their curriculum will be assessed additional tuition and fees.

7. Is NEIT accredited?

NEIT is accredited by the New England Commission of Higher Education. Accreditation by NECHE is recognized by the federal government and entitles NEIT to participate in federal financial aid programs. Some academic departments have specialized professional accreditations in addition to accreditation by NECHE. For more information on accreditation, see NEIT's catalog.

8. Can I transfer the credits that I earn at NEIT to another college?

The transferability of a course is always up to the institution to which the student is transferring. Students interested in the transferability of their credits should contact the Office of Teaching and Learning for further information.

9. Can I transfer credits earned at another college to NEIT?

Transfer credit for appropriate courses taken at an accredited institution will be considered upon receipt of an official transcript for any program, biology, science, and mathematics courses in which the student has earned a "C" or above within the past three years and for English or humanities courses in which the student has earned a "C" or above within the last ten years. An official transcript from the other institution must be received before the end of the first week of the quarter for transfer credit to be granted for courses to be taken during that quarter. Students will receive a tuition reduction for the approved technical courses based on the program rate and will be applied against the final technical quarter of the curriculum's tuition amount. No tuition credit is provided for courses which are not a part of the technical curriculum.

10. What is the "Feinstein Enriching America" Program?

New England Institute of Technology is the proud recipient of a grant from the Feinstein Foundation. To satisfy the terms of the grant, the College has developed a one-credit community enrichment course which includes hands-on community enrichment projects. The course can be taken for a few hours per quarter, spread over several quarters. Students who are already engaged in community enrichment on their own may be able to count that service towards course credit.

11. How many credits do I need to acquire my Financial Aid?

In order to be eligible for the maximum financial aid award, you need to maintain at least 12 credits per academic quarter.

12. What does my program cost?

The cost of your program will be as outlined in your enrollment agreement, along with your cost for books and other course materials. Students who decide to take more quarters than the enrollment agreement describes to complete the technical courses in their curriculum will be subject to additional fees and possible additional tuition costs. Students who elect to take the technical portion of the degree requirements at a rate faster than the rate prescribed in the curriculum and the enrollment agreement will be assessed additional tuition.

Students who require prerequisite courses will incur additional tuition and fees above those outlined in their enrollment agreement.

If a student elects to take a course(s) outside of the prescribed curriculum, additional tuition and fees will be assessed.

Remember, students who withdraw and re-enter, one time only, pay the tuition rate that was in effect for them at the time of their last day of attendance for up to one year from their last day of attendance. Second re-entrees and beyond pay the tuition rate in effect at the time they re-enter. The most economical way for you to complete your college degree is to begin your program now and continue your studies straight through for the six quarters necessary to complete your degree requirements.

13. What kind of employment assistance does NEIT offer?

The Career Services Office assists NEIT students and graduates in all aspects of the job search, including resume writing, interviewing skills, and developing a job search strategy. Upon completion of their program, graduates may submit a resume to the Career Services Office to be circulated to employers for employment opportunities in their fields. Employers regularly contact us about our graduates. In addition, our Career Services Office contacts employers to develop job leads.

A strong relationship with employers exists as a result of our training students to meet the needs of industry for over fifty years. No school can, and NEIT does not, guarantee to its graduates employment or a specific starting salary.

14. Where will job opportunities exist?

Graduates have obtained employment in the local area. However, one of the most exciting aspects of this program is the ability to look nationally for employment opportunities.

15. Is there any state or federal licensing required in my field?

Because of the complex nature of state licensing requirements and because those requirements change periodically, NEIT cannot list all the requirements for the various types of licenses in the various states.
Under current Rhode Island law, a student who obtains an associate degree in refrigeration/air conditioning and thereafter registers with the Rhode Island Department of Labor and Training as an apprentice for at least three (3) years and is employed as a registered apprentice by a duly licensed pipefitter or refrigeration/air conditioning or fire protection sprinkler systems master or sheet metal contractor in Rhode Island for a period of three (3) years, may sit for the test for a journeyperson's license in Rhode Island. (R.I.G.L. Section 28-27-11).

NEIT IS NOT RESPONSIBLE FOR ANY CHANGES IN LICENSING REQUIREMENTS THAT ANY STATE LEGISLATURE MAY IMPLEMENT AT ANY TIME, INCLUDING RHODE ISLAND.

16. What kind of jobs will I be qualified to look for?

Refrigeration/Air Conditioning Graduates are qualified to work as entry level refrigeration/air conditioning technician sales person, estimator, installer, engineer's assistant, counter person. In addition, jobs will exist in various aspects of oil and gas heating. Frequently, oil companies hire our graduates. Some jobs are also found with utility companies, plumbing/heating companies, or air conditioning/ refrigeration/ heating companies. Some of our past students have found excellent jobs as building maintenance supervisors in schools, hospitals, condominiums and office complexes. Your actual area of study and your individual strengths and interests will determine the job that is best suited for you.

Technical Standards

These technical standards set forth by the Refrigeration/ Air Conditioning, Heating and Plumbing Departments, establish the essential qualities considered necessary for students admitted to these programs to achieve the knowledge, skills and competencies to enter these fields. The successful student must possess the following skills and abilities or be able to demonstrate that they can complete the requirements of the program with or without reasonable accommodation, using some other combination of skills and abilities.

Cognitive Ability:

- Ability to deal with materials and problems such as organizing or reorganizing information.
- Ability to use abstractions in specific concrete situations.
- Ability to break information into its component parts.
- Ability to understand spatial relationships.
- Possession of basic math skills through addition, subtraction, multiplication and division of whole numbers and fractions using both the U.S. and Metric systems of measurement.
- Ability to demonstrate and use the knowledge acquired during the classroom training process and in the lab setting.

Communications Skills:

- Ability to communicate effectively with others including faculty and students.

Adaptive Ability:

- Ability to respond in an appropriate manner to stressful situations.
- Ability to maintain emotional stability and the maturity necessary to interact with other members of the faculty and students in a responsible manner.

Physical Ability:

- Ability to perform tasks requiring bending, stooping, squatting, kneeling, lying, climbing and walking.
- Ability to lift, lower, push, and pull using both arms and legs.
- Ability to grasp, lift and carry tools and equipment weighing fifty (50) pounds 50 - 500 feet from truck to work area.
- Ability to climb stairs and ladders to 25 feet.
- Agility and strength sufficient to allow bodily maneuvering in small spaces.
- Sufficient strength and agility to grasp and maintain tension for long periods of time.
- Ability to wear and tolerate ear plugs, safety glasses and other protective equipment.
- Ability to perform learned skills, independently, with accuracy and completeness within reasonable time frames in accordance with procedures.

Manual Ability:

- Sufficient manual dexterity and fine motor coordination to manipulate small objects within a limited space.
- Sufficient manual dexterity and motor coordination to coordinate hands, eyes and fingers in the operation of tools and other equipment.

Sensory Ability:

Visual

- Acute enough to distinguish colors, read blueprints, inspect equipment for proper installation and work in dimly lit areas such as basements and boiler rooms.
- Acute enough to read small print.
- Acute enough to read small numbers on precision measuring instruments.

Auditory

Auditory ability, acute enough to detect sounds, changes in sounds, or lack of sounds emitted by heating and air-conditioning equipment.