

## **General Description**

Students at the Associate in Science level of the Mechanical Engineering Technology program concentrate 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.

Graduates with an Associate in Science Degree in Mechanical Engineering Technology are eligible to continue on for a Bachelor of Science in Mechanical Engineering Technology.

## **Program Mission, Objectives, and Outcomes**

### **Program Mission**

The mission of the Associate in Science in Mechanical Engineering Technology is to provide students a concentration 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 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 engineering documentation. Design is emphasized utilizing the latest in computer drafting technology (CADD).

### **Program Educational Objectives**

1. Graduates from the Associate in Science Degree in Mechanical Engineering Technology will have gained the knowledge, problem-solving abilities, and hands-on skills to succeed in a career in the manufacturing, design, specification, installation, testing, operation, maintenance, sales, or documentation of mechanical systems.
2. Graduates from the Associate in Science Degree in Mechanical Engineering Technology will be able to employ communication and teamwork skills to effectively bridge the gap between professional engineers and skilled production workers and to assist engineers to design, develop, and manufacture industrial machinery and consumer products.
3. Graduates from the Associate in Science Degree in Mechanical Engineering Technology will be able to apply knowledge and a propensity for learning to continuously develop new skills and to learn about new areas needed for long-term career development, including science, engineering, and technology knowledge and communication and teamwork skills.
4. Graduates from the Associate in Science Degree in Mechanical Engineering Technology will achieve professional employment within the broad field of mechanical engineering technology or related disciplines.

### **Program Outcomes**

Students must have:

- a. an ability to apply the knowledge, techniques, skills, and modern tools of the discipline to narrowly defined engineering technology activities;
- b. an ability to apply a knowledge of mathematics, science, engineering, and technology to engineering technology problems that require limited application of principles but extensive practical knowledge;
- c. an ability to conduct standard tests and measurements, and to conduct, analyze, and interpret experiments;
- d. an ability to function effectively as a member of a technical team;
- e. an ability to identify, analyze, and solve narrowly defined engineering technology problems;
- f. an ability to apply written, oral, and graphical communication in both technical and non-technical environments; and an ability to identify and use appropriate technical literature;
- g. an understanding of the need for and an ability to engage in self-directed continuing professional development;
- h. an understanding of and a commitment to address professional and ethical responsibilities, including a respect for diversity; and
- i. a commitment to quality, timeliness, and continuous improvement.

**Curriculum**

<b>Quarter I</b>					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
ENG	118	Introduction to Engineering Technology and Lab	2	2	3
MCT	113	Design Principles	3	0	3
MCT	115	Computer-Aided Design I	3	2	4
<b>CHOOSE ONE</b> (depending upon Math placement)					
MA	105	Basic College Math with Lab (MA/SCI Core)	4	2	5
MA	110	Introduction to College Math (MA/SCI Core)	4	0	4
<i>ELECTIVE</i>		<i>100-200 Level Math/Science Core</i>			
			12	4/6	14/15

<b>Quarter II</b>					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
MCT	124	Computer-Aided Design II	3	2	4
MCT	212	Metrology	2	2	3
MA	125	Technical Math I (MA/SCI Core)	4	0	4
EN	100	Introduction to College Writing (COM Core)	4	0	4
			13	4	15

<b>Quarter III</b>					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
MCT	125	Manufacturing Processes	4	0	4
MCT	134	Computer-Aided Design III	3	2	4
MA	210	Technical Math II (MA/SCI Core)	4	0	4
PHY	200	Physics I & Lab (MA/SCI Core)	3	2	4
			14	4	16

<b>Quarter IV</b>					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
MCT	130	Engineering Materials	3	2	4
MCT	136	Electricity/Electronics	3	2	4
MCT	215	Statics	3	2	4
EN	200	Workplace Communications (COM Core)	4	0	4
			13	6	16

<b>Quarter V</b>					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
MCT	224	Mechanics of Materials	3	2	4
MCT	226	Electricity/Electronics II	2	2	3
MCT	239	Quality	3	2	4
PHY	300	Physics II & Lab (MA/SCI Core)	3	2	4
			11	8	15



Quarter VI					
Course No.		Course Title	C	L	T
MCT	235	Industrial Robotic Automation	3	2	4
MCT	237	Design Project	3	2	4
MCT	240	Manufacturing Planning	4	0	4
<i>ELECTIVE</i>		<i>100-200 Level Humanities, Social Sciences or Arts/Foreign Language Core</i>	4	0	4
<b>CHOOSE ONE</b>					
AUT	234	Automotive Engineering	3	2	4
ENG	100	Imagineering: Creative Prototyping	3	2	4
ENG	281	Engineering Internship	0	20	4
MCT	221	AutoCAD Essentials	3	2	4
MCT	233	Kinematics	2	2	3
MCT	241	Machining Fundamentals & CNC	2	2	3
			14/17	6/24	19/20
<i>Total Quarter Credit Hours = 95-97</i>					

**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<sup>1</sup>**

**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<sup>1</sup>**

##### **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 204 Introduction to Theater



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 20<sup>th</sup> 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 206 Constitutional Values in the 21<sup>st</sup> Century  
SS 221 Technology and American Life  
SS 222 Mindful Living

1. Subject to Change

**Degree Progress Checklist**

Check off each completed course

**Technical Course Requirements**

Q1	ENG	118	_____	
	MCT	113	_____	
	MCT	115	_____	
Q2	MCT	124	_____	
	MCT	212	_____	
Q3	MCT	125	_____	
	MCT	134	_____	
Q4	MCT	130	_____	
	MCT	136	_____	
	MCT	215	_____	
Q5	MCT	224	_____	
	MCT	226	_____	
	MCT	239	_____	
Q6	MCT	235	_____	
	MCT	237	_____	
	MCT	240	_____	
	Choose One			
	AUT	234	_____	
	MCT	221	_____	
	MCT	241	_____	
	MCT	233	_____	
	ENG	100	_____	
	ENG	281	_____	

**Liberal Arts Core Requirements**  
**8 Required Courses**

Each course = 4 credits (total of 32 credits)

<b>Communications Core</b>			
#1	EN 100	Q2	_____
	EN 200	Q4	_____

<b>Math/Science Core</b>			
#3	MA 105 or MA 110*	Q1	_____
	MA 125	Q2	_____
#4	MA 210	Q3	_____
#5	PHY 200	Q3	_____
#6	PHY 300	Q5	_____
#7	or		
	If you placed into MA 125 take:		
	100-200 level MA/SCI, SS, HU, or AR/FL elective		
#3	MA 125	Q1	_____
#4	MA 210	Q2	_____
#5	MA 210	Q3	_____
#6	PHY 200	Q3	_____
#7	PHY 300	Q5	_____

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

<b>Humanities, Social Sciences or Arts/Foreign Language Core</b>			
#8	100-200 level HU, SS or AR/FL elective	Q6	_____

Subject to change.

Please see your advisor for any questions.

Students are advised to take courses in the order and in the quarter 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**

### **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 a Quarter VI 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 students 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 (machining 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: MCT 115*

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 125*

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 221 AutoCAD Essentials**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisite: MA 125*

This course provides a comprehensive introduction to mechanical drafting and two-dimensional drawing tools using AutoCAD software. The basic AutoCAD drawing and editing commands are covered including orthographic projection, view creation, dimensioning, hatching techniques, blocks, layouts and plotting, tolerances, and annotations.

**MCT 224 Mechanics of Materials**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisites: MCT 215, MA 125*

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 students in practical applications. The coursework 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 Industrial Robotic Automation**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisite: MA 210*

This course covers the utilization of robotics and automated controls and assembly processes in the manufacturing environment. Levels of automation, flexible and hard automation, open and closed loop control, adaptive control, and material handling will also be discussed.

**MCT 237 Design Project**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisites: ENG 118, 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.

**MCT 239 Quality**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Co-/Prerequisite: MA 125*

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.

**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 241 Machining Fundamentals & CNC**

*2 Class Hours 2 Lab Hours 3 Quarter Credit Hours*

*Prerequisite: MCT 125*

This course will cover the theory and application of manual machining practices as well as an introduction to CNC machining. Topics include material preparation, setup, fixture design, layout, manual milling and lathe operations, blueprint reading, semi-precision measurements, feeds and speeds, and CNC machining and programming.

**AUT 234 Automotive Engineering**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisite: PHY 126 (or PHY 200)*

This project-based course applies the principles of physics to the major systems of automobiles. Students will use numerical, analytical, and graphical approaches to analyze systems and develop hardware and/or simulations to demonstrate the underlying physics principles.

**ENG 100 Imagineering: Creative Prototyping**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

Imagineering is the implementation of creative ideas into practical form using Design Think methodologies. The “maker movement” has spawned a revolution of low-cost, desktop-sized, digital manufacturing technologies that bridge the gaps between creative ideas and tangible objects. Some of these “maker” devices produce artifacts by removing material from a medium; tools like CNC routers, laser etchers, and vinyl cutters. Other devices, 3D printers for example, fabricate by adding material. Whether additive or subtractive, success with these technologies requires creative practice, agile critical thinking, and fearless iteration. These skills are valued across the university and throughout technology-based industries.

**ENG 118 Introduction to Engineering Technology and Lab**

*2 Class Hours 2 Lab Hours 3 Quarter Credit Hours*

This course is an introduction to engineering technology that gives an overview of the profession and explores typical duties and workplace environments for technicians, technologists, and engineers today and in the future. Students use mathematics and critical thinking skills related to various fields of engineering. The Microsoft Office Suite of products is used for solving problems and generating reports and presentations.

**ENG 281 Engineering Internship**

*20 Hours per week 4 Quarter Credit Hours*

Students will have the opportunity to integrate career-related experience into the undergraduate A.S. 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/Mechanical Engineering Technology field and provide invaluable career awareness for students. The internship will also complement what has been learned in the classroom. The internship will include a reflection or evaluation by students at the completion of the internship. This internship requires a minimum of 20 hours per week.

**PHY 300 Physics II & Lab**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisites: MA 125, PHY 200 (or PHY 126)*

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.

**Liberal Arts Associate Degree 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 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 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 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 100/110 or MA 105 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*

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 one quarter, will be documented in a reflection paper in which the student will reflect on the significance of the experience.

**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 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*

*Prerequisite: EN 100 or EN 106*

*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 technical areas.

**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 technical areas.

**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 technical areas.

**MA 121 Business Math**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisite: MA 100/110 or MA 105 or MA 106 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 124 Technical Math I with College Algebra**

*2 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisite: MA 109*

Topics to be studied in this introductory algebra course include operations with signed numbers, rules for exponents, polynomial operations, solutions to linear equations in one variable, the analytic geometry of a straight line, systems of linear equations, trigonometry, vectors and their applications, basic operations with rational expressions, and quadratic equations. These topics are important in many technical fields and for the future study of physics and calculus.

**MA 125 Technical Math I**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisite: MA 105 or 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 200 Applied Math for Business**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisite: MA 105 or 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.

**Physics Courses (Math/Science Core)**

**PHY 126 Applied Physics & Lab**

*3 Class Hours 2 Lab Hours 4 Quarter Credit Hours*

*Prerequisite: MA 100/110 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 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 Credit Hours*

*Prerequisite: EN 100*

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.

**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 206 Constitutional Values in the 21<sup>st</sup> Century**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisite: EN 100*

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 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. For a typical six-quarter curriculum, 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 Quarters. 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 Association of Schools & Colleges (NEASC). Accreditation by NEASC 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 NEASC. 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 for courses in which the student has earned a "C" or above. 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-entries 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 of 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?**

No licensing is required for any of the careers which you will be preparing to enter.

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

You will be qualified to obtain entry- level positions in the area of:

- Design Drafting
- Mechanical Design
- Machine Design
- Automation Design
- Tool Design
- Product Design
- Technical Sales
- Manufacturing Engineering
- Project Engineering
- Production Supervisor
- Engineering Technician
- Applications Engineering
- Mechanical Engineering

**17. How much time will I spend on Computer Assisted Drafting (CAD)?**

You will receive approximately 60 hours of formal training on CAD during the first quarter of your program.

**18. Will I be able to continue toward a bachelor's degree?**

Yes. Students who earn an associate degree in Mechanical Engineering Technology can earn a baccalaureate degree with approximately 6 additional quarters of study (18 months).

## **Technical Standards**

These technical standards set forth by the Mechanical Engineering Technology Department, establishes the essential qualities considered necessary for students admitted to this program 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 concentrate for long periods of time and retain information on intricate details of component theory and analysis of engineering design and operation of computers and machinery.
- 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 perform tasks by observing demonstrations.
- Ability to perform tasks by following written instructions.
- Ability to perform tasks following verbal instructions.

### **Communications Skills:**

- Ability to communicate effectively with faculty and students.
- Ability to demonstrate and use the knowledge acquired during the classroom training process and in the lab setting.

### **Adaptive Ability:**

- 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:**

- An ability to work in a standing, sitting, squatting, kneeling, or lying position
- An ability to lift, lower, push, and pull using both arms and legs.
- Ability to lift objects weighing up to 35 pounds.
- Ability to stand on a hard surface, usually concrete, for 4-6 hours at a time.
- Sufficient upper body strength to carry 20 pounds.
- Sufficient strength and agility to lift equipment and move large pieces of equipment independently.
- 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:**

- Ability to manipulate wrenches, screwdrivers, and other tools.
- Sufficient motor function and sensory abilities to participate effectively in the classroom laboratory.
- Sufficient manual dexterity and motor coordination to coordinate hands, eyes and fingers in the operation of tools and other equipment.

**Sensory Ability:**

Visual

- Visual ability, with or without correction, to enable the student to differentiate tools and instruments, wires, and components.
- Acute enough to read dials, and position of control settings of measurement and industrial equipment.
- Acute enough to read small print.
- Acute enough to read small numbers on precision measuring instruments.

Auditory

- Acute enough to hear and understand words spoken by others in an environment with a high level of noise in the background.

## **Student Acknowledgement of Receipt of Documents**

### **Mechanical Engineering Technology**

I acknowledge that I have received copies of the following documents for the above program:

- 1) Program Description
- 2) Curriculum
- 3) Course Descriptions
- 4) Q&A
- 5) Technical Standards

I understand that it is my responsibility to read these documents. I have been advised that should I have any questions related to the content of any of these documents; I may contact my admissions officer who will review the material with me.

I further understand that NEIT reserves the right, in response to industry demands, to change the contents of these documents without prior notice. Copies of the most recent versions of these documents may be obtained in the Admissions Office.

**Printed Name of Student** \_\_\_\_\_

**Student Signature** \_\_\_\_\_ **Date** \_\_\_\_\_