

General Information

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

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

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

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

New England Institute of Technology participates in the Ford Maintenance and Light Repair (MLR) program which includes Ford Service Technician Specialty Training (STST) in the following areas: Electrical Systems, Climate Control, Brake Systems, Steering and Suspension, Tire, Chassis & Maintenance. Upon graduation, students will have completed the necessary requirements for the Ford MLR certification.

NEIT also participates in the Mopar Career Automotive Program (CAP) LOCAL curriculum, designed and developed by Fiat Chrysler Automotive (FCA) Performance Institute. The curriculum includes a variety of self-study web-based and instructor-led courses. The curriculum covers two levels: Level 0 provides the basics that every technician needs to know, includes the role of the technician in the dealership, new vehicle prep, FCA online systems and use of diagnostic scan tools; Level 1 adds increasingly more complex courses such as engine repair and performance, automatic transmissions, driveline, chassis systems and electrical and body systems. Upon completion, students are qualified to work on a variety of repair needs in Chrysler, Jeep, Dodge, and Ram dealerships.

These intensive programs prepare students for entry-to-industry-level technical capability and offer skills needed for rapid advancement. Graduates of this program are eligible to continue on for a Bachelor of Science Degree in Business Management with an Automotive Service/Transportation Management (MGTT) concentration.

CERTIFICATION STATUS

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

Program Mission, Goals and Outcomes

Program Mission Statement

The mission of both the Automotive (AUT) and Advanced Automotive Technology (AAUT) programs is to create entry-level automotive technicians prepared for employment in new vehicle automobile dealerships, independent automotive repair businesses, fleet service and repair centers and car rental companies. Through participation in classroom, hands-on and lab activities, students will gain the knowledge and experiences necessary to obtain an Associate in Science degree. This will enable them to pursue employment at an entry level in the automotive repair industry or acceptance into an advanced-level training program and lay the foundation for future progression into a management discipline, if so desired.

Program Goals

1. Students will be introduced to various opportunities and careers in the auto industry. Students will identify industry certifications and degree requirements needed to pursue automotive careers.
2. Students will be able to experience theoretical and practical applications which will prepare them for business and industry.
3. Students will participate in peer learning lab activities, which will utilize the gathering of information using both electronic and traditional methods that can be used to generate a comprehensive vehicle report that will be used for repairs and to communicate to the customer the diagnosis and need repairs.
4. Students will develop a sense of professionalism which is expected in the automotive industry and will be encouraged to become lifelong learners.

Program Outcomes

Students successfully completing the Automotive or Advanced Automotive training programs will be able to:

1. Perform basic automobile engine diagnosis through the use of vacuum testing, compression testing and cylinder leakage testing.
2. Perform basic electrical system diagnosis and testing on vehicle lighting, starting, and charging systems.
3. Perform front-end and four-wheel vehicle alignments and repairs on vehicle suspension systems, utilizing the latest, state-of-the-art alignment equipment.
4. Repair all types of light vehicle tires and wheels.
5. Perform drivability diagnosis and repairs to automobile fuel, ignition and emission systems.
6. Diagnose and repair manual and automatic transmission shifting and performance concerns.
7. Recover, recycle, and recharge automotive air conditioning systems in accordance with EPA regulations.
8. Diagnose and repair automotive engine cooling system concerns and replace water pumps, thermostats, accessory drive belts and other cooling system components.
9. Perform automotive drum and disc brake system diagnosis, repairs, and replacement of component parts in accordance with current industry standards for automobile service.

Curriculum

This is the standard Version A, starting with Engines, curriculum.
Version B starts with Electricity & Electronics, Welding and
Version C starts with Brakes, Steering & Suspension.

Term I					
Course No.		Course Title	C	L	T
TT	106	Introduction to Vehicle Maintenance	2	2	3
AUT	103	Automotive Engines	7	0	7
AUT	104	Automotive Engines Lab	0	8	2
			9	10	12
Term II					
Course No.		Course Title	C	L	T
AUT	105	Automotive Electricity and Electronics	7	0	7
AUT	106	Automotive Electricity and Electronics Lab	0	8	2
AUT	114	Oxy and Electric Welding and Cutting	0	3	1
EN	106	Service Industry Communications (COM Core)	5	0	5
			12	11	15
Term III					
Course No.		Course Title	C	L	T
AUT	107	Automotive Brakes, Suspension and Steering	8	0	8
AUT	109	Automotive Brakes, Suspension and Steering Lab	0	8	4
CHOOSE ONE					
MA	106	Computations and Applications (MA/SCI Core)	4	2	5
MA	105	Basic College Math with Lab (MA/SCI Core) (for MGT/BS Students, depending upon placement)	4	2	5
MA	110	Introduction to College Math (MA/SCI Core) (for MGT/BS Students, depending upon placement)	4	0	4
			12	8/ 10	16/ 17
Term IV					
Course No.		Course Title	C	L	T
AUT	209	Automotive Fuel and Ignition Systems	8	0	8
AUT	210	Automotive Fuel and Ignition Systems Lab	0	12	4
AUT	285	Automotive Heating and Air Conditioning Systems	2	4	3
ELECTIVE		Technical Elective	1	3	2
HU	289	Racing Through Film (recommended) or other Humanities Core Elective	4	0	4
			15	19	21

Term V					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
AUT	211	Automotive Powertrains	8	0	8
AUT	219	Automotive Powertrains Lab	0	8	2
EN	100	<i>Introduction to College Writing (COM Core)</i>	4	0	4
CHOOSE ONE					
AUT	251	Internship/Practical Experience	0	20	4
ELECTIVE		Technical Elective	1	3	2
			12/ 13	11/ 28	16/ 18

Technical Electives (Term IV and V)					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
AUT	262	Introduction to Hybrid Vehicles	1	3	2
AUT	263	NVH Principles & Diagnostics	1	3	2
AUT	265	OEM Factory Seminar	1	3	2
AUT	276	Light Duty Diesel Diagnostics and Repair	1	3	2
AUT	277	Vehicle Service Practices with Career Preparation	1	3	2
AUT	280	Advanced Troubleshooting (Term V only)	1	3	2

Term VI					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
AUT	221	Automotive Engine Performance Diagnosis	8	0	8
AUT	222	Automotive Engine Performance Diagnosis Lab	0	12	4
BU	236	<i>Small Business and the Law (SS Core)</i>	4	0	4
HU	242	<i>The Automobile and American Culture (recommended) or other Humanities Core Elective</i>	4	0	4
			16	12	20
<i>Total Quarter Credit Hours = 99-101 for AAUT (Standard Option) Students</i>					

INTERNSHIP OPTION

Intersession (AAUT – INTERN)					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
PHY	126	<i>Applied Physics & Lab (MA/SCI Core)</i>	3	2	4
			3	2	4
<i>Total Quarter Credit Hours = 105-108 for AAUT (Internship Option) Students</i>					

BS OPTION

Intersession (BS)					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
MA	200	<i>Applied Math for Business (MA/SCI Core)</i>	4	0	4
			4	0	4
<i>Total Quarter Credit Hours = 102-105 for BS* Students</i>					

AS COMPLETION OPTION

Term VI (AS Completion)					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
HU	242	<i>The Automobile and American Culture (HU Core)</i>	4	0	4
BU	236	<i>Small Business and the Law (SS Core)</i>	4	0	4
MA	121	<i>Business Math (MA/SCI Core)</i>	4	0	4
PHY	126	<i>Applied Physics & Lab (MA/SCI Core)</i>	3	2	4
			15	2	16
<i>Total Quarter Credit Hours = 95-97 for AAUT (AS Completion) Students</i>					

Term VII					
<i>Course No.</i>		<i>Course Title</i>	<i>C</i>	<i>L</i>	<i>T</i>
AUT	271	Introduction to High Performance Vehicles	6	0	6
AUT	278	Introduction to High Performance Vehicles Lab	4	4	6
			10	4	12
<i>Total Quarter Credit Hours = 111-113 for AAUT (Standard Option) Students</i>					
<i>Total Quarter Credit Hours = 117-120 for AAUT (Internship Option) Students</i>					
<i>Total Quarter Credit Hours = 114-117 for BS* Students</i>					
<i>Total Quarter Credit Hours = 107-109 for AAUT (AS Completion) Students</i>					

Legend

C = Number of lecture hours per week

L = Number of laboratory hours per week

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

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

All associate degree students are required to take 32 credits of liberal arts and math/science courses as selected from the liberal arts core. See the course descriptions section of this catalog for a list of the core area courses. Students who place out of MA 106 or MA 105/110 must still take 32 credits of core courses.

*For students intending to enroll in the bachelor's program in Business Management upon completion of the associate degree program.

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 Areas¹

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 Core¹

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 110 Introduction to College Math
MA 105 Basic College Math with Lab
MA 109 Math for Life Science
MA 121 Business Math
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 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 206 Constitutional Values in the 21st Century
SS 221 Technology and American Life
SS 222 Mindful Living

1. Subject to Change

Degree Progress Checklist

Check off each completed course.

Program Requirements

T1	TT	106	_____
	AUT	103	_____
	AUT	104	_____

T2	AUT	105	_____
	AUT	106	_____
	AUT	114	_____

T3	AUT	107	_____
	AUT	109	_____

T4	AUT	209	_____
	AUT	210	_____
	AUT	285	_____
	Technical Elective		_____

T5	AUT	211	_____
	AUT	219	_____
	Choose One		_____
	Technical Elective		_____
AUT	251	_____	

T6	AUT	221	_____
	AUT	222	_____

T7	AUT	271	_____
	AUT	278	_____

Technical Electives (T 4 and 5)			
AUT 262		AUT 276	
AUT 263		AUT 277	
AUT 265		AUT 280	

Liberal Arts Core Requirements

7 Required Courses

(total of 29/30 credits)

Communications Core			
#1	EN 106	T2	_____
#2	EN 100	T5	_____

Math/Science Core			
#3	MA 106	T3	_____
#4	PHY 126	Intersession	_____

Bachelor's Degree Track			
#3	MA 105 or 110	T3	_____
#4	MA 200	Intersession	_____

Humanities Core			
#5	HU 289 or other HU elective	T5	_____
#6	HU 242 or other HU elective	T6	_____

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 of Required Technical Courses

AUT 103 Automotive Engines

7 Class Hours 7 Quarter Credit Hours

This course is the study of two- and four-cycle internal combustion engine operation and design. Topics covered are engine identification, internal components, cooling systems, lubrication systems and preliminary diagnosis of internal noises and excessive smoke. The course begins with discussions of internal failures and moves to practice with engine precision measurement and in-car repairs. In-depth discussions will focus on sealing techniques and engine breathing requirements. The course then progresses to in-car repairs including timing belts and water pumps. Students will study engine fasteners and fastening techniques. In-depth discussions will focus on sealing techniques and engine breathing requirements.

AUT 104 Automotive Engines Lab

8 Lab Hours 2 Quarter Credit Hours

Students will practice compression and vacuum testing, oil pressure and cooling system examination. Students will learn to identify different engine configurations through the use of VIN or model numbers and will practice finding specifications in service manuals or by using computerized information systems. Students will practice disassembly of major components and replacement of cylinder head gaskets, water pumps, timing belts and intake manifold gaskets.

AUT 105 Automotive Electricity and Electronics

7 Class Hours 7 Quarter Credit Hours

This course is a study of the fundamental theory and application of electrical and electronic principles in the automotive industry. Topics covered include principles of electricity, electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion, students will be able to properly use electrical testing equipment, wiring diagrams, diagnose, test, and repair electrical concerns. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

AUT 106 Automotive Electricity and Electronics Lab

8 Lab Hours 2 Quarter Credit Hours

In the lab, students will learn the use of multimeters and other test equipment. Students will also build, diagnose and repair electrical circuits and components. Topics covered include electrical test equipment, circuit construction, electrical and electronic components, wiring diagrams, basic troubleshooting techniques, starting and charging systems, gauges and sending units, power accessories and supplemental restraint systems. Upon completion, students will be able to properly use electrical testing equipment, wiring diagrams, diagnose, test, and repair electrical concerns. In addition to the subject matter, this course is designed to encourage teamwork, written and verbal communications and critical thinking skills.

AUT 107 Automotive Brakes, Suspension and Steering

8 Class Hours 8 Quarter Credit Hours

This course covers the principles of operation of drum and disc braking systems. Students will study hydraulic principles, brake inspection, brake bleeding, brake system flushing, and machining practices. This course also introduces students to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

AUT 109 Automotive Brakes, Suspension and Steering Lab

8 Lab Hours 4 Quarter Credit Hours

The brake portion of the course covers the principles of operation, servicing and the diagnosing of drum, disc, parking, power assist and anti-lock braking systems. The steering and suspension portion of the course introduces students to automotive frame systems, tires, wheels, suspension components and suspension inspection and alignment. Students will study steering system inspection and service and suspension system component identification, removal and repair.

AUT 114 Oxy and Electric Welding and Cutting

3 Lab Hours 1 Quarter Credit Hour

This course is intended to teach students the fundamentals of using both oxy/acetylene and electric welding equipment. Students will learn the three different classes of welding, safety precautions associated with each class and will practice basic welding, brazing and cutting techniques.

AUT 209 Automotive Fuel and Ignition Systems

8 Class Hours 8 Quarter Credit Hours

Prerequisites: AUT 103/104, AUT 105/106, TT 105 or (TT 106)

Co-requisite: AUT 210

Students are introduced to the air and fuel requirements of the internal combustion engine. Storage tanks, lines and fittings, electric/mechanical fuel pumps, electronic fuel injection, and carburetor theory and operation will be discussed as well as all related components. The computer network and scan tool operation as it applies to the fuel system will also be discussed. Students are also introduced to the diagnosis and repair of advanced electronic and computerized ignition systems found on the modern day internal combustion engine. They will study the components and operation of the engine management system used on today's cars.

AUT 210 Automotive Fuel and Ignition Systems Lab

12 Lab Hours 4 Quarter Credit Hours

Prerequisites: AUT 103/104, AUT 105/106, TT 105 or (TT 106)

Co-requisite: AUT 209

Students will practice fuel tank removal and installation and fuel pump removal and installation. They will also practice the diagnosis and repair of all types of electronic fuel injection. Routine service procedures, i.e. fuel injection cleaning/de-carbonizing, will also be practiced. Students will be required to use state-of-the-art tools and service equipment commonly used in the trade. Students will also practice scan tool operation and use these and other common tools and diagnostic equipment to troubleshoot and service modern ignition and fuel systems.

AUT 211 Automotive Powertrains

8 Class Hours 8 Quarter Credit Hours

Prerequisites: TT 105 or (TT 106) and AUT 105/106 or (ATX 115/117, ATX 125/127, ATX 135/137)

Co-requisite: AUT 219

Students will study the design and theory of operation of automatic and manual front and rear wheel transmissions and transaxles. Students will be able to identify all of the component parts within the transmission as well as be able to demonstrate an ability to correctly explain the operating principles of each assembly.

AUT 219 Automotive Powertrains Lab

8 Lab Hours 2 Quarter Credit Hours

Prerequisites: TT 105 or (TT 106) and AUT 105/106 or (ATX 115/117, ATX 125/127, ATX 135/137)

Co-requisite: AUT 211

Students will practice disassembly and reassembly of front and rear wheel drive automatic transmissions and transaxles. Students will also demonstrate an ability to correctly identify rear end, final drive, driveshaft, and drive axle service and maintenance procedures.

AUT 221 Automotive Engine Performance Diagnosis

8 Class Hours 8 Quarter Credit Hours

Prerequisites: AUT 209/210 Co-requisite: AUT 222

This course will cover the complete computerized engine management systems (i.e., ignition, fuel, and emissions) and self-diagnostics. OBD II (on-board diagnostics generation 2) and drive-cycle monitors will be discussed, as well as advanced testing procedures using lab scopes, scan tools and other tools and equipment common to the repair and service trade. The course will also focus on the diagnosis and repair of drivability problems associated with the computer control systems.

AUT 222 Automotive Engine Performance Diagnosis Lab

12 Lab Hours 4 Quarter Credit Hours

Prerequisites: AUT 209/210

Co-requisite: AUT 221

Students will be required to diagnose and repair various drivability problems using scan tools, lab scopes and other state-of-the-art tools and equipment. They will also be required to diagnose and repair EVAP failures and emissions-related failures using 5-gas analyzers and other modern day equipment and tools normally found in the service trade.

AUT 271 Introduction to High Performance Vehicles

6 Class Hours 6 Quarter Credit Hours

Prerequisites: AUT 209/210 or ATX 225/227

This course will cover an introduction to horsepower, airflow through an engine and exhaust systems. Dynamometer testing of vehicles prior to modification will be discussed and practiced as well as modifications which can be made to most vehicles. Students will practice testing vehicles, making engine, exhaust and suspension modifications and retesting vehicles to measure results.

AUT 278 Introduction to High Performance Vehicles Lab

4 Class Hours 4 Lab Hours 6 Quarter Credit Hours

Prerequisites: AUT 209/210 or ATX 225/227

Students will practice testing vehicles, making engine, exhaust and suspension modifications and retesting vehicles to measure results.

AUT 285 Automotive Heating and Air Conditioning Systems

2 Class Hours 4 Lab Hours 3 Quarter Credit Hours

Prerequisites: TT 105 or (TT 106), AUT 105/106 (or AUB 131/132)

This course will cover the basic physics concepts of heating, cooling heat transfer and phase changes. It will apply this knowledge to the understanding of engine cooling systems, heating systems and air conditioning systems. Students will apply this knowledge in the lab in the testing and servicing of these systems.

TT 106 Introduction to Vehicle Maintenance

2 Class Hours 2 Lab Hours 3 Quarter Credit Hours

This course is designed to familiarize incoming students with the operations of the Transportation Labs and the overall program. Students will be introduced to shop safety procedures, various types of hand

tools and their uses, measuring tools and shop equipment such as lifts and scan tools. In addition, the various fasteners that will be encountered in the program will be explained and their uses discussed. Through a combination of both classroom and lab work, students will also be exposed to various basic vehicle maintenance checks and procedures. Students will also practice online information and data retrieval as well as recording-keeping. Students will be introduced to a wide range of potential career opportunities and work environments in the automotive field. Students will be asked to demonstrate proficiency using shop equipment such as lifts, jacks, jack stands and jump packs.

Course Descriptions for Technical Electives

AUT 251 Internship/Practical Experience

20 Internship Lab Hours 4 Quarter Credit Hours

Prerequisite: AUT 265

This course is designed for students who have completed the majority of their automotive studies and wish to hone their skills in the work environment. Employers will be matched with students based on interest/ability levels to assist students to improve their mechanical skill in the work environment.

AUT 262 Introduction to Hybrid Vehicles

1 Class Hour 3 Lab Hours 2 Quarter Credit Hours

Prerequisites: AUT 105/106 or ATX 125/127

This course will cover the theory and operation of hybrid electric vehicles. While this course will focus on hybrid electric vehicles, different types of alternative fuel vehicles will be introduced as well. Safety procedures and common services to hybrid electrics will be discussed as well as specific tool usage as they pertain to high voltage systems.

AUT 263 NVH Principles and Diagnostics

1 Class Hour 3 Lab Hours 2 Quarter Credit Hours

Prerequisites: TT 105 (or TT 106), AUT 103/104, AUT 107/109

In this course, students will learn to identify and diagnose noise, vibration, and harshness issues as they apply to vehicle ride quality, vehicle operation and customer perception. Students will become proficient using various tools designed to detect noise, vibration, and harshness and determine the corrective repairs.

AUT 265 OEM Factory Training Seminar

Prerequisites: TT 106, AUT 103/104, AUT 106, AUT 107/109

Upon completion of this course, students will have the ability to explain and demonstrate maintenance procedures and light repair on Ford, Chrysler or Subaru vehicles in accordance with OEM practices.

AUT 276 Light Duty Diesel Diagnostics and Repair

1 Class Hour 3 Lab Hours 2 Quarter Credit Hours

Prerequisites: TT 105 (or TT 106) and AUT 103/104/105/106 or ATX 115/117/125/127

This course covers the principles of operation of light duty diesel vehicles. The course will focus on: basic diesel operation, preventive maintenance, high and low-pressure fuel systems, high and low pressure lubricating systems, intake and exhaust systems and emission controls. Content learned in the classroom will be applied in the lab.

AUT 277 Vehicle Service Practices with Career Preparation

1 Class Hour 3 Lab Hours 2 Quarter Credit Hours

Prerequisites: AUT 103/104, AUT 105/106, AUT 107/109 & Instructor Approval

This course will review and expand on basic shop skills that entry-level automotive technicians will be expected to perform. Students will review skills taught in previous terms and bring their proficiency up to new levels. While there will be some classroom instruction, the main focus will be hands-on work in the lab.

AUT 280 Advanced Troubleshooting

1 Class Hour 3 Lab Hours 2 Quarter Credit Hours

Prerequisites: AUT 103/104, AUT 209/210

This course is designed for students who have completed the majority of their automotive studies and want to hone their diagnostic skills. This course is lab-based and focuses on automotive drivability problems and will consist of a large amount of hands-on practical problems.

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

This online course is offered through the Feinsein 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 Feinsein 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 Communication Skills

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

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 106 Computations and Applications

4 Class Hours 2 Lab Hours 5 Quarter Credit Hours

Prerequisite: AUT 114

This course in basic mathematics covers the math skills necessary for automotive technicians. Topics include: decimals, fractions, ratios, percentages, unit conversion, basic geometry and basic algebra. In the lab, students will apply these concepts to practical automotive applications.

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 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 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 21st 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 p.m.), or mid-afternoon. The time slot for your program may vary from term to term.

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 seven liberal arts courses customized or specifically selected for automotive technicians. These courses will be scheduled around your technical schedule over the course of your entire program

At the beginning of each term 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 this seven-term curriculum, a student may complete the requirements in as little as 21 months.

To complete all your degree requirements in the shortest time, you should take at least one liberal arts course each term. 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 terms of study to complete the liberal arts requirements without any additional tuition assessment fee. During these additional terms 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 terms 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 (formerly the Commission on Institutions of Higher Education of the New England Association of Schools and Colleges, Inc.). 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 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 term for transfer credit to be granted for courses to be taken during that term. Students will receive a tuition reduction for the approved technical courses based on the program rate and will be applied against the final technical term 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 term, spread over several terms. 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 term.

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 terms 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 five terms to complete your automotive training and the additional sixth term courses necessary to complete your associate 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. What is the difference between the Advanced Automotive Technology (AAUT) and the Advanced Automotive Technology with High Performance (AAHP) associate degree programs?

AAUT and AAHP associate degree programs have a different number of terms. The AAUT associate degree is a six term program and the AAHP associate degree is a seven term program. The additional seventh term is the high performance term which includes lab experiences with the dynamometer and horsepower measurements not included in the Advanced Automotive curriculum.

16. What is included in the automotive program?

The Automotive Technology program includes a prescribed automotive training curriculum that is distributed over five academic terms, each ten weeks long. To receive an associate degree, you will take a total of six academic terms each ten weeks long, that includes seven liberal arts courses customized or specifically selected for automotive technicians. These courses are scheduled around your technical courses.

17. Will I need tools or special equipment?

No. Any tools you will need will be available for your use either in the main tool crib or in classroom lockers. You will, however, be responsible for the return of any and all tools you check out of the tool crib. Tools not returned or replaced will be charged to your account.

18. Will I be required to wear special clothing?

Yes. Each student is required to purchase and wear uniform shirts. In addition, proper navy blue work pants must be worn (no jeans, sweatpants, nylon pants, shorts, tattered, too tight or oversized pants). Students must have purchased their uniforms and be wearing them to class and lab by the end of the third week of classes. Students who have not purchased their uniforms and/or who do not wear their uniforms will not be allowed to attend class after the third week of classes. Also, proper footwear such as good quality work boots are to be worn at all times. No sneakers, sandals or soft type footwear, shorts and tee shirts are allowed at any time.

19. Where can I purchase a uniform and what kind of uniform do I need?

Students may purchase items for their uniforms online at Alexander's Uniforms <http://aucorporateapparel.com/>. At the site's homepage, click "New England Institute of Technology" from either the icon or the left tab, then select your department from the list. All items are priced to include a 15% discount. If you have any questions, contact Wendy Magnette via email at wmagnette@alexandersuniforms.com or at 401-654-6500.

The required uniforms include:	
Navy Sanmar PC54 Shirt w/ Screen Printing	\$11.00 (S-XL), \$13.00 (2X-5X)
Navy Sanmar PC54LS Shirt w/ Screen Printing	\$15.00 (S-XL), \$17.00 (2X-5X)
Navy Red Kap P110 Work Pants	\$19.99 (waist: 28-42), \$23.99 (waist: 44-52)

You may also purchase your uniform items at Alexander's Uniforms at one of their three locations (recommended if you are unsure of the size): 1) *Rhode Island*: Marshall's Plaza, 1 Lambert Lind Highway, Warwick RI 02886, 860-889-7744, 401-654-6500; 2) *Connecticut*: 77 Salem Turnpike, Norwich, CT 06360, 781-762-1449; 3) *Massachusetts*: 500 Providence Highway, Norwood MA 02062. A Student ID is needed to ensure you receive your 15% discount at checkout.

20. Will I be required to wear any special safety equipment?

Yes, eye and ear protection must be worn when performing special tasks or in areas that require them. Students are responsible for the purchasing of proper eye protection and must be carried on them at all times. Eye protection must be worn at all times in the automotive labs. Ear protection is supplied by the College. Also, as a safety precaution, work shoes or boots must be properly laced and tied at all times, shirts must be worn tucked in pants, and no rings, watches, earrings, nose rings and or dangling jewelry is allowed during lab or shop conditions.

21. Can I work on my own vehicle?

It is often possible for students to work on their own vehicles. NEIT does not take in any outside work for the purpose of students having vehicles to work on. However, the student may bring in his/her vehicle providing the work is related to the course that is being taken at that time.

22. Is there any open lab time?

All lab time is specifically for the courses being taken. Students may arrange with an instructor to do some necessary repair to a vehicle, and emergency repairs will be dealt with as they arise. However, all lab work is limited to what is being taught at the particular time. In the event that a student wants some work done that is not related to his or her studies, it may be possible to arrange with a student from another class to do the work for him in a class where the work is related to the course.

23. Does NEIT supply repair parts?

NEIT supplies repair parts for vehicles which NEIT provides for the students to work on. Students are responsible for purchasing their own repair parts if they are working on their own vehicle. There are several parts supplier in the area.

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

No license is required for automotive technicians; students are, however, urged to take the Automotive Service Excellence (ASE) test upon completion of their NEIT program. ASE certification shows your prospective employer that you are competent in diagnosing and repairing vehicle problems. ASE recognizes your 18 months of training at NEIT as equivalent to one year's experience in the field toward certification. (Two years field experience are required.)

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

Upon completion of your automotive technical training, you will be employable as a technician in independent garages, dealerships, mass merchandisers, service stations, specialty shops, automotive parts stores and car rental agencies.

Jobs range from entry level technician to owner/operator or manager. The U.S. Department of Labor occupational handbook predicts that job opportunities in the automotive field will grow at a faster than average rate with the greatest potential in the higher technologies. Competition for jobs will be keen and requirements will increasingly emphasize an applicant's training and education. ASE certification greatly enhances your position.

Due to the uniqueness of the automotive repair trade, students will not be limited to the automotive field when looking for a job. A qualified student will be able to pursue work in many other areas such as: auto parts stores, automotive machine shops, boat yards (marine engine repair), farm equipment repair and motorcycle repair.

Technical Standards

These technical standards, set forth by the Automotive/Auto body and Marine Technology 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 obtain a score of 3 or higher on a ten-point scale mechanical reasoning test.
- Ability to read and understand warning labels associated with various hazardous chemicals.
- Ability to learn, remember and recall detailed information and to use it for problem solving.
- 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.
- Possession of basic keyboarding skills and knowledge of computer programs.

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 automotive tools and instruments, wires, and components.
- 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 (such as, but not limited to: airguns, engine noises, drills, radios etc.