

## **General Information**

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

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

Graduates are ready to enter a range of technician positions in the auto body field. In addition, they are eligible to continue on for a Bachelor of Science in Business Management with an Automotive Service/Transportation Management (MGTT) concentration.

## **CERTIFICATION STATUS**

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



## **Program Mission, Goals and Outcomes**

### **Program Mission Statement**

The mission of the Automotive Collision Repair Technology (ACR) program is to create entry-level technicians prepared for employment in automotive new vehicle dealerships, independent collision repair establishments, fleet service centers and car rental organizations. Through participation in classroom and lab activities, students enrolled in the program will gain the knowledge and experiences necessary to obtain an Associate in Science degree and to pursue employment at an entry level in the automotive industry or acceptance into an industry advanced level training program.

### **Program Goals**

1. The ACR program will provide students with the necessary experiences to become employable in the automotive collision repair industry at an entry level.
2. The ACR program will provide students with the necessary lab activities according to the National Automotive Technicians Education Foundation (NATEF) standards to prepare students to sit for the National Institute of Automotive Service Excellence (ASE) certification exams.
3. The ACR program will strive to instill in students a professional work ethic.
4. The ACR program will provide students the knowledge of workplace hazards so students will be able to work safely in the automotive collision repair industry.

### **Program Outcomes**

Students successfully completing the ACR program will be able to:

1. Show concern for safety while working in the Collision Repair Lab.
2. Identify on sight tools and equipment used in the Collision Repair field.
3. Choose the correct materials to be used in the repair of modern vehicles.
4. Understand the different types of spray guns and air compressors used in the collision repair industry.
5. Understand the mix ratios and related additives for primers, sealers, and topcoats used in automotive refinishing.
6. Gain an understanding of the process used to prepare the surface for undercoat and topcoat application.
7. Have an ability to identify computers and electronic scales to formulate colors to match vehicle manufacturer's topcoat systems.
8. Understand proper use and application of refinishing materials.
9. Demonstrate an ability to cut and weld components.
10. Diagnose and measure unibody vehicles using a universal measuring system (mechanical, electronic, laser).
11. Join/weld panel components to industry standards.
12. Remove creases and dents using power tools and hand tools to restore damaged areas to proper contours and dimensions.
13. Remove and replace damaged sections of structural steel body panels in accordance with manufacturer's specifications/procedures.
14. Determine the extent of damage to structural steel body panels; repair vs. replace.
15. Understand the proper use of airbrush, various colors, stencils and masking materials to achieve graphic expressions.
16. Understand metal fabrication using a metal brake, hammer and dolly, sheet metal, sheet metal cutting tools, mig welders, metal-to-metal adhesives and refinishing fillers to remove imperfections.
17. Perform basic electrical system diagnosis and testing on vehicle lighting, starting, and charging systems.
18. Perform front-end and four-wheel vehicle alignments and repairs on vehicle suspension systems, utilizing the latest, state-of-the-art alignment equipment.
19. Recover, recycle, and recharge automotive air conditioning systems in accordance with EPA regulations.
20. Perform automotive drum and disc brake system diagnosis, repairs, and replacement of component parts in accordance with current industry standards for automobile service.

### Curriculum

Term I					
Course No.		Course Title	C	L	T
AUB	100	Introduction to Collision Repair	2	0	2
AUB	104	Fundamentals of Auto Body Metal Repair	4	0	4
AUB	103	Fundamentals of Auto Body Metal Repair Lab	0	4	1
AUB	117	Welding for Collision Repair	1	3	2
AUB	137	Fundamentals of Paints & Refinishing Equipment	2	0	2
AUB	136	Fundamentals of Paints & Refinishing Equipment Lab	0	4	1
			9	11	12

Term II					
Course No.		Course Title	C	L	T
AUB	145	Glass and Non-Structural Panel Replacement	3	0	3
AUB	146	Glass and Non-Structural Panel Replacement Lab	0	3	1
AUB	152	Introduction to Structural Repairs & Component Replacement	4	0	4
AUB	153	Introduction to Structural Repairs & Component Replacement Lab	0	8	2
EN	106	Service Industry Communications (COM Core)	5	0	5
			12	11	15

Term III					
Course No.		Course Title	C	L	T
AUB	131	Basic Electricity for Collision Repair	3	0	3
AUB	132	Basic Electricity for Collision Repair Lab	0	3	1
AUB	154	Major & Minor Frame & Structural Straightening	4	0	4
AUB	155	Major & Minor Frame & Structural Straightening Lab	0	8	2
AUB	156	Plastic Panel & SMC Repair	3	0	3
AUB	157	Plastic Panel & SMC Repair Lab	0	3	1
			10	14	14

Intersession (Optional)					
Course No.		Course Title	C	L	T
EN	100	Introduction to College Writing (COM Core)	4	0	4
ELECTIVE	100-200 Level Humanities Core		4	0	4
			8	0	8



Term IV					
Course No.	Course Title	C	L	T	
AUB	243	Multi-Stage Paint Applications	4	0	4
AUB	245	Multi-Stage Paint Applications Lab	0	4	1
AUB	253	Paint and Refinishing Applications	4	0	4
AUB	254	Paint and Refinishing Applications Lab	0	4	1
AUB	261	Assessing Damage & Estimating Repairs	3	0	3
MA	105	<i>Basic College Math with Lab (MA/SCI Core)</i>	4	2	5
			15	10	18

Term V					
Course No.	Course Title	C	L	T	
AUB	122	Brakes & Suspension Systems for Collision Students	4	0	4
AUB	123	Brakes & Suspension Systems for Collision Students Lab	0	4	1
AUB	127	Introduction to Airbrushing	1	3	2
AUB	128	Custom Modifications I	2	4	3
HU	289	<i>Racing Through Film (HU Core)</i>	4	0	4
			11	11	14

Term VI					
Course No.	Course Title	C	L	T	
BU	236	<i>Small Business and the Law (SS Core)</i>	4	0	4
ELECTIVE	<i>100-200 Level Social Science Core</i>		4	0	4
<b>CHOOSE ANY TWO</b>					
AUB	129	Advanced Airbrushing Techniques	1	3	2
AUB	130	Custom Modifications II	2	4	3
AUT	285	Automotive Heating & Air Conditioning Systems	2	4	3
<b>OR</b>					
AUB	249	Auto/Collision Repair Internship	0	20	4
			8-12	7-20	12-14
<i>Total Quarter Credit Hours = 93-95</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 105 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 100/110 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 114 Introduction to Meteorology

#### **Arts/Foreign Language Core Electives (Maximum of 4 Credits in Place of a Humanities Course)**

AR 203 Introduction to Drawing  
AR 204 Introduction to Theater  
AR 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

**Program Requirements**  
Check off each completed course.

T1	AUB	100	_____
	AUB	103	_____
	AUB	104	_____
	AUB	117	_____
	AUB	137	_____
	AUB	136	_____
T2	AUB	145	_____
	AUB	146	_____
	AUB	152	_____
	AUB	153	_____
T3	AUB	131	_____
	AUB	132	_____
	AUB	154	_____
	AUB	155	_____
	AUB	156	_____
	AUB	157	_____
T4	AUB	243	_____
	AUB	245	_____
	AUB	253	_____
	AUB	254	_____
	AUB	261	_____
T5	AUB	122	_____
	AUB	123	_____
	AUB	127	_____
	AUB	128	_____
T6	CHOOSE ANY TWO		
	AUB	129	_____
	AUB	130	_____
	AUT	285	_____
	OR		
AUB	249	_____	

**Liberal Arts Core Requirements**  
**7 Required Courses**

<b>Communications Core</b>			
<b>#1</b>	EN 106	T2	_____
<b>#2</b>	EN 100	Intersession	_____
<b>Math/Science Core</b>			
<b>#3</b>	MA 105	T4	_____
*If you placed into MA 044, take MA 105 as your next math course instead of MA 110.			
<b>Humanities Core*</b>			
<b>#4</b>	HU 289	T5	_____
<b>#5</b>	100-200 level HU elective	Intersession	_____
*You may use one Arts/Foreign Language Core Elective to fulfill your Humanities Core.			
<b>Social Sciences Core</b>			
<b>#6</b>	BU 236	T6	_____
<b>#7</b>	100-200 level SS elective	T6	_____

**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**

### **AUB 100 Introduction to Collision Repair**

*2 Class Hours 2 Quarter Credit Hours*

This course is designed to familiarize incoming students with the operation of the Automotive Collision Repair labs and provide an overview of the program. Students will be introduced to the potential job opportunities and the working environment in the automotive collision repair industry and will become familiar with the tools used in collision repair. Students will study state and federal environmental safety laws and regulations as well as personal and shop safety. Students will also be asked to demonstrate proficiency using shop equipment, measuring tools/charts, crash manuals and computerized information.

### **AUB 103 Fundamentals of Auto Body Metal Repair Lab**

*4 Lab Hours 1 Quarter Credit Hour*

*Pre/co-requisite: AUB 104*

In the lab, students will practice the concepts they learned in AUB 101. Students will be assigned an auto body component and will demonstrate their ability to correctly apply refinishing materials using specialized equipment. Students will also practice using hand and power tools specific to the automotive collision repair industry.

### **AUB 104 Fundamentals of Auto Body Metal Repair**

*4 Class Hours 4 Quarter Credit Hours*

*Co-requisites: AUB 103, AUB 117*

Students will learn the proper and safe use of hand and power tools specific to the auto body trade. Students will learn the concepts of straightening sheet metal components and practice the proper use of various auto body refinishing materials and equipment.

### **AUB 117 Welding for Collision Repair**

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

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

### **AUB 122 Brakes and Suspension Systems for Collision Students**

*4 Class Hours 4 Quarter Credit Hours*

*Co-requisite: AUB 123*

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

### **AUB 123 Brakes and Suspension Systems for Collision Students Lab**

*4 Lab Hours 1 Quarter Credit Hour*

*Co-requisite: AUB 122*

Students will practice drum and disc machining, caliper service and brake inspections in the lab. They will also be introduced to anti-lock braking systems and servicing. Students will practice rebuilding wheel cylinders, calipers and master cylinders to manufacturers' specifications. They will also learn tire dismounting and mounting, balancing and service of run-flat design tires. Students will practice removal and installation of steering components and will also study suspension system component removal and replacement in the lab; and practice wheel replacement and alignment using a variety of state-of-the-art equipment.





**AUB 127 Introduction to Airbrushing**

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

*Prerequisites: AUB 243/245, AUB 253/254*

This course is designed for the person who has no airbrush experience and for those who have used an airbrush before but want to learn new techniques. Instruction will cover how to handle the airbrush, the hook-up and maintenance procedure for double action brushes, how to render in black, white and color and more. Through a series of pre-printed exercises, students will learn glazing techniques, mixing of products and media and to work with stencils and templates.

**AUB 128 Custom Modifications I**

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

Custom car design and building allows students to express themselves in a creative way. Students will gain minor fabrication skills using sheet metal. Students will be exposed to body kits and their installation. Also, students will learn the art of removing door hardware and installing electric door openers. The installation of Lambo doors and suicide doors will be demonstrated and explained. The course will discuss the art of chopping a roof of an automobile. There is no end to the possibilities of custom car design.

**AUB 129 Advanced Airbrushing Techniques**

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

*Prerequisite: AUB 127*

This course expands on the techniques mastered in AUB 127. Instruction will cover how to render in color and more. Through a series of pre-printed exercises, students will practice glazing techniques, mixing of products and media and to work with stencils and templates. Emphasis will be on illustrations and custom ornate work on large surface areas as well as multi-level illustrations.

**AUB 130 Custom Modifications II**

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

*Prerequisite: AUB 128*

After the completion of sheet metal work and design comes the painting techniques students will use in finishing a custom project. Steps in preparing the panel for custom finishes will be demonstrated and practiced. Students will develop a unique illustration and geometric designs for their project. Specific topics addressed include application of candy finish, how to create traditional and realistic flames. The use of templates and a wide variety of masking techniques to create a custom paint finish will be practiced.

**AUB 131 Basic Electricity for Collision Repair**

*3 Class Hours 3 Quarter Credit Hours*

*Co-requisite: AUB 132*

This course covers electrical fundamentals from "What is Electricity?" to basic troubleshooting techniques. Topics covered will be: how electricity is produced, types of electricity, Ohm's Law, basic circuit construction, conductors, insulators, induction, battery construction and testing, alternators, starters, lighting systems, electrical testing tools and diagnosis of circuit problems.

**AUB 132 Basic Electricity for Collision Repair Lab**

*3 Lab Hours 1 Quarter Credit Hour*

*Co-requisite: AUB 131*

In the lab, students will learn the use of multimeters and other test equipment to diagnose and repair electrical circuits and components including lights, gauges, solenoids, relays, voltage regulators, motors and generators. Students will be instructed in the correct methods of constructing circuits, testing batteries, charging systems and starting systems.



**AUB 136 Fundamentals of Paints and Refinishing Equipment Lab**

*4 Lab Hours 1 Quarter Credit Hour*

*Co-requisite: AUB 137*

Students will practice surface preparation such as masking techniques, surface preparation, preparing sprayable materials, spraying different consistencies of paints and primers and cleaning and storing painting equipment and supplies.

**AUB 137 Fundamentals of Paints and Refinishing Equipment**

*2 Class Hours 2 Quarter Credit Hours*

*Co-requisite: AUB 136*

Students will learn spray equipment handling, operation and care. Students will practice spraying various consistencies of paints from undercoats to topcoats. Students will learn personal health safety and spray booth operation.

**AUB 145 Glass and Non-Structural Panel Replacement**

*3 Class Hours 3 Quarter Credit Hours*

*Prerequisites: AUB 103/104*

*Co-requisite: AUB 146*

Students will be instructed in the proper methods used in the removal and replacement of auto glass, interior moldings, interior hardware and exterior trim. Demonstrations will include proper installation of exterior panels as well as adjustments on hoods, fenders, doors and deck lids.

**AUB 146 Glass and Non-Structural Panel Replacement Lab**

*3 Lab Hours 1 Quarter Credit Hour*

*Prerequisites: AUB 117, AUB 101/103*

*Co-requisite: AUB 145*

In the lab, students will practice the concepts they learned in AUB 145. Students will demonstrate the ability to properly install a non-structural panel to manufacturer's specifications. Students will also perform adjustments on hoods, fenders, doors and deck lids to achieve proper fit.

**AUB 152 Introduction to Structural Repairs and Component Replacement**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisites: AUB 117, AUB 103/104, AUB 137/136*

*Co-requisite: AUB 153*

In this course, students will learn vehicle frame and body design from full-frames to unibody construction and the proper methods used in the removal and replacement of such structural components as quarter panels and door skins. Demonstrations will include the operation of hydraulic straightening equipment, straightening techniques, straightening structural components and replacement of door skins and/or quarter panels on live vehicles or replacement doors. Students will be instructed in sectioning of stationary mild and H.S.S. steel panels.

**AUB 153 Introduction to Structural Repairs and Component Replacement Lab**

*8 Lab Hours 2 Quarter Credit Hours*

*Prerequisites: AUB 117, AUB 103/104, AUB 137/136*

*Co-requisite: AUB 152*

Students will demonstrate the ability to properly operate hydraulic straightening equipment and will practice straightening techniques and straightening structural components in the collision repair lab. Students will be instructed in, and practice sectioning of, stationary mild and H.S.S. steel panels. They will also demonstrate their ability to replace door skins and/or quarter panels on live vehicles or replacement doors.



**AUB 154 Major and Minor Frame and Structural Straightening**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisites: AUB 137/136, AUB 145/146, AUB 152/153*

*Co-requisite: AUB 155*

Students will be instructed in full-frame and unibody straightening on vehicles using the portable and stationary frame straightening equipment. Instruction will also cover the procedures used in the repair of major collision damage, the use and operation of a body and frame bench, and the methods used to verify specifications and measurement. Those skills will be used to repair vehicles with major collision damage using universal measuring systems in the automotive collision repair lab.

**AUB 155 Major and Minor Frame and Structural Straightening Lab**

*8 Lab Hours 2 Quarter Credit Hours*

*Prerequisites: AUB 137/136, AUB 145/146, AUB 152/153*

*Co-requisite: AUB 154*

Students will be asked to demonstrate the knowledge gained in AUB 154 and to perform frame straightening on either unibody or full-frame vehicles. They will also demonstrate their ability to use the universal measuring system to correctly verify specifications and measurement of a vehicle with major collision damage and return a damaged vehicle to factory specification. Vehicle type and design will depend on vehicle availability.

**AUB 156 Plastic Panel and SMC Repair**

*3 Class Hours 3 Quarter Credit Hours*

*Prerequisites: AUB 103/104, AUB 137/136, AUB 145/146*

*Co-requisite: AUB 157*

In this course, students will learn the process for repairing various plastic components used on modern automobiles. Students will be instructed in the use of plastic welders and plastic adhesives to perform repairs on both rigid and flexible components to industry standards. Students will also be instructed in the repair and replacement of Sheet Molded Composite (SMC) panels.

**AUB 157 Plastic Panel and SMC Repair Lab**

*3 Lab Hours 1 Quarter Credit Hour*

*Prerequisites: AUB 103/104, AUB 137/136, AUB 145/146*

*Co-requisite: AUB 156*

Students will practice repairing plastic components using plastic welders and special adhesives particular to the automotive industry. Students will also practice replacing SMC components and panels and refinishing them to manufacturer's specifications and industry standards.

**AUB 243 Multi-Stage Paint Applications**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisites: AUB 103/104, AUB 137/136*

*Co-requisite: AUB 245*

Students will practice mixing two- and three-stage paints using computerized mixing equipment. Students will demonstrate their ability to identify colors using vehicle color codes and determine the type of paint presently on the vehicle.

**AUB 245 Multi-Stage Paint Applications Lab**

*4 Lab Hours 1 Quarter Credit Hour*

*Prerequisites: AUB 103/104, AUB 137/136*

*Co-requisite: AUB 243*

Students will demonstrate their ability to mix primers and paints with related additives and apply them to properly prepared vehicle surfaces. To do this, students will be asked to demonstrate their ability to identify colors from vehicle paint codes and mix paints using the computerized mixing equipment and blend newly-applied paint into previously painted panels.



**AUB 249 Auto/Collision Repair Internship**

*20 Internship Lab Hours 4 Quarter Credit Hours*

This course is designed for students who have completed the majority of their autobody or collision repair 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 autobody or collision repair skills in the work environment.

**AUB 253 Paint and Refinishing Applications**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisites: AUB 103/104, AUB 137/136*

*Co-requisite: AUB 254*

Students will practice preparing various types of surfaces to accept the application of paint finishes. Students will inspect, clean, and determine the condition and adequacy of spray guns and related material and equipment. Demonstrations will include instruction in the mixing of primers and paints and the use of computerized mixing equipment.

**AUB 254 Paint and Refinishing Applications Lab**

*4 Lab Hours 1 Quarter Credit Hour*

*Prerequisites: AUB 103/104, AUB 137/136*

*Co-requisite: AUB 253*

Students will practice mixing primers and single-stage paints for consistency and application. Students will use computerized mixing equipment to obtain proper chemical compounds. Students will also practice the application of primers and paints to vehicle surfaces to achieve a finish consistent with industry standards.

**AUB 261 Assessing Damage and Estimating Repairs**

*3 Class Hours 3 Quarter Credit Hours*

*Prerequisites: AUB 156/157*

This course is designed for students who have completed all aspects of the repair and refinishing portion of their Automotive Collision Repair curriculum. This course prepares students to write estimates of repair using collision crash guides, parts sources, and other available types of literature for various makes of vehicles. Students will also be instructed in the latest software available for the estimation of vehicle repairs.

**AUT 285 Automotive Heating and Air Conditioning Systems**

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

*Prerequisites: TT 106 (or AUB 100), 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.

## **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 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*

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*

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 Quarter Credit Hours*

The purpose of Life-Span Development is to introduce students to the broad concepts of human growth and development from conception to death. Students will be introduced to human development from the prenatal stage to death with particular emphasis placed on early childhood, adolescence and old age.



The course is especially designed for students entering the healthcare professions as the slant is toward practical application of all stages. Upon completion of the course, students should be able to demonstrate a basic knowledge of the developmental stages of life.

**PS 201 Introduction to Psychology**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisite: EN 100*

This introductory course in psychology is a survey of the multiple aspects of human behavior. It includes, but is not limited to, such topics as the history of psychology, the biological foundations of behavior, memory, learning, personality, psychological disorders and treatment and social behavior. Importantly, this course will be geared to stress those areas of more practical significance for those in medical service fields.

**PS 202 Psychology of Healthcare**

*4 Class Hours 4 Quarter Credit Hours*

*Prerequisite: EN 100*

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



**NEW ENGLAND TECH**

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Associate in Science Degree**

*(For students entering their program  
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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 university 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 Terms. Students will not be assessed any additional tuition for liberal arts courses taken during the Intersession but may be assessed applicable fees.

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

**7. Is NEIT accredited?**

NEIT is accredited by the New England Commission of Higher Education (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 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-entrees and beyond pay the tuition rate in effect at the time they re-enter. The most economical way for you to complete your college degree is to begin your program now and continue your studies straight through for the six quarters necessary to complete your degree requirements.

**13. What kind of employment assistance does NEIT offer?**

The Career Services Office assists NEIT students and graduates in all aspects of the job search, including resume writing, interviewing skills, and developing a job search strategy. Upon completion of their program, graduates may submit a resume to the Career Services Office to be circulated to employers for employment opportunities in their fields. Employers regularly contact us about our graduates. In addition, our Career Services Office contacts employers to develop job leads. A strong relationship with employers exists as a result of our training students to meet the needs of industry for over fifty years. No school can, and NEIT does not, guarantee to its graduates employment or a specific starting salary.

**14. Where will job opportunities exist?**

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

**15. What is included in the automotive program?**

The Automotive Technology program includes six technical quarters, each ten weeks long. To receive an associate degree, you will take a total of eight liberal arts courses which are scheduled around your technical courses.

**16. 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.

**17. 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.

**18. 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](mailto: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.

**19. 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.

**20. 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.

**21. 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.

**22. 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.

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

No license is required for automotive or auto body technicians; students are, however, urged to take the Automotive Service Excellence (ASE) test upon completion of their NEIT program. The National Institute for Automotive Service Excellence, ASE, tests and rates technicians according to their ability. ASE is recognized worldwide. At the present time, there are ten areas, eight automotive technician and two auto body in which you may become certified. Certification may be in any one or all areas. Testing is carried out locally each spring and fall.

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

Upon completion of your 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. Completion of auto body technical training programs will qualify you for entry level positions in collision repair, frame straightening, welding, painting and refinishing.

Jobs in the auto body field 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, boat yards, municipalities, or recreational vehicle dealerships.

## **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.).