

## Transport System Technologies

### Automotive Restoration Technology

#### Credential: Diploma in Automotive Restoration Technology D6014000

The Automotive Restoration Technology curriculum is designed to provide individuals with the competencies needed to work in the automotive restoration industry. The course work includes research and application of information on specific components of a wide range of classic vehicles (1900 – 1970), such as internal combustion engines, transmissions, brakes, sheet metal, upholstery, starters, generators, and related systems. Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive restoration industry.

Entrance Standards: See General Admission Standards on page 6.

Academic Standards: See General Academic Standards on page 16.

Program Length: 3 semesters

Career Pathway Options: Diploma in Automotive Restoration Technology

Program Sites: Lee Campus - Day Program

#### Course Requirements for Automotive Restoration Technology Diploma

A. General Education Courses (6 SHC) C-L-SHC  
ENG 102 Applied Communication II 3-0-3  
MAT 101 Applied Mathematics I 2-2-3

#### B. Required Major Core Courses (31 SHC)

ARS 101 Introduction to Auto Restoration 2-0-2  
ARS 102 Auto Restoration Research 3-0-3  
ARS 103 Automobile Upholstery 2-4-4  
ARS 104 Restorative Skills I 2-4-4  
ARS 107 Automotive Engines 1-3-2  
Or  
AUT 116 Engine Repair 2-3-3  
ARS 108 Wood and Metal Restoration 2-2-3  
AUB 141 Mechanical and Electrical Components I 2-2-3  
AUB 134 Auto Body MIG Welding 1-4-3  
Or  
WLD 212 Inert Gas Welding 1-3-2  
ARS 131 Chassis and Drive Trains 2-3-3  
ARS 161 Electrical Systems Fundamentals 2-6-4  
OR  
AUT 161 Basic Auto Electricity 4-3-5

#### C. Other Major Hours Required for Graduation (11 SHC)

AUB 111 Painting and Refinishing I 2-6-4  
AUB 112 Painting and Refinishing II 2-6-4  
AUB 121 Non-Structural Damage I 1-4-3

Total Semester Hours Credit required for graduation: 48

#### Semester Curriculum for Automotive Restoration Technology Diploma

1st Semester (Fall) C-L-SHC  
ARS 101 Introduction to Auto Restoration 2-0-2  
ARS 107 Automotive Engines 1-3-2  
ARS 108 Wood and Metal Restoration 2-2-3

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AUB 111 Painting and Refinishing I 2-6-4  
AUB 121 Non-Structural Damage I 1-4-3  
ARS 161 Electrical Systems Fundamentals 2-6-4  
10-21-18

#### 2nd Semester (Spring)

ARS 102 Auto Restoration Research 3-0-3  
ARS 103 Automobile Upholstery 2-4-4  
AUB 112 Painting and Refinishing II 2-6-4  
AUB 141 Mechanical and Electrical Components I 2-2-3  
ARS 131 Chassis and Drive Trains 2-3-3  
ENG 102 Applied Communication II 3-0-3  
15-15-20

#### 3rd Semester (Summer)

AUB 134 Auto Body MIG Welding 1-4-3  
ARS 104 Restorative Skills I 2-4-4  
MAT 101 Applied Mathematics I 2-2-3  
5-10-10

Total Semester Hours Credit (SHC): 48

### Automotive Restoration Technology Credential: Certificate in Automotive Restoration Technology C6014000

The Automotive Restoration Technology curriculum is designed to provide individuals with the skills needed to work in an entry-level position in the automotive restoration industry. The course work includes research and application of information on specific components of vehicles such as engines, sheet metal, auto body and painting. Graduates of the curriculum should qualify for entry-level employment opportunities in the automotive restoration industry.

Entrance Standards: See General Admission Standards on page 6.

Academic Standards: See General Academic Standards on page 16.

Program Length: 3 semesters

Career Pathway Options: Diploma in Automotive Restoration Technology (Higher entrance standards required); Certificate in Automotive Restoration Technology

Program Sites: Lee Campus - Evening Program

#### Course Requirements for Automotive Restoration Technology Certificate

A. Required Subject Areas (4 SHC) N/A

#### B. Other Major Hours Required for Graduation (13 SHC)

ARS 101 Introduction to Auto Restoration 2-0-2  
AUB 111 Painting and Refinishing I 2-6-4  
AUB 121 Non-Structural Damage I 1-4-3  
AUB 141 Mechanical and Electrical Components I 2-2-3  
7-12-12

Total Semester Hours Credit required for graduation: 12

#### Semester Curriculum for Automotive Systems Technology Certificate

1st Semester (Fall) C-L-SHC  
ARS 101 Introduction to Automotive Rest 2-0-2  
AUB 111A Painting and Refinishing IA 2-3-3  
4-3-5

#### 2nd Semester (Spring)

AUB 121	Non-Structural Damage I	1-4-3
AUB 111B	Painting and Refinishing IB	0-3-1
		1-7-4

3rd Semester (Fall)

AUB 141	Mechanical and Electrical Components I	2-2-3
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Total Semester Hours Credit (SHC): 12

## Automotive Systems Technology

### Credential: Associate in Applied Science Degree in Automotive Systems Technology A6016000

The Automotive Systems Technology curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic coursework. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared for ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Entrance Standards: See General Admission Standards on page 7 (Gen. Info section).

Academic Standards: See General Academic Standards on page 18 (Gen. Info section).

Program Length: 5 semesters

Career Pathway Options: Associate in Applied Science Degree in Automotive Systems Technology

Program Sites: Lee Campus - Day Program

#### Course Requirements for Automotive Systems Technology Degree

##### A. General Education Courses (15/16 SHC) C-L-SHC

ENG 110	Freshman Composition	3-0-3
	OR	
ENG 111	Expository Writing	3-0-3
ENG 111A	Expository Writing Lab	0-2-1
ENG 116	Technical Report Writing	3-0-3
	OR	
ENG 114	Prof Research & Reporting	3-0-3
	Humanities Elective	3-0-3
	Social Science Elective	3-0-3
MAT 115	Mathematical Models	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4

##### B. Required Major Core Courses (21 SHC)

AUT 141	Suspension & Steering Sys	2-3-3
AUT 151	Brake Systems	2-3-3
AUT 161	Basic Auto Electricity	4-3-5
AUT 181	Engine Performance 1	2-3-3
AUT 183	Engine Performance 2	2-6-4

AUT 281	Adv. Engine Performance	2-2-3
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#### C. Other Major Hours Required for Graduation (36 SHC)

AUT 110	Intro to Auto Technology	2-2-3
AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1
AUT 116	Engine Repair	2-3-3
AUT 116A	Engine Repair Lab	0-3-1
AUT 141A	Suspension & Steering Lab	0-3-1
AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Auto Electricity	2-3-3
AUT 163A	Adv Auto Electricity Lab	0-3-1
AUT 171	Auto Climate Control	2-4-4
AUT 181A	Engine Performance Lab	0-3-1
AUT 186	PC Skills for Auto Techs	2-2-3
	OR	
CIS 111	Basic PC Literacy	1-2-2
AUT 221	Auto Transm/Transaxles	2-3-3
AUT 221A	Auto Transm/Transaxles	0-3-1
AUT 231	Man Trans/Axles/Drtrains	2-4-4
AUT 231A	Man Trans/Ax/Drtrains Lab	0-3-1
AUT 283	Advanced Auto Electronics	2-2-3
WLD 112	Basic Welding Processes	1-3-2

Total Semester Hours Credit Required for Graduation: 73/74

#### Semester Curriculum for Automotive Systems Technology Degree

##### 1st Semester (Fall)

C-L-SHC		
AUT 110	Intro to Auto Technology	2-2-3
AUT 141	Suspension & Steering Sys	2-3-3
AUT 141A	Suspension & Steering Lab	0-3-1
AUT 161	Basic Auto Electricity	4-3-5
CIS 111	Basic PC Literacy	1-2-2
MAT/PHY	MAT/PHY elective	3/4
		9-13-17

##### 2nd Semester (Spring)

AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Auto Electricity	2-3-3
AUT 163A	Adv Auto Electricity Lab	0-3-1
AUT 181	Engine Performance 1	2-3-3
AUT 181A	Engine Performance Lab	0-3-1
ENG 110	Freshman Composition	3-0-3
		9-18-15

##### 3rd Semester (Summer)

AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1
AUT 171	Auto Climate Control	2-4-4
AUT 183	Engine Performance 2	2-6-4
		5-14-11

##### 4th Semester (Fall)

AUT 116	Engine Repair	2-3-3
AUT 116A	Engine Repair Lab	0-3-1
AUT 231	Man Trans/Axles/Drtrains	2-4-4
AUT 231A	Man Trans/Ax/Drtrains Lab	0-3-1
AUT 283	Advanced Auto Electronics	2-2-3

ENG 116	Technical Report Writing	3-0-3
		7-15-15
5th Semester (Spring)		
AUT 221	Auto Transm/Transaxles	2-3-3
AUT 221A	Auto Transm/Transaxles	0-3-1
AUT 281	Adv Engine Performance	2-2-3
WLD 112	Basic Welding Processes	1-3-2
	Humanities Elective	3-0-3
	Social Science Elective	3-0-3
		11-11-15

Total Semester Hours Credit: 73/74

**Automotive Systems Technology  
Credential: Diploma in Automotive Systems  
Technology  
D6016000**

The Automotive Systems Technology curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic coursework. Emphasis is placed on theory, servicing and operation of brakes, electrical/electronic systems, engine performance, steering/suspension, automatic transmission/transaxles, engine repair, climate control, and manual drive trains.

Upon completion of this curriculum, students should be prepared for ASE exam and be ready for full-time employment in dealerships and repair shops in the automotive service industry.

Entrance Standards: See General Admission Standards on page 7 (Gen. Info section).

Academic Standards: See General Academic Standards on page 18 (Gen. Info section).

Program Length: 3 semesters

Career Pathway Options: Associate in Applied Science Degree in Automotive Systems Technology (Higher entrance standards required); Diploma in Automotive Systems Technology

Program Sites: Lee Campus - Day Program

**Course Requirements for Automotive Systems Technology Diploma**

A. General Education Courses (6SHC)		C-L-SHC
*ENG 102	Applied Communications II	3-0-3
*MAT 101	Applied Mathematics I	2-2-3
	Or	
PHY 121	Applied Physics I	3-2-4
B. Required Major Core Courses (18 SHC)		
AUT 141	Suspension & Steering Sys	2-3-3
AUT 151	Brake Systems	2-3-3
AUT 161	Basic Auto Electricity	4-3-5
AUT 181	Engine Performance 1	2-3-3
AUT 183	Engine Performance 2	2-6-4

C. Other Major Hours Required for Graduation (19 SHC)

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AUT 110	Intro to Auto Technology	2-2-3
AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1
AUT 141A	Suspension & Steering Lab	0-3-1
AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Auto Electricity	2-3-3
AUT 163A	Adv Auto Electricity Lab	0-3-1
AUT 171	Auto Climate Control	2-4-4
AUT 181A	Engine Performance Lab	0-3-1
AUT 186	PC Skills for Auto Techs	2-2-3
	OR	
CIS 111	Basic PC Literacy	1-2-2

\*These courses are not transferable to the AAS Degree.

Total Semester Hours Credit Required for Graduation: 43

**Semester Curriculum for Automotive Systems Technology Diploma**

**1st Semester (Fall)**

	C-L-SHC	
AUT 110	Intro to Auto Technology	2-2-3
AUT 141	Suspension & Steering Sys	2-3-3
AUT 141A	Suspension & Steering Lab	0-3-1
AUT 161	Basic Auto Electricity	4-3-5
CIS 111	Basic PC Literacy	1-2-2
MAT/PHY	MAT/PHY elective	3/4
		9-13-17

**2nd Semester (Spring)**

AUT 151	Brake Systems	2-3-3
AUT 151A	Brake Systems Lab	0-3-1
AUT 163	Adv Auto Electricity	2-3-3
AUT 163A	Adv Auto Electricity Lab	0-3-1
AUT 181	Engine Performance 1	2-3-3
AUT 181A	Engine Performance Lab	0-3-1
*ENG 102	Applied Communications II	3-0-3
		9-18-15

**3rd Semester (Summer)**

AUT 114	Safety and Emissions	1-2-2
AUT 114A	Safety and Emissions Lab	0-2-1
AUT 171	Auto Climate Control	2-4-4
AUT 183	Engine Performance 2	2-6-4
		5-14-11

\*These courses are not transferable to the AAS Degree.

Total Semester Hours Credit: 43

**Automotive Systems Technology  
Credential: Certificate in Automotive Systems  
Technology  
C6016000**

This The Automotive Systems Technology curriculum prepares individuals for employment as automotive service technicians. It provides an introduction to automotive careers and increases student awareness of the challenges associated with this fast and ever-changing field.

Classroom and lab experiences integrate technical and academic coursework. Emphasis is placed on theory, servicing and operation of electrical/electronic systems. Upon completion of this curriculum, students should be prepared for ASE electrical certification and be ready for full-time employment

in dealerships and repair shops in the automotive service industry.

Entrance Standards: See General Admission Standards on page 7 (Gen. Info section).

Academic Standards: See General Academic Standards on page 18 (Gen. Info section).

Program Length: 2 semesters

Career Pathway Options: Associate in Applied Science Degree in Automotive Systems Technology (Higher entrance standards required); Diploma in Automotive Systems Technology (Higher entrance standards required); Certificate in Automotive Systems Technology

Program Sites: Lee Campus - Evening Program

Course Requirements for Automotive Systems Technology Certificate

A. Required Subject Areas (5 SHC)	C-L-SHC
AUT 161 Basic Auto Electricity	4-3-5

B. Other Major Hours Required for Graduation (10 SHC)	
AUT 163 Adv Auto Electricity	2-3-3
AUT 163A Adv Auto Electricity Lab	0-3-1
Major Elective Course	6

Major elective (6 SHC)

Select 6 SHC from the other available automotive (AUT) courses.

Total Semester Hours Credit Required for Graduation: 15

Semester Curriculum for Automotive Systems Technology Certificate

1st Semester (Fall)

C-L-SHC	
AUT 161 Basic Auto Electricity	4-3-5
Major Elective	3
	4-3-8

2nd Semester (Spring)

AUT 163 Adv Auto Electricity	2-3-3
AUT 163A Adv Auto Electricity Lab	0-3-1
Major Elective	3
	2-6-7

## Motorcycle Mechanics

### Credential: Diploma in Motorcycle Mechanics D6026000

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair and/or adjust motorcycles, and all terrain vehicles (ATV). Course work, including a thorough understanding of the operating principles involved in modern motorcycles, will be presented in class assignments, discussion, demonstration and shop practice. Graduates receiving a diploma may find employment with motorcycle dealers, independent repair shops or may set up their own business after they have developed skills in the trade.

Entrance Standards: See General Admission Standards on page 6.

Academic Standards: See General Academic Standards on page 16.

Program Length: 3 semesters

Career Pathway Options: Diploma in Motorcycle Mechanics

Program Sites: Lee Campus - Day Program

Course Requirements for Motorcycle Mechanics Diploma

A. General Education Courses (6 SHC)	C-L-SHC
ENG 102 Applied Communication II	3-0-3
MAT 101 Applied Math I	2-2-3

B. Required Major Core Courses (38 SHC)

BUS 230 Small Business Management	3-0-3
MCM 101 Introduction to Motorcycle Mech.	3-8-7
MCM 102 Motorcycle Engines	2-9-5
MCM 103 Motorcycle Electrical Systems	2-8-6
MCM 104 Motorcycle Fuel Systems	2-6-5
MCM 105 Motorcycle Chassis	1-6-3
MCM 106 Troubleshooting	2-6-4
MEC 111 Machine Processes I	1-4-3
WLD 112 Basic Welding Processes	1-3-2

C. Other Major Hours required for graduation (2 SHC)

CIS 111 Basic PC Literacy	1-2-2
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Total Semester Hours Credit required for graduation: 46

Semester Curriculum for Motorcycle Mechanics Diploma

1st Semester (Summer) C-L-SHC

BUS 230 Small Business Management	3-0-3
MCM 101 Introduction to Motorcycle Mech.	3-8-7
	6-8-10

2nd Semester (Fall)

CIS 111 Basic PC Literacy	1-2-2
MAT 101 Applied Math I	2-2-3
MCM 102 Motorcycle Engines	2-9-5
MCM 103 Motorcycle Electrical Systems	2-8-6
WLD 112 Basic Welding Procedures	1-3-2
	8-24-18

3rd Semester (Spring)

ENG 102 Applied Communication II	3-0-3
MCM 104 Motorcycle Fuel Systems	2-6-5
MCM 105 Motorcycle Chassis	1-6-3
MCM 106 Troubleshooting	2-6-4
MEC 111 Machine Processes I	1-4-3
	9-22-18

Total Semester Hours Credit: 46

## Motorcycle Mechanics

### Credential: Certificate in Motorcycle Mechanics C6026000

This curriculum provides a training program for developing the basic knowledge and skills needed to inspect, diagnose, repair and/or adjust motorcycles, and all terrain vehicles (ATV). Course work, including a thorough understanding of the operating principles involved in modern motorcycles, will be presented in class assignments, discussion, demonstration and shop practice.

Entrance Standards: See General Admission Standards on page 6.

Academic Standards: See General Academic Standards on page 16.

Program Length: 2 semesters

Career Pathway Options: Diploma in Motorcycle Mechanics (Higher entrance standards required); Certificate in Motorcycle Mechanics

Program Sites: Lee Campus - Evening Program

Course Requirements for Motorcycle Mechanics Certificate

A. Required Major Courses (12 SHC) C-L-SHC

MCM 101 Introduction to Motorcycle Mechanics 3-8-7

MCM 102 Motorcycle Engines 2-9-5

Total Semester Hours Credit required for graduation: 12

Semester Curriculum for Motorcycle Mechanics Certificate

1st Semester (Fall) C-L-SHC

MCM 101 Introduction to Motorcycle Mechanics 3-8-7

2nd Semester (Spring)

MCM 102 Motorcycle Engines 2-9-5

Total Semester Hours Credit: 12