

Automotive Systems Technology

Career Technologies

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ABOUT THIS FIELD

Curriculums in the Mobile Equipment Maintenance and Repair pathway prepare individuals for employment as entry-level transportation service technicians. The program provides an introduction to transportation industry careers and increases student awareness of the diverse technologies associated with this dynamic and challenging field.



WHAT YOU'LL STUDY

Course work may include transportation systems theory, braking systems, climate control, design parameters, drive trains, electrical/electronic systems, engine repair, engine performance, environmental regulations, materials, product finish, safety, steering/suspension, transmission/transaxles, and sustainable transportation, depending on the program major area chosen.



WHAT YOU CAN DO

Graduates of this pathway should be prepared to take professional licensure exams, which correspond to certain programs of study, and to enter careers as entry-level technicians in the transportation industry. The Automotive Systems Technology program prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. The program includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

 **Southwestern**
C O M M U N I T Y C O L L E G E

PROGRAM START DATES:

Fall or Spring Semester

FOR MORE INFORMATION CONTACT:

David Myers, Program Coordinator

✉ d_myers@SouthwesternCC.edu

☎ 828.339.4237

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CLASSES YOU'LL NEED TO TAKE

ASSOCIATE IN APPLIED SCIENCE DEGREE (AAS) A60160

Total Semester Hour Credits: 71

FALL SEMESTER 1

Prefix	Number	Title	Class	Lab	Clinical	Credit
ACA	111	College Student Success	1	0	0	1
AUT	151	Brake Systems	2	3	0	3
AUT	151A	Brake Systems Lab	0	3	0	1
TRN	110	Introduction to Automotive	1	2	0	2
TRN	120	Basic Transportation Electricity	4	3	0	5
TRN	120A	Basic Transportation Electricity Lab	0	3	0	1
		Totals	8	14	0	13

SPRING SEMESTER 1

AUT	141	Suspension & Steering Systems	2	3	0	3
AUT	141A	Suspension & Steering Lab	0	3	0	1
TRN	130	Intro to Sustainable Transportation	2	2	0	3
TRN	145	Advanced Transportation Electronics	2	3	0	3

Choose one of the following:

ENG	110	Freshman Composition	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3

Choose one of the following:

PSY	118	Interpersonal Psychology	2	3	0	3
PSY	150	General Psychology	3	0	0	3
SOC	210	Introduction to Sociology	3	0	0	3
		Totals	12	11	0	16

SUMMER SEMESTER

AUT	181	Engine Performance I	2	3	0	3
CIS	110	Introduction to Computers	2	2	0	3
TRN	140	Transportation Climate Control	1	2	0	2
TRN	140A	Transportation Climate Control Lab	1	2	0	2
		Totals	6	9	0	10

FALL SEMESTER 2

ATT	140	Emerging Transportation Technology	2	3	0	3
AUT	116	Engine Repair	2	3	0	3
AUT	183	Engine Performance II	2	6	0	4
LDD	112	Introduction to Light-Duty Diesel	2	2	0	3

Choose one of the following:

HUM	110	Technology and Society	3	0	0	3
HUM	115	Critical Thinking	3	0	0	3
		Totals	11	14	0	16

SPRING SEMESTER 2

AUT	212	Auto Shop Management	3	0	0	3
AUT	221	Automatic Transmissions/Transaxle	2	3	0	3
AUT	221A	Automatic Transmissions/Transaxle Lab	0	3	0	1
AUT	231	Manual Transmissions/Axles/Drtrains2	3	0	0	3

Choose one of the following:

COM	120	Intro to Interpersonal Comm.	3	0	0	3
ENG	114	Professional Research & Reporting	3	0	0	3

Choose one of the following:

MAT	110	Mathematical Measurements	2	2	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Totals	12	11	0	16

DIPLOMA/CERTIFICATE OPTIONS

DIPLOMA - D60160

Total Semester Hour Credits: 42

FALL SEMESTER 1

Prefix	#	Title	Class	Lab	Clinical	Credit
AUT	151	Brake Systems	2	3	0	3
AUT	151A	Brake Systems Lab	0	3	0	1
TRN	110	Introduction to Automotive	1	2	0	2
TRN	120	Basic Transportation Electricity	4	3	0	5
TRN	120A	Basic Transp. Electricity Lab	0	3	0	1

Choose one of the following:

ACA	111	College Student Success	1	0	0	1
ACA	122	College Transfer Success	0	2	0	1
		Totals	7-8	14-16	0	13

SPRING SEMESTER 1

AUT	141	Suspension & Steering Systems	2	3	0	3
AUT	141A	Suspension & Steering Lab	0	3	0	1
CIS	110	Introduction to Computers	2	2	0	3
TRN	145	Advanced Transp. Electronics	2	3	0	3

Choose one of the following:

ENG	110	Freshman Composition	3	0	0	3
ENG	111	Writing and Inquiry	3	0	0	3
		Totals	9	11	0	13

SUMMER SEMESTER

AUT	181	Engine Performance I	2	3	0	3
TRN	140	Transportation Climate Control	1	2	0	2
TRN	140A	Transp. Climate Control Lab	1	2	0	2
		Totals	4	7	0	7

FALL SEMESTER 2

AUT	116	Engine Repair	2	3	0	3
LDD	112	Introduction to Light-Duty Diesel	2	2	0	3

Choose one of the following:

MAT	110	Mathematical Measurements	2	2	0	3
MAT	143	Quantitative Literacy	2	2	0	3
		Totals	6	7	0	9

BASIC CERTIFICATE - C60160B, C60160CP*

Total Semester Hour Credits: 16

SEMESTER 1

AUT	151	Brake Systems	2	3	0	3
AUT	151A	Brake Systems Lab	0	3	0	1
TRN	110	Introduction to Automotive	1	2	0	2
TRN	120	Basic Transportation Electricity	4	3	0	5
TRN	120A	Basic Transp. Electricity Lab	0	3	0	1
		Totals	7	14	0	12

SEMESTER 2

AUT	141	Suspension & Steering Systems	2	3	0	3
AUT	141A	Suspension & Steering Sys. Lab	0	3	0	1
		Totals	2	6	0	4

ADVANCED CERTIFICATE - C60160A

Total Semester Hour Credits: 17

SEMESTER 1

AUT	181	Engine Performance I	2	3	0	3
TRN	140	Transportation Climate Control	1	2	0	2
TRN	140A	Transp. Climate Control Lab	1	2	0	2
		Totals	4	7	0	7

SEMESTER 2

AUT	183	Engine Performance II	2	6	0	4
LDD	112	Intro to Light-Duty Diesel	2	2	0	3
TRN	145	Advanced Transp. Electronics	2	3	0	3
		Totals	6	11	0	10