

# ASSOCIATE OF APPLIED SCIENCE

## **AUTOMOTIVE TECHNOLOGY**

The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.

**2023-24 Catalog** 

Effective Summer 2023

2250

Business, Engineering, and Information Technologies Division

Automotive and Transportation Department

TECHNICAL Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
AUT122	Automotive Systems and Engine Technology	4	AUT121	
AUT124	Vehicle Chassis Systems	4	AUT121	
AUT125	Automotive Electrical and Accessory Systems	4	AUT121	
AUT221	Fuel and Emissions Management Systems	3	AUT125	
AUT222	Engine System Performance Diagnosis	3	AUT125	
AUT223	Advanced Automotive Electronics	3	AUT125	
AUT227	Computerized Vehicle Control	3	AUT125	
AUT233	Automotive Diagnostic Applications	2	AUT223	
AUT234	Alternative Fuels and Advanced Automotive Technologies	2	AUT223	
	See Technical Elective list page**	2-5	Check for prerequisites	
	Total	30-33		
NON-TECH Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year
SSC101	Student Success Seminar^^	1	Take first semester	
AUT121	Automotive Technical Skills	2		
AUT123	Engine Diagnosis and Major Service	4	AUT121	
AUT126	Automotive HVAC Systems	2	AUT121	
AUT225	Automotive Drivetrain 1	3	AUT121	
AUT226	Automotive Drivetrain 2	3	AUT121	
ENG124	College Composition^	3	Co-ENG024 or Co-ENG011 or Proficiency	
ENG221	Technical Report Writing	3	ENG124	
MTH107 or	Industrial Math <sup>^</sup> or	3 <b>or</b>	Check for prerequisites	
MTH125	College AlgebraΩ	4	ententife procequiation	
BUS122	Basic Economics^	3	IDS102 or Proficiency	
PHL122	Ethics	3		
	Total	30		
	TOTAL CREDIT HOURS	60-64		

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should be taken by students planning to transfer to a four-year university

<sup>\*\*</sup>See Technical Elective list page.

Effective Summer 2023

## **AUTOMOTIVE TECHNOLOGY**

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### FULL-TIME STUDENT ADVISING NOTES

#### Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

#### Course Sequence

The semester-by-semester listing below provides the normal scheduling option for full-time associate degree students who plan to finish in two years.

First Semester		Credit Hours	Pre- and Co-requisites
SSC101	Student Success Seminar^^	1	Take first semester
AUT121	Automotive Technical Skills	2	
AUT122	Automotive Systems and Engine Technology	4	AUT121
AUT123	Engine Diagnosis and Major Service	4	AUT121
MTH107	Industrial Math^	3	
or	or	or	Check for prerequisites
MTH125	College Algebra $\Omega$	<u>4</u>	
		14-15	
Second Semester			
AUT124	Vehicle Chassis Systems	4	AUT121
AUT125	Automotive Electrical and Accessory Systems	4	AUT121
AUT126	Automotive HVAC Systems	2	AUT121
BUS122	Basic Economics^	3	IDS102 or Proficiency
ENG124	College Composition^	<u>3</u>	Co-ENG024 or Co-ENG011 or
			Proficiency
TT1: 1.C		16	
Third Semester		2	A I I'M 10.5
AUT222	Engine Systems Performance Diagnosis	3	AUT125
AUT223	Advanced Automotive Electronics	3	AUT125
AUT225	Automotive Drivetrain 1	3	AUT121
AUT226	Automotive Drivetrain 2	3	AUT121
ENG221	Technical Report Writing	<u>3</u>	ENG124
-		15	
Fourth Semester			
AUT221	Fuel and Emissions Management Systems	3	AUT125
AUT227	Computerized Vehicle Control	3	AUT125
AUT233	Automotive Diagnostic Applications	2	AUT223
AUT234	Alternative Fuels and Advanced Automotive Technology	2	AUT223
PHL122	Ethics	3	
	See Technical Elective list page**	<u>2-5</u>	Check for prerequisites
		15-18	
	TOTAL CREDITS	60-64	

<sup>^</sup>Based upon SSC placement score

<sup>^^</sup>To promote student success, this course should be taken in the first semester

 $<sup>\</sup>Omega$  MTH125 College Algebra should be taken by students planning to transfer to a four-year university

<sup>\*\*</sup>See Technical Elective list page.

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TECHNICAL ELECTIVES: Two (2) credit hours minimum						
Course Number	Course Title	Credits	Pre- and Co-Requisites	Completed Sem./Year		
AUT128	Automotive Diesel Engine Performance	2				
AUT130	Automotive Safety and Shops Standards	2				
AUT131	Automotive Detailing Business Practices	2				
AUT132	Automotive Exterior Detailing	3				
AUT133	Automotive Interior Detailing	2	AUT132			
AUT134	Automotive Under-Hood and Under-Car Detailing	2	AUT132			
AUT135	Advanced Automotive Detailing Techniques	3	AUT132			
AUT136	Practical Automotive Detailing Applications	2	AUT132			
AUT137	ASE Test Preparation	2				
AUT138	Applied Automotive Principles	4				
AUT141	Steering, Suspension, and Braking Operations	2				
AUT142	Auto Electrical Systems Toyota	2				
AUT143	Ventilation and Air Conditioning for Light Vehicles	1				
AUT253	Computerized Engine Control Systems	2				
AUT171	Introduction to Honda PACT	1				
AUT172	Honda Engine Mechanical	2				
AUT173	Honda Steering and Suspension	1	AUT124			
AUT174	Honda Braking Systems	1	AUT124			
AUT175	Honda Electrical Systems	2	AUT125			
AUT176	Honda HVAC Systems	1	AUT125			
AUT277	Honda Computerized Engine	2	AUT223			
AUT271	Honda Fuel and Emissions System	1	AUT221			
AUT273	Honda Advanced Diagnostic Applications	1	AUT223			
AUT275	Honda Manual Transmissions	1	AUT225			
AUT276	Honda Automatic Transmissions	1	AUT226			
AUT181	Introduction to CAT Lift Trucks	1	AUT121			
AUT182	CAT Operator Safety Training	1	AUT121			
AUT183	CAT Service Information System	1	AUT121			
AUT184	CAT Hydraulic Systems	1	AUT121			
AUT185	CAT Internal Combustion Engine	2	AUT121			
AUT186	CAT Masts and Lift Mechanisms	1	AUT121			
AUT187	CAT Electrical Systems	3	AUT121			
AUT188	CAT Steering Systems	1	AUT121			
AUT189	CAT Braking Systems	1	AUT121			
AUT281	CAT Differentials and Front Axles	1	AUT121			
AUT282	CAT Transmissions	2	AUT121			
AUT283	CAT Fuel Systems (LP, Gasoline)	2	AUT121			
AUT254	Automotive Aftermarket Vehicle Interior Modifications	3	AUT125			
AUT255	Automotive Aftermarket Vehicle Exterior Modifications	3	AUT125			
AUT256	Automotive Aftermarket Vehicle Powertrain Modifications	3	AUT123			
AUT257	Automotive Aftermarket Vehicle Chassis Modifications	3	AUT124			
AUT191	Automotive CO-OP 1	2				
AUT192	Automotive CO-OP 2	2				
AUT193	Automotive CO-OP 3	2				
AUT194	Automotive CO-OP 4	2				
AUT 224	Automotive Diesel Systems	2	AUT 121			
AUT228	Auto Service Management	2				
AUT230	Technical Project	2				
TOY101	Introduction to Toyota T-TEN	3				
TOY102	Toyota Electrical Systems I	5	TOY101			
TOY103	Toyota Steering, Suspension, and Handling	5	TOY102	-		
TOY104	Toyota Engine Diagnosis and Repair	5	TOY101			
TOY105	Toyota Engine Controls I	5	TOY104			
TOY106	Toyota Manual Transmissions and Drivetrains	5	TOY102			
TOY201	Toyota Electrical Systems II	5	TOY102	-		
TOY202	Toyota Automotive Braking Systems	5	TOY201			
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TOY203 TOY204	Toyota HVAC Systems Toyota Engine Controls II	5 5	TOY201 TOY105			