

# AUTOMOTIVE TECHNOLOGY - ASSOCIATE IN SCIENCE

<sup>2</sup> Elective units from course(s) numbered 1-599, if needed, to reach 60 degree-applicable units.

**Plan Code: 2941**

This program will emphasize introductory general automotive repair, engine repair, automatic and manual drivetrain, wheel alignment, brake systems, electrical system, air conditioning, fuel systems, and automotive light diesel technology. Upon completion students are prepared for all nine areas of the National Automotive Service Excellence (ASE) certifications tests and also will receive one year of work experience toward ASE work experience qualification. The A.S. Degree in Automotive Technology signifies that students are ready for entry-level automotive positions and will signify that students have mastered good ethics and workmanship in an auto shop environment.

## Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Evaluate and identify faults in automotive performance components and perform service to factory specifications.

## Program Requirements

This degree requires the completion of General Education coursework plus the following:

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
AUTO 200	Introduction to Automotive Technology	3
AUTO 211	Automotive Engine Repair	3
AUTO 212	Automotive Automatic Transmission	3
AUTO 213	Automotive Manual Transmission	3
AUTO 214	Automotive Wheel Alignment	3
AUTO 215	Automotive Brake Systems	3
AUTO 216	Automotive Electrical Systems	3
AUTO 217	Automotive Air Conditioning	3
AUTO 218	Automotive Fuel Systems	3
AUTO 219	Automotive Light Diesel Engines	3
<b>Required Subtotal</b>		<b>30</b>
Complete one of the following: <sup>1</sup>		19-39
LBCC General Education (Plan A) ( <a href="https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-a/">https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-a/</a> )		
CSU GE Breadth (Plan B) ( <a href="https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-b/">https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-b/</a> )		
IGETC Pattern (Plan C) ( <a href="https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/">https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/</a> )		
Electives (as needed to reach 60 degree-applicable units) <sup>2</sup>		
<b>Minimum Degree Total</b>		<b>60</b>

<sup>1</sup> Units for the major may be double-counted for LBCC GE, CSU GE, or IGETC; see counselor for limitations.

# AUTOMOTIVE TECHNOLOGY - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3941

This program will emphasize introductory general automotive repair, engine repair, automatic and manual drivetrain, wheel alignment, brake systems, electrical system, air conditioning, fuel systems, and automotive light diesel technology. Upon completion students are prepared for all nine areas of the National Automotive Service Excellence (ASE) certifications tests and also will receive one year of work experience toward ASE work experience qualification. The certificate in Automotive Technology signifies that students are ready for entry-level automotive positions and will signify that students have mastered good ethics and workmanship in an auto shop environment.

## Program Student Learning Outcomes

- Evaluate and identify faults in automotive performance components and perform service to factory specifications.

## Program Requirements

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
AUTO 200	Introduction to Automotive Technology	3
AUTO 211	Automotive Engine Repair	3
AUTO 212	Automotive Automatic Transmission	3
AUTO 213	Automotive Manual Transmission	3
AUTO 214	Automotive Wheel Alignment	3
AUTO 215	Automotive Brake Systems	3
AUTO 216	Automotive Electrical Systems	3
AUTO 217	Automotive Air Conditioning	3
AUTO 218	Automotive Fuel Systems	3
AUTO 219	Automotive Light Diesel Engines	3
<b>Total Units</b>		<b>30</b>

# AUTOMOTIVE ENGINE AND TRANSMISSION SERVICE - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3939

This program prepares students for entry-level employment in the automotive industry such as a service attendant, novice mechanic, assistant technician, mechanic's helper, pre-delivery (PDI) technician, installer, service technician, engine and drive trains service technician, and/or automotive related position in the industry.

## Program Student Learning Outcomes

- Describe and demonstrate automotive shop practice safety and automotive systems' operation fundamentals in order to apply practical service and diagnostic during automotive servicing and repair.

## Program Requirements

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
ADMT 50	Advanced Manufacturing, Introduction	3
AUTO 200	Introduction to Automotive Technology	3
AUTO 201	Automotive Lubrication Service	1
AUTO 211	Automotive Engine Repair	3
AUTO 212	Automotive Automatic Transmission	3
AUTO 213	Automotive Manual Transmission	3
<b>Total Units</b>		<b>16</b>

# AUTOMOTIVE ENGINE PERFORMANCE SERVICE - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3940

This program prepares students for entry-level employment in the automotive industry such as a service attendant, novice mechanic, assistant technician, mechanic's helper, pre-delivery (PDI) technician, installer, service technician, engine performance (fuel and electrical) service technician, and/or automotive related position in the industry.

## Program Student Learning Outcomes

- Evaluate and identify faults in automotive engine performance components and perform service to factory specifications.

## Program Requirements

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
AUTO 200	Introduction to Automotive Technology	3
AUTO 216	Automotive Electrical Systems	3
AUTO 218	Automotive Fuel Systems	3
AUTO 219	Automotive Light Diesel Engines	3
<b>Total Units</b>		<b>12</b>

# AUTOMOTIVE MAINTENANCE SERVICE - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3926

This program prepares students for entry-level employment in the automotive industry such as a service attendant, novice mechanic, assistant technician, mechanic's helper, pre-delivery (PDI) technician, installer, service technician, brake technician, and/or automotive related position in the industry.

## Program Student Learning Outcomes

- Evaluate and identify faults in automotive undercar and underhood components and perform service to factory specifications.

## Program Requirements

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
AUTO 200	Introduction to Automotive Technology	3
AUTO 214	Automotive Wheel Alignment	3
AUTO 215	Automotive Brake Systems	3
AUTO 216	Automotive Electrical Systems	3
AUTO 217	Automotive Air Conditioning	3
AUTO 218	Automotive Fuel Systems	3
<b>Total Units</b>		<b>18</b>

# AUTOMOTIVE QUICK SERVICE - CERTIFICATE OF ACCOMPLISHMENT

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Plan Code: 4923

This program prepares students with skills and knowledge to obtain entry level employment as Quick Service Technicians in the automotive industry, and/or automotive related position in the industry.

## Program Student Learning Outcomes

- Evaluate and prepare vehicles for quick service according to the manufacturer procedures.

## Program Requirements

Code Number	Course Title	Units
<b>REQUIRED COURSES</b>		
AUTO 200	Introduction to Automotive Technology	3
AUTO 201	Automotive Lubrication Service	1
AUTO 202	Automotive Tire Service	1
AUTO 203	Automotive Brake Inspection	1
<b>Total Units</b>		<b>6</b>

# AUTOMOTIVE QUICK SERVICE - CERTIFICATE OF COMPLETION

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**Plan Code: 6033**

This program provides instruction in Automotive Quick Service Repair. Topics include composing an estimate for lubrication service, tire repair and brake inspection, communicate effectively with customers, demonstrate proper service procedures, including management of hazardous waste, and research potential job markets in the automotive service industry.

## Program Student Learning Outcomes

- Evaluate and prepare vehicles for quick service according to the manufacturer procedures.

## Program Requirements

Code Number	Course Title	Hours
<b>REQUIRED COURSES</b>		
AUTO 600	Introduction to Automotive Technology	90
AUTO 601	Automotive Lubrication Service	36
AUTO 602	Automotive Tire Service	36
AUTO 603	Automotive Brake Inspection	36
<b>Total Hours</b>		<b>198</b>

# LIGHT-DUTY DIESEL GENERATOR ENGINE MAINTENANCE - CERTIFICATE OF COMPLETION

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Plan Code: 6030

This noncredit program focuses on the fundamentals of automotive recreational vehicles, diesel-generating equipment, and light-duty diesel engines. The program prepares students for entry-level positions in the automotive diesel engine service and diesel power generators industries areas, such as an intern mechanic, mechanic's helper, assistant technician, generator diesel engine maintenance technician, and for general inspection, adjustment, or overhaul skills for a diesel engine technician in automotive and transportation-related industries.

## Program Student Learning Outcomes

- Synthesize information and demonstrate procedures to perform generator diesel engine maintenance

## Program Requirements

Code Number	Course Title	Hours
<b>REQUIRED COURSES</b>		
AUTO 600	Introduction to Automotive Technology	90
AUTO 651	Diesel Generator Engine Fundamentals	90
AUTO 652	Diesel Engine Maint. & Troubleshooting	90
<b>Total Hours</b>		<b>270</b>