

# ADVANCED TRANSPORTATION TECHNOLOGY - ASSOCIATE IN SCIENCE

**Plan Code: 2952**

The Advanced Transportation Technology Associate in Science Degree is designed to provide students with the knowledge and skills needed for today's technicians, service writers, and parts support specialists. The degree is designed to successfully prepare students for employment with entry and mid-level technician, service writer, and parts support specialist positions at dealerships, the ports of Long Beach and Los Angeles, and transit. The program focuses on the industry standard of fix-it-right scores by providing students with the opportunity to develop skills and resolve real-world customer concerns.

## Program Student Learning Outcomes

- Demonstrate the ability to attain the Institutional Student Learning Outcomes (ISLOs).
- Students will analyze and demonstrate technical knowledge and practical skills to properly and accurately diagnose and repair advanced propulsion systems used in electric, hybrid, and Compressed Natural Gas vehicles.

## 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 201	Automotive Lubrication Service	1
AUTO 202	Automotive Tire Service	1
AUTO 203	Automotive Brake Inspection	1
AUTO 216	Automotive Electrical Systems	3
AUTO 230	Automotive Computer Systems	3
AUTO 270	Intro to Hybrid and Electric Vehicles	3
AUTO 271	Introduction to Alternative Fuel Systems	3
AUTO 280	Light Duty Electric Vehicles	3
AUTO 281	Light Duty Hybrid Vehicles	3
AUTO 282	Light Duty Alternative Fuels	3
AUTO 283	Light Duty EV Powertrain Diagnostics	3
AUTO 292	Heavy Duty Alternative Fuels	3
<b>Required Subtotal</b>		<b>33</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) (<https://lbcc-public.courseleaf.com/academic-requirements/general-education-transfer-degree-certificate-requirements/general-education-plans/plan-c/>)

Electives (as needed to reach 60 degree-applicable units) <sup>2</sup>

**Minimum Degree Total** **60**

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

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

# ADVANCED TRANSPORTATION TECHNOLOGY - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3952

The Advanced Transportation Technology Certificate of Achievement is designed to provide students with the knowledge and skills needed for today's technicians, service writers, and parts support specialists. The degree is designed to successfully prepare students for employment with entry and mid-level technician, service writer, and parts support specialist positions at dealerships, the ports of Long Beach and Los Angeles, and transit. The program focuses on the industry standard of fix-it-right scores by providing students with the opportunity to develop skills and resolve real-world customer concerns.

## Program Student Learning Outcomes

- Analyze and demonstrate technical knowledge and practical skills to properly and accurately diagnose and repair advanced propulsion systems used in electric, hybrid, and Compressed Natural Gas vehicles.

## 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
AUTO 216	Automotive Electrical Systems	3
AUTO 230	Automotive Computer Systems	3
AUTO 270	Intro to Hybrid and Electric Vehicles	3
AUTO 271	Introduction to Alternative Fuel Systems	3
AUTO 280	Light Duty Electric Vehicles	3
AUTO 281	Light Duty Hybrid Vehicles	3
AUTO 282	Light Duty Alternative Fuels	3
AUTO 283	Light Duty EV Powertrain Diagnostics	3
AUTO 292	Heavy Duty Alternative Fuels	3
<b>Total Units</b>		<b>33</b>

# ALTERNATIVE FUEL VEHICLES - CERTIFICATE OF ACHIEVEMENT

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Plan Code: 3937

The Alternative Fuel Vehicles Certificate of Achievement is designed to provide students with the knowledge and skills needed for today's technicians, service writers, and parts support specialists. The degree is designed to successfully prepare students for employment with entry and mid-level technician, service writer, and parts support specialist positions at dealerships, the ports of Long Beach and Los Angeles, and transit. The program focuses on the industry standard of fix-it-right scores by providing students with the opportunity to develop skills and resolve real-world customer concerns.

## Program Student Learning Outcomes

- Define the pros and cons of various types of propulsion systems of alternative fueled vehicles.
- Formulate diagnostic strategies for resolving vehicle concerns.

## 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 230	Automotive Computer Systems	3
AUTO 271	Introduction to Alternative Fuel Systems	3
AUTO 282	Light Duty Alternative Fuels	3
AUTO 292	Heavy Duty Alternative Fuels	3
<b>Total Units</b>		<b>18</b>

# ELECTRIC & HYBRID VEHICLES - CERTIFICATE OF ACHIEVEMENT

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**Plan Code: 3938**

The Electric & Hybrid Vehicles Certificate of Achievement is designed to provide students with the knowledge and skills needed for today's technicians, service writers, and parts support specialists. The degree is designed to successfully prepare students for employment with entry and mid-level technician, service writer, and parts support specialist positions at automotive dealerships, the ports of Long Beach and Los Angeles, and transit. The program focuses on the industry standard of fix-it-right scores by providing students with the opportunity to develop skills and resolve real-world customer concerns.

## Program Student Learning Outcomes

- Define the pros and cons of various types of propulsion systems to include electric vehicles and hybrid fueled vehicles.
- Formulate diagnostic strategies for resolving vehicle concerns.

## 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 230	Automotive Computer Systems	3
AUTO 270	Intro to Hybrid and Electric Vehicles	3
AUTO 280	Light Duty Electric Vehicles	3
AUTO 281	Light Duty Hybrid Vehicles	3
<b>Total Units</b>		<b>18</b>