AUTOMOTIVE CLEAN VEHICLE TECHNOLOGY ASSOCIATE OF SCIENCE DEGREE

This degree is designed to provide students with the fundamentals of alternative fuel and electric vehicle technology as it applies to the automotive industry. The curriculum prepares students for entry-level positions in alternative fuel/hybrid/electric vehicle maintenance, service and repair, including alternative fuel and electric power technology.

Code	Title	Units
Required Courses:		
AUTO 010	Introduction to Hybrid and Electric Vehicle Technology	4
AUTO 011	Electric Vehicle (EV) and Alternative Fuels	3
AUTO 011L	Electric Vehicle (EV) and Alternative Fuel - Laboratory	1
AUTO 064	Auto/Truck Electrical Systems	4
or HMDT 064	Auto/Truck Electrical Systems	
AUTO 065	Electrical Systems Diagnosis and Repair	4
AUTO 050	Automotive Brakes	3
AUTO 050L	Automotive Brakes - Laboratory	1
AUTO 052	Automotive Suspension and Steering	3
AUTO 052L	Automotive Suspension and Steering - Laboratory	1
Total Units		**24**

Code	Title	Units
Recommended Courses:		
ELECTR 110	Direct Current Circuit Analysis	3
ELECTR 111	Direct Current Circuit Laboratory	1
ELECTR 115	Alternating Current Circuit Analysis	3
ELECTR 116	Alternating Current Circuit Laboratory	1

To earn an SBVC Associate Degree students must complete one of the following general education patterns:

SBVC GE requirements (https://www.valleycollege.edu/student-services/counseling/graduation-requirements/)

CSU GE requirements (https://www.valleycollege.edu/student-services/counseling/csuge/)

IGETC requirements (https://www.valleycollege.edu/student-services/counseling/igetc/)

Program Learning Outcomes

At the completion of this program, students will be able to:

a. Diagnose and make minor repairs to 12 volt starting and charging systems using electrical schematics.
b. Demonstrate appropriate personal and shop safety procedures needed to safely work with high voltage and hydrogen fuel systems.
c. Evaluate system conditions by entering self-diagnostic mode of a given system, correctly interpret diagnostic trouble codes, and diagnose electronic control system faults using appropriate procedures and strategies.
d. Perform basic maintenance, diagnostic and repair related to electric, hybrid and hydrogen fuel cell vehicles.