

AUTOMOTIVE ELECTRIC VEHICLE TECHNOLOGY

Associate in Science Degree
Career/Technical (Major Code: 02873)

Based on the National Institute for Automotive Service Excellence Certification Program (ASE). Courses fulfill the needs of beginning and advanced students and those in the field who require upgrading. Prepares students for the National ASE Certification exams.

Program Student Learning Outcome

- The students will inspect, diagnose and repair automotive components.

First Semester		Units
AT 101	INTRODUCTION TO BASIC AUTOMOTIVE SERVICE	3.00
AT 102	AUTOMOTIVE SCIENCE AND BASIC MECHANICS	3.00
AT 109	AUTOMOTIVE BRAKING SYSTEMS	3.00
AT 110	AUTOMOTIVE SUSPENSION, ALIGNMENT, AND STEERING	3.00
Units		12
Second Semester		
AT 120	ENGINE PERFORMANCE I	3.00
AT 130	AUTOMOTIVE BASIC ELECTRICAL SYSTEMS	3.00
AT 131	AUTOMOTIVE HEATING, COOLING, AND AIR CONDITIONING	3.00
AT 140	ENGINE REPAIR	3.00
Units		12
Third Semester		
AT 220	ENGINE PERFORMANCE II	3.00
AT 230	AUTOMOTIVE ADVANCED ELECTRICAL SYSTEMS	3.00
AT 234	AUTOMATIC TRANSMISSIONS AND TRANSAXLES	3.00
AT 236	MANUAL TRANSMISSION, TRANSAXLES, AND FINAL DRIVES	3.00
Units		12
Fourth Semester		
AT 190	INTRODUCTION TO HYBRID, ELECTRIC, AND ALTERNATIVE FUEL VEHICLES	1.00
AT 191	BASIC HYBRID, ELECTRIC, AND ALTERNATIVE FUEL VEHICLE CONCEPTS	2.00
AT 192	INTERMEDIATE HYBRID, ELECTRIC, AND ALTERNATIVE FUEL VEHICLE ELECTRONICS	1.00
AT 193	ADVANCED HYBRID, ELECTRIC, AND ALTERNATIVE FUEL VEHICLE CONCEPTS	2.00
Units		6
Total Units		42

Code	Title	Units
Recommended Electives		
AT 290	COOPERATIVE WORK EXPERIENCE IN AUTOMOTIVE TECHNOLOGY I	2-4
AT 291	COOPERATIVE WORK EXPERIENCE IN AUTOMOTIVE TECHNOLOGY II	2-4
AT 292	COOPERATIVE WORK EXPERIENCE IN AUTOMOTIVE TECHNOLOGY III	2-4
AT 293	COOPERATIVE WORK EXPERIENCE IN AUTOMOTIVE TECHNOLOGY IV	2-4

To earn an associate degree, additional general education and graduation requirements (<https://catalog.swccd.edu/certificates-certifications-degrees-csuuc-requirements/>) must be completed.