Program Planning Guide

Electrical Vehicle Servicing Certificate (C60160EV)

Program Length: 2 semesters
Program Sites: Lee Main Campus - Day Program
Career Pathway Options: Associate in Applied Science Degree in Automotive Systems (Electrical Vehicle) Technology; Diploma in Automotive Systems (Electrical Vehicle) Technology; Electrical Vehicle Servicing Certificate

Suggested Course Schedule		Class	Lab	Work	Credits	Notes:
1st Semester (fall)						
TRN 110	Intro to Transportation Tech.	1	2	0	2	
TRN 120	Basic Transp. Electricity	4	3	0	5	
ATT 115	Green Trans Safety & Service	1	2	0	2	
	Total Semester Hours	**6**	**7**	**0**	**9**	
2nd Semester (Spring)						
AUT 163	Adv. Automotive Electricity	2	3	0	3	
AUT 163A	Adv. Automotive Electricity Lab	0	3	0	1	
TRN 130	Intro to Sustainable Transp.	2	2	0	3	
	Total Semester Hours	**4**	**8**	**0**	**7**	
Total Semester Credit Hours Required for Graduation: 16						

Course Descriptions

ATT 115 Green Trans Safety & Service
This course covers workplace safety, hazardous material and environmental regulation relevant to electric, hybrid and alternative fueled vehicles. Topics include safety of high voltage vehicle systems, gaseous fuel systems and alternative liquid fuels. Upon completion, students should be able to demonstrate safe work practices, utilize appropriate shop tools and explain government regulations associated with alternative transportation.

AUT 163 Adv Auto Electricity
Prerequisite: Take TRN 120
This course covers electronic theory, wiring diagrams, test equipment, and diagnosis, repair, and replacement of electronics, lighting, gauges, horn, wiper, accessories, and body modules. Topics include networking and module communication, circuit construction, wiring diagrams, circuit testing, and troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair wiring, lighting, gauges, accessories, modules, and electronic concerns.

TRN 110 Intro to Transport Tech
This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

TRN 120 Basic Transp Electricity
This course covers basic electrical theory, wiring diagrams, test equipment, and diagnosis, repair and replacement of batteries, starters, and alternators. Topics include Ohm's Law, circuit construction, wiring diagrams, circuit testing, and basic troubleshooting. Upon completion, students should be able to properly use wiring diagrams, diagnose, test, and repair basic wiring, battery, starting, charging, and electrical concerns.

TRN 130 Intro to Sustainable Transp
This course provides an overview of alternative fuels and alternative fuel vehicles. Topics include composition and use of alternative fuels including compressed natural gas, biodiesel, ethanol, hydrogen, and synthetic fuels, hybrid/electric, and vehicles using alternative fuels. Upon completion, students should be able to identify alternative fuel vehicles, explain how each alternative fuel delivery system operates, and perform minor repairs.