



# Automotive Electrical Systems Certificate

This curriculum is designed for students interested in seeking employment in the diagnosis and repair of automotive electrical systems.

**Total Units: 17**

## First Year

### Semester 1

**8 Units**

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*
<b>AMT 300</b> <sup>Z</sup> Automotive Fundamentals and Shop Procedures	4		F, S
<b>AMT 303</b> <sup>Z</sup> Automotive Electrical & Electronic Systems	4		F, S

<sup>Z</sup> At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the [ZTC page of the college website](#).

### Semester 2

**9 Units**

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*
<b>AMT 310</b> <sup>Z</sup> Engine Performance	3	AMT 300, 306 or 322; Advisory: AMT 303	F, S
<b>AMT 321</b> <sup>Z</sup> Advanced Automotive Electrical & Hybrid Vehicle Systems	3	AMT 303	S(may also be offered in F)
<b>AMT 332</b> <sup>Z</sup> Automotive Computerized Controls	3	AMT 303; Advisory: AMT 310	S(may also be offered in F)

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^You must have passed the prerequisite course(s) with a "C" or better; Corequisite must be taken during the same semester; Advisory means it is recommended but not required to enroll in the course.

\*(O) = online available (P) = partially online

## Career Options/Outlook:

Master mechanics repair virtually any part on the vehicle or specialize in the transmission system. Tasks include test drive vehicles and test components/systems using equipment such as infrared engine analyzers, compression gauges, and computerized diagnostic devices; test and adjust repaired systems to meet manufacturers' performance specifications; repair, reline, replace, & adjust brakes; review work orders and discuss work with supervisors; confer with customers to obtain descriptions of vehicle problems and to discuss work to be performed.

## A sample of reported job titles:

ASE Master Mechanic (Automotive Service Excellence Master Mechanic), Auto Technician, Automotive Drivability Technician, Automotive Mechanic (Auto Mechanic), Automotive Service Technician, Certified ASE Master Automotive Technician (Certified Automotive Service Excellence Master Automotive Technician), Master Automotive Technician, Master Technician, Mechanic, Transmission Rebuilder

## Projected job openings in California (2020-2030):

6,900

## Projected growth in California (2020-2030):

4% growth

## **Median Salary in California (2021):**

\$50,740/yr

## **Source:**

<https://www.onetonline.org/link/summary/49-3023.00>

## **About this map:**

This program map represents one possible pathway to complete the program. Please see a counselor to create an education plan that is customized to meet your needs. This map is not a guarantee of course availability or financial aid applicability.

## **Zero Textbook Costs (ZTC):**

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the [Zero Textbook Costs page](#) of the college website.

Catalog Year: 2023-2024  
Published May 15, 2023

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