

ELECTRONIC-MECHANICAL TECHNICIAN, CERTIFICATE OF ACHIEVEMENT

Financial Aid Eligible
Banner Code: 1_CN_ELCH
Control Number: 22390

The entry-level electro-mechanical technician performs assembly, preventative maintenance, setup, preparation for production; operation and test of mechanical, electrical and electronic devices, components, assemblies, manual and automated systems.

This program builds a firm foundation of technical knowledge and skills upon which the student can build a career that will grow. The foundation includes electricity, electronics, computer hardware, mechanics, robotics, assembly, test instruments, and technical documentation. Training is laboratory intensive, interactive, project-based, and hands-on. The student will design, build, align, calibrate, test, components of robotics and automation systems.

Electro-mechanical technicians work closely with electrical, electronic, computer and, mechanical engineers. Industry sectors in southern California that employ electro-mechanical technicians include, but are not limited to: utilities, energy, oil, gas, water, wastewater, traffic control, computers, communications, automated factories, manufacturing, pharmaceuticals, medical instruments, semiconductor and, aerospace. The median annual wage for electro-mechanical technicians was \$57,790 in May 2018.

Program Outcomes

1. Demonstrate the fundamentals skills for electro-mechanical production technicians: mechanics, electronic assembly, and computer skills.
2. PC Computer design, build, configure, troubleshoot, and prepare a service manual for a desktop computer and local area network per client specifications.

Certificate Requirements

Orange Coast College offers two types of certificate awards in career programs designed to prepare the graduate to enter a particular field of employment. At least 3 units in an advanced course from the certificate must be completed at OCC.

1. **Certificate of Achievement** - 8 units or more in a state-approved program. Certificates of Achievement are not automatically awarded. A petition must be filed in Enrollment Services or online at the beginning of the semester in which the student will be completing his or her final requirements. The petitioning periods are listed in the Graduation Requirements (<https://catalog.cccd.edu/orange-coast/graduation-requirements/>) section of this catalog.
2. **Certificate of Specialization** - 16 units or less in a locally approved program. Certificates of Specialization are not automatically awarded, not printed on official academic transcripts, and there is no acknowledgment of completion given at graduation. Please contact the division for details regarding the submission of petitions as procedures for each division vary. Most division offices prefer that students complete all of the required courses and then provide a copy

of the transcript while some divisions allow petitions for Certificates of Specialization before finishing.

Minimum Grade Requirement

In order to be awarded a certificate, students are required to obtain a grade of "C" or better in all program-required courses. Grades of "CR" or "P" will be accepted whereas "CR" or "P" meets the equivalency of a "C" or better. A list of certificate programs can be found in the Programs A-Z (<https://catalog.cccd.edu/orange-coast/programs-study/>) section of this catalog. Check with a counselor to determine the requirements for completion.

Course	Title	Units
ELEC A047	Electronic Problem Solving	3-4
or MATH A115	College Algebra	
or MATH A120	Trigonometry	
ELEC A101	Robotics 1 Mechanics & Design	4
ELEC A146	Computer Hardware Configuration & Diagnostics	3
ELEC A150	D.C. Circuits	3
ELEC A155	A.C. Circuits	3
ELEC A170	Safety, Assembly, Calibration	1
ELEC A201	Robotics 2 Motors, Transports & Motor Control	4
Total Units		21-22