

MECHATRONIC

mtt.missioncollege.edu

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Mechatronic Technology: Associate in Science (AS)

Mechatronic technology is an interdisciplinary field that combines the study of mechanics, electronics, automation, and computers. The Associate in Science in Mechatronic Technology is designed to provide students with knowledge and skills required for a variety of positions in the following industries: Advanced Manufacturing/Semiconductor, Electrical/Electronics, Mechanical/Quality, Transportation/Logistics, Electric and Hybrid Vehicles, Medical Equipment, Biotechnology, Aerospace/Defense, and Construction. The program includes a wide range of skill-builder courses.

Program Learning Outcomes:

- Integrate electrical, electronic, and mechanical systems and devices.
- Demonstrate written and verbal communication skills through technical documentation and oral presentations.
- Troubleshoot and repair electrical, electronic, and mechanical systems and devices.

Career/Transfer Opportunities:

Career opportunities include the following: robotics technician, field service technician, industrial maintenance technician, engineering technician, electromechanical technician, research and development technician.

To earn this degree, students must meet the following requirements:

1. Completion of 60 degree applicable units with an overall GPA of 2.0.
2. Completion of a minimum of 18 semester units in the major with a grade of C (or P) or better.
3. Completion of the AA/AS Graduation Requirements, CSU GE-B or IGETC.

Core Requirements (12-14 units):

Complete all of the following

		Units
EGR 025	Engineering Graphics and Design	4.0
MTT 010	Introduction to Technology and Careers	2.0
MTT 012	Electronic Systems Measurement and Troubleshooting	2.0
MAT 001	College Algebra -OR-	4.0
MAT 002	Pre-Calculus Algebra and Trigonometry	6.0

Elective (10 units):

Complete a minimum of ten units from the following

		Units
MTT 020	PLC Process Control Systems	2.0
MTT 022	PLC and Robotic System Components	2.0
MTT 030	Electrical Motors and Control Systems	2.0
MTT 032	Microcontroller Systems	2.0
MTT 034	Fluid Power Systems	2.0
MTT 040	Analog Circuits and Semiconductor Devices	2.0
MTT 042	Digital Logic Systems	2.0
MTT 050	Digital Manufacturing	2.0
WRK 300MT	Occupational Work Experience for Mechatronic Technology	1.0-2.0

Required Units for the Major:

22.0-30.0

Completion of General Education Requirements as needed to reach 60 units.

Total Required Units:

60.0