

# ELECTRO-MECHANICAL TECHNOLOGY, A.A.S.

The **Electro-Mechanical Technology degree** prepares students to enter the industrial and manufacturing workplace with knowledge and skill levels in three areas: programmable controllers, process control instrumentation and mechanical maintenance.

For more information about Electro-Mechanical Technology, please visit the program of study page (<http://www.cod.edu/electro-mech/>).

## Degree Requirements

Field of Study Code: ELMEC.AAS.ELMET

Code	Title	Credits
<b>Program Requirements</b>		
ELECT 1100	Electricity and Electronics Fundamentals	3
ELECT 1101	Circuits I	3
ELECT 1151	Electronic Devices and Applications	4
ELMEC 1101	Survey of Automation	3
ELMEC 1106	Power Electricity and Rotating Machines	4
ELMEC 1110	Motor & Generator Fundamentals	3
ELMEC 1141	Hydraulics and Pneumatics	3
ELMEC 1171	Introduction to Robotic Technology	3
ELMEC 1190	Intro to Programmable Logic Controllers	3
ELMEC 1420	Drive Components	2
ELMEC 2410	Programmable Controller II (PLC II)	3
ELMEC 2510	Process and Automation Controls	3
ELMEC 2600	Motion Control: Motor Dr Application and Control	3
<b>Program Electives</b>		
Select seven credits in Electro-Mechanical Technology or Electronics Technology <sup>1</sup>		7
<b>General Education</b>		
Select 18 credits <sup>1</sup>		18
Total Credits		65

<sup>1</sup> In addition to the courses listed above.

## General Education Requirements

For general education requirements for the AAS degree, please visit the AAS degree catalog page (<https://catalog.cod.edu/associate-degree-programs/associate-applied-science-degree/>).

Suggested Semester Sequence

Course	Title	Credits
<b>First Semester</b>		
ELMEC 1101	Survey of Automation	3
ELECT 1100	Electricity and Electronics Fundamentals	3
ELMEC 1141	Hydraulics and Pneumatics	3
GEN ED	Mathematics	3-5
GEN ED	Physical and Life Science	3-5
Credits		15-19

### Second Semester

ELMEC 1106	Power Electricity and Rotating Machines	4
ELMEC 1190	Intro to Programmable Logic Controllers	3
ELMEC 2510	Process and Automation Controls	3
ENGLI 1101 or ENGLI 1105	English Composition I or Workplace Writing	3
Credits		13

### Summer Semester

GEN ED	Humanities and Fine Arts	3
ELECTIVE	Program Elective <sup>1</sup>	3
Credits		6

### Third Semester

ELECT 1101	Circuits I	3
ELMEC 1110	Motor & Generator Fundamentals	3
ELMEC 2410	Programmable Controller II (PLC II)	3
ELMEC 1171	Introduction to Robotic Technology	3
ELECTIVE	Program Elective <sup>2</sup>	3
Credits		15

### Fourth Semester

GEN ED	Social and Behavioral Science	3
ELECTIVE	Program Elective	1
SPEEC 1100	Fundamentals of Speech Communication	3
ELECT 1151	Electronic Devices and Applications	4
ELMEC 2600	Motion Control: Motor Dr Application and Control	3
ELMEC 1420	Drive Components	2
Credits		16
Total Credits		65-69

<sup>1</sup> ELMEC 2520 Industrial Control and Data Acquisition is recommended for program elective.

<sup>2</sup> ELMEC 1130 Industrial Electricity is recommended for program elective.

## Program Milestones

### First Semester

- Consider joining or visiting with a professional, cultural or interest-based Student Club ([http://cod.edu/student\\_life/clubs\\_org/](http://cod.edu/student_life/clubs_org/)).

### Second Semester

- If you have not done so yet this semester, it is important to make an appointment with a Faculty or Program Advisor (<https://www.cod.edu/academics/programs/electronics/#faculty>) to discuss your future academic progress.

This page lists programs related to one another.

- Advanced Mechatronics, Certificate (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/advanced-mechatronics-certificate/>)
- Electrician Apprenticeship, A.A.S. (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/electrician-apprenticeship-aas/>)
- Electrician's Preparation, Certificate (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/electricians-preparation-certificate/>)

- Mechanical Maintenance, Certificate (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/mechanical-maintenance-certificate/>)
- Mechatronics Technology (MET), Certificate (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/mechatronics-technology-met-certificate/>)
- Process Control Instrumentation, Certificate (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/process-control-instrumentation-certificate/>)
- Programmable Logic Controllers in Automation, Certificate (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/programmable-logic-controllers-automation-certificate/>)