

INTEGRATED MECHATRONICS AND MANUFACTURING TECHNOLOGY, A.A.S.

The Integrated Mechatronics and Manufacturing Technology degree is designed to meet industry needs for multi-functional technicians competent in manufacturing, electro-mechanics, and electronics technology. InET engineering technicians apply scientific and engineering concepts to the implementation of existing technologies. Areas of focus include installation, operation and maintenance of manufacturing and automated systems.

For more information about Integrated Engineering Technology, please visit the program page (<http://www.cod.edu/int-eng-tech/>).

Degree Requirements

Field of Study Code: INET.AAS.IMMT

Code	Title	Credits
Program Requirements		
ELECT 1100	Electricity and Electronics Fundamentals	3
ELECT 1101	Circuits I	3
ELMEC 1110	Motor & Generator Fundamentals	3
ELMEC 1141	Hydraulics and Pneumatics	3
ELMEC 1190	Intro to Programmable Logic Controllers	3
ELMEC 2510	Process and Automation Controls	3
ELMEC 2520	Industrial Control and Data Acquisition	3
MANUF 1101	Industrial Design/CAD	3
MANUF 1151	Machine Shop I	3
MANUF 2251	Computer Numerical Control (CNC)	3
MANUF 2252	CNC Operations	3
MANUF 2253	Computer-Aided Manufacturing (CAM)	3
MANUF 2280	Industrial Safety	2
Program Electives		
Select seven credits from the ELECT or ELMEC offerings		7
General Education		
Select 19 credits ¹		19
Total Credits		64

¹ In addition to the courses listed above.

General Education Requirements

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

Suggested Semester Sequence

Course	Title	Credits
First Semester		
ELECT 1100	Electricity and Electronics Fundamentals	3
MANUF 1101	Industrial Design/CAD	3
MANUF 1151	Machine Shop I	3

ENGLI 1101 or ENGLI 1105	English Composition I or Workplace Writing	3
Select one of the following:		3
SPEEC 1100	Fundamentals of Speech Communication	
SPEEC 1120	Small-Group Communication	
SPEEC 1150	Introduction to Business Communication	

Credits 15

Second Semester

ELECT 1101	Circuits I	3
ELMEC 1190	Intro to Programmable Logic Controllers	3
MANUF 2251	Computer Numerical Control (CNC)	3
Gen Ed	Humanities and Fine Arts (https://catalog.cod.edu/educational-opportunities/#humanities-fa)	3
Gen Ed	Social and Behavioral Sciences (https://catalog.cod.edu/educational-opportunities/#social-behavioral)	3

Credits 15

Summer Semester

ELMEC 2520	Industrial Control and Data Acquisition	3
ELMEC 1141	Hydraulics and Pneumatics	3

Credits 6

Third Semester

ELMEC 1110	Motor & Generator Fundamentals	3
ELMEC 2510	Process and Automation Controls	3
MANUF 2252	CNC Operations	3
MANUF 2280	Industrial Safety	2
Gen Ed	Mathematics (https://catalog.cod.edu/educational-opportunities/#math)	3

Credits 14

Fourth Semester

MANUF 2253	Computer-Aided Manufacturing (CAM)	3
Elective	Program Elective ¹	3
Elective	Program Elective ¹	4
Gen Ed	Physical and Life Sciences (https://catalog.cod.edu/educational-opportunities/#physical-life)	3-5

Credits 13-15

Total Credits 63-65

¹ Take 7 credits from the ELECT or ELMEC offerings.

Program Milestones

First Semester

- Consider joining or visiting with a professional, cultural or interest-based Student Club (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/manufacturing/faculty.aspx>) 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/>)
- Electro-Mechanical Technology, A.A.S. (<https://catalog.cod.edu/programs-study/electro-mechanical-technology/electro-mechanical-technology-aas/>)
- 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/>)