

Electro-Mechanical Technology Degree

Degree: Associate in Applied Science
Total Required Credits for Degree: minimum of 65
Program Requirements: 38
Program Electives: 9
General Education Credits: 18 to 22
Code: 3957

About the Program

This program 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. The degree program consists of skills training in all three areas to provide the student with meaningful learning experiences to enter the workplace as a viable part of a plant engineering group and/or maintenance or repair technician team.

This program stresses both the electrical/electronic and mechanical aspect of industrial and manufacturing processes. It is also designed for individuals who are presently employed in industrial maintenance or plant engineering and are seeking skills upgrading and/or cross training.

Program web site:
www.cod.edu/academic/acadprog/occ_voc/ElecMTec.htm

Key First Semester Courses

Elect 1100	Electricity and Electronics Fundamentals2
Elmec 1101	Survey of Automation3
Elmec 1110	Motor Fundamentals.....3

Program Requirements

Elect 1100	Electricity and Electronics Fundamentals2
Elect 1120	Electronic Documentation2
Elmec 1101	Survey of Automation3
Elmec 1110	Motor Fundamentals.....3
Elmec 1130	Industrial Electricity.....3
Elmec 1400	Maintenance Management Systems3
Elmec 1420	Drive Components2
Elmec 2410	Programmable Controller II (PLC II)3
Elmec 2510	Process and Automation Controls3
Manuf 1104	Technical Mechanics2
Manuf 1141	Hydraulics and Pneumatics.....3
Manuf 1171	Introduction to Robotic Technology.....3
Manuf 1180	Quality Control3
Manuf 1190	Introduction to Programmable Logic Controllers.....3
Total.....	38

Program Electives

Choose 9 credits from the following courses:

Airc 1161	Introduction to Sheet Metal2
Elect 1101	Circuits I.....3
Elect 1102	Circuits II.....4
Elect 1130	Electronics Materials and Fabrication2
Elect 2220	Electronic Instruments, Measurements and Control3
Elect 2255	Industrial Controls3
Elect 2860	Cooperative Education/Internship1 to 6
Elmec 1120	Residential Wiring.....3
Elmec 1150	National Electrical Code3
Elmec 1410	Preventive and Predictive Maintenance.....3
Elmec 2600	Motion Control: Servo and Stepper Motor Application and Control2
Elmec 2610	Machine Vision and Artificial Intelligence....2
Elmec 2620	Critical Thinking in Technical Applications.....2
Elmec 2630	Systems Troubleshooting2
Manuf 1101	Industrial Design/CAD.....3
Manuf 2251	Computer Numerical Control (CNC)3
Weld 1100	Welding I3

General Education Requirements

Each candidate for an Associate in Applied Science (A.A.S.) degree shall satisfactorily complete a minimum of 18 credits in General Education.

Use the *Student Planning Worksheet* or consult a list of General Education categories and courses for the A.A.S. degree to decide what needs to be taken. Links can be found on the Electro-Mechanical Technology program guide (www.cod.edu, click on “Academics” and choose this program from the drop-down menu).

Under the specified General Education headings below, the following courses are recommended for the Electro-Mechanical Technology degree:

Communications: 6 credits required
Recommended courses: See the *Student Planning Worksheet*.

Physical/Life Sciences: 3 to 5 credits required
 Select at least one course with a lab component.
Recommend course: See the *Student Planning Worksheet*.

Mathematics: 3 to 5 credits required
Recommended course: See the *Student Planning Worksheet*.

Humanities and Fine Arts: 3 credits required
Recommended course: See the *Student Planning Worksheet*.

Social and Behavioral Sciences: 3 credits required
Recommended course: See the *Student Planning Worksheet*.

(continued on next page)

Electro-Mechanical Technology

Degree

(continued from page 1)

Additional A.A.S. Degree Requirements

A minimum of 2 credits must be completed from the list of courses in the Global/Multicultural Studies or Contemporary Life Skills category.

Required course: Elmec 1101 (already listed under Program Requirements)

Adviser

If you are considering this program as an area of study, consult with a faculty adviser in this field.

	Location	Phone
Branislav Rosul, coordinator E-mail: rosulb@cod.edu	TE 1052	(630) 942-3390