

ADVANCED MECHATRONICS ENGINEERING TECHNOLOGY - ASSOCIATE OF APPLIED SCIENCE DEGREE (AAS)

Explore More About This Program: <https://cwi.edu/program/advanced-mechatronics-engineering-technology>

Degree Quick Facts

- **Instructional School:** Industry, Engineering, and Trades
- **Department:** Engineering
- **Program Code:** AMET.AAS
- **Program Type:** Career and Technical Education
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** Yes

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the [Special Course Fees](#) web page.

Degree Requirements

Course	Course Title	Min Credits
General Education Requirements		
GEM 1 - Written Communication course		3
GEM 2 - Oral Communication course		3
GEM 3 - Mathematical Ways of Knowing course		3
GEM 6 - Social & Behavioral Ways of Knowing course		3
GE Elective course		3
Major Requirements		
AMET 121	DC Circuits and Application	5
AMET 131	AC Circuits and Application	5
AMET 136	Industrial Tools and Fabrication	3
AMET 141	Analog Circuits and Application	5
AMET 151	Digital Circuits and Application	4
AMET 196	Fundamentals of Microcontrollers	3
AMET 201	Programmable Logic Controllers	5
AMET 221	Industrial Automated Controls and Instrumentation	4
AMET 231	Industrial Robotics	5
AMET 236	Fluid Power Systems	2
AMET 241	Industrial Communications	4
AMET 251	Industry Certifications	2
AMET 290	Applied Mechatronics	5
Minimum Credit Hours Required		67

IMPORTANT: Students can replace up to 15 credits from technical courses numbered 196 and above (except AMET 251 Industry Certifications) with qualified technical classes taken elsewhere. Program-approved Equivalent Technical Credits may also be accepted. **Only State of Idaho approved Badges may qualify for Equivalent Technical Credits.** (Qualified technical classes and earned badges are subject to program approval.)

Degree Plan: Fall or Spring Start

The course sequence listed below is strongly recommended in order to complete your program requirements. Many Career and Technical Education (CTE) courses have prerequisites and/or corequisites that have been accounted for within this Plan of Study Guide. Please register for your major requirements each semester as shown below using the Student Planning tool in myCWI. Consult your advisor for any questions regarding this plan.

NOTE: The required general education courses may be completed during any semester the student prefers, including summer semesters.

First Year		Credit Hours
Fall		
AMET 121	DC Circuits and Application	5
AMET 131	AC Circuits and Application	5
AMET 136	Industrial Tools and Fabrication	3
GEM 3 - Mathematical Ways of Knowing course		3
Total Semester Credit Hours		16
Spring		
AMET 141	Analog Circuits and Application	5
AMET 151	Digital Circuits and Application	4
AMET 196	Fundamentals of Microcontrollers	3
GEM 1 - Written Communication course		3

GE Elective course	3	AMET 251	Industry Certifications	2
Total Semester Credit Hours	18	AMET 290	Applied Mechatronics	5
Second Year		GEM 2 - Oral Communication course		3
Fall		GEM 6 - Social & Behavioral Ways of Knowing course		3
AMET 201	Programmable Logic Controllers	5	Total Semester Credit Hours	18
AMET 221	Industrial Automated Controls and Instrumentation	4	Minimum Credit Hours Required	67
AMET 236	Fluid Power Systems	2		
AMET 241	Industrial Communications	4		
Total Semester Credit Hours	15			
Spring				
AMET 231	Industrial Robotics	5		

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Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Establish basic work and study habits.
- Exhibit effective communication skills in written and verbal forms.
- Demonstrate cognitive problem-solving abilities related to the mechatronics and electronics field.
- Demonstrate cognitive and effective mathematical skills related to the field of mechatronics.
- Develop a verbal and mental vocabulary for components and devices related to the field of mechatronics.
- Read and effectively interpret mechatronics and electronic schematic diagrams as they relate to physical circuitry and processes.
- Analyze and repair faults in basic electronic and mechatronics systems.
- Demonstrate a working knowledge of test equipment associated with learning areas.
- Apply essential mechatronics and electronic principles, laws, and formulas.