

ENGINEERING TECHNOLOGY: AUTOMATION, ASSOCIATE IN SCIENCE

The Engineering Technology: Automation, Associate in Science Degree prepares students to work in an engineering industry to design, create, build, troubleshoot, repair, maintain, and enhance automated integrated electronic, electrical, and electromechanical systems. Students completing this program will be well versed in the principles of operation of integrated electronic, electrical, and mechanical components and systems through the use of computer controls. This proficiency will be accomplished by engaging the students in contextualized and experiential learning where the foundational principles in electronics and mechatronics engineering will be linked to concrete, real-world applications through practicums and industry internships.

To earn an Associate's in Science degree for Engineering Technology: Automation, students must complete 27-33 specified units and will be required to participate in at least one semester unit of Work Experience Education with a Moorpark College-affiliated industry, which can be coordinated with the department.

The majority of the courses required for the program are offered as short-term classes, approximately 8 weeks long, as a combination of online and in-person modality.

To earn an Associate of Science in Engineering Technology: Automation, students must:

1. Complete a minimum of 60 associate degree-applicable semester units. Students planning to transfer should complete 60 CSU transferable or 60 UC transferable units, depending on their intended transfer destination.
2. Complete the Moorpark College's General Education requirements to include Areas 1-7 or the Cal-GETC Pattern. Transfer students should plan to complete the Cal-GETC. All courses for the Cal-GETC must be completed with a grade of "C" or better.
3. Complete the required coursework for the major as listed in the Moorpark College catalog with a grade of "C" or better (or a "P") in each of the courses selected.
4. Achieve a cumulative grade point average (GPA) of 2.0 or better in courses used to satisfy the degree requirements.
5. Complete a minimum of 12 semester units within the Ventura County Community College District.

Course ID	Title	Units/ Hours
Required Core: Complete the following courses		
ENGR M04	Engineering Design/CAD	3
ENGT M02	Digital Circuits	3
ENGT M04	Basic Electronics	3
ENGT M06	Introduction to Microprocessors and Microcontrollers	3
ENGT M30	Programmable Logic Controllers	3
ENGT M80	Work Experience Education in Engineering Technology	1-4

LIST A: Select and complete one of the following Math courses (3-6 units)

MATH M06	Trigonometry	3
MATH M07	Precalculus and Trigonometry	6
MATH M24	Calculus I Readiness for STEM	4
MATH C2210	Calculus I: Early Transcendentals	5
MATH C2210H	Calculus I: Early Transcendentals - Honors	5
LIST B: Select and complete one course (3 units)		
ENGT M20	Electronic Devices	3
ENGT M32	Electrical and Mechanical Devices	3
LIST C: Select and complete one course (2 units)		
ENGT M28	Capstone Project in Electronics Engineering Technology	2
ENGT M38	Capstone Project in Mechatronics Engineering Technology	2
LIST D: Select and complete one course (3 units)		
ENGT M10	Introduction to Unmanned Aerial Vehicle Technology	3
ENGT M12	Radar Fundamentals	3
Total Units for the AS Degree		27-33

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

- demonstrate the skills and the knowledge necessary to apply deductive and inductive reasoning to analyze problems and synthesize solutions to issues encountered in automated integrated electronic, electrical, and electromechanical systems.
- demonstrate the ability to work as a team member, to communicate effectively with others, and to show individual judgement in determining potential issues and problems.