



CURRICULUM GUIDE 2021-2022

SMART MANUFACTURING TECHNOLOGY

Certificate of Achievement in Smart Manufacturing Technology

INTEREST AREA: SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS (STEM)

The Certificate of Achievement in Smart Manufacturing Technology program at Ohlone provides entry-level manufacturing technicians with the relevant knowledge and skills for the Smart Manufacturing industry in the 21st century. The certificate provides students with knowledge and skills of Smart Manufacturing processes, Safety in Industry, Industrial Internet of Things, and troubleshooting techniques. Students earning this certificate can progress and achieve the Associate in Science in Smart Manufacturing Technology.

Requirements for Certificate of Achievement

- Complete Major Field courses.
- Complete at least 6 units at Ohlone College.
- Maintain a 2.0 grade point average in Major Field courses.

Student Learning Outcomes

- Apply basic scientific and engineering principles to solve problems in the manufacturing industry.
- Demonstrate ability to work in a team on a project.
- Operate relevant Smart Manufacturing Equipment such as Smart CNC Machines, Industrial Robotic Arms, Smart Factories, and Mechatronic Systems.

MAJOR FIELD

CAOT-150	Excel for the Sciences	.5
CAOT-151	Mathematical Computation and Communication	.5
COMM-111	Introduction to Public Speaking OR	3
ENGL-101A	Reading and Written Composition OR	(4)
ENGL-156	Introduction to Report and Technical Writing	(3)
ENGI-101	Introduction to Engineering	3
ENGI-130	Electric Circuit Analysis OR	4
ETEC-106	Electronics for Technology	(3)
ENGI-140	Materials Engineering OR	4
ETEC-107	Properties of Materials	(1.5)
ETEC-113	Safety in Industry	1
ETEC-121	Work-Based Project	3
ETEC-124	Introduction to Internet of Things	1.5
ETEC-126	Industrial Internet of Things-Industry Standard 4.0	<u>3</u>
Total Required Units:		20-24.5