



Degree Program Requirements:

The BS Engineering Technology degree program requires the completion of 120 semester units of coursework. The course work could be completed starting as a freshman or as a transfer student.

This degree Program together with a Business Minor requires the completion of:

• General Education courses	27 units
• Preparation for the Major	16 units
• Courses for the Major	57 units
• Technical Electives	5 units
• Business Minor	15 units



The combination of various technologies and solution 'enablers,' when collectively implemented in a manufacturing ecosystem, is termed **smart manufacturing**.



Smart Manufacturing Program is offered by the Engineering Technology Program under its Advanced Manufacturing concentration.

Engineering Technology Program

San Jose State University

One Washington Square

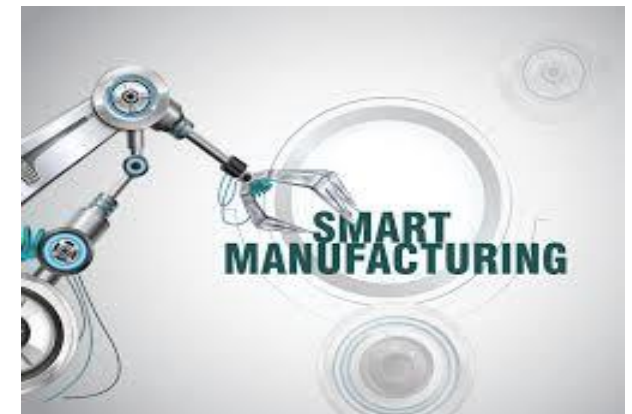
San Jose, CA, 95192-0061

408- 924-3190

www.sjsu.edu/avtech



Smart Manufacturing Systems Program



*A program designed to offer
a combined BS degree and a
Minor in Business upon
Graduation*

Engineering Technology

Engineering Technology Program

The Engineering Technology Program in the College of Engineering at San Jose State University offers Bachelor of Science (BS) and Master of Science (MSET) degrees in Engineering Technology.

Engineering Technology Program Concentrations:

- Manufacturing Systems (Mfg Systems)
- Computer Network System Management (CNSM)

Unique Opportunity: A Joint BS Engineering Technology Degree and a Business Minor

The Program is designed to offer two degrees, a BS degree in Engineering Technology and a Business Minor to prepare graduates with both in-depth knowledge and hands-on experience in basic and advanced operations and management.

Accreditation

The BS degree in Engineering Technology is a fully accredited program by the Association of Technology, Management and Applied Engineering (ATMAE).



Smart Manufacturing Systems Program

Smart Manufacturing refers to the integration of artificial intelligence and data science techniques through highly connected network and cutting-edge technologies such as machine learning, Internet of Things, and data analytics to increase production efficiency, performance and equipment maintenance. Development of Smart Manufacturing is mainly due to increasing automation, digital-twin transformation with the physical environments through and artificial intelligence, integration of information and operational technologies. This is achieved through the implementation of enabling technologies such as:

- Robotics and Automation
- Industrial Internet of Things
- Artificial intelligence
- Data Science and Analytics
- Cybersecurity
- AR/VR Immersive Technology
- 3D Printing and Additive Manufacturing
- Blockchain in Manufacturing
- Lean Manufacturing
- Sustainable Product Design
- Autonomous Systems and Applications



Field of Employment and Career Opportunities

Various industry involved in manufacturing would be hiring engineers with experience in factory operations using Internet of Things and related technologies. Automotive, Aerospace, Contract Manufacturing, entertainment, healthcare and pharmaceutical industries.

Career Preparation and Course Selection

As an engineer with knowledge of Smart Manufacturing, you will have the opportunity to develop your careers in a variety of disciplines based on the education you have earned as the result of courses you take.



Typical Courses

Industrial Internet of Things (IIoT), Robotics and Automation, Cyber and Network Security, Edge and Cloud Computing, Machine Learning, Data Science and Analytics, Blockchain, Data-Base Management, AR/VR Technology, 3D Printing & Additive Manufacturing, and Autonomous Systems and Applications.

