

Manufacturing and Industrial Technology A.S. Degree - Fall 2025 Catalog Rights

Total Units: 58

First Year				
Semester 1				15 Units
COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
STAT C1000 2 Introduction to Statistics	4		F, S	L2
MITECH 300 Introduction to Manufacturing and Industrial Technology	3			
MAKR 110 3D Design for Additive Manufacturing	3			
Living Skills: Life Development Skills	2		F, S	L7B
Arts and Humanities Z	3		F, S	L3

At least one section of this course is offered with free textbooks and is labeled as zero textbook costs (ZTC). If it is a GE area class or elective, there may be several ZTC offerings to fulfill the GE requirement. Use the Free Textbook filter to find these courses. Learn more on the <u>ZTC page of the college website</u>.

Semester 2

14 Units

COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*	GE AREA
CHEM 305 Introduction to Chemistry	5		F, S	L5
ENGR 312 Engineering Graphics	3		F, S	
BUS 310 Business Communications	3		F, S	
Oral Communication and Critical Thinking	3		F, S	L1B

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Second Year

Semester 3

15 Units

Notes:

- See FLC <u>AA/AS</u> General Education requirements.
- A degree applicable elective is defined as any class with a course number between 100 and 499.
- Some English and math courses have support courses (corequisites). See your assessment results for more details.
- Verify Math placements before enrolling. Prerequisite for Math 370 is Math 335.
- Prerequisite for Math 335: Math 333 Introduction to College Algebra or Math 120 Intermediate Algebra or Algebra 2 in high school or Integrated Math 3 in high school.
- Students may earn credit for College Entrance Board Advanced Placement (AP) tests with scores of 3, 4, or 5. AP scores can be used to meet Folsom Lake College associate degree general education , CSU,UC, and other 4 year University requirements --Check with your counselor to determine whether these test results will be accepted at the transfer institution of your choice.

Program Notes:

The Associate of Science Degree in Manufacturing and Industrial Technology prepares the student with engineering principles and technical skills for the manufacture of products and related industrial processes. Rooted in standards defined by the

COURSE	UNITS	PRE-REQS [^]	SEMESTERS OFFERED*	GE AREA
MATH 370 ¹ Pre-Calculus Mathematics	5	See Math Placements	F, S	L2
PHYS 350 General Physics	4	Trigonometry	F, S	
MGMT 372 Human Relations and Organizational Behavior	3		F, S	
MITECH Elective ²	3		F, S	

¹Math courses have been updated, see department for course substitution.

²MITECH Elective: A minimum of 6 units from the following:

MITECH 301 Materials and Processes (3)

MITECH 302 Production Planning and System Design (3)

MITECH 303 Tool and Fixture Design (3)

MITECH 310 Quality Systems (3)

MITECH 311 Introduction to Mechanical Inspection (3)

MITECH 312 Intermediate Mechanical Inspection (3)

MITECH 313 CMM Operation and Programming (3)

MITECH 320 Introduction to CAD/CAM Programming (3)

MITECH 321 Intermediate CAD/CAM Programming (3)

MITECH 322 Advanced CAD/CAM Programming (3)

Semester 4

14 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*	GE AREA
PHYS 360 General Physics	4	PHYS 350	F, S	
MITECH Elective ¹	3			
Social and Behavioral Science	3		F, S	L4
Ethnic Studies	3		F, S	L6
Living Skills: Physical Education Activity	1		F, S	L7A

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¹MITECH Elective: A minimum of 6 units from the following:

MITECH 301 Materials and Processes (3)

MITECH 302 Production Planning and System Design (3)

MITECH 303 Tool and Fixture Design (3)

Society of Manufacturing Engineers (SME) the program is intended to provide Career Technical Education related to engineering principles, technical skills, and industrial processes for the manufacture of products. Subjects of study include shaping, forming operations, materials handling, instrumentation, and controls. The program covers concepts related to quality control, Computer Aided Manufacturing (CAM), and the use of industrial robotics. Optimization theory, industrial and manufacturing planning, and related management skills are also included in this program.

Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the <u>Zero Textbook Costs</u> <u>page</u> of the college website. MITECH 310 Quality Systems (3)

MITECH 311 Introduction to Mechanical Inspection (3)

MITECH 312 Intermediate Mechanical Inspection (3)

MITECH 313 CMM Operation and Programming (3)

MITECH 320 Introduction to CAD/CAM Programming (3)

MITECH 321 Intermediate CAD/CAM Programming (3)

MITECH 322 Advanced CAD/CAM Programming (3)

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