Mizzou
University of Missouri

BS in Engineering Technology with Emphasis in Manufacturing

Degree Program Description

B.S. in Engineering Technology program with Emphasis in Manufacturing prepares graduates to apply basic mathematics, science, engineering, and technology principles and technical skills that enable them to engage in a variety of engineering technology projects. Coursework includes various engineering technology topics, including laboratory and design projects that lead to careers in manufacturing systems and general engineering technology areas.

Major Program Requirements

The BS in Engineering Technology requires a total of 120 credit hours for completion. The students are required to complete all University general education (https://catalog.missouri.edu/academicdegreerequirements/generaleducationrequirements/), University undergraduate requirements (https://catalog.missouri.edu/academicdegreerequirements/universityrequirements/), degree, and major requirements, including selected foundational courses, which may fulfill some University general education requirements. These include 15 credits of general education requirements, 27 credits of technical core requirements, 63 credits of required core courses, and 15 credits of technical electives.

General Education Requirements		15
ENGLSH 1000	Writing and Rhetoric	3
American History/Government (Social and Behavioral Science)		3
COMMUN 1200	Public Speaking	3
PHIL 1100	The Difference Between Right and Wrong: An Introduction to Ethics	3
or PHIL 1200	How to Think: Logic and Reasoning for Everyday Life	
HUM/FA 2000+ level		3
Technical Support Core Requirements		**27**
ECONOM 1014	Principles of Microeconomics	3
MATH 1400	Calculus for Social and Life Sciences I	3
PHYSCS 1210	College Physics I	4
PHYSCS 1220	College Physics II	4
CHEM 1100	Atoms and Molecules with Lab	4
STAT 2500	Introduction to Probability and Statistics I	3
ISE 2710	Engineering Economic Decision-Making	3
MANGMT 3000	Principles of Management	3
Required Core Courses		**63**
Engineering Technology Core Courses		**28**
ENGINR 1000	Introduction to Engineering	1
INFOTC 1040	Introduction to Problem Solving and Programming	3

MAE 1100	Introduction to Computer Aided Design	3
ENGTC 1250	Statics for Engineering Technology	3
ENGTC 2150	Fundamental Electronics	3
ENGTC 2250	Mechanics for Technology	3
ENGTC 2350	Materials, Processes, and Testing	3
ENGTC 3350	Machine Tool Technology	3
ENGTC 3450	Fluid Power for Technology	3
ENGTC 4800	Industrial Safety and Risk Assessment	3
Manufacturing Engineering Technology Core Courses		**35**
MFGET 1500	Introduction to Manufacturing	3
ISE 2030	Fundamentals of Systems Design and Analysis	3
MFGET 2500	Manufacturing Methods	3
MFGET 2600	Computer Aided Manufacturing	3
MFGET 3200	Intro Robotics [*]	3
MFGET 3400	Manufacturing Process Improvement	3
MFGET 3700	Industrial Automation I	3
MFGET 3800	Smart Manufacturing Technology	3
MFGET 4700	Industrial Automation II	3
ENGTC 4950	Industrial Internship/Cooperative Education [*]	3-6
ENGTC 4970W	Capstone Design I [*]	3
ENGTC 4980W	Capstone Design II [*]	3
Technical Electives (select 5 courses from list)		**15**
MECET 2500	AC/Linear and Solid-State Electronics	3
MECET 2600	Industrial Electricity and Control	3
INFOTC 2810	Fundamentals of Network Technology	3
INFOTC 2910	Cyber Security	3
INFOTC 3650	Leadership and Ethics in Information Technology	3
ENGTC 3100	Microprocessors Systems with lab [*]	3
MECET 3400	Advanced Robotics	3
INFOTC 3810	Computer Network Security	3
MECET 3800	Digital and Microcontroller Systems	3
ENGTC 4100	Instrumentation & Process Control [*]	3
MFGET 4600	Introduction to Adaptive (Additive) Manufacturing [*]	3

[*] Courses are in development.

Semester Plan

Below is a sample plan of study, semester by semester. A student's actual plan may vary based on course choices where options are available.

First Year				
Fall	**CR**		**Spring**	**CR**
ENGINR 1000		1	MAE 1100	3
MATH 1400		3	MFGET 1500	3
PHYSCS 1210		4	PHYSCS 1220	4
ENGLSH 1000		3	CHEM 1100	4
American History/Government		3	Social/Behavioral Sciences	3
	14			**17**
Second Year				
Fall	**CR**		**Spring**	**CR**
INFOTC 1040		3	ISE 2030	3

	CR		CR
ENGTC 1250	3	ENGTC 2250	3
STAT 2500	3	MFGET 2500	3
ENGTC 2150	3	ENGTC 3450	3
COMMUN 1200	3	PHIL 1100 or 1200	3
	15		15

Third Year			
Fall	CR	Spring	CR
MFGET 2600	3	MFGET 3400	3
ENGTC 2300	3	MFGET 3700	3
ENGTC 3200	3	ENGTC 3300	3
ISE 2710	3	MANGMT 3000	3
Humanities 2000+ level	3	Technical Elective 1	3
	15		15

Fourth Year			
Fall	CR	Spring	CR
MFGET 3800	3	Technical Elective 3	3
ENGTC 4950	3	Techinical Elective 4	3
ENGTC 4800	3	Techinical Elective 5	3
Technical Elective 2	3	MFGET 4700	3
ENGTC 4970W	3	ENGTC 4980W	3
	15		15

Total Credits: 121

Degree Audit

The degree audit is an automated report reflecting a student's academic progress toward the completion of a degree.

MU students can request a degree audit by logging in to myDegreePlanner (https://mydegreeplanner.missouri.edu). Students may also access myDegreePlanner via myZou, in the Student Center, click on the Academic Progress Tile, then select Request Degree Audit. The audit automatically pulls in the student's MU course work, transfer courses and courses in progress. This is available to current students, admitted students, and those who last attended less than three terms ago.

Past MU students can request a degree audit by contacting the Academic Advising Unit of the division in which they were last enrolled at MU. For contact information, go to https://advising.missouri.edu/contact/.

Prospective students, can access a preliminary MU degree audit via https://www.transferology.com (https://www.transferology.com/). Information on the college credits already earned will have to be manually entered before it can be evaluated against current degree requirements.

For additional details on degree audits, go to https://registrar.missouri.edu/degrees-audits/degree-audits/.

Major and Career Exploration

The University of Missouri has many resources to assist you in exploring majors and career possibilities. For guidance, visit the Majors and Careers (https://career.missouri.edu/majors-careers/) website or view specific resources below.

- If you are considering a change of major or are exploring multiple majors, schedule an appointment with an advisor in the Discovery Center (https://discoverycenter.missouri.edu/) by calling (573)884-9700 or through MU Connect (https://mizzou.starfishsolutions.com/starfish-ops/dl/instructor/serviceCatalog.html?bookmark=service/3761489) Discovery Center service in you success network.
- If you have decided on a major, visit an academic advisor in the School or College that you are interested in to discuss the process of declaring the major (https://advising.missouri.edu/majors-minors/changing-major/).
- If you would like to learn more about your career interests, abilities, values and talents, visit the MU Career Center (https://career.missouri.edu/connect/). No Appointment is necessary to explore career options with one of our staff members.
- If you would like information about MU majors and degree programs, visit:
  - the Degrees, Majors (Degree Programs), Emphasis Areas, Minors and Certificates (https://catalog.missouri.edu/degreesanddegreeprograms/) page in the catalog,
  - the MU Majors (https://majors.missouri.edu) website.

For additional major and career exploration resources, visit Major & Career Exploration (https://catalog.missouri.edu/majorcareerexploration/) in the catalog.