COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

Technology Management: Industrial & Safety Management Option

Bachelor of Science (BS)

Industrial & Safety Management Option

Technology management is a field of study designed to prepare technical and/or management-oriented professionals for employment in business, industry, education and government. Technology management is primarily involved with the management, operation and maintenance of complex technological systems while engineering and engineering technology are primarily involved with the design and installation of these systems.

ACCREDITED BY ATMAE
The Association of Technology, Management, and Applied Engineering

Becoming Career Ready...

/ Faculty with relevant industry experience work closely with students by providing them with career-ready practical experience and a technology-based curriculum in the state-of-the-art Otto & Della Seabaugh Polytechnic building.

/ Industrial & Safety Management graduates work as technology professionals and as technical managers area within business, industry, education and government. Examples of job titles include safety manager, production manager, quality control manager, industrial manager and quality assurance manager.

/ 100% of Southeast programs offer real-world experience. Industrial & Safety Management students earn this experience through a senior design capstone course for students to work in teams to solve open-ended industrial projects. Students also gain valuable hands-on experience through required labs that accompany the courses work.

/ The path to a successful career starts with you! You can maximize your career development by working closely with Career Services and Southeast faculty – they are here to help you connect your passions, interests and skills to jobs and opportunities in the field. Career Services provides professional career counseling and coaching, resume critiques, practice interviews, job search strategies, career events, networking opportunities and more.

FASTTRACK WORKFORCE INCENTIVE GRANT

Career Opportunities:

- Production Supervisor
- Industrial Engineer
- Production Specialist
- Quality Assurance
- Sales and Estimating
- Industrial Manager

Equipment and Computer Programs

We have developed laboratories to provide our students with an opportunity to master a working knowledge of industrial and safety management. Industrial and Safety Management students will learn:

- Production planning and control, using an enterprise resource planning software package, SAP R/3.
- Applications of management and organizational leadership and quantitative analysis of industrial and business problems.
- Application of scientific techniques for quality control, assurance, and management of production processes.
- The use of computers and computational tools involving complex industrial problems.
- Three families of Programmable Logic Controllers (PLC) including PLC-5, SLC 500, and ControlLogix as well as human machine interface such as Panelview.
- Theoretical and experimental concepts and use of test equipment in the area of industrial electronics.
- Manual and computer-aided manufacturing utilizing equipment including manual and CNC Bridgeport mills and lathes, EDM machine, and plastics processing and testing, metal arc and ultrasonic welding, casting and sandblasting, manual manufacturing tools, and break and sheer for sheet metal torching.
- Materials testing using destructive and nondestructive test equipment.

Special Options with Technology Management

Southeast Missouri State University offers an accelerated master's degree for current Southeast technology management students. For more information, please see the MS: Technology Management degree map.

Southeast also offers a Master of Science in Technology Management.

Transfer and Dual Credit Students

If you have dual credit or transfer credit, please visit our transfer course equivalencies guide at semo.edu/transfercredit.

To learn more
Office of Admissions
(573) 651-2590
admissions@semo.edu
semo.edu

To explore the College of Science, Technology, Engineering and Mathematics online, visit semo.edu/stem

For advising
Center for Academic Advising
semo.edu/advising

COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS

Technology Management: Industrial & Safety Management Option

Bachelor of Science (BS)

Degree Map 2021-2022

This is a guide based on the 2021-2022 Undergraduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on several factors such as dual enrollment, remediation, and summer enrollment. Students will meet with an academic advisor each semester and use Degree Works to monitor their individual progress.

CURRICULUM CHECKLIST

TECHNOLOGY MANAGEMENT: INDUSTRIAL & SAFETY MANAGEMENT OPTION – 88 Hours

Required Courses:

___CH181 Basic Principles of Chemistry (5)
___IM300 Technical Communication (3)
___IM301 Industrial Safety (3)
___IM311 Statistical Process Control (3)
___IM419 Industrial Supervision (3)
___IM506 Projects in IET (3)
___MA116 Precalculus A (3)
___MA117 Precalculus B (3)
___MA139 Applied Calculus (3)
___MN220 Engineering Economic Analysis (3)
___MN260 Technical Computer Programming Applications (3)
___PH120 Introductory Physics I (5)
___SW207 Understanding Cultural & Social Diversity (3)
___UI410 Manufacturing Research in a Global Society (3)

Industrial & Safety Management Option – 42 hours:

___ET160 Basic Electric Circuits (3)
___ET304 Intro Prog Logic Circuits (3)
___EV453 Occupational Health (3)
___EV454 Risk Assessment Appl (3)
___EV455 Industrial Hygiene (3)
___IM313 Facilities Planning (3)
___IM411 Total Quality Assurance (3)
___IM417 Manufacturing Resource Analysis (3)
___MN120 Fund of Engr Design Processes (3)
___MN170 Industrial Materials & Testing (3)
___MN203 Industrial Materials & Process I (3)
___MN304 Industrial Materials & Processes II (3)

Choose 6 hours from:

___FM504 Facilities Management (3)
___IM317 Internship (3)
___IM405 Innovation for a Lean Enterprise (3)
___MN319 Statics & Strength of Materials (3)
___MN324 Mechanical Design Processes (3)
___UI319 Science, Technology and Society (3)

General Education Requirements – some requirements may be fulfilled by coursework in major program:

- Social and Behavioral Sciences – 6 hours
- Constitution Requirement – 3 hours
- Written Communication – 6 hours
- Oral Communication – 3 hours
- Natural Sciences – 7 hours (from two disciplines, one to include a lab)
- Mathematics – 3 hours
- Humanities & Fine Arts – 9 hours (from at least two disciplines)
- Additional requirements – 5 hours (to include UI100 for native students)
- Civics examination

SAMPLE FOUR-YEAR PLAN

◆	Fall Semester		Spring Semester	
	Course #	Hrs	Course #	Hrs
FIRST YEAR	UI100	1	IM300	3
	EN100	3	MA117	3
	CH181/081/001	5	MN170	3
	MA116	3	General Education	3
	MN120	3	General Education	3
	Total	**15**	**Total**	**15**
SECOND YEAR	ET160	3	MN260	3
	IM301	3	MN304	3
	MA139	3	General Education	3
	MN203	3	General Education	3
	PH120/020	5	General Education	3
	Total	**17**	**Total**	**15**
THIRD YEAR	ET304	3	IM419	3
	EV453	3	MN220	3
	IM311	3	SW207	3
	Major elective	3	General Education	3
	General Education	3	Elective	3
	Total	**15**	**Total**	**15**
FOURTH YEAR	EV454	3	EV455	3
	IM313	3	IM417	3
	IM411	3	IM506	3
	Elective	3	UI410	3
	Elective	1	Major elective	3
	Total	**13**	**Total**	**15**

Degree requirements for all students: *a minimum of 120 credit hours, completion of the General Education program, and completion of 39 senior division hours (300-599). Refer to the Undergraduate Bulletin or Degree Works for additional graduation requirements for your program.*

**Many major courses are on a set rotation and dependent on when prerequisites are completed. The actual semester a course is taken may vary based on rotation.*

Revised 2/26/2021

To learn more
Office of Admissions
(573) 651-2590
admissions@semo.edu
semo.edu

To explore the College of Science, Technology, Engineering and Mathematics online, visit semo.edu/stem

For advising
Center for Academic Advising
semo.edu/advising