

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.


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.

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 shear 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

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This is a guide based on the 2020-2021 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	3	IM300	3
	EN100	3	MA117	3
	CH181/081/001	5	MN170	3
	MA116	3	General Education	3
	MN120	3	General Education	3
Total	17	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
	General Education	3	UI410	3
	Elective	2	Major elective	3
Total	14	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.

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