COLLEGE OF SCIENCE, TECHNOLOGY ENGINEERING AND MATHEMATICS

Technology Management

SOUTHEAST MISSOURI
STATE UNIVERSITY · 1873

MS: Technology Management

Master of Science (MS)

The Master of Science in Technology Management program incorporates appropriate theories and practices used in real-world applications for addressing the needs of modern industries.

The program consists of a core section of 6 courses, two research-based courses, and 3-4 option specific elective courses. Students can choose among the following options:

    Cybersecurity
    Facilities management
    Industrial education
    Industrial training and development
    Manufacturing systems
    Telecommunications systems
    Workplace environment and health safety
    Technical communication
    Customized

Becoming Career Ready...

/Understand management and its direct role in industry

/Participate in experiential learning opportunities within industries

/Engage in research-related activities to solve real-world application problems

/Learn production planning, applications of scientific techniques for quality control, and assurance and management of production processes

/Enhance their leadership positions in industry and related enterprises

/Serve as effective leaders, supervisors, and managers in technical enterprises

/Become managers in a technology-based environment

Career Planning

The Technology Management Program is designed to:
/Develop advanced competencies needed by technical managers, supervisors, and related positions in world-class industries and related enterprises.
/Prepare students to serve as effective leaders, supervisors, and managers in technical enterprises.
/Broaden the career potential of individuals through the ability to implement systems, increase productivity, and improve product quality.
/Develop a broad perspective needed for those employed in, or aspiring to earn, positions of responsibility in industry.

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Internship and Employment Opportunities of Recent Graduates

- Lean director
- Project QA/QC manager
- Safety supervisor
- Facility managers
- Technical managers
- Engineering managers
- Production supervisors

Experiential Learning Opportunities for Students

- Proctor & Gamble
- TG Missouri
- Tyco Health Care
- Missouri Department of Transportation
- Southeast Missouri State University
- Facilities Management
- Technology Resource Center
- Missouri Research Corporation

Admission Requirements

1. Hold a bachelor's degree from an accredited college or university in engineering or technology
2. An undergraduate grade point average of 3.0 on a 4.0 scale. Repeated coursework (backlogs) may also be considered. In addition, the department's graduate faculty reserve the right to require candidates to have at least a 50th percentile composite score on the Graduate Record Examination (GRE).
3. Applicants who do not meet the general and/or program's admission requirements (degree, GPA, or GRE scores) may be considered for probationary admission upon approval by the graduate program coordinator. While under probation, students may enroll in nine credit hours of course work in their program area. The nine hours must be completed with 3.0 GPA or higher.

All application materials must be submitted to the Office of Admissions by the following semester deadlines:

    Fall – August 1 (domestic students);
    July 1 (international students)
    Spring – November 1

Office of Admissions
(573) 651-2590
admissions@semo.edu
www.semo.edu

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

**Graduate Program Coordinator
Brad Deken**
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Technology Management

SOUTHEAST MISSOURI STATE UNIVERSITY · 1873

Master of Science (MS)

This is a guide based on the 2019-2020 Graduate Bulletin and is subject to change. The time it takes to earn a degree will vary based on factors such as dual enrollment, remediation, and summer enrollment. Students meet with an academic advisor each semester and use Degree Works to monitor their progress.

CURRICULUM CHECKLIST

33 Hours Required
CORE REQUIREMENTS:
___FM504 Facilities Management (3)
___IM600 Managing Technology Innovation (3)
___IM602 Advanced Quality Concepts (3)
___IM603 Technology Supervision in a Diverse Workplace (3)
___IM605 Innovation for a Lean Enterprise (3)
___IM606 Knowledge Management (3)
___IM691 Understanding Graduate Research (3)
CHOOSE ONE TRACK:
Thesis Track:
___IM694 Thesis (3)
___GR699 Master's Oral Exam (0)
___9 hours from one option
Applied Project Track:
___IM693 Applied Research Project (3)
___GR698 Master's Final Comp Exam (0)
___9 hours from one option
Class Track:
___IM692 Modeling and Simulation (3)
___GR698 Master's Final Comp Exam (0)
___12 hours from one option
CHOOSE 9-12 HOURS FROM ONE OPTION (depending on which track is chosen):
CYBERSECURITY
___CY501 Introduction to Cybersecurity (3)
___CY510 Information Security and Assurance (3)
___CY520 Information Security in Systems Administration (3)
___CY610 Web Application Security (3)
___CY620 Computer Forensics (3)
FACILITIES MANAGEMENT
___CM510 Building Information Modeling (3)
___ET570 Energy Management (3)
___EV654 Risk Assessment Applications (3)
___FM554 Facilities Operation and Supervision (3)
___IM506 Projects in Industrial & Engineering Technology (3)
INDUSTRIAL EDUCATION/TRAINING & DEVELOPMENT
___IE590 Assessment for Career & Technical Education (3)
___IE592 Selection & Organization of Subject Matter (3)
___IE593 Principles & Practices of Industrial Technical Teaching (3)
___IE595 Teaching Adults in Career & Technical Education (3)
___IE596 Philosophy in Career & Technical Education (3)
___IE597 Coordination of Cooperative Education (3)
___IM520 Technical Training & Development (3)
___IM521 Technical Change & HR Development (3)
___IM522 Technical Leadership in Training & Development (3)
___IM523 Training & Development of Technical Teams (3)
MANUFACTURING SYSTEMS
___ET568 Industrial Controls (3)
___ET570 Energy Management (3)
___IM555 Sustainable and Green Manufacturing (3)
___IM617 Manufacturing Resource Analysis (3)
___MN512 Advanced Manufacturing Systems (3)
TELECOMMUNICATIONS SYSTEMS
___TN562 Networking I (3)
___TN563 LAN Switching (3)
___TN564 Telecommunications & Networking II (3)
___TN565 Network Management (3)
___TN566 IP Telephony (3)
___TN625 Wireless Communications & Mobile Data Networks (3)
___TN635 Network Security (3)

WORKPLACE ENVIRONMENT & HEALTH SAFETY
___EV551 Hazardous Material Assessment (3)
___EV653 Occupational Health (3)
___EV654 Risk Assessment Applications (3)
___EV655 Industrial Hygiene (3)
___EV660 Introduction to Toxicology (3)
___EV661 Business Strategies for Corporate Environmental Management (3)
___EV666 HAZWOPPER (3)
CUSTOMIZED
Developed with consent of advisor to meet individual career needs of the student, which may include independent study and/or problems in industrial and engineering technology courses

1. **Recommended sequence of required course work:**
   First semester: 3 core courses
   Second semester: 3 core courses
   Third semester: IM691 and 2 elective courses
   Fourth semester:
   - Degree path 1: Thesis and 1 elective
   - Degree path 2: IM693 and 1 elective
   - Degree path 3: IM692 and 2 electives
   NOTE: If elective courses chosen require prerequisites, it may be necessary to take these in the first year of classes.

   About Our Online Programs
   At Southeast, if a program is designated as an online degree that means you can complete your degree from anywhere, without ever having to come to one of our campuses. As a student in an online class, your faculty will be the same faculty who teach in our campus classrooms. Advising for online programs and other support services are all completed online by staff who specialize in serving distance students. Not all elective courses in this technology management program are offered online and not all core courses are offered online every semester. Students are encouraged to work with an advisor for scheduling of online courses.

2. **Why should I study Technology Management at Southeast?**
   The Master of Science in technology management program at Southeast was designed with the help from industries we serve in the southeast Missouri regions, including St. Louis. It serves technical managers, production supervisors, engineers, technicians, and related professionals who wish to study full time or part time to prepare for or enhance their leadership positions in industry and related enterprises. Upon completing the program, graduates serve as effective leaders, supervisors, and managers in technical enterprises.

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