Technology Management (Online)

Master of Science (M.S.)

Southeast Missouri State University’s 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 (six courses), two research based courses, and 3-4 option specific elective courses. Students can choose among the following options:

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

Technology management students will...

- 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.

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. For consideration, applicants must hold a bachelor’s degree from an accredited college or university in industrial/engineering technology, engineering, industrial/technical education, or related fields with course work or a significant background in engineering economics quality control and process management. An applicant with another degree with a portfolio that can verify a record of successful industrial experience as a technical manager can be admitted after completing the required prerequisite courses.

2. Consideration for regular admission is based on an undergraduate grade point average of at least 3.25 on a 4.0 scale. Students who do not meet the regular admission requirements may be conditionally admitted and allowed to complete only nine graduate semester hours. Upon completion of the nine hours at Southeast, the student must have a grade point average of 3.33 on a 4.0 scale to be considered for full admission to the program. For more information, visit semo.edu/polytech/academics/ms.html.
CURRICULUM CHECKLIST

Master of Science (M.S.)

Technology Management (Online)

This is a guide based on the 2014-2015 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 DegreeWorks to monitor their progress.

Elective Courses

Depending on your degree path, select 9-12 hours from one of the following option areas:

- **3D Animation and Gaming**
  - GM525 Virtuality in Gaming
  - GM526 Motion Capture Technology
  - GM585 Computer Special Effects
  - GM690 Stereoscopic Imaging

- **Cybersecurity**
  - CY501 Introduction to Cybersecurity
  - CY510 Information Security and Assurance
  - CY520 Information Security in Systems Administration
  - CY620 Web Application Security
  - CY620 Computer Forensics

- **Facilities Management**
  - CM510 Building Information Modeling
  - ET570 Energy Management
  - FM554 Facilities Operation and Supervision
  - IM505 Projects in Industrial & Engineering Technology
  - EV654 Risk Assessment Applications

- **Industrial Education/Training & Development**
  - IE590 Assessment for Career & Technical Education
  - IE592 Selection & Organization of Subject Matter
  - IE593 Principles & Practices of Industrial Technical Teaching
  - IE595 Teaching Adults in Career & Technical Education
  - IE596 Philosophy in Career & Technical Education
  - IE597 Coordination of Cooperative Education

- **Manufacturing Systems**
  - ET568 Industrial Controls
  - ET570 Energy Management
  - IM617 Manufacturing Resource Analysis
  - MN512 Advanced Manufacturing Systems
  - MN516 Manufacturing Seminar

- **Telecommunications Systems**
  - TN562 Networking I
  - TN563 LAN Switching
  - TN564 Telecommunications & Networking II
  - TN565 Network Management
  - TN566 IP Telephony
  - TN625 Wireless Communications & Mobile Data Networks
  - TN635 Network Security

- **Workplace Environment & Health Safety**
  - EV551 Hazardous Material Assessment
  - EV563 Occupational Health
  - EV654 Risk Assessment Applications
  - EV655 Industrial Hygiene
  - EV660 Introduction to Toxicology
  - EV661 Business Strategies for Corp. Env. Mgmt.
  - EV666 HAZWOPER

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

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.