

## ENGINEERING MANAGEMENT

## TECHNOLOGY MANAGEMENT

### GENERAL DESCRIPTION

Engineering Management (EM) is a career that combines the problem-solving savvy of engineering with the organizational, administrative, and planning abilities of management in order to oversee the operational performance of complex engineering driven enterprises. A Master's degree in Engineering Management can be compared to a Master of Business Administration (MBA) for professionals seeking a graduate degree as a qualifying credential for a career in engineering management.

The Technology Management (TM) masters from the University of Idaho is a multidisciplinary program designed for students from a variety of non-engineering backgrounds. TM prepares technical professionals to provide effective planning, selection, implementation, and management of technology in a leadership role.

This degree is specifically designed for professionals with a bachelor's degree in engineering, whose career trajectory targets management of engineering staff and other technical professionals.

### ADMISSION REQUIREMENTS

- A Bachelor of Science in any discipline of engineering from an ABET/EAC accredited program (minimum 3.0 GPA);
- At least two years of engineering work experience beyond bachelor's degree, or currently employed as an engineer; and
- One of the three letters of recommendation must be from a current or former employer.

- Bachelor's degree in a technical discipline, or
- Bachelor's degree and 3 years' experience in a technical field
- 1 of the 3 letters of recommendation must be from a current or former employer
- Technology Management Exploration Form

### COURSE REQUIREMENTS

#### Required Courses | 12 credits

- EM510 - Engineering Management Fundamentals
- MHR513 - Leadership and Organizational Behavior
- ACCT582 - Enterprise Accounting
- STAT431 – Statistical Analysis

#### Required Courses | 15 credits

- TM510 Technology Management
- TM520 Leadership & Conflict Management
- ACCT582 Enterprise Accounting
- STATS – 400 or 500 level
- Project Management or Process Improvement course

### ELECTIVES

#### Quantitative Electives | 6 credits

500-level engineering courses that contain a focus on qualitative analysis of an engineering subject.

#### Qualitative Electives | 12 credits

400-level or higher courses from engineering, business, math, or statistics that are focused on management, business process and/or qualitative content.

#### Focus Area Electives | 12 credits

Courses focused on student's technical area of interest (e.g., Project Management, Critical Infrastructure Resilience, Process Improvement and Innovation, Emergency Planning and Management, Industrial Safety, Nuclear Criticality Safety, Information Technology, Environmental Safety and Technology, Human Factors)

### EXIT REQUIREMENT

- Master's project presentation with oral comprehensive exam (EM599); or
- Additional elective and passing grade on the ASEM CPEM exam (EM596); this path yields certification as a Certified Professional in Engineering Management.

- **Master's Project Option**  
3 credits, TM599 Master's Project Research
- **Thesis Option**  
Core, 9 credits of electives and 6 credits of TM500 Thesis Research
- **Comprehensive Exam Option**  
Core, 15 credits of electives and 1 credit of TM596 Capstone Integration

### WHERE WOULD I WORK?

Current UI students and our alumni work in technology intensive environments such as Idaho National Laboratory, Micron Technology, J.R. Simplot, Indian Health Services, US Army Corps of Engineers, Schweitzer Engineering, HDR Engineering, Inc., US Navy, US Air Force, Idaho Power, Bonneville Power Administration, Los Alamos National Laboratory, On Semiconductor, Wyle Aerospace, US Bureau of Reclamation, ConAgra Foods, Chobani, and several private engineering and manufacturing firms. As an example of career paths, graduates are involved in operations management, operations research, and supply chain management; new product development and product engineering; systems engineering; and industrial engineering.

Current students and alumni work in technology intensive environments such as Idaho National Laboratory, McAfee, Fluor, Sandia National Laboratory, Boeing, and private manufacturing firms. Graduates are involved in regional economic development, information technology, cybersecurity, radiological controls management, program management, technology innovation and deployment, nuclear safety and administration, laboratory safety, energy sector, environmental health and safety.

