

Engineering Management

As a student in engineering management you will have the opportunity to prepare for leadership roles in today's complex environment as an engineer, a manager and an educator.

Engineering management is the degree that "bridges the gap" between engineering and business.

Missouri S&T offered the nation's first degree in engineering management. The curriculum integrates engineering and management knowledge while optimizing the use of people, equipment, money and information.

Graduates are capable of designing, implementing, operating and optimizing sophisticated high technology enterprises in manufacturing, government or service sectors of our global economy.

Engineering management may be for you if you're interested in:

- Management of technology: focus on administration and decision making aspects of an organization.
- Industrial engineering: focus on acquiring, analyzing and interpreting data to improve productivity, quality and safety

Missouri S&T's ABET-accredited program combines basic science and engineering principles with a strong emphasis in design and a solid knowledge of management. The bachelor's program includes basic chemistry, physics, mathematics, and engineering science courses required by all engineering disciplines at Missouri S&T.

These courses are followed by a core coursework complemented by coursework related to a specialized area of study chosen by the student. As a senior you will take a design course to integrate technical and managerial skills you have acquired.

Emphasis Areas in Engineering Management

- Industrial Engineering
- Management of Technology
- General (Customized) Emphasis

Cooperative Education Program

Cooperative education is a structured educational strategy integrating classroom studies with learning through productive work experiences in a field related to a student's academic or career goals. It provides progressive experiences in integrating theory and practice. In Engineering Management, students have worked with a wide variety of major companies through our program. Work for a semester or during the summer and build your resume.

Top Hiring Employers

Ford Motors	Boeing
Accenture	Hallmark
General Electric	Ibex
Sprint	IBM
Accenture	Garmin
General Motors	American Express

Entry Level Job Titles

Quality Assurance Engineer	Production Supervisor
Supervisory Trainee	Packaging Engineer
Marketing Engineer	Field Engineer
Industrial Engineer	Senior Engineer
Loss Prevention Engineer	Manufacturing Engineer

Scholarship Information

Departmental scholarships are available on a competitive basis to all levels of students.

Departmental Contact Information:

Department Chair: Dr. David Enke
573-341-4572 223 Engineering Management Bldg emse.mst.edu
emgt@mst.edu

Faculty

Professors:

Cihan Dagli, Ph.D., Birmingham
 William Daughton, Ph.D., Missouri-Columbia
 David Enke, Ph.D., Missouri S&T (Chair)
 Kenneth Ragsdell, Ph.D., Texas
 Susan Murray, Ph.D., Texas A&M
 Venkat Allada, Ph.D., Cincinnati
 Henry Wiebe, Ph.D., Arkansas

Associate Professor:

Stephen Raper, Ph.D., Missouri S&T

Assistant Professors:

Elizabeth Cudney, Ph.D., Missouri S&T
 Steven Corns, Ph.D., Iowa State
 Abhijit Gosavi, Ph.D., South Florida
 Ivan Guardiola, Ph.D., Texas Tech
 Dincer Konue, Ph.D., Florida
 Zhen Liu, Ph.D., Northwestern
 Suzanna Long, Ph.D., Boston College
 Ruwen Qin, Ph.D., Penn State
 Katie Granthan, Ph.D., Missouri S&T
 Brian Smith, Ph.D., Purdue

Associate Teaching Professor:

Benjamin Dow, Ph.D., Purdue

Assistant Teaching Professor:

Joan Schumann, Ph.D., Southern Mississippi

Educational Objectives

Graduates of the Engineering Management Program will exhibit proficiency and excellence in the areas of technology, finance, human relations, communications, and professional behavior. Within these areas of proficiency, graduates will exhibit the explicit skills and knowledge as described below.

Analytical Problem Solving: Graduates are able to analyze and solve complex problems.

Finance: Graduates are responsible and financially aware managers and leaders who utilize basic finance, accounting, engineering economy and risk analysis methods to manage and identify the financial impact of business opportunities.

Human Relations: Graduates are competent leaders who develop and utilize the skills and abilities of teams and individuals within the organization.

Communication: Graduates engage others through effective oral, technical and written communication.

Professional Behavior: Graduates will continually grow in their awareness and understanding of the societal, ethical, cultural, legal and political issues prevalent in an increasingly global society.

Notes

Detailed information on course equivalencies, acceptable credits for elective coursework, grade requirements and prerequisites is available from S&T's Registrar's Office at registrar.mst.edu.

All Engineering Management students must take the Fundamentals of Engineering Examination prior to graduation. A passing grade is not required; however, this is the first step to becoming a registered professional engineer.

Bachelor of Science

Engineering Management.....128 credit hours

Entering freshmen desiring to study Engineering Management are admitted to the Freshman Engineering Program. They may, however, state an Engineering Management preference, which will be used as a consideration for available freshman departmental scholarships. The focus of the Freshmen Engineering program is on enhanced advising and career counseling, with the goal of providing to the student the information necessary to make an informed career decision.

FIRST YEAR

	Credit
Chemistry 1310, 1319, 1100-General Chemistry w/ Lab.....	6
English 1120-Exposition.....	3
FE 1100-Careers in Engineering.....	1
MechE 1720-Engineering Design.....	3
Math 1214-Calculus for Engineers I.....	4
Math 1215-Calculus for Engineers II.....	4
Physics 1135-Engineering Physics I.....	4
History 1200, 1300, 1310 -or- Pol Sci 1200.....	3
Economics 1100 or 1200-Micro or Macroeconomics.....	3
Elective/Humanities.....	3
	34

SECOND YEAR

EMgt 2110-Mgt of Engineering & Technology.....	3
EMgt 1210-Economic Analysis of Engineering Projects.....	2
EMgt 2211-Engineering Accounting & Financial Mgt.....	3
Math 2222-Calculus III/Analytic Geometry.....	4
Math 3304-Differential Equations.....	3
Stat 3115-Engr Stat -or- Stat 3117-Intro to Prob.....	3
Physics 2135-Engineering Physics II.....	4
CivE 2200-Engr Mech/Statics.....	3
MechE 2350-Engr Mech/Dynamics.....	3
Cmp Sc 1971-Basic Scientific Programming.....	2
Cmp Sc 1981-Computer Programming Lab.....	1
Psych 1101-General Psychology.....	3
	33

THIRD YEAR

EMgt 3510-Marketing Management.....	3
EMgt 3310-Operations & Production Management.....	3
EMgt 3320-Project Management.....	3
EMgt 4710 Quality Philosophies & Methods.....	3
EMgt Emphasis Course 1.....	3
CivE 2210-Mechanics of Materials.....	3
CivE 2211-Materials Testing.....	1
MechE 2527-Thermal Analysis.....	3
ElEng 2800-Electrical Circuits.....	3
English 3560-Technical Writing.....	3
Sp&MS 1185 or 2181-Public Speaking.....	3
	31

FOURTH YEAR

EMgt 4110-Gen Mgmt Design & Integration.....	3
EMgt 4907-Senior Design.....	3
EMgt Emphasis Course 2.....	3
EMgt Emphasis Course 3.....	3
EMgt Emphasis Course 4.....	3
EMgt Elective.....	3
EMgt Elective.....	3
EMgt Elective.....	3
Elective/Humanities or Social Science.....	3
Elective/Free.....	3
	30