MANAGEMENT SCIENCE FACT SHEET

Degree received: Bachelors of Science with a Major in Management Science
Home school: SMU School of Engineering
Home department: Engineering Management, Information, and Systems
Department web site: lyle.smu.edu/emis/

Degree Requirements
Hours required: 122 term credit hours (TCH)
Admission: 3.0+ gpa on course subset

Major courses:
- EMIS 1360 Introduction to Management Science
- EMIS 2360 Engineering Economics
- EMIS 3308 Engineering Management
- EMIS 3309 Information Engineering and Global Perspectives
- EMIS 3360 Operations Research
- EMIS 4340 Probability and Statistics
- EMIS 4395 Senior Design
- EMIS 5362 Production Systems Engineering
- CSE 1/2341 Principles of Computer Science I, II
- CSE 3365 Introduction to Scientific Computing (Math 3315)
- CSE 4360 Technical Entrepreneurship
- ENCE 3302 Technical Communications

Electives: 21 term credit hours

Typical 2nd major: Mathematics, economics, computer science, business
Mgt Sci Minor: 18 term credit hours

Course Catalog Description
Management Science is the discipline of applying advanced analytical methods to help make better decisions. Management Science deals with the development of mathematically-based models for planning, managing operating, and decision-making. In our curriculum, these methods are also applied to the design and management of efficient production systems.

A management scientist at a major airline would be concerned with building models to decide the best scheduling of flights, routing of planes, assignment of pilots and crews to specific flights, and flight gate assignments, as well as deciding the best number of planes to own and operate, which cities to fly to, which cities to use as major hubs, how to lay out an airport terminal, which overbooking policy should be used, and related issues. Usable or optimal decisions for such issues can be uncovered through analysis using computer-based mathematical models. The management scientist uses the data collected and managed by the MIS department in building his or her models.

Because of its generality, Management Science has broad applications in all engineering disciplines and in the fields of computer science, economics, finance, marketing, medicine, logistics, production, information engineering, and statistics. Management Science methods are used extensively in both the public sector and industry and the Management Science program prepares the technically-oriented student to excel in today’s competitive environment.
Job Placement

Salary range:
See 2004 Graduates Survey
(ugrad and grad):

- > 100K
- 80-100K
- 70-80K
- 60-70K
- 50-60K
- 40-50K
- 30-40K

0% 10% 20% 30% 40%

Typical industry position: analyst
Recent graduates and companies/schools:

- Lianna Vetter, Bain & Company, Consulting
- Benjamin Luong, Boeing & grad school, Aerospace/defense
- Carolyn Trimble, Broadlane, Healthcare systems
- Trevor Weichman, Buxton, Research & analytics
- Chris Edison, Computer Sciences Corp, Consulting, systems integration
- Chris Davis, Deloitte and Touche, Consulting
- Brittny McCluskey, Deloitte and Touche, Consulting
- Steven Schindler, Duke University, Law School
- Kristyn Starr, Hitachi Consulting, Operations Research
- Laura Bailey, JP Morgan Chase, Banking and finance
- Robert Needham, Lockheed Martin, Aerospace/defense
- Chris Noon, Lockheed Martin, Aerospace/defense
- Heidi Huber, Lockheed Martin MFC, Defense manufacturing
- Claudia Johnson, Lockheed Martin MFC, Military contractor
- Julia Marrett, Mercer Consulting, HR consulting
- Allison Bass, Perot Systems, IT and consulting
- Brandon Ha, Raytheon & grad school, Defense systems engineering
- Jessica Trimmer, Stryker, Medical products and services
- Elaine Cochran, Sunguard Consulting, Healthcare systems
- Stephen Beckert, Southwest Airlines, Airline
- Laura Tasch, Texas Lawyers for Children, Legal support for abused children
- Kim Greene, Walt Disney Co., Entertainment

Graduate School

Accelerated masters? Yes, at SMU Engineering with sufficient grade-point average
Prepares for: Masters in Operations Research, Systems Engineering, Information Engineering, Industrial Engineering, Engineering Management; Law School; M.B.A.; medical school (with Pre-med option)

More Information

Program web site: http://smuemis.info/html/bsms.html
Management Science: http://www.scienceofbetter.org/
EMIS department: Caruth Hall 337, phone: 214-768-1100
EMIS chair: Dr. Dick Barr, 214-768-1772, Caruth 333, barr@smu.edu
Man Sci advisor: Dr. Leslie-Ann Asmus, 214-768-1792, Caruth 335, lasmus@smu.edu

welcome.smuemis.com