

# 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/](http://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 2<sup>nd</sup> 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.

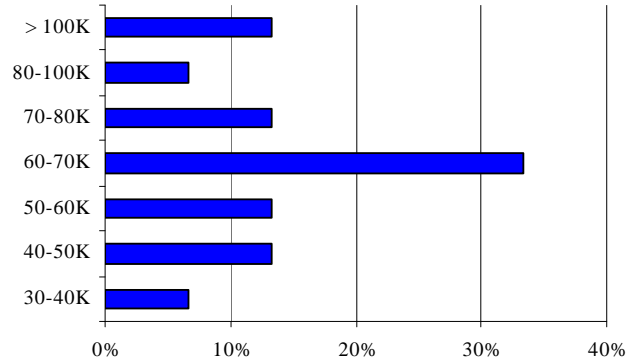
A management scientist at a major airline would be concerned with building models to decide the best scheduling of flights, routing of planes, assignment of pilots and crews to specific flights, and flight gate assignments, as well as deciding the best number of planes to own and operate, which cities 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):

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



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

## Graduate School

Accelerated masters? Yes, at SMU Engineering with sufficient grade-point average  
 Example schools: Duke, U. California (Berkeley), U. Chicago, Harvard, U. Michigan  
 Northwestern, U. Texas at Austin, SMU  
 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