The University of Texas at Dallas

Erik Jonsson School of Engineering and Computer Science

Master of Science in Systems Engineering and Management

Program Description

In most high-tech industries, there is a growing need for rigorous systems engineering and management training, especially in organizations that have complex systems, interdependent offices and processes, and significant societal impact. The Master of Science in Systems Engineering and Management fulfills two primary needs. The program trains engineers to be highly skilled leaders and business managers and trains business managers in advanced knowledge of established and emergent technologies and large, multifaceted engineering projects.

A joint program between the Erik Jonsson School of Engineering and Computer Science and the Naveen Jindal School of Management, the Systems Engineering and Management master's program features both technical and human-centered courses. Designed by world-class faculty, the curriculum provides the knowledge and skills that engineers and business managers need to design, develop and manage complex projects requiring wide-ranging scientific and business competencies.

The program offers flexibility for full-time students and working professionals. Students can choose between several formats:

- A master's degree earned the traditional way, during regular weekday classes.
- A master's degree earned in an executive format, during classes held on Fridays and Saturdays.
- A certificate in Systems Engineering (SE) or Systems Management (SM) for those who seek other forms of advanced training

Benefits

As a joint program between the Erik Jonsson School of Engineering and Computer Science and the Naveen Jindal School of Management, SEM features both technical and business or organization centered courses. Upon successful completion of the MS in Systems Engineering and Management, graduates will be able to take on roles with the following skills:

- *World-Class Faculty*: The program is led by faculty of the Erik Jonsson School of Engineering and Computer Science and the Naveen Jindal School of Management who are widely cited experts in their respective fields, many of whom also have professional industry experience.
- *Unique Curriculum*: Courses in the Systems Engineering and Management master's program introduce students to new ideas, technologies, and competencies while also teaching them the skills they'll need to thrive in competitive, ever-changing industries.
- *Facilities*: Jonsson School facility resources now include one of the largest project design studios in the country, as well as a Makerspace area for creative pursuits. Three buildings on campus are dedicated to engineering and computer science: ECS South, North and West, as well as collaborative research spaces in the Bioengineering and Sciences building, the Edith O'Donnell Arts and Technology building and the Natural Science and Engineering Research Laboratory.
- *Convenient, Flexible Formats*: Students have the opportunity to choose between traditional or executive degree formats, as well as a certificate of advanced training in systems engineering or systems management. With daytime, evening and weekend classes, the program provides flexible coursework options for everyone.

Contact Information

Traditional Track
(Less than 3 years work experience)

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Professional Track
(More than 3 years work experience)

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utdallas.edu/sem

800 W. Campbell Road Richardson, TX 75080
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- *Location*: Situated in the greater Dallas region—recently rated by *Forbes* magazine as the #1 "Best City for Jobs"—UT Dallas provides students with easy access to employers and internship opportunities, not to mention a large and supportive alumni population.

Career Opportunities

Graduates of the Systems Engineering and Management master's program have gone on to leadership and managerial positions in a wide variety of fields. Some of the most popular positions include:

- Manager or Director of Systems Engineering and Management
- Chief Technology Officer (CTO)
- Chief Strategy Officer
- Chief Information Officer (CIO)
- Chief Security Officer
- Vice President of Research and Development
- Vice President of Systems Engineering
- Vice President of Engineering
- Director of Systems Engineering
- Systems Program Manager or Project Manager

Marketable Skills

As a joint program between the Erik Jonsson School of Engineering and Computer Science and the Naveen Jindal School of Management, SEM features both technical and business or organization centered courses. Upon successful completion of the MS in Systems Engineering and Management, graduates will be able to take on roles with the following skills:

- Ability to design, develop and manage complex projects requiring a wide range scientific and business competencies
- Ability to explain technical terms to non-technical people in the business world and apply knowledge/skills to real world scenarios
- Ability to communicate effectively
- Ability to use empirical and quantitative skills, critical thinking, analytical reasoning and problem solving

Application Deadlines and Requirements

Please take note of all application deadlines and visit the Apply Now webpage to begin the application process. See the Systems Engineering and Management degree program webpage for additional information.

Applicants to the Systems Engineering and Management master's degree program should have:

- A minimum of a BS in engineering, mathematics, physics, chemistry, economics or finance from an accredited program (specifically, programs that provide adequate fundamental skills in mathematics).
- Submission of GRE and/or GMAT test scores, as appropriate.
- Letters of Recommendation: Applicants must submit three letters of recommendation from individuals able to judge the candidate's potential for success in the master's degree program.
- Admissions Essay: Applicants must submit an essay outlining their background, education, and professional goals.
- International applicants must submit a TOEFL score of at least 80 on the internet-based test. Scores must be less than two years old. See the Graduate Catalog for additional information regarding English proficiency requirements for international applicants.

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