Curriculum
Systems engineering and management, or SEM, is an essential ingredient in today’s high-tech industries. Our industry partners tell us there is a growing need for engineering and management training in complex systems that have many interdependent parts and deliver significant organizational and/or societal impact. Increasingly, business requires that engineers be trained to be good managers and leaders. Likewise, business managers need a better understanding of technology and how to run large, multifaceted engineering projects. This degree consists of a curriculum that is one-third engineering, one-third management, and one-third your choice in a targeted area related to systems including aerospace, defense and space systems; transportation systems, information and communications technology systems; information assurance and cybersecurity systems; healthcare systems; energy, environment and infrastructure systems; complex biological systems; and macroeconomic and financial systems.

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. The curriculum provides students knowledge and skills to design, develop and manage complex projects requiring wide-ranging scientific and business competencies. The typical SEM student is a high performer with a bachelor’s degree in engineering, math, physics, chemistry, economics or finance.

The program offers flexibility in its format. Students can choose between a master’s degree earned the traditional way, during regular weekday classes or one earned in a professional format, with classes on Fridays and Saturdays (see utdallas.edu/sem for differences in application and admission between the traditional and professional tracks). A certificate in systems engineering or in systems management is another option for those seeking advanced training.

Career Options
Graduates with a Master of Science degree in Systems Engineering and Management find positions as systems engineers, systems managers, systems engineering managers, program managers, project managers, directors of systems engineering, data systems analyst and more in a wide range of industries. Some of the specialized industries prominent in the Dallas-Fort Worth Metroplex include aerospace, space and defense; information assurance and cybersecurity; telecom and information technology networks; healthcare systems; enterprise systems; energy resources infrastructure; transportation; retail and consumer goods; and financial services.

Degree Program
The MS in Systems Engineering and Management requires the completion of a minimum of 36 semester credit hours. For complete admission and degree requirements, view the Graduate Catalog at catalog.utdallas.edu.

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