Imagine what could be accomplished if a systems engineering approach—applying the same holistic, interdisciplinary processes used to define and manage the most complex engineering projects in history—were brought to bear on similar challenges in medicine, education, transportation, and many other fields! These types of decision analytics and processes could be the key to unraveling and solving many of the complicated, seemingly intractable issues impacting our ability to survive.

Oil spills damaging seaports, beaches, and ecological communities.

Health care systems masking patient data.

Humanitarian response gaps endangering displaced populations.

FIND US HERE
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EngineeringLeaders@SMU.edu | lyle.smu.edu
214-768-2002
**CRITICAL FOCUS**

Since 1994, the Systems Engineering Program (SEP) at SMU has focused on the design and management of complex, large-scale aerospace systems. But as we witness our society struggling to cope with challenges of ever-increasing magnitude and complexity, it’s become clear that systems engineering has an even greater role to play in solving today’s problems, including those found in all engineering domains, the sciences, and in business. This is the intellectual promise offered by the Systems Engineering Program at SMU-Lyle.

**LEAD SUCCESS**

Our 30-hour degree program, founded by Dr. Jerrell Stracener, is unique in its focus, faculty, curriculum, and partnerships. To integrate human and technological elements into a highly coordinated, knowledge-based, results-oriented system, students learn critical thinking skills. They develop the ability to see the ‘big picture’ as they analyze myriad details and view the problem space with a ‘systems thinking’ approach. Most importantly, they acquire management and engineering skills essential to systematically resolve the vexing issues we face today and accomplish magnificent goals for decades to come.

**ACADEMIC PROGRAM**

Thirty credit hours (30 CH) with a minimum graduate G.P.A. of 3.000 on a 4.000 scale.

**Satisfactory completion of the following courses (21 CH).**
- Integrated Risk Management
- Systems Analysis Methods
- Systems Engineering Design
- Systems Engineering Process
- Systems Integration and Test
- Systems Reliability Engineering
- Systems Reliability and Availability Analysis
  (Operations Research Models, or Probability and Statistics for Scientists and Engineers may be taken in lieu of Systems Analysis Methods.)

**Satisfactory completion of one of the following tracks.**

- **On-Campus/Distance Education Track**
  **Satisfactory completion of any three of the following courses (9 CH).**
  - Integrated Logistics Support (ILS)
  - Systems Quality Engineering
  - Systems Engineering Leadership

  Or other elective courses from Systems Engineering, Engineering Management, Operations Research, or Computer Science as approved by the SEP director.

- **Cohort Track**
  **Satisfactory completion of any three of the following courses (9 CH).**
  - Integrated Logistics Support (ILS)
  - Systems Architecture Development
  - Systems Engineering Leadership
  - Systems Engineering Software Tools
  - Systems Engineering Planning and Management
  - Systems Life Cycle Cost and Affordability Analysis
  - Systems Quality Engineering

  Or other elective courses from Systems Engineering, Engineering Management, Operations Research, or Computer Science as approved by the SEP director and management from the student’s organization.

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**SMU | LYLE SCHOOL OF ENGINEERING**

SEP | Systems Engineering Program

**Engineering Management, Information, and Systems Department**

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