Are you a working professional who wants to manage or be part of a successful systems engineering team? Do you want to succeed in companies that implement quality models such as Capability Maturity Model Integration (CMMI) and Team Software Process? An **online Master of Science in Systems Engineering from UTEP** will allow you to develop and apply systems engineering concepts and techniques to manage and build engineering systems and also develop a solid basis to be certified by the International Council on Systems Engineering (INCOSE).

The fully online format and asynchronous classes provide a great deal of flexibility, so you can work on your degree while continuing to take care of family, work or other responsibilities. This, together with its high quality and affordability, makes it ideal for international students as well.

## Online Master of Science in Systems Engineering

### Connect With Unique Skills and Knowledge

The online MS in Systems Engineering from UTEP has many unique features including:

- A practicum focus
- Emphasis on good practices from the Capability Maturity Model Integration (CMMI) and application of these to build and manage engineering systems
- Application of concepts in the Handbook of the International Council on Systems Engineering (INCOSE)

This program will give you a competitive advantage over others in the field. As a student in the online MS in Systems Engineering, you will

- Integrate studies in human factors, technology, process engineering and management into one multi-faceted discipline
- Understand the analysis, modeling and creation of systems
- Apply systems engineering concepts in your job and improve your work processes to deliver high quality products and services
- Develop a project from conception to completion
- Study the Capability Maturity Model Integration (CMMI) best practices for developing products and services
- Learn the concepts for the International Council on Systems Engineering (INCOSE) ASEP/CSEP certification and be better prepared to pass the exam
- Gain the credentials to work in a company that has a quality culture and complies with CMMI principles
- Acquire the advanced interdisciplinary knowledge required for management-level positions
- Become a leader who knows how to manage teams throughout a system lifecycle
Online Master of Science in Systems Engineering

Admissions Requirements
To qualify for admission to the online Master of Science in Systems Engineering program, you must:

- Complete and submit a graduate admissions application
- Submit official transcripts in accordance with the requirements of the Graduate School
- Demonstrate academic achievement and potential as indicated by the results of the Graduate Record Examination (GRE); this requirement is waived if you already possess an accredited graduate degree
- Write a brief statement of purpose
- Provide letters of recommendation from individuals who can evaluate your ability to succeed in a rigorous graduate program, including one from the company sponsoring you (if appropriate)
- Other evidence of relevant personal or professional experience

Recommendations for admission are made on the basis of the following:

- GPA in upper-division or graduate work, as appropriate
- Professional commitment and interest as demonstrated by the personal statement and other supporting materials as available
- Letters of recommendation
- Leveling courses

International students must also submit:
- Official TOEFL (Test of English as a Foreign Language) scores

Curriculum
UTEP’s College of Engineering created the master’s degree in systems engineering to serve industry partners like Lockheed Martin and to address specific skills needed by systems engineering professionals. The curriculum takes into consideration INCOSE’s Systems Engineering Handbook and best practices from CMMI.

Core Coursework
Each student is expected to have core knowledge in key areas of systems engineering. The online Master of Science in System Engineering requires a minimum of 30 credit hours, and can be accomplished through the Project Practicum degree. All students are required to complete the following five core courses (15 SCH) with a B average or better and with no more than one C.

- SE 5341 Systems Engineering Fundamentals
- SE 5342 Systems Engineering Management
- SE 5343 Systems Requirements Analysis
- SE 5344 Systems Integration, Verification & Validation
- SE 5345 Systems Engineering Project Practicum

Concentration Track
- SE 5346 Systems Architecture and Design
- SE 5347 Systems Engineering Process
- SE 5348 Systems Modeling & Simulation

Other Courses
Completion of the MSSE degree also requires 6 credit hours of graduate courses from the College of Engineering, Science or Business Administration.

Total Credits: 30
Note: Curriculum is subject to change.