

# SYSTEMS ENGINEERING - GRADUATE CERTIFICATE (ONLINE)

## Program Availability

This distance education program is available to working professionals who have undergraduate degrees in engineering, engineering technology, and related fields. It is also an option for persons with graduate degrees who seek career renewal. Systems engineering provides a unique opportunity for working professionals to integrate their work experience with advanced coursework.

## Program Objectives

The objectives of this program are:

- To provide technical professionals an opportunity to advance their careers through advanced education in systems engineering.
- To develop and improve relationships with the College of Engineering's constituencies by offering a program that addresses a known need for professional graduate-level development.
- To provide an opportunity for non-traditional students to consider advancing their education in areas that will foster their career development.
- To enable program students to become aware of current faculty research in systems engineering areas.

## Requirements

A 3.0 minimum cumulative GPA in four courses as described below will be required for award of the Systems Engineering Graduate Certificate Program.

## Admission to the NMSU Graduate School

Students must apply and be admitted to NMSU as a non-degree student to take classes. For more information, contact:

NMSU Graduate School  
Box 30001, MSC 3G  
Las Cruces, NM 88003  
(575) 646-2736  
<http://gradschool.nmsu.edu/> (<http://gradschool.nmsu.edu/>)

To complete the Certificate Program, students must be admitted to the Graduate School as certificate students. If you are considering pursuing a degree in electrical or industrial engineering, you should contact that department for admissions requirements and advising.

## Academic Content

Prefix	Title	Credits
<b>Required Courses</b>		<b>6</b>
I E 537	Large Scale Systems Engineering	
I E 590	Selected Topics (Systems Engineering)	
<b>Electives (six credits from the following):</b>		<b>6</b>
<i>Track 1 - Modeling, Simulation &amp; Decisions</i>		
I E 490	Selected Topics	
I E 533	Linear Programming	
I E 535	Discrete Optimization	

I E 545	Characterizing Time-Dependent Engineering Data
I E 567	Design and Implementation of Discrete-Event Simulation
<i>Track 2 - Applications</i>	
E E 460	Space System Mission Design and Analysis
I E 525	Systems Synthesis and Design
E E 590	Selected Topics
<i>Track 3 - Systems Analysis</i>	
I E 466	Reliability
I E 515	Stochastic Processes Modeling
I E 522	Queuing Systems
I E 571	Advanced Quality Control
<b>Total Credits</b>	<b>12</b>

Other courses may be substituted by the approval of your advisor and the program director.