INDUSTRIAL ENGINEERING (SYSTEMS ENGINEERING) - MASTER OF ENGINEERING IN INDUSTRIAL ENGINEERING (ONLINE)

Prefix	Title	Credits
Systems Engineering Program-Specific Courses [1]		*18*
I E 456	Large Scale Systems Engineering	
I E 459	Systems Thinking and Decision Making	
I E 451	Engineering Economy	
I E 466	Reliability	
I E 561	Advanced Safety Engineering	
I E 563	Topics in Engineering Administration	
Electives (12 credits from the following)		*12*
Track 1 – Modeling, Simulation & Decision		
I E 533	Linear Programming	
I E 535	Discrete Optimization	
I E 567	Design and Implementation of Discrete-Event Simulation	
Track 2 – Systems Analysis		
I E 515	Stochastic Processes Modeling	
I E 522	Queuing Systems	
I E 524	Advanced Production and Inventory Control	
Track 3 – Data Analysis and Design		
I E 460	Evaluation of Engineering Data	
I E 525	Systems Synthesis and Design	
I E 545	Characterizing Time-Dependent Engineering Data	
Track 4 – Electrical Engineering Applications		
E E 460	Space System Mission Design and Analysis	
E E 590	Selected Topics	
Optional Electives (3 credits) [2]		
A 500-level course in the designated field, subject to the consent of your advisor and the course instructor. IE, EE, ME, AE, ET, CE, CHME, ACCT, BCIS, BFIN, MGMT, ECON, CSCI, AST, and STAT		
Total Credits		**30**

1. Masters of Systems Engineering required course.
2. The optional courses outside the department and/or the college should be previously approved by the academic advisor. See your advisor for more detailed information about selecting elective courses.

Below is a recommended roadmap tailored for full-time students, considering enrollment in three courses per semester. It's important to highlight that the suggested degree program is flexible and can be pursued by part-time students taking one or two courses per semester, including summer sessions, based on individual preferences. For alternative plans of study and additional details, feel free to reach out to the program director or faculty advisor.

First Year		
Fall		**Credits**
I E 456	Large Scale Systems Engineering	3
I E 459	Systems Thinking and Decision Making	3
I E 561	Advanced Safety Engineering	3
	Credits	**9**
Spring		
I E 451	Engineering Economy	3
I E 466	Reliability	3
I E 563	Topics in Engineering Administration	3
	Credits	**9**
Second Year		
Fall		
I E 533	Linear Programming	3
I E 535	Discrete Optimization	3
I E 567	Design and Implementation of Discrete-Event Simulation	3
	Credits	**9**
Spring		
Elective from the Approved Elective List [1]		3
	Credits	**3**
	Total Credits	**30**

1. The optional courses outside the department and/or the college should be previously approved by the academic advisor. See your advisor for more detailed information about selecting elective courses.