

# SYSTEMS ENGINEERING - UNDERGRADUATE MINOR

Prefix	Title	Credits
<b>Course Requirements</b>		
<i>Required Courses</i>		
I E 490	Selected Topics (Systems Engineering)	3
I E 456	Large Scale Systems Engineering	3
<i>Technical Elective Courses (Choose 6 credits from the following)</i>		6
Track One - Data Analysis, Optimization & Simulation Modeling		
I E 311	Engineering Data Analysis	
A ST 311	Statistical Applications	
STAT 3110	Statistics for Engineers and Scientists	
I E 413	Engineering Operations Research I	
I E 423	Engineering Operations Research II	
I E 460	Evaluation of Engineering Data	
STAT 4210	Probability: Theory and Applications	
I E 467	Discrete-Event Simulation Modeling	
BCIS 461	Business Analytics I	
BCIS 466	Business Analytics II	
C S 278	Discrete Mathematics for Computer Science	
C S 343	Algorithm Design & Implementation	
C S 372	Data Structures and Algorithms	
C S 488	Introduction to Data Mining	
Track Two - Manufacturing System		
I E 217	Manufacturing Processes	
E T 217	Manufacturing Processes	
I E 365	Quality Control	
I E 375	Manufacturing Processes II	
I E 424	Manufacturing Systems	
I E 466	Reliability	
I E 490	Selected Topics (Lean tools in Systems Engineering)	
I E 490	Selected Topics (Introduction to Advanced Manufacturing)	
A E 424	Aerospace Systems Engineering	
E E 333	AC Circuit Analysis and Introduction to Power Systems	
E E 431	Power Systems II	
M E 210	Electronics and System Engineering	
Track Three - Business		
I E 451	Engineering Economy	
C E 477	Engineering Economics and Construction Management	
E T 480	Innovation and Product Development	
CHME 449	Intellectual Property for Engineers and Scientists	
ENTR 331	Business Creation and Valuation	
<i>Applications in Engineering &amp; Business (Choose 6 credits from the following)</i> <sup>1</sup>		6
A E Courses 400-level (With approval of advisor and instructor)		
C E Courses 400-level (With approval of advisor and instructor)		
CHME Courses 400-level (With approval of advisor and instructor)		
E E Courses 400-level (With approval of advisor and instructor)		
I E Courses 400-level (With approval of advisor and instructor)		
M E Courses 400-level (With approval of advisor and instructor)		

ACCT Courses 400-level (With approval of advisor and instructor)	
BCIS Courses 400-level (With approval of advisor and instructor)	
BFIN Courses 400-level (With approval of advisor and instructor)	
MGMT Courses 400-level (With approval of advisor and instructor)	
C S Courses 400-level (With approval of advisor and instructor)	
A ST Courses 400-level (With approval of advisor and instructor)	
<b>Total Credits</b>	<b>18</b>

<sup>1</sup> Courses numbered 450 or above may be used to satisfy course requirements for the Master's Accelerated Program (<https://engr.nmsu.edu/students/Fifth-page.html>) (requires department head approval)