

Bachelor of Science in Industrial Engineering Degree Requirements Effective AY 2015-2016

Students may choose to follow any catalog year requirements from their first year to present, but may not mix and match requirements from different catalog years

General Classes			
Mathematics 4 courses	Basic Sciences 4 courses		
MATH 220 Differential Calculus of One Variable Functions	4 courses from at least 2 basic sciences;		
MATH 224 Integral Calculus of One Variable Function	Physics: PHYSICS 135-2,3, 335		
MATH 230 Differential Calculus of Multivariable Functions	Biological sciences: BIOL SCI 215, 216, 217; CHEM ENG 275		
MATH 234 Multiple Integration and Vector Calculus	Chemistry: CHEM 101, 102, 103, 171, 172, 210-1,2		
Design and Communication 3 courses	Earth & planetary sciences/astronomy: EARTH 201,202; ASTRON 220		
IDEA 106-1,2/Engl 106-1,2	No more than 2 courses in Earth Sciences/Astronomy		
GEN CMN 102 OR GEN CMN 103	No more than 3 courses in any other area		
Public Speaking	Engineering Analysis & Computer Proficiency 4 courses		
Analysis and Perf of Lit	GEN ENG 205-1,2,3,4 Engineering Analysis		
Basic Engineering Must cover 4 categories			
Required by IE 3 courses	Additional courses 2 courses		
EECS 230 (Comp Programming)	Recommended Choices:		
EECS 317 (Comp Programming)	EECS 202 (Electrical Science)	<i>Can also take BME</i>	
IEMS 326 (Sys Eng and Analysis)	EECS 205 (Comp Arch and Num Methods)	<i>250,270; ChemE 211,</i>	
	BME 271, Civ Eng 216 (Fluid/Solid)	<i>321; EECS 270;</i>	
	MAT SCI 201 (Material Science)	<i>MatSci 301, 314,</i>	
		<i>315; MechE 220, 233,</i>	
		<i>241, 370; check</i>	
		<i>categories.</i>	
Major Courses			
Probability and statistics 2 courses	Operations Research 3 courses		
	Pre-Requisites		
IEMS 202 Probability	IEMS 313 Deterministic Models and Optimization	EA1, Math 230	
IEMS 303 Statistics I	IEMS 315 Stochastic Models and Simulation	EA1, IE 303	
	IEMS 317 Discrete-Event Systems Simulation	IE 303; 310 or 315	
Senior Design Project 2 courses	Production and Logistics 1 course		
IEMS 393-1 Industrial Engineering Design	IEMS 381 Supply-Chain Modeling and Analysis	IE 313	
IEMS 393-2 Industrial Engineering Design Project	IEMS 382 Production Planning and Scheduling	IE 202; 310 or 313	
Must be taken in consecutive quarters	IEMS 383 Service Operations Management	IE 313, 315	
	IEMS 385 Intro to Health Systems Engineering	IE 303, 313	
Applied Behavioral Science 1 course			
IEMS 340 Field Proj	IEMS 342 Orgnl Behavior		
IEMS 390 Sys Mgmt	IEMS 392 Sys Proj Mgmt		
Technical Electives			
Industrial Engineering/ Operations Research 3 courses	General Technical Elective 3 courses		
IEMS 304, 305, 306, 307, 308, 365, 373, 381, 382, 383, 385	Any 200 level or higher engineering course		
Management Science 1 course	Econ 308; 309; 316; 337; 339; 349; 350; 355; 361; 362; 380-1,2;		
IEMS 325, 340, 341, 342, 343, 345 390, 392	381-1,2; 383		
<i>GTEs by permission only:</i>	IMC 303		
<i>P/N and IEMS 399 only permitted in GTE, at most 2 courses</i>	LOC 306, 310		
<i>Chicago Field Study and BIP 394, depending on topic (rare)</i>	Math 300-0; 320-1, 2, 3; 330-1, 2, 3; 364-0; 366-1, 2		
	Sociology 302		
	Stats 320-2, 3; 325, 350, 351		
	Kellg-Fe 310, 312, 314, 316		
	Kellg-Ma 322, 324, 326		
Social Sciences-Humanities (Theme) 7 courses			
Option 1 for Theme	Option 2 for Theme		
3-2-2	5-2		
3 related courses	5 related courses		
≥ 2 from each SBS, FAL, HSV	≤ 5 from any SBS, FAL, HSV		
Unrestricted Electives 5 courses			
<i>Every student needs to have 18 units of engineering credit</i>			
<i>Take note when petitioning to replace degree requirements and talk with your advisor.</i>			