

Bachelor of Science in Industrial Engineering Degree Requirements Effective AY 2016-2017

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	
<u>Mathematics</u> 4 courses	<u>Basic Sciences</u> 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
<u>Design and Communication</u> 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	<u>Engineering Analysis & Computer Proficiency</u> 4 courses
Analysis and Perf of Lit	GEN ENG 205-1,2,3,4 Engineering Analysis
Basic Engineering Must cover 4 categories	
<u>Required by IE</u> 3 courses	<u>Additional courses</u> 2 courses
EECS 211 (Comp Programming)	Recommended Choices:
EECS 317 (Comp Programming)	EECS 202 (Electrical Science)
IEMS 326 (Sys Eng and Analysis)	EECS 203 or 205 (Comp Architecture)
	BME 271, Civ Eng 216 (Fluids/Solids)
	MAT SCI 201 (Material Science)
	<i>Additional options may be found in the undergraduate catalog. Duplicates will not count (see your advisor)</i>
Major Courses	
<u>Introductor y Programming</u> 1 course	<u>Applied Behavioral Science</u> 1 course
EECS 111 Fundamentals of Computer Prog.	IEMS 342 Organizational Behavior
<u>Probability and statistics</u> 2 courses	<u>Operations Research</u> 3 courses
	Pre-Requisites
IEMS 202 Probability	IEMS 313 Deterministic Models and Optimization
IEMS 303 Statistics I	IEMS 315 Stochastic Models and Simulation
	IEMS 317 Discrete-Event Systems Simulation
	EA1, Math 230
	IE 303; 310 or 315
<u>Senior Design Project</u> 2 courses	<u>Production and Logistics</u> 1 course
IEMS 393-1 Industrial Engineering Design	IEMS 381 Supply-Chain Modeling and Analysis
IEMS 393-2 Industrial Engineering Design Project	or IEMS 382 Production Planning and Scheduling
Must be taken in consecutive quarters	or IEMS 383 Service Operations Management
	or IEMS 385 Intro to Health Systems Engineering
	IE 313
	IE 202; 310 or 313
	IE 313, 315
	IE 303, 313
Technical Electives	
<u>Industrial Engineering/ Operations Research</u> 3 courses	<u>General Technical Elective</u> 2 courses
IEMS 304, 305, 306, 307, 308, 365, 373, 381, 382, 383, 385	Any 200 level or higher engineering course
<u>Management Science</u> 1 course	Econ 308; 309; 316; 337; 339; 349; 350; 355; 361; 362; 380-1,2;
IEMS 325, 341, 342, 343, 345	381-1,2; 383
	IMC 303
	LOC 306, 310
	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	
-At least 2 Soc Science courses	<u>Unrestricted Electives</u> 5 courses
-At least 2 Humanities courses	
-At least 3 courses must be thematically related	

GTEs by permission only:

P/N and IEMS 399 only permitted in GTE, at most 2 courses

This degree requires 18 total units of engineering credit.

Take note when petitioning to replace degree requirements and talk with your advisor.