

Industrial & Systems Engineering Degree Plan (2026/27 catalog)

First Year				
Fall		Spring		
ENGR 101: Introduction to Engineering	3	ENGR 102 or ENGR 103	3	
MATH 150: Calculus I	4	PHYS 270/270L: Mechanics & Lab	4	
COMP 110: Computational Problem Solving	3.5	MATH 151: Calculus II	4	
Core Curriculum	3	CHEM 151/151L: General Chemistry I & Lab	4	
Core Curriculum	3	Core Curriculum	3	
Total Semester Units		16.5	Total Semester Units	18
Second Year				
Fall		Spring		
ENGR 102 or ENGR 103	3	ISYE 330: Engineering Prob./Statistics	3	
PHYS 271/271L: Electricity and Magnet. & Lab	4	MATH Elective (MATH 250 or 262)	3	
MATH 310: Applied Math for Engineers	3	MENG 210: Statics	3	
Core Curriculum	3	ISYE 200: Data Science Foundations for Engineers	3	
Core Curriculum	3	Core Curriculum	3	
Total Semester Units		16	Total Semester Units	15
Third Year				
Fall		Spring		
ISYE 220: Engineering Economics	3	ISYE 320: Intro to Systems Engineering	3	
ISYE 305: Professional Practice	3	ISYE 335: Six Sigma - Process Improvement Methods	4	
ISYE 310: Work Analysis & Design	4	ISYE 355/355L: Smart Manufacturing Process, Logic and Automation & Lab	4	
ISYE 340: Operations Research I	3	ISYE 440: Operations Research II	3	
MENG/ENGR 311: Materials Science	3	ISYE Program Elective I	3	
Total Semester Units		16	Total Semester Units	17
Fourth Year				
Fall		Spring		
ISYE 420: Simulation	4	ISYE 492: Senior Design Project	3	
ISYE 430: Design of Experiments	3	ISYE 460: Operations & Supply Chain Mgmt.	3	
ISYE 470: Facilities Planning	3	ISYE Program Elective II	3	
ISYE 480: Data Science and Analytics	3	ISYE Program Elective III	3	
ISYE 491: ISyE Senior Design Preparation	1	Core Curriculum	3	
PHIL 332/338/342/345: Ethics	3	Total Semester Units		15
Total Semester Units		17		
Final Semester				
Fall		Spring		
ISYE Program Elective IV	3	ISYE Program Elective Courses		
Core Curriculum	3	ISYE 380: Sustainability and Engineering	3	
Core Curriculum	3	ISYE 385: Technology, Environment & Society	3	
Free Elective	3	ISYE 410: Human Factors (Spring)	3	
Free Elective	3	ISYE 450: Manufacturing Systems (Fall)	3	
Free Elective	3	ISYE 494: ISYE Special Topics Course	3	
Total Semester Units		18	Sustainability Concentration (12 units total)	
		ISYE 380: Sustainability and Engineering	3	
		ISYE 385: Technology, Environment & Society	3	
		Plus 2 more sustainability-related courses		
Total ISYE Degree Units		147		

34 units of Prep for Major must be completed before taking ISYE 305, ISYE 310 and ISYE 340