

## Industrial & Systems Engineering Degree Plan (2025/26 catalog)

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

<b>First Year</b>				
<b>Fall</b>		<b>Spring</b>		
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	
<b>Total Semester Units</b>		16.5	<b>Total Semester Units</b>	
16.5		18		
<b>Second Year</b>				
<b>Fall</b>		<b>Spring</b>		
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	ENGR Lower Div Elect (ELEC 201, GENG 288, or MENG 260)	3	
Core Curriculum	3	Core Curriculum	3	
<b>Total Semester Units</b>		16	<b>Total Semester Units</b>	
16		15		
<b>Third Year</b>				
<b>Fall</b>		<b>Spring</b>		
ISYE 220: Engineering Economics	3	ISYE 320: Intro to Systems Engineering	3	
ISYE 310: Work Analysis & Design	4	ISYE 335: Six Sigma - Process Improvement Methods	4	
ISYE 340: Operations Research I	3	ISYE 350/350L: Manufacturing Processes & Lab	4	
ISYE 305: Professional Practice	3	ISYE 440: Operations Research II	3	
MENG/ENGR 311: Materials Science	3	ISYE Program Elective I	3	
<b>Total Semester Units</b>		16	<b>Total Semester Units</b>	
16		17		
<b>Fourth Year</b>				
<b>Fall</b>		<b>Spring</b>		
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 III	3	
PHIL 332/338/342/345: Ethics	3	ISYE Program Elective IV	3	
ISYE 491: ISyE Senior Design Preparation	1	Core Curriculum	3	
ISYE Program Elective II	3	<b>Total Semester Units</b>		
<b>Total Semester Units</b>		15		
17		15		
<b>Final Semester</b>				
<b>Fall</b>		<b>ISYE Program Elective Courses</b>		
ISYE Program Elective V	3	ISYE 380: Sustainability and Engineering	3	
Core Curriculum	3	ISYE 385: Technology, Environment & Society	3	
Core Curriculum	3	ISYE 410: Human Factors (Spring)	3	
Free Elective	3	ISYE 450: Manufacturing Systems (Fall)	3	
Free Elective	3	ISYE 480: Data Science / Analytics	3	
Free Elective	3	ISYE 494: ISYE Special Topics Course	3	
<b>Total Semester Units</b>		<b>Sustainability Concentration (12 units total)</b>		
18		ISYE 380: Sustainability and Engineering	3	
18		ISYE 385: Technology, Environment & Society	3	
18		Plus 2 more sustainability-related courses	6	
18		6		
<b>Total ISYE Degree Units</b>		<b>147</b>		
147		147		