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University of San Diego Shiley-Marcos School of Engineering

Industrial & Systems Engineering Degree Plan (2018/19 catalog)

First Year			
Fall		Spring	
ENGR 101: Introduction to Engineering	3	ENGR 102: Electromechanical System Design	3
MATH 150: Calculus I	4	PHYS 270/270L: Mechanics +lab	4
ENGR 121: Engr Prog. or CHEM 151/L: Chem +lab	3	MATH 151: Calculus II	4
Core Curriculum	3	CHEM 151/L: Chem +lab or ENGR 121: Engr Prog.	4
Core Curriculum	3	Core Curriculum	3
Second Year			
Fall		Spring	
ENGR 103: User-Centered Design	3	ISYE 330: Engineering Prob./Statistics	3
PHYS 271/L: Intro to Electricity & Magnet. +lab	4	MATH Elective	3
MATH 310: Diff. Eq. & Linear Algebra	3	MENG 210: Statics	3
Core Curriculum	3	ENGR Lower Division Elective	3
Core Curriculum	3	Core Curriculum	3
Total Hours	16	Total Hours	15
Third Year			
Fall		Spring	
ISYE 220: Engineering Economics	3	ISYE 320: Intro to Systems Engineering	3
ISYE 310: Work Analysis & Design	4	ISYE 335: Statistical Process Control	4
ISYE 340: Operations Research I	3	ISYE 350: Manufacturing Processes	4
ISYE 391W: Professional Practice	3	ISYE 440: Operations Research II	3
ENGR 311: Materials Science	3	ISYE Program Elective I	3
Total Hours	16	Total Hours	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 III	3
PHIL 342: Engineering Ethics (Core Curr.)	3	ISYE Program Elective IV	3
ISYE Program Elective II	3	Core Curriculum	3
Total Hours	16	Total Hours	15
Final Semester		ISYE Program Elective Courses	
Fall		ISYE 410: Human Factors (Spring)	4
Core Curriculum	3	ISYE 450: Manufacturing Systems (Fall)	4
Core Curriculum	3	ISYE 380: Sustainability and Engineering	3
ISYE Program Elective V	3	ISYE 494: Sustainability Tech, Env, & Society	3
Free Elective	3	ISYE 494: Data Science / Analytics	3
Free Elective	3	ISYE 494: Product Design using Six Sigma	3
Free Elective	3		
Total Hours	18	Total ISyE Degree Hours	147