

CERTIFICATE IN SYSTEMS AND ENGINEERING MANAGEMENT

Course	Title	Credits
Required Courses ¹		
INDSTENG 3730	Engineering Management	3
INDSTENG 3830	Engineering Design of Systems	3
INDSTENG 4430	Quality Engineering	3
Elective Courses ^{1,2}		
INDSTENG 3780	System Safety Engineering	
INDSTENG 4230	Facilities Design	
INDSTENG 4530	Operations Research II	
INDSTENG 4630	Manufacturing Systems Design	
INDSTENG 4830	Engineering Continuous Improvement	
INDSTENG 4980	Current Topics in Engineering	
BUSADMIN 3540	Quality Management (for non-ISE majors only) ³	
BUSADMIN 3580	Principles of Project Management and Sustainable Development	
BUSADMIN 4120	Operations Management (for non-ISE majors only) ⁴	
BUSADMIN 4140	International Management	
BUSADMIN 4170	Predictive Analytics	
BUSADMIN 4220	Data Driven Decisions & IOT	
CIVILENG 4020	Construction Estimates and Costs	
CIVILENG 4040	Construction and Professional Management	
AETM 3950	Industrial Design for Production	
AETM 4480	Industrial Robotics	
AETM 4740	Additive Manufacturing and Specialized Processes	
AETM 4770	Loss Control Safety Management	
MECHENG 4230	Design & Control of Manufacturing Systems	
MECHENG 4330	Automatic Controls	
MECHENG 4730	Thermo-Fluid Systems Design	
PSYCHLGY 3000	Cognitive Psychology	
PSYCHLGY 3530	Social Psychology	
STAT 4130	Applied Categorical Data Analysis	
STAT 4230	Applied Nonparametric Statistics	
Total Credits		15

¹ Every student must take at least 6 credits outside their major program of study.

² INDSTENG 4xxx course(s) may be accepted as electives upon program approval.

³ Industrial and Systems Engineering majors cannot take BUSADMIN 3540 as an elective in the Certificate in Systems and Engineering Management.

⁴ Industrial and Systems Engineering majors cannot take BUSADMIN 4120 as an elective in the Certificate in Systems and Engineering Management.