

# INDUSTRIAL ENGINEERING

Department of Industrial and Systems Engineering



## Sample Four-Year Plan

### First Year

1st Semester		sh	2nd Semester		sh
ALL	<b>RHET:1030 Rhetoric</b>	4	ALL	<b>General Education Course</b>	3
F/S	<b>MATH:1550 Math I: Single Variable Calculus</b> <i>(P: ALEKS score ≥ 75 or MPT Level 3 score ≥ 9)</i>	4	F/S	<b>MATH 1560 Math II: Multivariable Calculus</b> <i>(P: MATH:1550)</i>	4
ALL	<b>CHEM:1110 Principles of Chemistry I</b> <i>(P: ALEKS score ≥ 55 or MPT Level 3 score ≥ 9)</i>	4	ALL	<b>MATH:2550 Math III: Matrix Algebra</b> <i>(P: MATH:1550)</i>	2
F	<b>ENGR:1100 Intro to Engineering Problem Solving</b>	3	ALL	<b>PHYS:1611 Introductory Physics I / Lab</b> <i>(C: MATH:1550)</i>	4
F	<b>ENGR:1000 Engineering Success for First-Year Students</b> <i>(First semester standing)</i>	1	F/S	<b>ENGR:1300 Intro to Engineering Computing</b> <i>(C: MATH:1550)</i>	3
		<b>16</b>			<b>16</b>

### Second Year

3rd Semester		sh	4th Semester		sh
ALL	<b>PSY:1001 Elementary Psychology (General Education Course)</b>	3	ALL	<b>STAT:2020 Probability &amp; Statistics For Engr &amp; Phys Sci</b> <i>(P: MATH:1560)</i>	3
ALL	<b>MATH:2560 Math IV: Differential Equations</b> <i>(P: MATH:1560 &amp; MATH:2550)</i>	3	S	<b>ISE:2500 Engineering Economy</b> <i>(C: STAT:2020)</i>	3
F/S	<b>PHYS:1612 Introductory Physics II / Lab</b> <i>(P: PHYS:1611; C: MATH:1560)</i>	4	S	<b>ISE:3500 Information Systems Design</b> <i>(P: ENGR:1300)</i>	3
ALL*	<b>Elective:</b> Engineering Fundamentals	2/3	ALL*	<b>Elective:</b> Engineering Fundamentals	3
ALL*	<b>Elective:</b> Engineering Fundamentals	3	ALL*	<b>Elective:</b> Engineering Fundamentals	3
F	<b>ISE:2000 Sophomore Seminar: Industrial Engineering</b> <i>(Status: Sophomore)</i>	0	ALL*	<b>Required/Elective:</b> Focus Area, Minor, Certificate, etc.	3
		<b>15/16</b>			<b>18</b>

### Third Year

5th Semester		sh	6th Semester		sh
ALL	<b>General Education Course</b>	3	ALL	<b>General Education Course</b>	3
F	<b>ISE:2360 Design for Manufacturing</b>	3	S	<b>ISE:3300 Manufacturing Systems</b> <i>(P: ISE:2360, ISE:3700)</i>	3
F	<b>ISE:3400 Human Factors</b> <i>(P: PSY:1001)</i>	3	S	<b>ISE:3450 Ergonomics</b>	3
F	<b>ISE:3610 Stochastic Modeling</b> <i>(P: STAT:2020; C: ISE:3700)</i>	3	S	<b>ISE:3660 Data Analytics with R</b> <i>(P: STAT:2020)</i>	3
F	<b>ISE:3700 Operations Research</b> <i>(P: MATH:2550; C: STAT:2020)</i>	3	S	<b>ISE:3750 Digital Systems Simulation</b> <i>(P: ISE:3700 &amp; ISE:3610)</i>	3
		<b>15</b>	ALL	<b>Required/Elective:</b> Focus Area, Minor, Certificate, etc.	3
			S	<b>ISE:3000 Professional Seminar: Industrial Engineering</b> <i>(Status: Junior)</i>	0
					<b>18</b>

### Fourth Year

7th Semester		sh	8th Semester		sh
ALL	<b>General Education Course</b>	3	F/S	<b>ISE:4600 Industrial Engineering Design Project (IEDP)</b> <i>(C: ALL IE Required Courses - ISE:2500, ISE:3300, ISE:3350, ISE:3400, ISE:3450, ISE:3500, ISE:3600, ISE:3660, &amp; ISE:3750)</i>	4
F	<b>ISE:3350 Process Engineering</b> <i>(P: ISE:3700)</i>	3	F/S	<b>Elective:</b> Focus Area - Systems	3
F	<b>ISE:3600 Quality Control</b> <i>(P: STAT:2020, or BAIS:9100 or (STAT:3100 &amp; STAT:3101 &amp; STAT:3200)</i>	3	F/S	<b>Required/Elective:</b> Focus Area - Math / Science	3
ALL	<b>Required/Elective:</b> Focus Area, Minor, Certificate, etc.	3	F/S	<b>Required/Elective:</b> Focus Area, Minor, Certificate, etc.	3
ALL	<b>Required/Elective:</b> Focus Area, Minor, Certificate, etc.	3	F/S	<b>Required/Elective:</b> Focus Area, Minor, Certificate, etc.	3
		<b>15</b>	S	<b>ISE:3000 Professional Seminar: Industrial Engineering</b>	0
					<b>16</b>