

# INDUSTRIAL ENGINEERING (B.S.)

Degree: Bachelor of Science

Major: Industrial Engineering

Total Hours: 121

Code	Title	Hours
<b>General Education Core Curriculum</b>		
<i>Communication</i>		
ENGL 1301	Composition I	3
Select one of the following:		3
COMM 1315	Public Speaking I	
COMM 1321	Business and Professional Speech	
DSDE 1371	ASL I	
ENGL 1302	Composition II	
FREN 1311	Beginning French I	
SPAN 1311	Beginning Spanish I	
<i>Mathematics</i>		
MATH 2413	Calculus and Analytical Geometry I	4
<i>Life and Physical Sciences</i>		
PHYS 2425	University Physics I <sup>1</sup>	4
PHYS 2426	University Physics II <sup>1</sup>	4
<i>Language, Philosophy and Culture</i>		3
PHIL 1370	Philosophy of Knowledge	
PHIL 2306	Ethics	
<i>Creative Arts</i>		
Select one of the following:		3
ARTS 1301	Art Appreciation	
ARTS 1303	Art History I	
DANC 2304	Dance Appreciation	
MUSI 1306	Music Appreciation	
COMM 1375	Film Appreciation	
COSC 1324	The Art of Computer Game Development	
MUSI 1306	Music Appreciation	
MUSI 1309	Jazz History and Appreciation	
MUSI 1310	History of Rock and Roll	
PHIL 1330	Arts and Ideas	
THEA 1310	Theatre Appreciation	
<i>American History</i>		
Select two of the following:		6
HIST 1301	U S History I 1763-1877	
HIST 1302	U S History II Since 1877	
HIST 2301	Texas History	
<i>Government/Political Science</i>		
POLS 2301	Intro to American Government I	3
POLS 2302	Intro/American Government II	3
<i>Social and Behavioral Sciences</i>		
INEN 2373	Engineering Economics	3
<i>Component Area Option</i>		
MATH 2414	Calculus and Analytical Geometry II	4

The additional hours from PHYS 2425 &amp; PHYS 2426 are applied here

**Required Major Courses***Engineering Courses*

CHEM 1111	General Chemistry I Laboratory	1
CHEM 1311	General Chemistry I	3
CHEM 1112	General Chemistry II Laboratory	1
CHEM 1312	General Chemistry II	3
CVEN 2301	Statics	3
ELEN 3310	Fundamentals of Electrical Engineering	3
INEN 1101	Introduction to Engineering	1
INEN 2360	Computer Applications in IE	3
INEN 3320	Probability and Statistics for Engineering	3
INEN 3322	Engineering Materials and Manufacturing Processes	3
INEN 3380	Work Design	3
INEN 4300	Quality Improvement	3
INEN 4315	Industrial Management	3
INEN 4316	Industrial and Product Safety	3
INEN 4320	Statistical Decision Making in Engineering	3
INEN 4323	IE Systems Design	3
INEN 4345	Computer Integrated Manufacturing	3
INEN 4350	Production & Inventory Control	3
INEN 4370	Operations Research	3
INEN 4375	Simulation of Industrial Systems	3
INEN 4385	IE Design	3
INEN 4396	Automated System Engineering	3
MATH 3301	Ordinary Differential Equations	3
MATH 2318	Linear Algebra	3

*INEN/Tech Elective*Four courses <sup>2</sup> 12**Total Hours 121**

<sup>1</sup> The additional hours from PHYS 2425 University Physics I & PHYS 2426 University Physics II are applied to the Component Area Option.

<sup>2</sup> Courses must be approved by Program Advisor.

Course	Title	Hours
<b>First Year</b>		
<b>Fall</b>		
ENGL 1301	Composition I <sup>1</sup>	3
MATH 2413	Calculus and Analytical Geometry I <sup>1</sup>	4
CHEM 1311	General Chemistry I <sup>1</sup>	3
CHEM 1111	General Chemistry I Laboratory <sup>1</sup>	1
INEN 1101	Introduction to Engineering	1
COMM 1315	Public Speaking I	3
		<b>Hours 15</b>
<b>Spring</b>		
INEN 2360	Computer Applications in IE	3
MATH 2414	Calculus and Analytical Geometry II	4
PHYS 2425	University Physics I	4
CHEM 1312	General Chemistry II	3
CHEM 1112	General Chemistry II Laboratory	1
		<b>Hours 15</b>

## 2 Industrial Engineering (B.S.)

### Second Year

#### Fall

PHYS 2426	University Physics II	4
CVEN 2301 or MEEN 2301	Statics or Statics	3
MATH 2318	Linear Algebra	3
INEN 2373	Engineering Economics <sup>1</sup>	3
INEN 3322	Engineering Materials and Manufacturing Processes	3
<b>Hours</b>		<b>16</b>

#### Spring

PHIL 2306	Ethics <sup>1</sup>	3
INEN 3380	Work Design	3
ELEN 3310	Fundamentals of Electrical Engineering	3
MATH 3301	Ordinary Differential Equations	3
POLS 2301	Intro to American Government I	3
<b>Hours</b>		<b>15</b>

### Third Year

#### Fall

HIST 1301	U S History I 1763-1877	3
INEN 3320	Probability and Statistics for Engineering	3
INEN 4315	Industrial Management	3
INEN 4350	Production & Inventory Control	3
INEN/TECH Elective <sup>2</sup>		3
<b>Hours</b>		<b>15</b>

#### Spring

INEN 4320	Statistical Decision Making in Engineering	3
INEN 4345	Computer Integrated Manufacturing	3
INEN 4370	Operations Research	3
HIST 1302	U S History II Since 1877	3
INEN/TECH Elective <sup>2</sup>		3
<b>Hours</b>		<b>15</b>

### Fourth Year

#### Fall

INEN 4323	IE Systems Design	3
INEN 4375	Simulation of Industrial Systems	3
INEN 4316	Industrial and Product Safety	3
INEN 4396	Automated System Engineering	3
INEN 4300	Quality Improvement	3
<b>Hours</b>		<b>15</b>

#### Spring

POLS 2302	Intro/American Government II	3
INEN 4385	IE Design	3
INEN/TECH Elective <sup>2</sup>		3
INEN/TECH Elective <sup>2</sup>		3
ARTS 1303	Art History I	3
<b>Hours</b>		<b>15</b>
<b>Total Hours</b>		<b>121</b>

<sup>1</sup> Core Curriculum Course

<sup>2</sup> At least two electives must be upper-level. Must be INEN or approved by advisor.

**Students should meet with their academic advisor to verify their plan and track their progress.**