

To: The Faculty of the College of Engineering  
From: The Faculty of the School of Industrial Engineering  
Subject: Curriculum Change for the B.S. Degree in Industrial Engineering

The Faculty of the School of Industrial Engineering has approved the following changes in the minimum degree requirements for the B.S. degree in Industrial Engineering. These changes are based on the changes in the First-Year Engineering Program effective for students entering Purdue in the Fall Semester 2006.

This action is now submitted to the Engineering Faculty with a recommendation for approval.

The implementation of the first-year program into the B.S.I.E. curriculum is summarized below:

1. The minimum number of credit hours required for graduation is changed from 125 cr. hrs. to 123 cr. hrs. There are no changes to the number of credits in the sophomore through senior years.
2. The plan of study assigns a total of 29 credit hours to the first year (from 31 cr. hrs.)
3. CHM 116 (4cr. hrs.) is no longer required.
4. CS 158 (2 cr. hrs.) is replaced by CS 159 (3 cr. hrs.).
5. ENGR 106 (2 cr. hrs) is replaced by ENGR 126 (3 cr. hrs.).
6. PHYS 152 is replaced by PHYS 172.

The suggested plan of study is unchanged for the sophomore, junior, and senior years. The total requirements from sophomore through senior years remain at 94 credit hours.

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N. Prabhu  
Professor and Head  
School of Industrial Engineering

APPROVED FOR THE FACULTY  
OF THE SCHOOLS OF ENGINEERING  
BY THE ENGINEERING  
CURRICULUM COMMITTEE

ECC Minutes #10  
Date 12/7/09  
Chairman EEE R. Cipra



**CURRENT (from the 2004-2006 Engineering Catalog)**

Minimum Degree Requirements for Industrial Engineering

Credit Hours Required for Graduation: 125

<b>Courses</b>	<b>Cr. Hrs.</b>
<b>Freshman Engineering Program</b>	<b>31</b>
<b>Mathematics and Physical Sciences</b> MA 261, 265, 266; PHYS 241	<b>13</b>
<b>General Education Electives</b>	<b>18</b>
<b>Required Engineering Courses</b> CE 273; ECE 201; IE 230, 330, 332, 335, 336, 343, 370, 383, 431, 474, 486; ME 200, 270.	<b>48</b>
<b>Technical Electives</b>	<b>15</b>

**PROPOSED**

Minimum Degree Requirements for Industrial Engineering

Credit Hours Required for Graduation: 123

<b>Courses</b>	<b>Cr. Hrs.</b>
<b>Freshman Engineering Program</b>	<b>29</b>
<b>Mathematics and Physical Sciences</b> MA 261, 265, 266; PHYS 241	<b>13</b>
<b>General Education Electives</b>	<b>18</b>
<b>Required Engineering Courses</b> CE 273; ECE 201; IE 230, 330, 332, 335, 336, 343, 370, 383, 431, 474, 486; ME 200, 270.	<b>48</b>
<b>Technical Electives</b>	<b>15</b>



**CURRENT (from the 2004-2006 Engineering Catalog)**

Plan of Study for Industrial Engineering

Credit Hours Required for Graduation: 125

First Year, see First-Year Engineering Program

Sophomore Year

Third Semester

0	IE 200	Industrial Engineering Seminar
3	IE 230	Probability and Statistics I
3	IE 343	Engineering Economics
4	MA 261	Multivariate Calculus
3	ME 270	Basic Mechanics I
3	General Education Elective	

16

Fourth Semester

3	IE 330	Probability and Statistics II
3	MA 265	Linear Algebra
3	NUCL 273	Mechanics of Materials
3	PHYS 241	Electricity and Optics
3	General Education Elective	

15

Junior Year

Fifth Semester

3	ECE 201	Linear Circuit Analysis I
3	IE 332	Computing in IE
3	IE 335	Oper Res - Optimization
3	IE 370	Manufacturing Processes I
3	MA 266	Ordinary Differential Equations
3	General Education Elective	

18

Sixth Semester

3	IE 336	Oper Res - Stochastic Models
3	IE 383	Integrated Production Systems I
3	IE 386	Work Analysis and Design I
3	ME 200	Thermodynamics I
3	General Education Elective	

15

Senior Year

Seventh Semester

3	IE 474	Industrial Control Systems
3	IE 486	Work Analysis and Design II
6	Technical Electives*	
3	General Education Elective	

15

Eight Semester

3	IE 431	Industrial Engineering Design
9	Technical Electives*	
3	General Education Elective	

15

5 Total Credits Required

**PROPOSED**

Plan of Study for Industrial Engineering

Credit Hours Required for Graduation: 123

First Year, see First-Year Engineering Program

Sophomore Year

Third Semester

0	IE 200	Industrial Engineering Seminar
3	IE 230	Probability and Statistics I
3	IE 343	Engineering Economics
4	MA 261	Multivariate Calculus
3	ME 270	Basic Mechanics I
3	General Education Elective	

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3	ME 200	Thermodynamics I
3	General Education Elective	

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Seventh Semester

3	IE 474	Industrial Control Systems
3	IE 486	Work Analysis and Design II
6	Technical Electives*	
3	General Education Elective	

15

Eight Semester

3	IE 431	Industrial Engineering Design
9	Technical Electives*	
3	General Education Elective	

15

125 Total Credits Required

\* The 15 credit hours of technical elective are chosen from a list of courses approved by the industrial engineering faculty and must include either IE 470 (Manufacturing Processes II) or IE 484 (Integrated Production Systems II), both courses, or one additional 3-credit hour approved technical elective in industrial engineering.

