### **Program Change Request**

Date Submitted: 10/19/16 3:39 pm

**Viewing: INEGBS: Industrial Engineering, Bachelor of Science in Industrial Engineering** 

Last approved: 05/16/16 11:53 am

Last edit: 10/24/16 3:40 pm

Changes proposed by: rossetti

#### In Workflow

- 1. ENGR Dean Initial
- 2. Director of Program
  Assessment and
  Review
- 3. Registrar Initial
- 4. INEG Chair
- 5. ENGR Curriculum Committee
- 6. ENGR Faculty
- 7. ENGR Dean
- 8. Global Campus
- 9. Provost Review
- 10. University Course and Program Committee
- 11. Faculty Senate
- 12. Provost Final
- 13. Provost's Office--Notification of Approval
- 14. Registrar Final
- 15. Catalog Editor Final

### **Approval Path**

- 1. 10/19/16 8:39 pm ndennis: Approved for ENGR Dean Initial
- 2. 10/24/16 3:40 pm agriffin: Approved for Director of Program Assessment and Review
- 3. 11/02/16 2:50 pm lkulcza: Approved for Registrar Initial
- 4. 11/02/16 5:26 pm epohl: Approved for INEG Chair
- 5. 12/06/16 1:45 pm rossetti: Approved for ENGR Curriculum Committee

- 6. 12/06/16 1:49 pm ndennis: Approved for ENGR Faculty
- 7. 12/06/16 1:50 pm ndennis: Approved for ENGR Dean
- 8. 12/06/16 3:22 pm selsken: Approved for Global Campus
- 9. 12/07/16 6:57 am tmartin: Approved for Provost Review

### History

- 1. Aug 15, 2014 by crsleaf1
- 2. Mar 13, 2015 by tellenbe
- 3. Apr 3, 2015 by tellenbe
- 4. May 16, 2016 by tellenbe

Catalog Pages Using this Industrial Engineering B.S.I.E.
Program Industrial Engineering (INEG)

User ID: crsleaf1

Submitter:

Phone: 575-3157

Academic Level Undergraduate

Select a reason

for the proposed change:

Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing

admission/graduation requirements, adding Focused Study)

Program Status Active

. . . . . . . . .

Academic Unit Major/Field of Study

Are you adding, changing or deleting a concentration? No

Action	Proposed Code	Proposed Name

#### Are you adding, changing or deleting a track? No

Action	Proposed Code	Proposed Name

#### Are you adding, changing or deleting a focused study? No

Action	Proposed Code	Proposed Name

INEGBS: Industrial Engineering, Bachelor of Science in Industrial Engineering

12/7/2016

Effective Catalog Year

Fall **2017** <del>2016</del>

College, School,

Division

College of Engineering (ENGR)

Department

Code

Department of Industrial Engineering (INEG)

Program Code INEGBS

Degree Bachelor of Science in Industrial Engineering

CIP Code 14.3501 - Industrial Engineering.

Program Title Industrial Engineering, Bachelor of Science in Industrial Engineering

Method of Delivery

On Campus

Is this program interdisciplinary or use courses from another College?

No

No

Does this change the total hours needed to complete the program?

Program Requirements, Description and 8-Semester Plan

The total graduation requirement in industrial engineering is 128 hours. For further information please visit the departmental website.

### **Technical Electives**

The purpose of technical electives is to provide students with the opportunity to expand their education within a particular area of interest. The approved list of technical electives is available in the industrial engineering department. At least 12 hours must be selected from INEG courses.

## **Humanities/Social Science Electives**

Although any elective included on the approved University Core humanities/social science list may be selected, <u>PSYC 2003</u> General Psychology (ACTS Equivalency = PSYC 1103) (Sp, Su, Fa) <u>PSYC 2003</u> General Psychology (ACTS Equivalency = PSYC 1103) (Sp, Su, Fa) is recommended for industrial engineers.

## Science Electives

The approved list of science electives is available in the industrial engineering departmental office.

# Industrial Engineering B.S.I.E.

## Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Industrial Engineering degree and a suggested sequence. Not all courses are offered every semester, so students who deviate from the suggested sequence must pay careful attention to course scheduling and course prerequisites. Students wishing to follow the eight-semester degree plan should see the <u>Eight-Semester Degree Policy</u> in the Academic Regulations chapter for university requirements of the program.

At least 12 hours of technical electives must be selected from INEG courses.

First Year	Un	its
	Fal	l Spring
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405) (Sp, Su, Fa)	4	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture) (Su, Fa)	3	
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034) (Sp, Su, Fa)	4	
GNEG 1111 Introduction to Engineering I (Sp, Fa)	1	
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Sp, Su, Fa)	3	
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505) (Sp, Su, Fa)		4
Freshman Science Elective <sup>1,5</sup>		4
Select one of the following:		3
HIST 2003 History of the American People to 1877 (ACTS Equivalency = HIST 2113) (Sp, Su, Fa)		
HIST 2013 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123) (Sp, Su, Fa	)	
PLSC 2003 American National Government (ACTS Equivalency = PLSC 2003) (Sp, Su, Fa)		
GNEG 1121 Introduction to Engineering II (Sp, Fa)		1
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023) (Sp, Su, Fa)		3
Year Total:	15	15

Second Year	Units
	Fall Spring
INEG 2001 Industrial Engineering Seminar (Fa)	1
INEG 2103 Introduction to Industrial Engineering (Fa)	3
INEG 2313 Applied Probability and Statistics for Engineers I (Sp, Fa)	3
INEG 2413 Engineering Economic Analysis (Sp, Fa)	3
MATH 2574 Calculus III (ACTS Equivalency = MATH 2603) (Sp, Su, Fa)	4
Science Requirement <sup>1,2</sup>	3
INEG 2403 Industrial Cost Analysis (Sp)	3
INEG 2333 Applied Probability and Statistics for Engineers II (Sp, Fa)	3
MATH 2584 Elementary Differential Equations (Sp, Su, Fa)	4

MEEG 2303 Introduction to Materials (Sp, Fa)		3
CSCE 2004 Programming Foundations I (Sp, Fa)		4
Year Total:	17	17

Third Year	Uni	its
	Fall	Spring
INEG 3623 Simulation (Fa)	3	
INEG 3713 Methods and Standards (Sp, Fa)	3	
MEEG 2003 Statics (Sp, Su, Fa)	3	
ELEG 3903 Electric Circuits and Machines (Sp, Fa)	3	
Fine Arts (from University/State Core List)	3	
Technical Elective <sup>3</sup>	3	
INEG 3613 Introduction to Operations Research (Sp)		3
INEG 3723 Ergonomics (Sp, Fa)		3
INEG 3513 Manufacturing Processes (Sp) (Course has been submitted.)		3
Selection one option from the following:		3
ECON 2143 Basic Economics: Theory and Practice (Sp, Su, Fa)		
<u>ECON 2013</u> Principles of Macroeconomics (ACTS Equivalency = ECON 2103) (Sp, Su, Fa) & <u>ECON 2023</u> Principles of Microeconomics (ACTS Equivalency = ECON 2203) (Sp, Su, Fa)		
Technical Elective		3
Year Total:	18	15

Fourth Year	Uni	
	Fall	Spring
INEG 4433 Systems Engineering and Management (Fa)	3	
INEG 4553 Production Planning and Control (Fa)	3	
Two Technical Elective <sup>3</sup>	6	
Social Science (from University/State Core List) <sup>4</sup>	3	
INEG 4911 Industrial Engineering Capstone Experience I (Fa)	1	
INEG 4904 Industrial Engineering Design (Sp, Fa)	-	4
INEG 4923 Industrial Engineering Capstone Experience II (Sp)		3
Two Technical Electives <sup>3</sup>		6
Humanities (from University/State Core List) <sup>4</sup>		3
Social Science (from University/State Core List) <sup>4</sup>		3
Year Total:	16	15

<sup>&</sup>lt;sup>1</sup> CHEM 1123/CHEM 1121L University Chemistry II or PHYS 2074 University Physics II

Total Units in Sequence:

128

<sup>&</sup>lt;sup>2</sup> If the student selected <u>CHEM 1123/CHEM 1121L</u> as their freshman science elective then this course must be <u>PHYS 2074</u> University Physics II; otherwise see the approved list of IE science electives.

<sup>&</sup>lt;sup>3</sup> The purpose of technical electives is to provide students with the opportunity to expand their education along lines of particular interest to them. The approved list of technical electives is available in the industrial engineering department. At least 12 hours must be selected from INEG courses.

- 4 Although any elective included on the humanities/social science list may be selected, <u>PSYC 2003</u> General Psychology is recommended for industrial engineers.
- <sup>5</sup> The approved list of science electives is available in the industrial engineering departmental office.

Are Similar Programs available in the area?

Estimated Student

No

Demand for Program:

250

Scheduled Program Review Date:

2020-2021 Fall 2020

Program Goals and Objectives:

NA

Learning Outcomes:

NA

Description and justification of the request:

Replaced INEG 4904 in 4th year Spring with INEG 4911 4th year fall and INEG 4923 4th year Spring. This splits our single senior design course into a two course sequence.

Program reviewer comments

agriffin (10/24/16 3:37 pm): Changed effective catalog year to fall 2017.

agriffin (10/24/16 3:40 pm): Changed program review date to the academic year, rather than

fall 2020.

Uploaded attachments:

Key: 493