

Date Submitted: 04/06/20 8:56 am

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

Last approved: 05/31/19 9:55 am

Last edit: 08/25/20 9:43 am

Changes proposed by: tellenbe

Catalog Pages Using  
this Program

[Industrial Engineering B.S.I.E.](#)

[Industrial Engineering \(INEG\)](#)

Submitter: User ID: **tellenbe calison** Phone:  
575-6731

Program Status Active

Academic Level Undergraduate

Type of proposal Major/Field of Study

Select a reason for this modification

Making Minor Changes to an Existing Degree (e.g. changing 15 or fewer hours, changing admission/graduation requirements, adding/changing Focused Study or Track)

Are you adding a concentration?

No

Are you adding or modifying a track?

No

Are you adding or modifying a focused study?

No

Effective Catalog Year Fall 2021

College/School Code

College of Engineering (ENGR)

Department Code

### In Workflow

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

### Approval Path

1. 03/22/20 4:41 pm  
Norman Dennis  
(ndennis): Approved for ENGR Dean Initial
2. 04/03/20 12:28 pm  
Alice Griffin  
(agriffin): Rollback to Initiator

## Department of Industrial Engineering (INEG)

Program Code            INEGBS  
Degree                    Bachelor of Science in Industrial Engineering  
CIP Code

3. 04/10/20 12:37 pm  
Norman Dennis  
(ndennis): Approved  
for ENGR Dean  
Initial
4. 05/08/20 1:52 pm  
Alice Griffin  
(agriffin): Approved  
for Director of  
Program  
Assessment and  
Review
5. 07/22/20 12:39 pm  
Lisa Kulczak  
(lkulcza): Approved  
for Registrar Initial
6. 07/22/20 1:06 pm  
Gary Gunderman  
(ggunderm):  
Approved for  
Institutional  
Research
7. 07/23/20 1:34 pm  
Ed Pohl (epohl):  
Approved for INEG  
Chair
8. 08/24/20 3:09 pm  
Manuel Rossetti  
(rossetti): Rollback  
to Director of  
Program  
Assessment and  
Review for ENGR  
Curriculum  
Committee
9. 08/25/20 1:46 pm  
Alice Griffin  
(agriffin): Approved  
for Director of  
Program  
Assessment and

## Review

10. 09/02/20 9:53 am  
Lisa Kulczak  
(lkulcza): Approved  
for Registrar Initial
11. 09/02/20 10:03 am  
Gary Gunderman  
(ggunderm):  
Approved for  
Institutional  
Research
12. 09/02/20 10:06 am  
Ed Pohl (epohl):  
Approved for INEG  
Chair
13. 09/11/20 1:04 pm  
Manuel Rossetti  
(rossetti): Approved  
for ENGR  
Curriculum  
Committee
14. 09/11/20 1:21 pm  
Norman Dennis  
(ndennis): Approved  
for ENGR Faculty
15. 09/11/20 3:11 pm  
Jeannie Hulen  
(jhulen): Approved  
for ARSC Dean
16. 09/11/20 3:12 pm  
Norman Dennis  
(ndennis): Approved  
for ENGR Dean
17. 09/11/20 4:20 pm  
Suzanne Kenner  
(skenner): Approved  
for Global Campus
18. 09/17/20 1:00 pm  
Terry Martin  
(tmartin): Approved  
for Provost Review

## History

1. Aug 15, 2014 by  
Leepfrog  
Administrator  
(clhelp)
2. Mar 13, 2015 by  
Tamara Ellenbecker  
(tellenbe)
3. Apr 3, 2015 by  
Tamara Ellenbecker  
(tellenbe)
4. May 16, 2016 by  
Tamara Ellenbecker  
(tellenbe)
5. Mar 1, 2017 by  
Manuel Rossetti  
(rossetti)
6. May 30, 2017 by  
Charlie Alison  
(calison)
7. May 8, 2018 by  
cassady
8. Aug 1, 2018 by  
Charlie Alison  
(calison)
9. May 31, 2019 by  
Charlie Alison  
(calison)

14.3501 - Industrial Engineering.

### Program Title

Industrial Engineering, Bachelor of Science in Industrial Engineering

### Program Delivery

#### Method

On Campus

Is this program interdisciplinary?

No

Does this proposal impact any courses from another College/School?

**Yes** ~~No~~

College(s)/School(s)

**College/School Name****Fulbright College of Arts and Sciences (ARSC)**

What are the total  
hours needed to  
complete the  
program?

126

## **Program Requirements and Description**

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### Requirements

The total graduation requirement in industrial engineering is 126 hours. For further information please visit the [departmental website](#).

### **Humanities/Social Science Electives**

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Although any elective included on the approved University Core humanities/social science list may be selected, [PSYC 2003](#) General Psychology (ACTS Equivalency = PSYC 1103) is recommended for industrial engineers.

### **Science Electives**

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

### **Technical Electives**

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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.

## 8-Semester Plan

## 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 [Eight-Semester Degree Policy](#) in the Academic Regulations chapter for university requirements of the program.

**Students are required to complete 40 At least 12 hours of upper division courses (3000-4000 level). It is recommended that students consult with their adviser when making course selections. At least 12 hours of technical electives must be selected from INEG courses.**

First Year	Units
	FallSpring
<a href="#">GNEG 1111</a> Introduction to Engineering I	1
<a href="#">MATH 2554</a> Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1)1	4
<a href="#">CHEM 1103</a> University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3
<a href="#">PHYS 2054</a> University Physics I (ACTS Equivalency = PHYS 2034) (Satisfies General Education Outcome 3.4)	4
<a href="#">ENGL 1013</a> Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)	3
<a href="#">GNEG 1121</a> Introduction to Engineering II	1
<del><a href="#">ENGL 1023</a> Composition II (ACTS Equivalency = ENGL 1023)</del>	- 3
<a href="#">MATH 2564</a> Calculus II (ACTS Equivalency = MATH 2505)	4
<del>Freshman Science Elective1,5</del>	- 4
<a href="#">ENGL 1033</a> <b>Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)2</b>	<b>3</b>
<a href="#">CHEM 1123/CHEM 1121L or PHYS 2074</a>	<b>4</b>
Select one of the following courses to satisfy General Education Outcome 4.2:	3
<a href="#">HIST 2003</a> History of the American People to 1877 (ACTS Equivalency = HIST 2113)	
<a href="#">HIST 2013</a> History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123)	
<a href="#">PLSC 2003</a> American National Government (ACTS Equivalency = PLSC 2003)	
Year Total:	15 15
Second Year	Units
	FallSpring
<a href="#">INEG 2001</a> Industrial Engineering Seminar	1
.....	-

## Are Similar Programs available in the area?

No

Estimated Student 250

Demand for Program

Scheduled Program 2020-2021

Review Date

Program Goals and

Objectives

## Program Goals and Objectives

NA

Learning Outcomes

## Learning Outcomes

NA

## Description and justification of the request

Description of specific change	Justification for this change
Remove CSCE 2004. Remove ELEG 3903. Move INEG 2413 to semester 4. Move MEEG 2303 to semester 5. Add INEG 2214 (new course) to semester 3. Add INEG 2223 (new course) to semester 4. Requirements associated with English, social sciences, fine arts, and humanities were adjusted to conform to the university's new General Education learning outcomes.	Based on stakeholder input from industry and students, the IE faculty decided that an increase emphasis in computing was needed within the degree program. To achieve this, two computing courses (INEG 2214 and INEG 2223) have been created and added to the program. This addition alleviates the need for IE students to take CSCE 2004. ELEG 3903 was removed to make room in the curriculum for an extra computing course and based on input from practicing industrial engineers on their career usage of that material. The movement of classes between semesters is to balance the course load for students.

Upload attachments

Reviewer Comments

**Alice Griffin (agriffin) (03/25/20 3:38 pm):** Changed effective date to fall 2021. It is too late to complete the approval process for fall 2020.

**Alice Griffin (agriffin) (04/03/20 12:28 pm):** Rollback: Please change response to the question

regarding the proposal impacting another college. Since ENGL 1033 is required, it will impact Fulbright College. You may also add PSYC 2003 to footnote 8, since it is recommended for INEGBS students.

**Alice Griffin (agriffin) (05/07/20 3:47 pm):** Revised formatting of the eight semester degree plan to provide consistency with the General Education curriculum language.

**Alice Griffin (agriffin) (05/08/20 12:04 pm):** Added blanket statement regarding the 40 hour rule in the introductory paragraph above the eight semester plan with permission from college dean's office.

**Manuel Rossetti (rossetti) (08/24/20 3:09 pm):** Rollback: update footnotes

**Alice Griffin (agriffin) (08/25/20 9:43 am):** Revised footnotes to include a clearer statement for learning outcome 2.1 with approval from Gen Ed and Core Curriculum Committee Chair. As a result, renumbered each footnote. Also inserted into footnotes the additional courses approved later in the spring. Renamed Social Science to Social Sciences to match domain area in State Minimum Core.

Key: 493