

Program Change Request

Date Submitted: 11/02/17 6:19 pm

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

Last approved: 05/30/17 4:26 pm

Last edit: 11/03/17 5:40 pm

Changes proposed by: cassady

Catalog Pages Using this Program [Industrial Engineering B.S.I.E.](#)
[Industrial Engineering \(INEG\)](#)

Submitter:	User ID:	crsleaf1	Phone:	575-3157
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 Focused Study)				
Are you adding a concentration?	No			
Are you adding a track?	No			
Are you adding a focused study?	No			
Effective Catalog Year	Fall 2018			
College/School Code	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			
Program Delivery Method	On Campus			
Is this program interdisciplinary?				
No				
Does this proposal impact any courses from another College/School?				
No				
What are the total hours needed to complete the program?	126			

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. 11/01/17 3:14 pm Norman Dennis (ndennis): Approved for ENGR Dean Initial
2. 11/02/17 8:41 am Alice Griffin (agriffin): Rollback to Initiator
3. 11/03/17 8:24 am Norman Dennis (ndennis): Approved for ENGR Dean Initial
4. 11/03/17 2:55 pm Alice Griffin (agriffin): Approved for Director of Program Assessment and Review
5. 11/03/17 5:40 pm Lisa Kulczak (lkulcza): Approved for Registrar Initial
6. 11/06/17 11:26 am Ed Pohl (epohl): Approved for INEG Chair
7. 11/07/17 2:07 pm Manuel Rossetti (rossetti): Approved for ENGR

Program Requirements and Description

Requirements

The total graduation requirement in industrial engineering is **126** ~~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, **PSYC 2003 General Psychology (ACTS Equivalency = PSYC 1103) (Sp, Su, Fa)** ~~PSYC 2003 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.

- Curriculum Committee
8. 11/08/17 9:02 am
Norman Dennis (ndennis): Approved for ENGR Faculty
 9. 11/08/17 9:11 am
Norman Dennis (ndennis): Approved for ENGR Dean
 10. 11/08/17 1:13 pm
Kiersten Bible (kbible): Approved for Global Campus
 11. 11/10/17 10:41 am
Terry Martin (tmartin): Approved for Provost Review
 12. 11/20/17 2:52 pm
Alice Griffin (agriffin): Approved for University Course and Program Committee

History

1. Aug 15, 2014 by Leepfrog Administrator (clhelp)
2. Mar 13, 2015 by tellenbe
3. Apr 3, 2015 by tellenbe
4. May 16, 2016 by tellenbe
5. Mar 1, 2017 by Manuel Rossetti (rossetti)
6. May 30, 2017 by Charlie Alison (calison)

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.

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

	First Year	Units
		Fall/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 ^{1,5}	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
FallSpring

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 ^{1,2}	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

Units
FallSpring

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 Electives ³	3
INEG 3714 Work Methods and Ergonomics Course INEG 3714 Work Methods and Ergonomics Not Found	4
INEG 3613 Introduction to Operations Research (Sp)	3
INEG 3723 Ergonomics (Sp, Fa)	- 3
INEG 3513 Manufacturing Processes (Sp)	3
Selection one option from the following:	3
ECON 2143 Basic Economics: Theory and Practice (Sp, Su, Fa)	
ECON 2013 Principles of Macroeconomics (ACTS Equivalency = ECON 2103) (Sp, Su, Fa)	
& ECON 2023 Principles of Microeconomics (ACTS Equivalency = ECON 2203) (Sp, Su, Fa)	
Technical Elective	3
MEEG 2003 Statics (Sp, Su, Fa)	3
Year Total:	16 15

Fourth Year

Units
FallSpring

INEG 4433 Systems Engineering and Management (Fa)	3
INEG 4553 Production Planning and Control (Fa)	3
Two Technical Electives ³	6
Social Science (from University/State Core List) ⁴	3
INEG 4911 Industrial Engineering Capstone Experience I (Fa)	1
INEG 4923 Industrial Engineering Capstone Experience II (Sp)	3
Two Technical Electives ³	6
Humanities (from University/State Core List) ⁴	3
Social Science (from University/State Core List) ⁴	3
Year Total:	16 15

Total Units in Sequence: 126

¹[CHEM 1123](#)/[CHEM 1121L](#) University Chemistry II or [PHYS 2074](#) University Physics II

²If the student selected [CHEM 1123](#)/[CHEM 1121L](#) as their freshman science elective then this course must be [PHYS 2074](#) University Physics II; otherwise see the approved list of IE science electives.

³

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.

4Although any elective included on the humanities/social science list may be selected, [PSYC 2003](#) General Psychology is recommended for industrial engineers.

5The approved list of science electives is available in the industrial engineering departmental office.

No	Are Similar Programs available in the area?
Estimated Student Demand for Program	250
Scheduled Program Review Date	2020-2021
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
Combined INEG 3713 and INEG 3723 into a new course, INEG 3714. We moved MEEG 2003 to the sixth-semester to balance hours.	The merger of the two courses reduced overlap in the curriculum, renders the curriculum more closely aligned with faculty expertise, and shortens a long pre-requisite chain.

Upload attachments

Reviewer Comments

Alice Griffing (agriffin) (11/02/17 8:41 am): Rollback: Please review course change for INEG 3713. The course number was not changed to 3714. Thus, the total hours are not reflecting correctly in the program change. Please make the course change, insert the hours into the course in the eight semester plan and resubmit program change.

Norman Dennis (ndennis) (11/03/17 8:24 am): Removed second occurrence of INEG 3714 from third year. new course INEG 3714 is in workflow.

Alice Griffing (agriffin) (11/03/17 2:53 pm): Changed language in the program requirements from 128 to 126 hours with permission from college.

Alice Griffing (agriffin) (11/03/17 2:54 pm): Inserted four hours into the eight semester plan for INEG 3714 so that hours would total 126.

Lisa Kulczak (lkulcza) (11/03/17 5:40 pm): Course "not found" currently in approval process for fall 2018.

Key: 493