

Industrial Engineering B.S.I.E.

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 (<http://catalog.uark.edu/undergraduatecatalog/academicregulations/eightsemesterdegreecompletionpolicy>) 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)	4	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3	
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034)	4	
GNEG 1111 Introduction to Engineering I	1	
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013)	3	
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		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)		
HIST 2013 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123)		
PLSC 2003 American National Government (ACTS Equivalency = PLSC 2003)		
GNEG 1121 Introduction to Engineering II		1
ENGL 1023 Composition II (ACTS Equivalency = ENGL 1023)		3
Year Total:	15	15

Second Year	Units	
	Fall	Spring
INEG 2001 Industrial Engineering Seminar	1	
INEG 2103 Introduction to Industrial Engineering	3	
INEG 2313 Applied Probability and Statistics for Engineers I	3	
INEG 2413 Engineering Economic Analysis	3	
MATH 2574 Calculus III (ACTS Equivalency = MATH 2603)	4	

Science Requirement ^{1,2}	3	
INEG 2403 Industrial Cost Analysis		3
INEG 2333 Applied Probability and Statistics for Engineers II		3
MATH 2584 Elementary Differential Equations		4
MEEG 2303 Introduction to Materials		3
CSCE 2004 Programming Foundations I		4
Year Total:	17	17

Third Year	Units	
	Fall	Spring
INEG 3623 Simulation	3	
ELEG 3903 Electric Circuits and Machines	3	
Fine Arts (from University/State Core List)	3	
Technical Elective ³	3	
INEG 3714 Work Methods and Ergonomics	4	
INEG 3613 Introduction to Operations Research		3
INEG 3513 Manufacturing Processes		3
Selection one option from the following:		3
ECON 2143 Basic Economics: Theory and Practice		
ECON 2013 Principles of Macroeconomics (ACTS Equivalency = ECON 2103) & ECON 2023 Principles of Microeconomics (ACTS Equivalency = ECON 2203)		
Technical Elective		3
MEEG 2003 Statics		3
Year Total:	16	15

Fourth Year	Units	
	Fall	Spring
INEG 4433 Systems Engineering and Management	3	
INEG 4553 Production Planning and Control	3	
Two Technical Elective ³	6	
Social Science (from University/State Core List) ⁴	3	
INEG 4911 Industrial Engineering Capstone Experience I	1	
INEG 4923 Industrial Engineering Capstone Experience II		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

² If 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.

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