

Industrial Engineering and Operations Analytics B.S.I.E.O.A.

Industrial Engineering and Operations Analytics BSIEOA Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Industrial Engineering and Operations Analytics 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.

Students are required to complete 40 hours of upper division courses (3000-4000 level). It is recommended that students consult with their adviser when making course selections.

First Year	Units	
	Fall	Spring
GNEG 11101 Introduction to Engineering I	1	
MATH 24004 Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1) ¹	4	
CHEM 14103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3	
ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1) ¹	3	
Select one of the following courses to satisfy General Education Outcomes 3.3 and 4.2: ¹	3	
HIST 20103 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123)		
HIST 20003 History of the American People to 1877 (ACTS Equivalency = HIST 2113)		
PLSC 20003 American National Government (ACTS Equivalency = PLSC 2003)		
GNEG 11201 Introduction to Engineering II	1	
MATH 25004 Calculus II	4	
ENGL 10303 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2) ^{1, 2}	3	
BIOL 1543/1541L or CHEM 1123/1121L or GEOS 1113/1111L or PHYS 2074	4	
PHYS 20304 University Physics I (ACTS Equivalency = PHYS 2034) (Satisfies General Education Outcome 3.4) ¹	4	
Year Total:	14	16

Second Year	Units	
	Fall	Spring
INEG 20001 Industrial Engineering Seminar	1	
INEG 21003 Introduction to Industrial Engineering	3	
INEG 22104 Computing Methods for Industrial Engineers I	4	
INEG 23104 Statistics for Industrial Engineers I	4	
Math Elective: Choose one of the following	3	
MATH 26004 Calculus III		
MATH 26004 Calculus III		
MATH 260H4 Honors Calculus III		
MATH 25804 Elementary Differential Equations		
MATH 258H4 Honors Elementary Differential Equations		
MATH 26103 Discrete Mathematics		
MATH 30803 Linear Algebra		
INEG 22203 Computing Methods for Industrial Engineers II		3
INEG 23203 Probability and Stochastic Processes for Industrial Engineers		3
INEG 24103 Engineering Economic Analysis		3
INEG 26103 Introduction to Operations Research		3
ACCT 24003 Accounting Fundamentals for Planning and Control		3
Year Total:	15	15

Third Year	Units	
	Fall	Spring
INEG 33303 Statistics for Industrial Engineers II	3	
INEG 34403 Project Management	3	
INEG 35403 Facility Logistics	3	
INEG 36204 Simulation	4	
Select one of the following two options to satisfy General Education Outcome 3.3: ¹	3	
ECON 21403 Basic Economics: Theory and Practice		
or		
ECON 21003 Principles of Macroeconomics (ACTS Equivalency = ECON 2103) & ECON 22003 Principles of Microeconomics (ACTS Equivalency = ECON 2203)		
INEG 35503 Production Planning and Control		3
INEG 35303 Transportation Logistics		3
INEG 37104 Work Methods and Ergonomics		4
INEG 38303 Introduction to Database Concepts for Industrial Engineers		3
Social Science Elective - Choose a course that satisfies General Education Outcomes 3.3 and 4.1. ¹		3
Year Total:	16	16

Fourth Year	Units	
	Fall	Spring
INEG 44303 Systems Engineering and Management	3	
INEG 49103 Industrial Engineering Capstone Experience I	3	
Two Technical Electives	6	
Social Sciences Elective ¹	3	
INEG 49204 Industrial Engineering Capstone Experience II (Satisfies General Education Outcome 6.1) ¹		4
Two Technical Electives		6
Fine Arts Elective - Choose a course that satisfies General Education Outcome 3.1. ¹		3
Humanities Elective - Choose a course that satisfies General Education Outcomes 3.2 and 5.1. ¹		3
Year Total:	15	16
Total Units in Sequence:		123

¹ Students must complete the State Minimum Core requirements (<https://nam03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnextcatalog.uark.edu%2Fundergraduatecatalog%2Fgened%2Fstateminimum%2F&data=02%7C01%7Cagriffin%40uark.edu%7Ce4e632415f9b49eda9bf08d7f5c20b91%7C79c742c4e61c4fa5be89a3cb566a80d1%7C0%7C0%7C637248086069611524&sdata=4bJ2Oob83N8KftkGD%2F1XG8924jwOx8pTlw8IWNAGp0s%3D&reserved=0>) as outlined in the Catalog of Studies. The courses that meet the state minimum core also fulfill many of the university's General Education requirements (<https://nam03.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnextcatalog.uark.edu%2Fundergraduatecatalog%2Fgened%2Fgeneraleducation%2F&data=02%7C01%7Cagriffin%40uark.edu%7Ce4e632415f9b49eda9bf08d7f5c20b91%7C79c742c4e61c4fa5be89a3cb566a80d1%7C0%7C0%7C637248086069621479&sdata=QptR3u0pvU0Z%2BDWRVEfAqIMsYNX4KXEgX2JdEJJY7Go%3D&reserved=0>), although there are additional considerations to satisfy the general education learning outcomes. Students are encouraged to consult with their academic adviser when making course selections.

² Students who enter the university with credit for ENGL 10203 are not required to complete ENGL 10303. Students who enter the university with exemption from ENGL 10203 are encouraged to take ENGL 10303.