

Mechanical Engineering B.S.M.E.

Mechanical Engineering B.S.M.E. Eight-Semester Degree Program

The following section contains the list of courses required for the Bachelor of Science in Mechanical 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 interested in obtaining a sequencing schedule of courses may contact the Mechanical Engineering office.

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.

Either the science elective in the second semester of Year 1 or the science elective in the first semester of Year 2 must include PHYS 2074. Other science electives should be chosen from an approved list. See the mechanical engineering office.

First Year	Units	
	Fall	Spring
ENGL 1013 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)	3	
CHEM 1103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3	
MATH 2554 Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1) ¹	4	
GNEG 1111 Introduction to Engineering I	1	
Select one of the following (Satisfies General Education Outcome 4.2):	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
MATH 2564 Calculus II (ACTS Equivalency = MATH 2505)		4
Freshman Science Elective (See Above) (Satisfies General Education Outcome 3.4) ²		4
ENGL 1033 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)		3
PHYS 2054 University Physics I (ACTS Equivalency = PHYS 2034)		4
Year Total:	14	16

Second Year	Units	
	Fall	Spring
MEEG 2101 Computer-aided Design	1	
Science Elective (See Note Above)	4	
MATH 2574 Calculus III (ACTS Equivalency = MATH 2603)	4	
MEEG 2303 Introduction to Materials	3	
MEEG 2003 Statics	3	
MATH 2584 Elementary Differential Equations		4
MEEG 2013 Dynamics		3
MEEG 2403 Thermodynamics		3
MEEG 2703 Computer Methods in Mechanical Engineering		3
MEEG 2103 Introduction to Machine Analysis		3
Year Total:	15	16

Third Year	Units	
	Fall	Spring
MEEG 3013 Mechanics of Materials	3	
MEEG 3113 Fundamentals of Vibrations	3	
MEEG 3202L Mechanical Engineering Laboratory I	2	
MEEG 3503 Mechanics of Fluids	3	
ELEG 3903 Electric Circuits and Machines	3	
ECON 2013 Principles of Macroeconomics (ACTS Equivalency = ECON 2103) (Satisfies General Education Outcome 3.3) or ECON 2143 Basic Economics: Theory and Practice	3	
MEEG 3212L Mechanical Engineering Laboratory II		2
MEEG 4413 Heat Transfer		3
MEEG 4103 Machine Element Design		3
MEEG 3223 Introduction to Mechatronics		3
Technical/Science Elective		3
Humanities State Minimum Core Elective (Satisfies General Education Outcomes 3.2 and 5.1):		3
CLST 1003 Introduction to Classical Studies: Greece or CLST 1003H Honors Introduction to Classical Studies: Greece or CLST 1013 Introduction to Classical Studies: Rome or PHIL 2003 Introduction to Philosophy (ACTS Equivalency = PHIL 1103) or PHIL 2103 Introduction to Ethics (ACTS Equivalency = PHIL 1003) or PHIL 2103C Introduction to Ethics (ACTS Equivalency = PHIL 1003)		
Year Total:	17	17

Fourth Year	Units	
	Fall	Spring
MEEG 4132 Professional Engineering Practices	2	
MEEG 4182 Creative Project Design I	2	

MEEG 4202L Mechanical Engineering Laboratory III	2	
MEEG 4483 Thermal Systems Analysis and Design	3	
Technical/Science Elective	3	
Fine Arts State Minimum Core Elective (Satisfies General Education Outcome 3.1) ³	3	
MEEG 4192 Creative Project Design II (Satisfies General Education Outcome 6.1)		2
Two Technical/Science Elective		6
Social Sciences State Minimum Core Elective (Satisfies General Education Outcome 3.3) ⁴		3
Social Sciences State Minimum Core Elective (Satisfies General Education Outcomes 3.3 and 4.1) ⁵		3
Year Total:	15	14
Total Units in Sequence:		124

¹ Students have demonstrated successful completion of the learning indicators identified for learning outcome 2.1, by meeting the prerequisites for MATH 2554.

² The Freshman Science Elective courses that satisfy General Education Outcome 3.4 include: ASTR 2003/ASTR 2001L, BIOL 1543/BIOL 1541L, BIOL 2213/BIOL 2211L, CHEM 1123/CHEM 1121L, GEOS 1113/GEOS 1111L.

³ The Fine Arts Elective courses that satisfy General Education Outcome 3.1 include: ARCH 1003, ARHS 1003, COMM 1003, DANC 1003, LARC 1003, MLIT 1003, MLIT 1003H, MLIT 1013, MLIT 1013H, MLIT 1333, THTR 1003, THTR 1013, or THTR 1013H.

⁴ The Social Sciences Elective courses which satisfy General Education Outcome 3.3 include: AGECE 1103, AGECE 2103, ANTH 1023, COMM 1023, ECON 2013, ECON 2023, ECON 2143, EDST 2003, HDFS 1403, HDFS 2413, HDFS 2603, HIST 1113, HIST 1113H, HIST 1123, HIST 1123H, HIST 2003, HIST 2013, HIST 2093, HUMN 1114H, HUMN 2114H, INST 2813, INST 2813H, PLSC 2003, PLSC 2013, PLSC 2203, PLSC 2813, PLSC 2813H, PSYC 2003, RESM 2853, SOCI 2013, SOCI 2013H, or SOCI 2033. Note, courses cannot be counted twice in degree requirements.

⁵ The Social Sciences Elective courses which satisfy General Education Outcomes 3.3 and 4.1 include: ANTH 1023, COMM 1023, HDFS 1403, HDFS 2413, HIST 1113, HIST 1113H, HIST 1123, HIST 1123H, HIST 2093, HUMN 1114H, HUMN 2114H, INST 2813, INST 2813H, PLSC 2013, PLSC 2813, PLSC 2813H, RESM 2853, SOCI 2013, SOCI 2013H, or SOCI 2033.