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 20404. Other science electives should be chosen from an approved list. See the mechanical engineering office.

First Year	Units	
	Fall	Spring
ENGL 10103 Composition I (ACTS Equivalency = ENGL 1013) (Satisfies General Education Outcome 1.1)	3	
CHEM 14103 University Chemistry I (ACTS Equivalency = CHEM 1414 Lecture)	3	
MATH 24004 Calculus I (ACTS Equivalency = MATH 2405) (Satisfies General Education Outcome 2.1)[1]	4	
GNEG 11101 Introduction to Engineering I	1	
Select one of the following (Satisfies General Education Outcome 4.2):	3	
HIST 20003 History of the American People to 1877 (ACTS Equivalency = HIST 2113)		
HIST 20103 History of the American People, 1877 to Present (ACTS Equivalency = HIST 2123)		
PLSC 20003 American National Government (ACTS Equivalency = PLSC 2003)		
GNEG 11201 Introduction to Engineering II		1
MATH 25004 Calculus II		4
Freshman Science Elective (See Above) (Satisfies General Education Outcome 3.4)[2]		4
ENGL 10303 Technical Composition II (ACTS Equivalency = ENGL 1023) (Satisfies General Education Outcome 1.2)		3
PHYS 20304 University Physics I (ACTS Equivalency = PHYS 2034)		4
Year Total:	14	16

Second Year	Units	
	Fall	Spring
MEEG 21031 Computer-aided Design	1	
Science Elective (See Note Above)	4	
MATH 26004 Calculus III	4	
MEEG 23003 Introduction to Materials	3	
MEEG 20003 Statics	3	
MATH 25804 Elementary Differential Equations		4
MEEG 20103 Dynamics		3
MEEG 24003 Thermodynamics		3
MEEG 27003 Computer Methods in Mechanical Engineering		3
MEEG 21003 Mechanical Design and Manufacturing		3
Year Total:	15	16

Third Year	Units	
	Fall	Spring
MEEG 30103 Mechanics of Materials	3	
MEEG 31103 Fundamentals of Vibrations	3	
MEEG 32002 Mechanical Engineering Laboratory I	2	
MEEG 35003 Mechanics of Fluids	3	
ELEG 39003 Electric Circuits and Machines	3	
ECON 21003 Principles of Macroeconomics (ACTS Equivalency = ECON 2103) (Satisfies General Education Outcome 3.3) or ECON 21403 Basic Economics: Theory and Practice	3	
MEEG 32102 Mechanical Engineering Laboratory II		2
MEEG 44103 Heat Transfer		3
MEEG 41003 Machine Element Design		3
MEEG 32203 Introduction to Mechatronics		3
Technical/Science Elective		3
Humanities State Minimum Core Elective (Satisfies General Education Outcomes 3.2 and 5.1):		3
CLST 10003 Introduction to Classical Studies: Greece or CLST 100H3 Honors Introduction to Classical Studies: Greece or CLST 10103 Introduction to Classical Studies: Rome or PHIL 20003 Introduction to Philosophy or PHIL 21003 Introduction to Ethics (ACTS Equivalency = PHIL 1003) or PHIL 21003 Introduction to Ethics (ACTS Equivalency = PHIL 1003)		
Year Total:	17	17

Fourth Year	Units	
	Fall	Spring
MEEG 41302 Professional Engineering Practices	2	
MEEG 41802 Creative Project Design I	2	
MEEG 42002 Mechanical Engineering Laboratory III	2	

MEEG 44803 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 41902 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 24004.

2 The Freshman Science Elective courses that satisfy General Education Outcome 3.4 include: ASTR 20003/ASTR 20001, BIOL 10103/BIOL 10101, BIOL 24103/BIOL 24101, CHEM 14203/CHEM 14201, GEOL 11103/GEOL 11101.

3 The Fine Arts Elective courses that satisfy General Education Outcome 3.1 include: ARCH 10003, ARHS 10003, COMM 10003, DANC 10003, LARC 10003, MUSC 10003, MUSC 100H3, MUSC 10103, MUSC 101H3, MUSC 13303, THTR 10003, THTR 10103, or THTR 101H3.

4 The Social Sciences Elective courses which satisfy General Education Outcome 3.3 include: AGEC 11003, AGEC 21003, ANTH 10203, COMM 10203, ECON 21003, ECON 22003, ECON 21403, EDST 20003, HDFS 14003, HDFS 24103, HDFS 26003, HIST 11193, HIST 111H3, HIST 11293, HIST 112H3, HIST 20003, HIST 20103, HIST 20903, HUMN 111H4, HUMN 211H4, INST 28103, INST 281H3, PLSC 20003,PLSC 20103, PLSC 21003, PLSC 28103, PLSC 281H3, PSYC 20003, RESM 28503, SOCI 10103, SOCI 101H3, or SOCI 20103. 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 10203, COMM 10203, HDFS 14003, HDFS 24103, HIST 11193,HIST 111H3, HIST 11293, HIST 112H3, HIST 20903, HUMN 111H4, HUMN 211H4, INST 28103, INST 281H3, PLSC 20103, PLSC 28103, PLSC 281H3, RESM 28503, SOCI 10103, SOCI 101H3, or SOCI 20103.