

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING - GENERAL

Code	Title	Credit Hours
Wellness		
APPH 1040	Scientific Foundations of Health or APPH 10 The Science of Physical Activity and Health or APPH 10 Flourishing: Strategies for Well-being and Resilience	2
Core A - Essential Skills		
ENGL 1101	English Composition I	3
ENGL 1102	English Composition II	3
MATH 1552	Integral Calculus ²	4
Core B - Institutional Options		
CS 1371	Computing for Engineers	3
Core C - Humanities		
Any HUM		6
Core D - Science, Math, & Technology		
PHYS 2211	Introductory Physics I ²	4
PHYS 2212	Introductory Physics II	4
MATH 1551	Differential Calculus ²	2
MATH 1553	Introduction to Linear Algebra ² or MATH 1554 Linear Algebra or MATH 1554 Linear Algebra with Abstract Vector Spaces	2
Core E - Social Sciences		
Select one of the following:		3
HIST 2111	The United States to 1877	
HIST 2112	The United States since 1877	
INTA 1200	American Government in Comparative Perspective	
POL 1101	Government of the United States	
PUBP 3000	American Constitutional Issues	
Select one of the following:		3
ECON 2100	Economic Analysis and Policy Problems	
ECON 2101	The Global Economy	
ECON 2105	Principles of Macroeconomics	
ECON 2106	Principles of Microeconomics	
Any SS		6
Core F - Courses Related to Major		
CHEM 1310	Principles of General Chemistry for Engineers ⁷	4
ME 1670	Introduction to Engineering Graphics and Design	3
MATH 2551	Multivariable Calculus ²	4
MATH 2552	Differential Equations ²	4
MSE 2001	Principles and Applications of Engineering Materials	3
Ethics Requirement ¹		
Major Requirements		
ME 3180	Machine Design or ME 4315 Energy Systems Analysis and Design	3

COE 2001	Statics ²	2
ME 2016	Computer Applications	3
ME 2110	Creative Decisions and Design	3
ME 2202	Dynamics of Rigid Bodies	3
ME 3017	System Dynamics	3
ME 3057	Experimental Methodology and Technical Writing	3
ME 3322	Thermodynamics	3
ME 3340	Fluid Mechanics	3
ME 3345	Conduction and Radiation Heat Transfer	3
COE 3001	Mechanics of Deformable Bodies	3
ME 3210	Design, Materials, and Manufacture	3
ME 4056	Mechanical Engineering Systems Laboratory	3
ME 4182	Mechanical Design Engineering or ME 4723 Interdisciplinary Capstone Design	3
ME Electives		
ME 3000-level Electives ³		3
Other Engineering Requirements		
ECE 3710	Circuits and Electronics	2
ECE 3741	Instrumentation and Electronics Lab	1
ISYE 3025	Essentials of Engineering Economy	1
MATH 3670	Probability and Statistics with Applications	3
Free Electives		
2000-Level Electives ^{4,5}		9
Free Electives ^{4,6}		6
Total Credit Hours		129

No pass-fail courses allowed.

Student must earn a 2.0 GPA within Major Requirements and MSE 2001, ECE 3710, ECE 3741 and ISYE 3025.

If a course is repeated, only the latest grade is included in the calculation of the Major Requirements GPA.

¹ Students must complete one Ethics course during their program.

² Minimum grade of C required.

³ ME Electives must be 3000-level electives. ME 3141, ME 3700, ME 3720, ME 3743, ME 3744, ME 4699, ME 4741, ME 4742, ME 4753, and ME 4903 are not allowed. ME Elective must not duplicate any other material used for BSME degree.

⁴ Cannot include CEE 2040, PHYS 2802, PHYS 2XXX(AP Credit), MGT 2250.

⁵ Must be at 2000-Level or above; four of these 9 credit hours may be satisfied with one of the following: BIOS 1107/BIOS 1107L, BIOS 1108/BIOS 1108L, or CHEM 1212K.

⁶ Students can use a maximum of 6 credit hours of VIP courses (ECE 2811, 381X, 481X) or a maximum of 6 credit hours of undergraduate research and special problems courses (2699, 4699, 4903 from any department) not to exceed 9 credit hours from both course groups towards the degree requirements for the BSME degree.

⁷ CHEM 1211K can substitute for CHEM 1310. CHEM 1211K and CHEM 1212K are recommended for pre-health students.