

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING - GENERAL

Code	Title	Credit Hours
Wellness Requirement		
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 IMPACTS		
Institutional Priority		
CS 1371	Computing for Engineers	3
Mathematics and Quantitative Skills		
MATH 1552	Integral Calculus ²	4
Political Science and U.S. History		
HIST 2111	The United States to 1877 or HIST 2112 The United States since 1877 or INTA 1200 American Government in Comparative Perspective or POL 1101 Government of the United States or PUBP 3000 American Constitutional Issues	3
Arts, Humanities, and Ethics		
Any HUM		6
Communicating in Writing		
ENGL 1101	English Composition I	3
ENGL 1102	English Composition II	3
Technology, Mathematics, and Sciences		
PHYS 2211	Principles of Physics I ²	4
PHYS 2212	Principles of Physics II	4
MATH 1551	Differential Calculus ²	2
MATH 1553	Introduction to Linear Algebra ² or MATH 1554 Linear Algebra or MATH 1555 Linear Algebra with Abstract Vector Spaces	2
Social Sciences		
Any SS		9
Field of Study		
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
Major Requirements		
Economics Requirement ⁸		
Ethics Requirement ¹		
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 3058	ME Systems Laboratory	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 4182	Mechanical Design Engineering or ME 4723 Interdisciplinary Capstone Design	3

ME Electives

ME 3000-level Electives ³	3
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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 or ECE 3071 Prob/Stats for ECE or ISYE 377 Statistics and Applications	3

Free Electives

2000-Level Electives ^{4,5}	9
Free Electives ^{4,6}	6

Total Credit Hours **129**

No pass-fail courses allowed except for Ethics overlay requirement.

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.

⁸ Students must complete one course from the following list that includes appropriate economic content relevant to the program: ECON 2100, ECON 2101, ECON 2105, or ECON 2106. Note that ECON 2100, 2101, 2105, 2106 may also be applied toward Core IMPACTS Social Science credit hours. You should discuss this with your

academic advisor to ensure that you are taking the most efficient path to complete both areas.