

Course Plan

2019-2020



**BOISE STATE
UNIVERSITY**

Bachelor of Science in Mechanical Engineering

FIRST YEAR

FIRST SEMESTER

CHEM 111	College Chemistry (FN)	• 3 cr
CHEM 111L	College Chemistry Lab (FN)	1 cr
ENGL 101	Introduction to College Writing (FW)	3 cr
ENGR 180	Communication in Design Thinking	3 cr
UF 100	Foundations of Intellectual Life	3 cr
MATH 170	Calculus I (FM)	• 4 cr
TOTAL CREDITS		17 cr

SECOND SEMESTER

CS 117*	Introduction to C++	3 cr
ENGL 102	Intro to College Writing/Research (FW)	3 cr
MATH 175	Calculus II	• 4 cr
PHYS 211	Mechanics, Waves and Heat (FN)	• 4 cr
PHYS 211L	Mechanics, Waves and Heat Lab (FN)	1 cr
TOTAL CREDITS		15 cr

SECOND YEAR

FIRST SEMESTER

PHYS 212	Electricity, Magnetism & Optics	4 cr
PHYS 212L	Electricity, Magnetism & Optics Lab	1 cr
MATH 333	Differential Equations and Matrix Theory	4 cr
ENGR 210	Engineering Statics	• 3 cr
UF 200	Foundations of Ethics and Diversity	3 cr
ME 271*	Introduction to Computation for Engineers	1 cr
TOTAL CREDITS		16 cr

SECOND SEMESTER

MATH 275	Multiple Variable and Vector Calculus	4 cr
ENGR 220	Engineering Dynamics	• 3 cr
MSE 245	Introduction to Materials Science and Engineering	3 cr
MES 245L	Introduction to Materials Science and Engineering	1 cr
ME 302	Thermodynamics	• 3 cr
ME 105	Mechanical Engineering Graphics	• 3 cr
TOTAL CREDITS		17 cr

THIRD YEAR

FIRST SEMESTER

MATH 360	Engineering Statistics <i>OR</i>	
MATH 361†	Probability and Statistics	3 cr
ME 330	Fluid Mechanics	3 cr
ME 331	Fluid Mechanics Lab	1 cr
ME 350	Engineering Mechanics of Materials	3 cr
ENGR 240	Introduction to Circuits	3 cr
ENGL 202	Technical Communication (FS)	3 cr
TOTAL CREDITS		16 cr

SECOND SEMESTER

ME 380*	Kinematics and Machine Dynamics	3 cr
ME 320	Heat Transfer	3 cr
ME 310	Experimental Methods Lab (FC)	2 cr
ME 352	Machine Design I	3 cr
FA	Foundations of Arts	3 cr
TOTAL CREDITS		14 cr

FOURTH YEAR

FIRST SEMESTER

ME 481	Senior Design Project I (FF)	3 cr
ME 424	Thermal and Fluids Systems Design	3 cr
ME 462	Machine Design II	3 cr
ME	ME Program Elective	3 cr
FH	Foundations of Humanities	3 cr
TOTAL CREDITS		15 cr

SECOND SEMESTER

ME 483	Senior Design Project II	3 cr
ME	ME Program Elective	3 cr
TECH	Upper-Division Technical Elective	3 cr
FS	Foundations of Social Science 2nd Field	3 cr
FC	Foundations of Oral Communication	3 cr
TOTAL CREDITS		15 cr

* This program sequence is the only approved way to complete the structured programming requirement for the ME degree
 † In this instance, either course meets the requirement
 • Indicates a core course for ME program admission