

MECHANICAL & BIOMEDICAL ENGINEERING COURSE PLAN BY SEMESTER

STARTING WITH MATH 170



Catalog Year

2011—2012

**TOTAL
CREDITS:
129**

For questions about program requirements, please contact your advisor. Boise State recommends that you meet with an advisor annually to ensure that problems are identified and resolved quickly.

* In this instance, either course meets the requirement.

Rev. 2/12

FIRST YEAR

Fall Semester			Spring Semester		
CHEM 111	College Chemistry	3	ME 105	Mechanical Engineering Graphics	3
CHEM 111L	College Chemistry Lab	1	ENGL 102	English Composition	3
ENGL 101	English Composition	3	MATH 175	Calculus II	4
ENGR 120	Introduction to Engineering	3	PHYS 211	Mechanics, Waves & Heat	4
COMM 101	Fundamentals of Speech Communication	3	PHYS 211L	Mechanics, Waves & Heat Lab	1
MATH 170	Calculus 1	4			
TOTAL CREDITS			17	TOTAL CREDITS	
				15	

SECOND YEAR

Fall Semester			Spring Semester		
PHYS 212	Electricity, Magnetism & Optics	4	MATH 275	Multiple Variable & Vector Calculus	4
PHYS 212L	Electricity, Magnetism & Optics Lab	1	ENGR 220	Engineering Dynamics	3
MATH 333	Differential Equations with Matrix Theory	4	ENGR 245	Introduction to Materials Science & Engineering	3
ENGR 210	Engineering Statics	3	ENGR 245L	Introduction to Materials Science & Engineering Lab	1
ME 297 or COMPSCI 117*	Introduction to Computations for Engineers or Introduction to C++	3	ENGR 320	Thermodynamics I	3
			ENGL 202	Technical Communication	3
TOTAL CREDITS			15	TOTAL CREDITS	
				17	

THIRD YEAR

Fall Semester			Spring Semester		
ENGR 330	Fluid Mechanics	3	ME 380	Kinematics & Machine Dynamics	4
ENGR 331	Fluid Mechanics Lab	1			
ENGR 350	Engineering Mechanics of Materials	3	ME 320	Heat Transfer	3
MATH 360 or MATH 361†	Engineering Statistics or Probability and Statistics	3	ME 310	Experimental Methods Lab	3
ENGR 240	Introduction to Circuits	3	ME 352	Machine Design I	3
H/S	Area I/II Elective	3	H/S	Area I/II Elective	3
TOTAL CREDITS			16	TOTAL CREDITS	
				16	

FOURTH YEAR

Fall Semester			Spring Semester		
ME 481	Senior Design Project I	3	ME 483	Senior Design Project II	3
ME 424	Thermal & Fluids Systems Design	3	ME	ME Program Elective	3
			ME	ME Program Elective	3
ME 462	Machine Design II	3	ME	ME Program Elective	3
ME	ME Program Elective	3	H/S	Area I/II	3
H/S	Area I/II	3	H/S	Area I/II	3
TOTAL CREDITS			15	TOTAL CREDITS	
				18	

MECHANICAL & BIOMEDICAL ENGINEERING COURSE PLAN BY SEMESTER

STARTING WITH MATH 147

FIRST YEAR

Fall Semester			Spring Semester		
MATH 147	Intermediate Algebra	5	MATH 170	Calculus I	4
ENGL 101	English Composition	3	ENGL 102	English Composition	3
COMM 101	Fundamentals of Speech Comm.	3	CHEM 111	College Chemistry	3
H/S	Area I/II Elective	3	CHEM 111L	College Chemistry Lab	1
			ENGR 120	Introduction to Engineering	3
TOTAL CREDITS			14	TOTAL CREDITS	
			14		

SECOND YEAR

Fall Semester			Spring Semester		
MATH 175	Calculus II	4	MATH 333	Differential Equations with Matrix Theory	3
PHYS 211	Mechanics, Waves, & Heat	4	PHYS 212	Electricity, Magnetism & Optics	4
PHYS 211L	Mechanics, Waves & Heat Lab	1	PHYS 212L	Electricity, Magnetism & Optics Lab	1
ME 105	Mechanical Engineering Graphics	3	ENGR 210	Engineering Statics	3
H/S	Area I/II Elective	3	ME 297 or COMPSCI 117*	Introduction to Computations for Engineers or Introduction to C++*	3
TOTAL CREDITS			15	TOTAL CREDITS	
			14		

THIRD YEAR

Fall Semester			Spring Semester		
MATH 275	Multiple Variable & Vector Calculus	4	ENGR 320	Thermodynamics I	3
ENGR 220	Engineering Dynamics	3	ENGR 240	Introduction to Circuits	3
ENGR 245	Intro to Materials Science & Engineering	3	MATH 360 or MATH 361*	Engineering Statistics or Probability and Statistics*	3
ENGR 245L	Intro to Materials Science & Engr. Lab	1	ENGL 202	Technical Communication	3
H/S	Area I/II Elective	3			
TOTAL CREDITS			14	TOTAL CREDITS	
			12		

FOURTH YEAR

Fall Semester			Spring Semester		
ENGR 330	Fluid Mechanics	3	ME 380	Kinematics & Machine Dynamics	4
ENGR 331	Fluid Mechanics Lab	1			
ENGR 350	Engineering Mechanics of Materials	3	ME 320	Heat Transfer	3
ME	ME Program Elective	3	ME 352	Machine Design I	3
H/S	Area I/II	3	ME 310	Experimental Methods Lab	3
TOTAL CREDITS			13	TOTAL CREDITS	
			13		

FIFTH YEAR

Fall Semester			Spring Semester		
ME 481	Senior Design Project I	3	ME 483	Senior Design Project II	3
ME 424	Thermal & Fluids Systems Design	3	ME	ME Program Elective	3
ME 462	Machine Design II	3	ME	ME Program Elective	3
ME	ME Program Elective	3	H/S	Area I/II	3
H/S	Area I/II	3			
TOTAL CREDITS			15	TOTAL CREDITS	
			12		



Catalog Year

2011—2012

**TOTAL
CREDITS:
136**

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