

Bioengineering—Major Requirements for BS Degree

Effective Fall 2013

University of California, Merced

Anticipated Graduation Date (ex: May 2017) _____

Full Name: _____ ID #: _____ Email _____

Requirement/ Course Dept #	Course Title	Grade	Units or # Required	Term/Year Completed	Substitute Approved
UCM Requirements					
-UC Entry Level Writing			n/a		
-American History/Institutions			n/a		
-CORE 001	World at Home I		1 course		
-WRI 010	College Composition		1 course		
School Requirements					
-MATH 021	Calculus I Phys Sciences & Eng		4 units		
-MATH 022	Calculus II Phys Sciences & Eng		4 units		
-MATH 023	Vector Calculus		4 units		
-MATH 024	Linear Algebra and Differential Equations		4 units		
-MATH 032	Probability and Statistics		4 units		
-PHYS 008 or PHYS 018	Introductory Physics I		4 units		
-PHYS 009 or PHYS 019	Introductory Physics II		4 units		
-ME 021	Engineering Computing		4 units		
-BIO 001 + BIO 001L	Contemporary Biology + Lab		5 units		
-CHEM 002	General Chemistry I		4 units		
-Arts/Humanities GE			3-4 units		
-Social Science GE			3-4 units		
Major/Core Requirements					
-ENGR 097/197 or SSHA GE			3 units		
-Upper-division Writing Course			4 units		
<u>Engineering Fundamentals</u>					
-ENGR 045	Introduction to Materials		4 units		
-ENGR 057	Statics and Dynamics		4 units		
-ENGR 065	Circuit Theory		3 units		
-ENGR 130	Thermodynamics		3 units		
-ENGR 166	Analog and Digital Electronics		3 units		
<u>Bioengineering Core</u>					
-BIOE 030	Introduction to Bioengineering		4 units		
-BIOE 100	Physiology for Engineers		4 units		
-BIOE 104	Biotransport		4 units		
-BIOE 113	Bioinstrumentation		4 units		
-BIO 002 + BIO 002L	Introduction to Molecular Biology + Lab		5 units		
-BIO 110	The Cell		4 units		
-BIOE 150	Bioengineering Design		3 units		
<u>Additional Degree Requirements</u>					
-CHEM 008	Principles of Organic Chemistry		4 units		
-CHEM 010	General Chemistry II		4 units		
-CHEM 100 + CHEM 100L	Organic Synth and Mechanism + Lab		4 units		
-ENGR 191	Professional Seminar		1 unit		
-Choose at least one technical elective (see page 2)			1 course		

Notes/Comments
Advisor Signature/Date:
Student Signature/Date:

This guide is an unofficial document intended to be used for advising/course planning only. This document cannot be used to supersede or waive requirements listed in the UCM Catalog unless approved by your advisor.

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Service Learning/ SSHA GE

Students may take either 3 units of ENGR 097/ENGR 197, or 1 SSHA GE course

Term / Course / Team or Title / Units

1.
2.
3.

Technical Elective Courses

BIOE 103
BIOE 114
BIOE 195
BIO 102
BIO 104
BIO 140
BIO 142
BIO 175

BIO 181
BIO 182
ENGR 155
ENGR 170 + 170L
MSE 113
MSE 114
MSE 118
MATH 131

Course Dept. #	Course Title	Grade	Units	Term/Year Completed