## Plan of Study for the Biomedical Engineering AB Concentration

Effective for Students Declaring the Concentration after July 1, 2016

NAME:
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## CLASS: \_\_\_\_\_

EMAIL:	

This Plan of Study Form is for a (*Circle One*):

DATE: \_\_\_\_\_

DECLARATION

REVISION

REQUIRED COURSES	Semester
(Circle or fill-in for courses planned in each category.)	(FA/SP Year)
Mathematics (2-4 courses)	
Begin according to placement:	
Math 1a – Introduction to Calculus I	
Math 1b – Calculus, Series, and Differential Equations	
Applied Mathematics 21a – Mathematical Methods in the Sciences I (or Mathematics 21a or 23a)	
Applied Mathematics 21b – Mathematical Methods in the Sciences II	
(or Mathematics 21b or 23b)	
Probability & Statistics (1 course)	
AM 101 – Statistical Inference for Scientists & Engineers	
(or Statistics 111 – Introduction to Theoretical Statistics)	
Physics (2 courses)	
AP 50a – Physics as a Foundation for Sci. & Eng. Part I	
(or PS 2, PS 12a, Physics 15a, or Physics 16)	
AP 50b – Physics as a Foundation for Sci. & Eng. Part II	
(or PS 3, PS 12b, or Physics 15b)	
Life Sciences/Chemistry (3 courses)	
Life Sciences 1a – Chemistry, Molecular Biology, and Cell Biology	
(or Life & Physical Sciences A – Foundational Chemistry and Biology)	
Life Sciences 1b – Genetics, Genomics, and Evolution	
Chemistry 17 – Principles of Organic Chemistry	
(or Chemistry 20 – Organic Chemistry)	
Sophomore Forum	
Required, non-credit.	
<b>Biomedical Engineering Core</b> (5 courses)	
ES 53 – Quantitative Physiology	
BE 110 – Physiological Systems	
ES 123 – Fluid Mechanics	
ES 181 – Engineering Thermodynamics	
(or MCB 199 – Statistical Thermodynamics and Quantitative Biology)	
Select one from:	
BE 121 – Cellular Engineering	
BE 125 – Tissue Engineering	
BE 160 – Chemical Kinetics	
BE 191 – Biomaterials ES 227 – Medical Device Decign	
ES 227 – Medical Device Design	

REQUIRED COURSES	Semester
(Circle or fill-in for courses planned in each category.)	(FA/SP Year)
Approved Elective (1 course)	
BE 121, BE 125, BE 130, BE 160, BE 191, Chem 27, Chem 30, Chem 160, ES 120,	
ES 221, ES 227, ES 228, MCB 52, MCB 54, MCB 80, OEB 53, CS50, or 100- or 200-	
level engineering courses by prior approval (ES 91r and BE 91r cannot count as	
electives).	
Independent Project	
BE91r or ES 91r or ES 100hf or summer project resulting in a significant	
written report	

For courses that are co-listed in another department, students must enroll in the **Engineering Sciences offering.** 

**Required Signatures:** 

Student

Assistant/Director of Undergraduate Studies (BME)

Date

Date