Plan of Study for the Biomedical Sciences & Engineering Track

of the Engineering Sciences AB Concentration

Effective for Students Declaring the Concentration after July 1, 2017

NAME: _____ CLASS: _____

EMAIL: _____ DATE: _____

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

REQUIRED COURSES (Circle or fill-in for courses planned in each category.)	**Semester** (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)	_____ _____ _____ _____
Physics (2 courses) AP 50a – Physics as a Foundation for Sci. & Eng. Part I (or PS 12a or Physics 15a or 16) AP 50b – Physics as a Foundation for Sci. & Eng. Part II (or PS 12b or Physics 15b)	_____ _____
Chemistry/Life Sciences (1 course) Life Sciences 1a – An Integrated Introduction to the Life Sciences (or Life & Physical Sciences A – Foundational Chemistry and Biology)	_____
Computer Science (1 course) CS 50 – Introduction to Computer Science I (or CS 51 – Introduction to Computer Science II or CS 61 – Systems Programming & Machine Organization)	_____
Sophomore Forum *Required, non-credit.*	_____
Bioengineering Core: Physiology & Modeling (2 courses) ES 53 – Quantitative Physiology as a Basis for Bioengineering BE 110 – Physiological Systems Analysis	_____ _____

REQUIRED COURSES (Circle or fill-in for courses planned in each category.)	**Semester** (FA/SP Year)
Subtrack-specific Courses (4 courses) *Select one Subtrack:* • *Mechanical Subtrack* o ES 120 – Intro to the Mechanics of Solids o ES 123 – Intro to Fluid Mechanics o ES 181 – Engineering Thermodynamics o *One from:* ES 52 – Joy of Electronics ES 153 – Laboratory Electronics ES 154 – Electronic Devices & Circuits • *Electrical Subtrack* o BE 130 – Neural Control of Movement o ES 150 – Intro to Probability with Engineering Applications o ES 154 – Electronic Devices & Circuits o ES 156 – Signals & Systems • *Chemical & Materials Subtrack* o ES 123 – Intro to Fluid Mechanics o ES 181 – Engineering Thermodynamics o BE 191 – Intro to Biomaterials (*preferred*) *(or* ES 190 – Intro to Materials Science & Eng.) o PS 1 – Chemical Bonding, Energy, & Reactivity	_____ _____ _____ _____
Approved Electives (*2 courses from the list below)* Engineering Sciences 51, 91r (one term only), 120, 123, 128, 181,190, 211, 220, 221, 228, 240 Biomedical Engineering 121, 125, 128, 130, 160, 191 Either Applied Mathematics 101 or Engineering Sciences 150 One from Engineering Sciences 52, 153, or 154 Physics 136, 140, 143a, 151, 153 One from Physical Sciences 1, Chemistry 17 or 20 Applied Mathematics 104 or 105	_____ _____

Required Signatures:

_____ _____

Student Date

_____ _____

Assistant/Director of Undergraduate Studies (BME) Date