BESA-Biomedical Engineering

Fall 2024

Bachelor of Engineering Studies and Arts (BESA)

College of Engineering (ENG) Concentration in Biomedical Engineering **93 units (minimum)**

Advisor: Kristin Kropf, SCOT 4N117, 412-268-3955, kgaluska@andrew.cmu.edu

Mathematics & Science Prerequisites

21-120	Differential and Integral Calculus (Gen Ed)	10
21-122	Integration and Approximation (Gen Ed)	10
21-254	Linear Algebra and Vector Calculus for Engineers	11
21-260	Differential Equations	9
15-110	Principles of Computing	10
33-141	Physics I for Engineering Students (Gen Ed)	12
33-142	Physics II for Engineering and Physics Students	12
03-121	Modern Biology	9

Biomedical Engineering Courses **66 units**

42-101	Introduction to Biomedical Engineering (First-year)	12
xx-xxx	2nd Introduction to Engineering course, student's choice	12
42-202	Physiology (Sophomore year; prereq: 03-121/03-151)	9
42-203	Biomedical Engineering Laboratory (Sophomore year; prereq: 42-101, 03-121/03-151)	9
42-302	Biomedical Engineering Systems Modeling and Analysis (Junior year; prereq: 06-262/18-202/21-260)	9
42-401	Foundation of BME Design (Fall, Senior year; prereq: 42-101)	6
42-402	BME Design Project (Spring, Senior year)	9

Electives **27 units minimum**

Choose 3 elective courses in BME tracks and/or ENG with prerequisites in consultation with the concentration advisor.