Suggested BME Plan of Study for GEARE Students - Effective Fall 2023

Credit hours required for graduation: 130

Freshman Year

FIRST SEMESTER	SECOND SEMESTER	SUMMER SEMESTER
(4) MA 16500 Analytical Geom. & Calc. I	(4) MA 16600 Analytical Geom & Calc. II	(3) Gen. Ed. *Foreign Language* 102
(4) CHM 11500 General Chemistry	(4) Science Selective~ (CHM 116 recommended)	
(2) ENGR 13100 Transforming Ideas to Innov I	(4) PHYS 17200 Modern Mechanics	(3) PHYS 24100 Electricity and Optics
(3) Oral or Written Communication	(2) ENGR 13200 Transforming Ideas to Innov II	*or*
(3) Gen. Ed. *Foreign Language* 101	(3) Oral or Written Communication	(3) Science Selective~ (CS 159/180/176)
16	17	6

Sophomore Year

THIRD SEMESTER	THIRD SEMESTER	SUMMER SEMESTER
(3) BME 21400 Fund of Biomech Analysis	(3) BME 20700 Fund of Bioinstr & Meas	Domestic Internship
(1) BME 20600 Biomech & Biomaterial lab-8wk	(3) BME 25600 Physiol. Modeling of Human Health	(3) Gen. Ed. *Foreign Language* 202 *(Optional)*
(1) BME 29000 Frontiers in BME	(3) STAT 35000 Statistical Methods (or equiv.)	3
(3) BIOL 23000 Biology of the Living Cell	(4) MA 26200+ Linear Algebra & Ordinary Diff. Eq.	*(Not all foreign language departments will have classes available.)*
(4) MA 26100 Multivariate Calculus	(3) BME 29500 Thermodynamics in Bio Sys II	
(3) PHYS 24100 *or* CS 159/180/190	16	
(3) Gen. Ed. *Foreign Language* 201		
18		

Junior Year

FIFTH SEMESTER *(possible semester abroad)*	SIXTH SEMESTER *(possible semester abroad)*	SUMMER SEMESTER
(3) BME 20100 Biomol: Strct, Funct & Engr Apl	(2) BME 39000 Profes Devlp & Design in BME	International Internship
(1) BME 20500 Biomolec & Cellular Syst Lab	(2) BME 38900 Junior Design Lab	
(3) BME 3XX Depth Area Course (primary)	(3) BME 3XX Depth Area Course (primary path)	
(3) BME 3XX Depth Area Course (secondary)	(3) Technical Elective	
(1) BME 38000 Junior Professionalization	(3) Life Science Elective	
(3) Technical Elective	13	
(3) Gen. Ed. *Foreign Language* 202		
17		

Senior Year

SEVENTH SEMESTER *Global Design Project*	EIGHTH SEMESTER *Poster Presentation*
(3) BME 48901 Senior Design Project	(3) Technical Elective
(1) BME 49000 Professional Elements of Design	(3) Technical Elective (Data Science-focused QB)
(3) Technical Elective (Quantitative Breadth)	(3) Life Science Elective
(3) General Education Elective	(3) Unrestricted Elective
(3) Gen. Ed. *Ethics/Policy Elective*	(2) Unrestricted Elective
13	14

NOTES:

- All BME core courses, and MA 261, MA 262, BIOL 230, PHYS 241, CS 159, CHM 116, STAT 350 or their equivalents must be completed during or before the semester in which they appear.
- Students may be ahead with some of the cirriculum, and in this case, the plan of study could be adapted with the help of their primary academic advisor.