

BIOMEDICAL ENGINEERING



Catalog Term: Fall 2017 | 133 credit hours

FRESHMAN	
FALL (16 hrs)	SPRING (17 hrs)
ENGL 101 (3)* College English I P: See Course Catalog	ENGL 102 (3)* College English II P: ENGL 101 with C or better
MATH 242 (5) Calculus I P: MATH 111 and 123 with C or better or MATH 112 with C or better	MATH 243 (5) Calculus II P: MATH 242 with C or better
CHEM 211 (5) General Chemistry I Coreq: MATH 111	CHEM 212 (5) General Chemistry II P: CHEM 211 with C or better
General Education* H/FA/S&BSc (3) Note a	PHYS 313 (4) Physics for Scientists I Coreq: MATH 243 with C or better
BME 115 (0) Biomedical Engineering Seminar	

SOPHOMORE	
FALL (19 hrs)	SPRING (16 hrs)
COMM 111 (3)* Public Speaking	MATH 555 (3) Differential Equations I P: MATH 243 with grade C or better
BIOL 223 (5) Human Anatomy and Physiology P: CHEM 211	AE 223 (3) Statics P: PHYS 313 with C or better Coreq: MATH243
BIOL 210 (4) General Biology I Coreq: CHEM 211 recommended	CHEM 533 (3) Elementary Organic Chemistry P: CHEM 212 with C or better or CHEM 532 (5) Organic Chemistry II P: CHEM 531
PHYS 314 (4) Physics for Scientists II P: MATH 243 with C or better and PHYS 313	IME 254 (3) Engineering Probability & Statistics I P: MATH 243
BME 335 (3) Biomedical Computer Applications P: MATH 242 with C or better	BME 477 (3) Intro to Biomaterials P: CHEM 211 and PHYS 213 or 313 with C or better
	ME 251 (1) Materials Engineering Laboratory Coreq: BME 477

JUNIOR	
FALL (16 hrs)	SPRING (19 hrs)
PHIL 385 (3) Engineering Ethics P: Junior or senior standing	General Education* H/FA/S&BSc (3) Note a
EE 282 (4) Circuits I Coreq: MATH 243	BIOL 420 (4) Molecular Cell Biology Offered Spring Only P: BIOL 210/CHEM 212
ME 398 (3) Thermodynamics I P: MATH 243 and PHYS 313 both with C or better	CHEM 661 (3) Introductory Biochemistry P: CHEM 532 or 533
BME 452 (3) Biomechanics P: MATH 243 and AE 223 with C or better	IME 255 (3) Engineering Economy Coreq: MATH 242
BME 462 (3) Introduction to Biofluids Offered Fall Only P: AE 223 and MATH 555 both with C or better Coreq: BIOL 223 and ME 398	BME 480 (3) Bioinstrumentation Offered Spring Only P: EE 282/IME 254
Engineer of 2020 Requirement 1 of 3 See notes	Engineering Technical Elective (3) Note b

SENIOR	
FALL (15 hrs)	SPRING (15 hrs)
General Education* H/FA/S&BSc (3) Note a	General Education* H/FA/S&BSc (3) Note a
BME 482 (3) Design of Biodevices Offered Fall Only P: BME 335 with C or better and Program Consent	General Education* H/FA/S&BSc (3) Note a
BME 585 (3) Capstone Design I Offered Spring Only P: BME 335 with C or better and Program Consent	BME 595 (3) Capstone Design II Offered Spring Only P: BME 482 and BME 585 with C or better and Program Consent
Engineering Technical Elective (3) Note b	BME Open Elective (3) Note b
Engineering Technical Elective (3) Note b	Engineering Technical Elective (3) Note b
Engineer of 2020 Requirement 2 of 3 See notes	Engineer of 2020 Requirement 3 of 3 See notes

Notes: Students admitted after fall 2007 must fulfill the Engineer 2020 requirements. Prerequisites for all ME courses must be passed with a grade that generates 2.0 or more credit points per credit hour. a. Humanities/Fine Arts/Social & Behavioral Science/Natural Science courses must be from an approved list which appears in the Schedule of Courses. b. Check with your adviser for specific courses to fulfill these electives. *May be available as an online or hybrid class.

P: Prerequisite Coreq: Corequisite

Last Updated: 9/2017