BIOMEDICAL ENGINEERING (BIOMECHANICS TRACK), CO-OP OPTION, BS

Bachelor of Science in Biomedical Engineering, Biomechanics with Co-op (480003BS)

This option of the undergraduate program in Biomedical Engineering follows the biomechanics track and includes a cooperative education component.

The following information has official approval of the **Department of Biomedical Engineering** and **The College of Engineering and Polymer Science**, but is intended only as a supplemental guide. Official degree requirements are established at the time of transfer and admission to the degree-granting college. Students should refer to the Degree Progress Report (DPR) which is definitive for graduation requirements. *Completion of this degree within the identified time frame below is contingent upon many factors, including but not limited to: class availability, total number of required credits, work schedule, finances, family, course drops/withdrawals, successfully passing courses, prerequisites, among others.* The transfer process is completed through an appointment with your academic advisor.

1st Year		
Fall Semester		**Hours**
3150:151	Principles of Chemistry I [1]	3
3150:152	Principles of Chemistry I Laboratory	1
3300:111	English Composition I [1,2]	3
3450:221	Analytic Geometry-Calculus I [1]	4
4800:101	Tools for Biomedical Engineering	3
	Hours	14
Spring Semester		
3150:153	Principles of Chemistry II [1]	3
3450:222	Analytic Geometry-Calculus II [1]	4
3650:291	Elementary Classical Physics I [1]	4
4800:111	Introduction to Biomedical Engineering Design	3
	Second Writing Course [1,3]	3
	Hours	17
2nd Year		
Fall Semester		
3100:200	Human Anatomy & Physiology I	3
3100:201	Human Anatomy & Physiology Laboratory I	1
3450:223	Analytic Geometry-Calculus III [1]	4
3650:292	Elementary Classical Physics II [1]	4
4300:201	Statics [1]	3
4800:201	Biomedical Engineering Sophmore Seminar	1
	Hours	16
Spring Semester		
3100:202	Human Anatomy & Physiology II	3
3100:203	Human Anatomy & Physiology Laboratory II	1
3450:335	Introduction to Ordinary Differential Equations	3
4300:202	Introduction to Mechanics of Solids	3
4600:203	Dynamics [1]	3
4800:220	Biomedical Computing	3
	Hours	16
Summer Semester		
4100:300	Cooperative Education Work Period (Possible)	
	Hours	0
3rd Year		
Fall Semester		
3600:120	Introduction to Ethics	3
4600:300	Thermodynamics I	3
4600:321	Kinematics of Machines	2
4800:362	Transport Fundamentals for Biomedical Engineering	3
4800:365	Mechanics of Biological Tissues	3
	General Education or Honors Distribution [4]	3
	Hours	17
Spring Semester		
4100:301	Cooperative Education Work Period	0
	Hours	0
Summer Semester		
3470:461	Applied Statistics	4
	General Education or Honors Distribution [4]	3
	Hours	7
4th Year		
Fall Semester		
4100:302	Cooperative Education Work Period	0
	Hours	0
Spring Semester		
4400:307	Basic Electrical Engineering	4
4800:300	Biomaterials	3
4800:310	Modeling & Simulation of Biomedical Systems	3
	Biomedical Engineering Elective [5]	3
	Hours	13
Summer Semester		
4100:403	Cooperative Education Work Period	0
	Hours	0
5th Year		
Fall Semester		
4800:305	Introduction to Biophysical Measurements	4
4800:491	Biomedical Engineering Design I	2
	Biomedical Engineering Elective [5]	3
	General Education or Honors Distribution [4]	3
	General Education or Honors Distribution [4]	3
	Hours	15
Spring Semester		
4600:420	Introduction to Finite Element Method	3
4800:460	Experimental Techniques in Biomechanics	3

4800:492	Biomedical Engineering Design II	2
	Biomedical Engineering Elective [5]	3
	General Education or Honors Distribution [4]	3
	General Electives	4
	Hours	18
	Total Hours	133

1 Honors sections may be available; check the schedule of classes.

2 The Biomedical Engineering Department recommends that English Composition I be used to satisfy writing course requirement but other choices are available. See the General Education Program for details.

3 Check General Education Program or Honors Distribution to find courses that satisfy the second writing course requirement.

4 Credit hours shown for General Education or Honors Distribution are general guidelines only. These courses should be chosen in accordance with the appropriate General Education curriculum guide (for non-honors students) or Honors Distribution (for honors students). Honors students must also ensure that their course selections meet additional requirements not shown on this curriculum guide.

5 Biomedical Engineering Electives must include a minimum of 3 credits from Biomedical Engineering (4800). All other electives may be chosen from a list of Approved Electives.