



TEMPLE UNIVERSITY - COLLEGE OF ENGINEERING
BACHELOR OF SCIENCE IN BIOENGINEERING (BSBioE)
Bioinstrumentation Pathway
PROGRAM OUTLINE 2015-2016

Grade	Credits	First Semester		Grade	Credits	Second Semester	
	3	ENGR 1101	Intro to Engineering and Engineering Technology		4	MATH 1042	Calculus II
	4	MATH 1041	Calculus I [GQ]		4	PHYS 1061	Elementary Classical Physics I [GS]
	3	CHEM 1031	General Chemistry I		2	BIOE 2001	Frontiers of Bioengineering
	1	CHEM 1033	General Chemistry Lab I		3	IH 0851	Mosaic I [GY]
	4	ENG 0802	Analytical Reading and Writing [GW]		3	GenEd 08xx	Human Behavior [GB]
Total:	15			Total:	16		
Grade	Credits	Third Semester		Grade	Credits	Fourth Semester	
	4	MATH 2043	Calculus III		3	MATH 3041	Differential Equations
	4	PHYS 1062	Elementary Classical Physics II [GS]		3	ENGR 3571	Classical & Statistical Thermodynamics
	3	GenEd 08xx	Arts [GA]		3	BIOE 2101	Eng. Principles of Physiological Systems w/Lab
	3	ENGR 2196	Technical Communications [WI]		3	BIOL 1012	General Biology 2 w/ lab or BIOE equivalent
	3	Gen Ed xxxx	World Society [GG]		4	ECE 2332	Principles of Electric Circuits
Total:	17			Total:	17		
Grade	Credits	Fifth Semester		Grade	Credits	Sixth Semester	
	2	BIOE 3001	Research Design and Methods		3	BIOE 3102	BioE Lab 2: Biomaterials
	3	BIOE 3101	BioE Lab #1: Bioelectrical Engineering		3	BIOE 3301	Biomedical Signals and Systems
	2	BIOE 3201	Biomedical Instrumentation		4	ECE 3512	Signals: Continuous and Discrete
	3	ENGR 2011	Engineering Analysis & Applications		1	ENGR 4169	Engineering Seminar
	1	ECE 2333	Principles of Electric Circuits Lab		3	Elective	Free Elective
	3	IH 0852	Mosaic II [GZ]		3	ENGR 3033	Entrepreneurial Engineering
Total:	14			Total:	17		
Grade	Credits	Seventh Semester		Grade	Credits	Eighth Semester	
	1	ENGR 4196	Senior Design Project I [WI] ¹		3	ENGR 4296	Senior Design Project II [WI]
	3	BIOE 4101	BioE Lab 3: Biomechanics		3	Elective	BioE Elective #1
	3	Gen Ed xxxx	US Society [GU]		3	GenEd 08xx	Race & Diversity [GD]
	3	Elective	BioE Elective #1		3	ECE 3412/13	Classical Control Systems w/ Lab
	3	BIOE 4333	Capstone: Applied Biospectroscopy		1	ECE 3413	Classical Control Systems Lab
	2	Elective	Free Elective				
Total:	15			Total:	13		

Total: 124

¹ Students must complete the following prerequisites before registering for ENGR 4196 – Senior Design I: **BIOE 3101, BIOE 3001, BIOE 3201, and BIOE 3102**. Although students may be permitted to take one of the courses listed above concurrently, it is strongly recommend that these courses be completed before registering for ENGR 4196.

****Recommended BioE Electives: BIOE 3301, other options: BioE 3725, 2312, 3312, and/or 4278**