



**TEMPLE UNIVERSITY - COLLEGE OF ENGINEERING  
 BACHELOR OF SCIENCE IN BIOENGINEERING (BSBioE)**

***Biomechanics 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]		2	ENGR 1117	Engineering Graphics
<b>Total:</b>	<b>15</b>			<b>Total:</b>	<b>15</b>		
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]		4	BIOL 1012	General Biology 2 w/ lab
	2	Elective	Free Elective		4	BIOE 2312	Mechanics for Bioengineering I
<b>Total:</b>	<b>16</b>			<b>Total:</b>	<b>17</b>		
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	GenEd 08xx	Human Behavior [GB]
	4	BIOE 3312	Mechanics for Bioengineering II		3	GenEd 08xx	Race & Diversity [GD]
	2	BIOE 3201	Biomedical Instrumentation		1	ENGR 4169	Engineering Seminar
	3	Linear Algebra	MATH 2101, ENGR 2011, or MEE 2011		3	ENGR 3033	Entrepreneurial Engineering
	3	IH 0852	Mosaic II [GZ]		4	ECE 2112/13	Electrical Devices & Systems I w/ Lab or (Approved Math, Science or Engineering Course)
<b>Total:</b>	<b>17</b>			<b>Total:</b>	<b>17</b>		
Grade	Credits	Seventh Semester		Grade	Credits	Eighth Semester	
	1	ENGR 4196	Senior Design Project I [WI] <sup>1</sup>		3	ENGR 4296	Senior Design Project II [WI]
	3	BIOE 4101	BioE Lab 3: Biomechanics		3	Elective	BioE Elective #1
	3	ENGR 3553	Mechanics of Fluids		3	Gen Ed xxxx	US Society [GU]
	3	Gen Ed xxxx	World Society [GG]		3	ENGR 3117	Computer Aided Design
	3	BIOE 4441	Capstone: Biomechanics		2	Elective	Free Elective
<b>Total:</b>	<b>13</b>			<b>Total:</b>	<b>14</b>		

**Total: 124**

<sup>1</sup> 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 2312 & 3312, (other options: BioE 3725 and/or 4278)**