



TEMPLE UNIVERSITY - COLLEGE OF ENGINEERING
BACHELOR OF SCIENCE IN BIOENGINEERING (BSBioE)
Bioimaging 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 | Gen Ed xxxx | US Society [GU] |
| 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] | | 4 | BIOL 1012 | General Biology 2 w/ lab |
| | 3 | ENGR 2011 | Engineering Analysis & Applications | | 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 | GenEd 08xx | Human Behavior [GB] |
| | 2 | BIOE 3201 | Biomedical Instrumentation | | 3 | GenEd 08xx | Race & Diversity [GD] |
| | 3 | Elective | BioE Elective #1 | | 1 | ENGR 4169 | Engineering Seminar |
| | 1 | ECE 2333 | Principles of Electric Circuits Lab | | 3 | ENGR 3033 | Entrepreneurial Engineering |
| | 3 | IH 0852 | Mosaic II [GZ] | | 4 | ECE 3512 | Signals: Continuous and Discrete |
| | 3 | Elective | Free Elective | | | | |
| Total: | 17 | | | 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 #2 |
| | 3 | Elective | Free Elective | | 3 | Elective | Technical Elective |
| | 3 | Gen Ed xxxx | World Society [GG] | | 3 | BIOE 4451 | Capstone Elective: Biomedical Imaging |
| | 3 | BIOE 4333 | Applied Biospectroscopy | | | | |
| Total: | 13 | | | Total: | 12 | | |

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 & 4333, other options: BioE 3725, 2312, 3312, and/or 4278**