Saint Louis University Bachelor of Science in Biomedical Engineering
Graduate School Track 4-Year Plan

* This form is a guide and does not replace the degree requirements provided in the university catalog.

Year 1

16 credits

- BIOL 1240/1245 Biology I — 4
- CHEM 1110/1115 General Chemistry I Chemistry Lab I — 4
- MATH 1510 Calculus I — 4
- ENGL 1900 Adv. Rhetoric — 3
- BME 1000 Intro to BME I — 1

17 credits

- CHEM 1120/1125 General Chemistry II Chemistry Lab II — 4
  - Prerequisite: CHEM 1110/1115
- PHYS 1610/1620 Eng. Physics I/ Physics Lab I — 4
  - Prerequisite: MATH 1510
- MATH 1520 Calculus II — 4
  - Prerequisite: MATH 1510
- BME 1010 Intro to BME II — 1

Year 2

17 credits

- BME 2200 Applied Physiology — 3
- PHYS 1630/1640 Eng. Physics II/ Physics Lab II — 4
  - Prerequisite: PHYS 1610/1620
- MATH 2530 Calculus III — 4
  - Prerequisite: MATH 1520
- BME 3200 Mechanics — 3
  - Prerequisite: PHYS 1610
- BME 2000 BME Computing — 3
  - Prerequisite: MATH 1520

16 credits

- ESCI 2300 Thermodynamics — 3
  - Prerequisite: MATH 2530
- MATH 3550 Differential Equations — 3
  - Prerequisite: MATH 2530
- ECE 2001/2002 Electrical & Computer Engineering — 4
  - Prerequisite: PHYS 1610/1620
  - Prerequisite: MATH 1520
- ESCI 2001 Engineering Shop Practices — 1
- BME 3400 Materials Science — 3
  - Prerequisite: CHEM 1120
  - Prerequisite: BME 3200
- BME 3950 Design of BME Lab Experiments — 2

Year 3

18 credits

- MATH 4880 Probability and Statistics — 3
  - Prerequisite: MATH 2530
- BME 3100 Signals — 3
  - Prerequisite: ECE 2001/2002
  - Prerequisite: MATH 3550
  - Prerequisite: BME 2000
- BME 3300 Transport Fundamentals — 3
  - Prerequisite: BME 2000 & 3200
  - Prerequisite: MATH 3550
  - Prerequisite: PHYS 3410
- THEO 1000 Theological Foundations — 3
- * BME 4970 Independent Research — 3
- Advanced BME Elective — 3

16 credits

- BME 3150 Biomedical Instrumentation — 3
  - Prerequisite: BME 3100
  - Prerequisite: BIOL 2600
- BME 3940 Junior Lab — 1
  - Prerequisite: BME 3100, 3300, & 3400
- Advanced BME Elective — 3
- Advanced BME Elective — 3
- Advanced BME Elective — 3
- PHIL 2055 Ethics — 3

Advanced BME Fall: Biomedical Signals, Biomaterials, Quantitative Physiology I, Tissue Engineering, Brain Computer Interface
Advanced BME Spring: Biomechanics, Biotransport, Drug Delivery, Medical Imaging, Human Movement Biomechanics, Q P II

Year 4

16 credits

- BME 4950 Senior Project I — 3
  - Prerequisite: BME 3150 & 3840
- Advanced BME Elective — 3
- BME-Related Elective — 4
- Humanities — 3
- Non-Technical Elective — 3

15 credits

- BME 4960 Senior Project II — 3
  - Prerequisite: BME 4950
- Advanced BME Elective — 3
- BME-Related Elective — 3
- Cultural Diversity — 3
- Social & Behavioral Science — 3

* **Indicates Pass/Fail and No Credit toward Degree**

Legend

Credits

3
Course
Course Title
Prerequisites

** Indicates a Co-Requisite Course

Color Code

- Sciences
- Mathematics
- Basic Engineering
- BME Core
- Other Courses
- BME-Related Electives
- Advanced BME Electives