## Biomedical Engineering – Bachelor of Science – 133 Credits

In most cases, courses listed in bold must be taken in the exact semester indicated; all other courses are interchangeable.

### Fall of 1st Year – 17 Credits
- **BMED-100 Intro to Biomed Engineering** (3 cr.)
- **BRDG-103 IPE Health Research Skills** (1 cr.)
- **CHEM-121/L/R Gen Chemistry I/Lab** (4/1 cr.)
- **MATH-115 Calculus I** (4 cr.)
- **PHYS-211/L/R General Analytical Physics I** /Lab/Recitation (3/1 cr.)

### Spring of 1st Year – 16 Credits
- **BMED-110 Intro to Programming** for Engin (3 cr.)
- **CHEM-122/L/R Gen Chemistry II/Lab** (4/1 cr.)
- **MATH-116 Calculus II** (4 cr.)
- **PHYS-212/L/R General Analytical Physics II** /Lab/Recitation (3/1 cr.)

### Fall of 2nd Year – 17 Credits
- **BIOL-111/L Biology I/Lab** (4/0 cr.)
- **BMED-201 Biomed Electronics & Instr I** (3 cr.)
- **BMED-210 Thermodynamics** (3 cr.)
- **BRDG-101 Writing and Analysis** (3 cr.)
- **MATH-215 Calculus III** (4 cr.)

### Spring of 2nd Year – 16 Credits
- **BIOL-112/L Biology II/Lab** (4/0 cr.)
- **BMED-202 Biomed Electronics & Instrumentation II** (3 cr.)
- **BMED-220 Introduction to Biomaterials** (3 cr.)
- **BRDG-102 Writing and Literature** (3 cr.)
- **MATH-314 Differential Equations** (3 cr.)

### Fall of 3rd Year (18 Credits)
- **BIOL-207 Anatomy and Physiology** (3 cr.)
- **BMED-310 Biomedical Signals and Systems** (3 cr.)
- **BMED-430 Engineering Computation** (3 cr.)
- **BRDG-105 Foundational Ethics Course** (3 cr.)
- **EQ- Essential Questions Small Sem.** (3 cr.)
- **MATH-301 Intro Probability & Stat I** (3 cr.)

### Spring of 3rd Year – 18 Credits
- **BMED-320 Biofluid Mechanics** (3 cr.)
- **BMED-490 Research in Biomedical Engr** (3 cr.)
- **BMED Elective** (3 cr.)
- **Competency- Communication & Creative Expression** (3 cr.)
- **MATH-302W Intro Probability & Stat II** (3 cr.)
- **Math or Science Elective** (3 cr.)

### Fall of 4th Year (17 Credits)
- **BMED-440W Biomedical Eng Capstone I** (5 cr.)
- **BMED Elective** (3 cr.)
- **Competency- Ethical Reasoning** (3 cr.)
- **Competency- Social & Historical Reasoning** (3 cr.)
- **THEO or PHIL course as needed** (3 cr.)

### Spring of 4th Year – 14 Credits
- **BMED-441W Biomedical Engineering Capstone II** (5 cr.)
- **BMED Elective** (3 cr.)
- **BMED Elective** (3 cr.)
- **Competency- Cultural Fluency & Responsivity** (3 cr.)

**IMPORTANT NOTE:** The material contained herein is subject to change, and this publication cannot be considered an agreement or contract between individual students and the School. The Rangos School of Health Sciences reserves the right to alter or amend the terms, conditions, and requirements herein, and to eliminate programs or courses as necessary. Once enrolled, students should consult on a regular basis with their Faculty Mentor and/or Academic Advisor for specific information regarding academic policies pertaining to their respective program.