Biomedical Engineering – Bachelor of Science - **Pre-Health Track** - 145 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.)
- **PMHP-101 Pre-Med and Hlth Prof I** (0 cr.)

### Spring of 1st Year – 19 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.)
- **PMHP-102 Pre-Med and Hlth Prof II** (0 cr.)
- **SOCI 101 Intro to Sociology** (3 cr.)

### Fall of 2nd Year – 18 Credits
- **BIOL-111/L Biology I/Lab** (4/0 cr.)
- **BMED-210 Thermodynamics** (3 cr.)
- **BRDG-101 Writing and Analysis** (3 cr.)
- **CHEM-211/L Organic Chemistry I/Lab** (3/1 cr.)
- **MATH-215 Calculus III** (4 cr.)
- **PMHP-201 Pre-Med & Hlth Prof III** (0 cr.)

### Spring of 2nd Year – 18 Credits
- **BIOL-112/L Biology II/Lab** (4/0 cr.)
- **BMED-220 Introduction to Biomaterials** (3 cr.)
- **BMED-490 Research in Biomedical Engr** (1 cr.)
- **BRDG-102 Writing and Literature** (3 cr.)
- **CHEM-212/L Organic Chemistry II/Lab** (3/1 cr.)
- **MATH-314 Differential Equations** (3 cr.)
- **PMHP-203 Pre-Med & Hlth Professions IV** (0 cr.)

### Fall of 3rd Year (19 Credits)
- **BIOL-207 Anatomy and Physiology** (3 cr.)
- **BIOL-212/R Cell and Molecular Biology/Rec** (4 cr.)
- **BMED-201 Biomed Electronics & Instr I** (3 cr.)
- **CHEM-401 General Biochemistry I** (3 cr.)
- **MATH-301 Intro Probability & Stat I** (3 cr.)
- **PSYC-101 Introduction to Psychology** (3 cr.)

### Spring of 3rd Year – 18 Credits
- **BMED-202 Biomed Electronics & Instr II** (3 cr.)
- **BMED Elective** (3 cr.)
- **BRDG-105 Foundational Ethics Course** (3 cr.)
- **CHEM-402 General Biochemistry II** (3 cr.)
- **Competency- Ethical Reasoning** (3 cr.)
- **EQ- Essential Questions Small Sem.** (3 cr.)
- **PMHP-301 Pre-Med & Hlth Prof Sem** (0 cr.)

### Fall of 4th Year (18 Credits)
- **BMED-310 Biomedical Signals and Systems** (3 cr.)
- **BMED-430 Engineering Computation** (3 cr.)
- **BMED-440W Biomedical Eng Capstone I** (5 cr.)
- **BMED-490 Research in Biomedical Engr** (1 cr.)
- **BMED Elective** (3 cr.)
- **Competency- Communication & Creative Expr.** (3 cr.)

### Spring of 4th Year – 18 Credits
- **BMED-320 Biofluid Mechanics** (3 cr.)
- **BMED-441W Biomedical Engineering Capstone II** (5 cr.)
- **BMED-490 Research in Biomedical Engr** (1 cr.)
- **BMED Elective** (3 cr.)
- **Competency- Cultural Fluency & Responsivity** (3 cr.)
- **THEO or PHIL course as needed** (3 cr.)

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**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.