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.)
- 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.)
- UCOR-103 IPE Health Research Skills (1 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.)
  or PMHP-103 Pre-Med & Hlth Prof Cmbnd Crse (0 cr.)
- Social Justice Theme Area (3 cr.)

**Fall of 2nd Year – 18 Credits**
- BIOL-111/L Biology I/Lab (4/0 cr.)
- BMED-210 Thermodynamics (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.)
- UCOR-101 Thinking & Writing Across the Curric (3 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.)
- 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.)
- UCOR-102 Imaginative Literature & Critical Writing (3 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.)
- CHEM-402 General Biochemistry II (3 cr.)
- PMHP-301 Pre-Med & Hlth Prof Sem (0 cr.)
- UCOR-132 Basic Philosophical Questions (3 cr.)
- Ethics Core (3 cr.)
- Global Diversity Theme Area (3 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.)
- Creative Arts Theme Area (3 cr.)

**Spring of 4th Year – 18 Credits**
- BMED-320 Biofluid Mechanics (3 cr.)
- BMED-441W Biomed Engineering Capstone II (5 cr.)
- BMED-490 Research in Biomedical Engr (1 cr.)
- BMED Elective (3 cr.)
- Faith and Reason Core (3 cr.)
- Theology Core (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.