Biomechanics Track Curriculum Map

**Fall Year 1 (16 hrs)**
- MATH 221 (4) Calculus I
- ENG 100 (0) Engineering Lecture
- BIOE 199/100 (1) Undergraduate Seminar
- RHET 105 (4) Principles of Composition
- CHEM 102 (3) General Chemistry I
- CHEM 103 (1) General Chem Lab I
- SS/Hum (3)

**Spring Year 1 (16 hrs)**
- MATH 231 (3) Calculus II
- PHYS 211 (4) Univ Physics, Mechanics
- BIOE 120 (1) Introduction to Bioengineering
- MCB 150 (4) Molec&Cellular Basis of Life
- CHEM 104 (3) General Chemistry II
- CHEM 105 (1) General Chem Lab II
- C

**Fall Year 2 (17 hrs)**
- MATH 241 (4) Calculus III
- PHYS 212 (4) Univ Physics, Elec & Mag
- CS 101 (3) Intro to Comp
- BIOE 206 (3) Cellular Bioengineering
- CHEM 200 (1) BIOE Career Immersion
- BIOE 298 AMS (1) Career Ecosystems
- C

**Spring Year 2 (18 hrs)**
- MATH 285 (3) Intro Diff Equ.
- PHYS 213 (3) Systems in Bioengineering
- BIOE 201 (3) Conservation Princ Bioeng
- CHEM 232 (4) Organic Chemistry I
- BIOE 202 (2) Cell & Tissue Engineering Lab
- BIOE 203 (3) Quant Human Physiology Lab
- TAM 212 (3)
- SS/Hum (3)

**Fall Year 3 (17 hrs)**
- BIOE 476 (3) Tissue Engineering
- BIOE 220 (3) Bioenergetics
- BIOE 210 (3) Linear Algebra for Biomedical Data Science
- BIOE 203 (3) Quant Human Physiology Lab
- BIOE 415 (2) Biomedical Instrumentation
- TAM 251 (3)

**Spring Year 3 (14/17 hrs)**
- BIOE 310 (3) Comp Tools for Bio Data
- BIOE 302 (3) Modeling Human Physiology
- BIOE 414 (3) Biomedical Instrumentation
- BIOE 435 (2) Sr. Design I
- BIOE 436 (2) Sr. Design II

**Fall Year 4 (14 hrs)**
- BIOE 420 (3) Intro Bio Control Systems
- BIOE 205 (3) Systems in Bioengineering
- BIOE 202 (2) Cell & Tissue Engineering Lab
- BIOE 210 (3) Linear Algebra for Biomedical Data Science
- BIOE 203 (3) Quant Human Physiology Lab
- BIOE 415 (2) Biomedical Instrumentation
- TAM 251 (3)

**Spring Year 4 (14 hrs)**
- Free Elec (3)
- SS/Hum (3)

**Biomechanics Track Electives:**
- BIOE 461 – Cellular Biomechanics (4 hr)
- BIOE 498 NIE – Surgical Technologies (3 hr)
- BIOE 498 JI – Finite Element Methods in Biomed (3 hr)
- ME 330 – Engineering Materials (4 hr) - Contact MechSE Dept. Office
- ME 481 – Whole-Body Musculoskel Biomch (3 hr) - Contact MechSE Dept. Office
- ME 482 – Musculoskel Tissue Mechanics (3 hr) - Contact MechSE Dept. Office
- SE 402 – Comp-Aided Product Realization (3 hr)
- SE 423 – Mechatronics (3 hr)
- TAM 445 – Continuum Mechanics (4 hr) - Contact MechSE Dept. Office

**Note:** These classes have prerequisites. Please make sure you have met all before taking the course.**

**If outlined in RED then the BIOE course is offered both Fall & Spring Semesters**

**Note – not taking courses as advised may result in a delayed graduation date. Students are responsible for any impact resulting from not following departmental advising.**

*TAM 210 or TAM 211 can be taken in the 3rd or 4th semester, wherever it fits in, if you postpone to the 5th semester you risk not graduating on time due to pre-requisites.

**Courses with dashed line borders are not currently required as part of the Core BIOE Curriculum; updated 10/2018**