## 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
- **CHEM 102 (3)** General Chemistry I
- **RHET 105 (4)** Principles of Composition
- **CHEM 103 (1)** General Chemistry 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
- **MBC 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 201 (3)** Conservation Princ Bioeng
- **BIOE 206 (3)** Cellular Bioengineering
- **CHEM 200 (1)** BIOE Career Immersion
- **CHEM 204 (3)** General Chem Lab II

### Spring Year 2 (18 hrs)
- **MATH 285 (3)** Intro Diff Equ.
- **BIOE 202 (2)** Cell & Tissue Engineering Lab
- **BIOE 205 (3)** Systems in Bioengineering
- **CHEM 232 (4)** Organic Chemistry I
- **CHEM 234 (4)** Quant Human Physiology Lab
- **TAM 212 (3)**
- **C**

### 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 (2)** Quant Human Physiology Lab
- **TAM 212 (3)**

### Spring Year 3 (14/17 hrs)
- **BIOE 310 (3)** Comp Tools for Bio Data
- **BIOE 302 (3)** Modeling Human Physiology
- **BIOE 215 (2)** Biomedical Instrumentation
- **BIOE 415 (2)** Biomedical Instrumentation Lab

### Fall Year 4 (14 hrs)
- **BIOE 435 (2)** Sr. Design I
- **BIOE 436 (2)** Sr. Design II
- **BIOE 414 (3)** Biomedical Instrumentation
- **TAM 251 (3)**
- **Free Elec (3)**

### Spring Year 4 (14 hrs)
- **BIOE 420 (3)** Intro Bio Control Systems
- **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 Musculoskeletal Biomech (3 hr) - Contact MechSE Dept. Office
- **ME 482** – Musculoskeletal Tissue Mechanics (3 hr) - Contact MechSE Dept. Office
- **ME 483** – Mechanobiology (4 hr)
- **SE 402** – Comp-Aided Product Realization (3 hr)
- **SE 423** – Mechatronics (3 hr)
- **TAM 445** – Continuum Mechanics (4 hr) - Contact MechSE Dept. Office

**Courses with dashed line borders are not currently required as part of the Core BIOE Curriculum; updated 1/31/2019**

**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.**

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

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<thead>
<tr>
<th>General Education Requirements</th>
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<tr>
<td>✑ 6 hours in Humanities</td>
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<td>✑ 6 hours in Social/Behavioral Sciences</td>
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<td>✑ 6 hours in Liberal Education</td>
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<tr>
<td>✑ 1 Advanced Composition Course</td>
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<td>✑ 1 Western Comparative Cultures Course</td>
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<td>✑ 1 Non-Western Comparative Cultures Course</td>
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<td>✑ 1 US Minority Cultures Course (FA 2018 admits and beyond only)</td>
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<td>✑ 3rd Level of a Foreign Language</td>
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<th>Premed Requirements</th>
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<td>✑ Meet with Engineering Career Services Premed advisor</td>
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| ✑ Common Courses (additional requirements may apply depending on school):
  | ✑ MCB 450/354 (BioChem)
  | ✑ CHEM 233 (Orgo 1 lab)
  | ✑ Social/Behavioral Science Sequence (3 courses) |