### BIOMEDICAL ENGINEERING - Computation (128 Hours)

**Effective Fall 2019 (revised 9/18/2023) (engg.us/bme)**

**NOTE: PREREQUISITES ARE SHOWN IN THE COURSE BLOCK.**

- Technical electives must be selected to complete one of the areas of emphasis. Technical electives must come from the approved BME Technical Electives List.
- Humanities and Social Science (H&SS) electives must be selected from the list of courses approved by the College of Engineering.
- Students should select these courses as needed to complete the requirements for the K-State 8 Gen Ed Pgm.
- Students must follow the department C Prerequisite Course Policy.

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<table>
<thead>
<tr>
<th>FRESHMAN</th>
<th>SOPHOMORE</th>
<th>JUNIOR</th>
<th>SENIOR</th>
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</table>
| **ENGL 100 (3)**  
Expo Writ I | **COMM 105 (2)**  
Public Speaking | **ENGL 415 (3)**  
Writ Comm  
PR: ENGL 100  
(grades of A or B) | **H&SS (3)**  
b |
| **ECON 110 (3)**  
Microeconomics  
(CB: ECON 140, 140B, 130, 130B) | **STAT 510 (3)**  
Prob & Stat  
PR: MATH 221 | **BME 490 (1)**  
BME Design Exp 1  
PR: PHYS 214  
PR: BME 200  
CO: BME 480 | **BME 590 (3)**  
Senior Design Exp 1  
PR: BME 490  
PR: ECE 540  
PR: ENGL 415 |
| **MATH 220 (4)**  
Calculus 1 | **MATH 221 (4)**  
Calculus 2  
PR: MATH 220 | **MATH 222 (4)**  
Calculus 3  
PR: MATH 221 | **BME 491 (2)**  
BME Design Exp 2  
PR: BME 490  
PR: ENGL 441 |
| **BME 001 (0)**  
New Student Assem | **PHYS 241 (5)**  
Engg Physics 1  
PR: Conc: MATH 221 | **CIS 501 (3)**  
Swif Arch & Design  
PR: CIS 200 | **BME 591 (2)**  
Senior Design Exp 2  
PR: BME 491  
PR: ECE 540 |
| **BME 200 (3)**  
Intro to BME | **ECE 241 (3)**  
Intro to Comp Engg  
PR: ECE 241  
PR: Conc: MATH 221 | **ECE 433 (3)**  
Microcontrollers  
PR: ECE 241  
PR: CHE 200 | **BME 451 (3)**  
Biomechanics  
PR: BME 198  
PR: PHYS 213  
PR: MATH 222 |
| **ECE 421 (3)**  
Intro to Biomater | **CIS 200 (4)**  
Prog Fund  
PR: ECE 241  
PR: Conc: MATH 221 | **CIS 300 (3)**  
Data/Prog Structures  
PR: CIS 200 | **CHM 531 (3)**  
Organic Chem 1  
PR: CHM 208 |
| **CHM 210 (4)**  
Chem 1 | **BHOL 198 (4)**  
Prin of Biology  
PR: CHM 210 | **ECE 519 (4)**  
Elec Cir & Cont  
PR: PHYS 214 | **CHM 675 (3)**  
Clinical Sys Engg  
PR: ECE 540 |
| **CHM 230 (4)**  
Chem 2  
PR: CHM 210 | **BHOL 441 (4)**  
Human Body 1  
PR: BME 200  
PR: BIOL 198 | **ECE 540 (3)**  
Biomat | **BME 674 (3)**  
Medical Img  
PR: ECE 512 |
| **MATH 340 (4)**  
Math 2 | **BHOL 442 (4)**  
Human Body 2  
PR: BIOL 441 | **ECE 772/773 (3)**  
Bioinst Thry & Lab  
PR: ECE 540 | **BME Elec (1)**  
a |
| **PHYS 213 (5)**  
Engg Physics 1  
PR: Conc: MATH 221 | **ECON 110 (3)**  
Macroeconomics  
PR: KIN 110, KIN 110B, 110C  
PR: Public Health  | **ECE 512 (3)**  
Linear Sys  
PR: ECE 540  
PR: ECE 151 | **BME Elec (6)**  
a |
| **PHYS 214 (5)**  
Engg Physics 2  
PR: PHYS 213  
PR: MATH 221 | **STAT 510 (3)**  
Prob & Stat  
PR: MATH 221 | **ECE 772/773 (3)**  
Bioinst Thry & Lab  
PR: ECE 540 | **BME Elec (6)**  
a |

**Currently Enrolled**  
**Passed**  
**Retaken**  
**Failed**  
**Warning**