

## List of Courses for 'BME' Electives

Approved on Jan 14, 2022

Updated on Feb 10, 2023

*The courses listed below are options for your BME Electives. Please confirm suitability and approval from your advisor.*

| Course Code         | Course Title  | Offered     |           | Undergrad Credit only | Undergrad / Grad Credit | Grad Credit only | NOTES                          |
|---------------------|---|-------------|-----------|-----------------------|-------------------------|------------------|--------------------------------|
| BME 3111            | Bioimaging Lab                                      | SPRING      | Annual    | ✓                     |                         |                  | # ^                            |
| BME 3121            | Biotransport Lab                                    | SPRING      | Annual    | ✓                     |                         |                  | # ^                            |
| BME 3131            | Bioelectricity Lab                                  | FALL        | Annual    | ✓                     |                         |                  | # ^                            |
| BME 3141            | Biomechanics Lab                                    | FALL        | Annual    | ✓                     |                         |                  | # ^                            |
| BME 3151            | Molecular, Cellular, and Tissue Engineering Lab     | FALL        | Annual    | ✓                     |                         |                  | # ^                            |
| BME 3161            | Biomedical Micro- and Nanotechnology Lab            | SPRING      | Annual    | ✓                     |                         |                  | # ^                            |
| BME 3113            | Bioimaging  | SPRING      | Annual    | ✓                     |                         |                  |                                |
| BME 3133            | Bioelectricity                                      | FALL        | Annual    | ✓                     |                         |                  |                                |
| BME 3153            | Molecular, Cellular, and Tissue Engineering         | FALL        | Annual    | ✓                     |                         |                  |                                |
| BME 3163            | Biomedical Micro- and Nanotechnology                | SPRING      | Annual    | ✓                     |                         |                  |                                |
| BME 3440 / 3980     | Mentored Research                                   | ALL         | Annual    | ✓                     |                         |                  | See Research for Credit Policy |
| BME 4050            | Design Projects in BME                              | ALL         | Annual    | ✓                     |                         |                  | See Research for Credit Policy |
| BME 4281            | Engineering Co-Op Program                           | ALL         | Annual    | ✓                     |                         |                  | See Advising Handbook          |
| BME 4013 / 5013     | Introduction to Medical Device Design               | SPRING      | Bi-Annual |                       | ✓                       |                  | *                              |
| BME 4533 / 5533     | Neural Engineering                                  | FALL        | Annual    |                       | ✓                       |                  | *                              |
| BME 4970 / 5970     | Special Topics in Biomedical Engineering            | FALL/SPRING | Annual    |                       | ✓                       |                  |                                |
| BME 5971            | Biomedical Engineering Seminar                      | FALL/SPRING | Annual    |                       | ✓                       |                  |                                |
| BME 5283            | Immunoengineering                                   | FALL        | Annual    |                       | ✓                       |                  |                                |
| BME 5413            | Nanomedicine  | FALL        | Annual    |                       | ✓                       |                  |                                |
| BME 5443            | Neural System & Rehabilitation Engineering          | SPRING      | Irregular |                       | ✓                       |                  |                                |
| BME 5990            | Independent Study (3 credits)                       | ALL         | Annual    |                       | ✓                       |                  |                                |
| BME/AME 4970 / 5970 | Ear Mechanics                                       | FALL        | Bi-Annual |                       | ✓                       |                  | *                              |
| BME/AME 4213 / 5213 | Biomechanics I                                      | SPRING      | Bi-Annual |                       | ✓                       |                  | *                              |
| BME/CHE 5243        | Biochemical Engineering                             | SPRING      | Bi-Annual |                       | ✓                       |                  |                                |
| BME/CHE 5293        | Transport in Biological Systems                     | FALL        | Irregular |                       | ✓                       |                  |                                |
| BME/CHE 5373        | Tissue Engineering                                  | FALL        | Irregular |                       | ✓                       |                  |                                |
| CHE 5453            | Polymer Science & Engineering                       | SPRING      | Annual    |                       | ✓                       |                  |                                |
| BME / CHE 5970      | Genetic Eng & Biotechnology                         | FALL        | Bi-Annual |                       | ✓                       |                  |                                |
| ECE 4823            | Engineering Principles of the Human Body            | SPRING      | Bi-Annual |                       | ✓                       |                  |                                |
| ECE/BME 5843        | Medical Imaging Systems                             | FALL        | Annual    |                       | ✓                       |                  |                                |
| ECE/BME 5853        | Biomedical Signals & Systems                        | SPRING      | Irregular |                       | ✓                       |                  |                                |
| ECE 6813            | Advanced Topics in Biomedical Engineering           | SPRING      | Bi-Annual |                       |                         | ✓                |                                |
| ECE 5973            | Special Topics in Electrical & Computer Engineering | FALL/SPRING | Annual    |                       |                         | ✓                | &                              |
| ECE/BME 6213        | Optical Information Processing                      | SPRING      | Irregular |                       |                         | ✓                | &                              |

# Last Offering is 2021/2022 Academic Year

^ Needs to be combined with other 1 credit courses to make 3 credits

\* Undergrad Credit = 4000 level | Grad credit = & 5000 level

& Can be approved for undergrad credit in special cases with petition