

**BIOMEDICAL ENGINEERING (BME)**  
**Program of Study — Catalog Year 2026-2027**

|                  | Fall Semester            |                          |  |           |                          | Spring Semester            |   |      |  |  |
|------------------|--------------------------|--------------------------|--|-----------|--------------------------|----------------------------|---|------|--|--|
|                  | Terms Offered            | Course                   | Course Title                               | Hrs.      | Terms Offered            | Course                     | Course Title                            | Hrs. |  |  |
| <b>Freshman</b>  | F, Sp, Su                | CH 115/R/116             | General Chemistry I/Lab                    | 4         | F, Sp, Su                | BY 123/L                   | Introductory Biology I/Lab              | 4    |  |  |
|                  | F                        | EGR 200 <sup>1</sup>     | Introduction to Engineering                | 3         | F, Sp, Su                | CH 117/R/118               | General Chemistry II/Lab                | 4    |  |  |
|                  | F, Sp, Su                | EH 101                   | English Composition I                      | 3         | Sp                       | EGR 194                    | Engineering Explorations                | 1    |  |  |
|                  | F, Sp, Su                | MA 125/L                 | Calculus I/Lab                             | 4         | F, Sp                    | EGR 103                    | Computer-Aided Graphics & Design        | 3    |  |  |
|                  |                          |                          |  |           | F, Sp, Su                | MA 126                     | Calculus II                             | 4    |  |  |
|                  |                          | <b>Total Credits</b>     | <b>14</b>                                  |           |                          | <b>Total Credits:</b>      | <b>16</b>                               |      |  |  |
| <b>Sophomore</b> | F, Sp, Su                | BY 210/L <sup>6</sup>    | Genetics/Lab                               | 4         | Sp                       | BME 210                    | Engineering in Biology                  | 3    |  |  |
|                  | F, Sp                    | EGR 265 <sup>2</sup>     | Math Tools for Engineering Problem Solving | 4         | F, Sp, Su                | CE 210                     | Statics                                 | 3    |  |  |
|                  | F, Sp, Su                | PH 221/R/L               | General Physics I/Lab                      | 4         | F, Sp, Su                | EE 312                     | Electrical Systems                      | 3    |  |  |
|                  | F, Sp, Su                | MA 260                   | Introduction to Linear Algebra             | 3         | F, Sp                    | EGR 150                    | Computer Methods in Engineering         | 3    |  |  |
|                  | F, Sp                    | MSE 280                  | Engineering Materials                      | 3         | F, Sp, Su                | PH 222/R/L                 | General Physics II/Lab                  | 4    |  |  |
|                  |                          | <b>Total Credits</b>     | <b>18</b>                                  |           |                          | <b>Total Credits:</b>      | <b>16</b>                               |      |  |  |
| <b>Junior</b>    | F                        | BME 310                  | Biomaterials                               | 3         | Sp                       | BME 333                    | Biomechanics of Solids                  | 3    |  |  |
|                  | F                        | BME 312                  | Biocomputing                               | 3         | Sp                       | BME 350                    | Biological Transport Phenomena          | 3    |  |  |
|                  | F                        | BME 313                  | Bioinstrumentation                         | 3         | Sp                       | BME 423                    | Living Systems Analysis & Biostatistics | 3    |  |  |
|                  | F                        | BME 370                  | Integrated Physiology                      | 3         | F, Sp                    | BME 4XX                    | Biomedical Engineering Elective         | 3    |  |  |
|                  | F, Sp, Su                | ME 215/R                 | Dynamics                                   | 3         | F, Sp, Su                | EH 102                     | English Composition II                  | 3    |  |  |
|                  |                          |                          |  | F, Sp, Su | Blazer Core <sup>4</sup> | Creative Arts              | 3                                       |      |  |  |
|                  |                          | <b>Total Credits</b>     | <b>15</b>                                  |           |                          | <b>Total Credits:</b>      | <b>18</b>                               |      |  |  |
| <b>Senior</b>    | F                        | BME 498                  | Capstone Design I                          | 3         | Sp                       | BME 499                    | Capstone Design II                      | 3    |  |  |
|                  | F, Sp                    | BME 4XX                  | Biomedical Engineering Elective            | 3         | F, Sp                    | BME 4XX                    | Biomedical Engineering Elective         | 3    |  |  |
|                  | F, Sp                    | BME 401 <sup>5</sup>     | Biomedical Engineering Seminar             | 1         | F, Sp, Su                | Blazer Core <sup>4</sup>   | History & Meaning                       | 3    |  |  |
|                  | F, Sp, Su                | Elective <sup>2,3</sup>  | MA/SCI/EGR/BME Elective                    | 3         | F, Sp, Su                | Blazer Core <sup>4,7</sup> | City as a Classroom                     | 3    |  |  |
|                  | F, Sp, Su                | Elective <sup>3</sup>    | MA/SCI/EGR/BME Elective                    | 3         | F, Sp, Su                | Blazer Core <sup>4</sup>   | Reasoning                               | 3    |  |  |
| F, Sp, Su        | Blazer Core <sup>4</sup> | Humans & Their Societies | 3  |           |                          |                            |   |      |  |  |
|                  |                          | <b>Total Credits</b>     | <b>16</b>                                  |           |                          | <b>Total Credits:</b>      | <b>15</b>                               |      |  |  |

1 EGR 200 preferred, other FYE courses accepted

2 May substitute MA 227 and MA 252 for EGR 265 and one MA/SCI/EGR/BME elective

3 Students using this curriculum as a pre-health professional program (pre-med, pre-dental or pre-optometry) may use CH 235, CH 237, or CH 460 for this elective

4 Please refer to the Blazer Core as specified for engineering majors

5 May be taken any semester

6 May substitute BY 115/L

7 CE 280 preferred, other CAC accepted