# BIOMEDICAL ENGINEERING MINOR

## Undergraduate Study

Minor supervised by an interdisciplinary faculty committee, administered by the Chemical and Biological Engineering Department. The Biomedical Engineering minor is a unique opportunity for engineering students to acquire a multi-disciplinary engineering and life sciences background for entering the field of biomedical engineering.

The program is open to all undergraduate engineering students at Iowa State University. This minor will provide students with a foundation of core biology and engineering relevant to further study in biomedical engineering along with an introduction to the application of engineering principles to biomedical problems from a multidisciplinary perspective as well as the applications within the majors of the participating departments.

A minimum of 17 cr. meeting the six requirements below with a minimum of 9 of those credits not being used to meet degree requirements and a minimum of 6 cr. at the 300 level or above. No more than 3 cr. of 490 credit may be applied to this minor.

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| BIOL 212 | Principles of Biology II | 3 |
| B M E/CH E 220 | Introduction to Biomedical Engineering | 3 |
| BIOL 256 | Fundamentals of Human Physiology | 3 |
| or BIOL 335 | Principles of Human and Other Animal Physiology | |
| Introductory Engineering Elective * | | 3 |
| Advanced Engineering Elective ** | | 3 |
| Professional Elective *** | | 2-3 |
| **Total Credits** | | **17-18** |

*A second (Introductory) engineering course from a department other than that of your major. The topic of the course should have ready application to later B M E-related electives in that discipline (C E 274; CH E 210; CPR E 281; E E 201, 314, or 442 and 448; E M 324 or 378; I E 271; MAT E 273; M E 231; or other courses approved by Minor Chair).

** 300-500 level engineering course with clear biomedical engineering application (B M E 490, B M E/E E 341, 450; B M E/CH E 440; B M E/MAT E 456; I E 447; I E 571; M E 550 or other courses approved by Minor Chair).

*** 300-500 level engineering or life sciences course with clear biomedical engineering application OR B M E 490 OR departmental 490 with biomedical engineering topic OR 200+-level life sciences laboratory course (If a 200-level course is chosen here, the student will need to meet the required 6 cr. of 300+ courses by substitution of a higher-level course for the other requirements or by taking an additional course.), OR 300-500 level B M E course.