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| **General Education Components[[1]](#footnote-1) (15 semester hours)** |
| GEC | Courses consistent with career goals | 15 s.h. |
| **Statistics Elective (3 semester hours)***(Choose one)* |
| STAT:2020STAT:3510CBE:3020 | Probability and Statistics for Engineering and Physical SciencesBiostatisticsApplied Statistics for Chemical and Natural Resources Engineering (offered Spring semester) | 3 s.h.3.s.h.3 s.h. |
| **Advanced Chemistry/Science Electives[[2]](#footnote-2) (6 semester hours)** |
|  | Advanced Chemistry Course *(Recommended: BIOC:3110)* | 3 s.h. |
|  | Advanced Science Course | 3 s.h. |

**Free Electives (12 semester hours)**

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| **Required Course**CBE:5210**Engineering Electives**CBE:3998CBE:4215CBE:5215CBE:5199 | Bioseparations(*offered Spring semester of even years*)Individual Investigations (*usually research*)Upstream Biotechnology Processes (*Highly Recommended)[[3]](#footnote-3)*Advanced Biochemical Engineering (*last offered Sp2013*)Contemporary Topics (*biochemical eng. topics*) | 3 s.h.1-3 s.h.3 s.h.1-3 s.h. |
| BME:5430BME:2400CEE:5154 | Biotransport (*offered Fall semesters*)Cell Biology For Engineers[[4]](#footnote-4)Environmental Microbiology | 3 s.h.3 s.h.3 s.h. |
| ENGR:2995 | Intro to AI and Machine Learning in Engineering | 3 s.h. |
| **Science Electives**BIOC:3120BIOC:3130BIOC:3140BIOL:1411BIOL:1412MICR:2157MICR:21583000-level or higher | Biochemistry and Molecular Biology IBiochemistry and Molecular Biology IIExperimental BiochemistryFoundations of BiologyDiversity of Form and FunctionGeneral MicrobiologyGeneral Microbiology LaboratoryAdvanced Biological Sciences, Biochemistry, Chemistry,And/or Microbiology courses. | 3 s.h.3 s.h.2 s.h.4 s.h.4 s.h.3 s.h.2 s.h. |
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1. <https://www.engineering.uiowa.edu/current-students/academic-information/general-education-component>. Discuss with your CBE faculty advisor if you have questions about your GEC requirement. [↑](#footnote-ref-1)
2. <https://cbe.engineering.uiowa.edu/undergraduate-program/undergraduate-handbook/chemical-engineering-curriculum#Advanced%20Chemical%20Science%20Electives>. Discuss with your CBE faculty advisor if you have questions about your advanced chemistry/science electives. [↑](#footnote-ref-2)
3. This is a hands on course offered at the Center For Biocatalysis and Bioprocessing that is generally offered during the Winter and Summer sessions over a ~2 week period. [↑](#footnote-ref-3)
4. This course will be listed as BME:2110 in Fall 2018, but will change to BME:2400 in Spring 2019 and thereafter. This course requires BIOL:1411 as a pre-requisite. [↑](#footnote-ref-4)