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| **General Education Components[[1]](#footnote-1) (15 semester hours)**  Take 15 s.h. of courses consistent with career goals | | |
| **Statistics Elective (3 semester hours)**  *(Choose One)* | | |
| CBE:3020 (Recommended)  STAT:2020 (Acceptable) | Statistics for Chemical and Environmental Engineering (offered Spring semesters)  Probability and Statistics for Engineering and Physical Sciences | 3 s.h.  3 s.h. |
| **Advanced Chemistry/Science Electives[[2]](#footnote-2) (6 semester hours)** | | |
|  | Advanced Chemistry Course | 3 s.h. |
|  | Advanced Science Course | 3 s.h. |
| *(Recommendations for Advanced Science Course)* | |  |
| EES:4520 | Isotope Geochemistry | 3 s.h. |
| CEE:5154 | Environmental Microbiology | 3 s.h. |
| OEH:6710 | Human Toxicology and Risk Assessment | 3 s.h. |
| CBE:5152 | Environmental Chemistry I | 3 s.h. |
| CBE: 5415 | Satellite image processing and remote sensing of atmosphere | 3.s.h. |
| CBE: 5417 | Physical meteorology and atmospheric radiative transfer | 3.s.h. |
| CHEM:5438 | Surface Chemistry and Heterogeneous Processes | 3 s.h. |
| CBE:5425 | Atmospheric Chemistry & Physics | 3 s.h. |
| EES:4490 | Elements of Geochemistry | 3 s.h. |
| CHEM:4873 | Atmospheric and Environmental Chemistry | 3 s.h. |
| CHEM:5107 | Electrochemistry | 2-3 s.h. |
| 3000-level or higher | Courses in Geoscience, Occupational & Environmental Health, Chemistry, and Geography |  |

**Free Electives (12 semester hours)**

Choose at least 3 s.h. from the Engineering course list and 3 s.h. from the Advanced Science course list (see above).

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| **Required Course** |  |  |
| CBE:5405  **Engineering Electives** | Green Chemical and Energy Technologies (*spring of odd years*) | 3 s.h. |
| ENGR:2995 | Intro to AI and Machine Learning in Engineering | 3 s.h. |
| CBE:2050 | Severe and Unusual Weather (offered online, Spring & Fall) | 3 s.h. |
| CBE:2040 | Environment, Energy, and Climate Change (offered online Spring) | 3 s.h. |
| CBE:4459 | Air Pollution Control Technology | 3 s.h. |
| CEE:4107 | Sustainable Systems (*offered Spring semesters*) | 3 s.h. |
| ME:4048  ECE:5630  CEE:5380 | Energy Systems Design (*offered Fall semesters*)  Sustainable Energy Conversion *(offered Fall of Even years)*  Fluid Flow in Environmental Systems | 4 s.h.  3 s.h.  3 s.h. |
| CBE:5412 | Atmospheric Modeling | 3 s.h. |
| 3000-level or higher | Other Engineering courses – *consult with academic advisor* |  |

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)