

BSE ENGINEERING (ENERGY AND ENVIRONMENT CONCENTRATION)

B.S.E. Degree Requirements for a Major in Engineering (Energy and Environment Concentration)

| Code | Title | Hours |
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| Required Courses | | |
| Minimum 124 hours including the following: | | |
| <i>Literature and Writing</i> | | |
| ENG 1310 | Research Writing: Writing and Academic Inquiry Seminars | 3 |
| GTX 2301 | Intellectual Traditions of the Ancient World : Literature and Thought | 3 |
| or GTX 2302 | Medieval Intellectual Traditions: Literature and Thought in Context | |
| PWR 3300 | Technical Writing | 3 |
| <i>Religion</i> | | |
| REL 1310 | The Christian Scriptures | 3 |
| REL 1350 | The Christian Heritage | 3 |
| <i>Foreign Language and Culture</i> | | |
| Select 3 hours from the Foreign Language and Culture Distribution List for ECS Majors. Second-level proficiency must be reached if a foreign language is chosen. | | 3 |
| <i>Other Requirements</i> | | |
| PSC 1387 | The U.S. Constitution, Its Interpretation, and the American Political Experience | 3 |
| or ENG 2301 | British Literature | |
| EGR 2108 | Engineering Economics | 1 |
| EGR 3305 | Social and Ethical Issues in Engineering | 3 |
| EGR 1101 | Engineering New Student Experience | 1 |
| Lifetime Fitness: Any two LF 11XX courses. ECS 2101 and select leadership courses may fulfill one of the Lifetime Fitness requirements. | | 2 |
| Chapel: Two Semesters | | 0 |
| General Elective Credit | | 1 |
| <i>Mathematics and Basic Sciences</i> | | |
| CHE 1301 | Basic Principles of Modern Chemistry I | 3 |
| MTH 1321 | Calculus I | 3 |
| MTH 1322 | Calculus II | 3 |
| MTH 2311 | Linear Algebra | 3 |
| MTH 2321 | Calculus III | 3 |
| MTH 3325 | Ordinary Differential Equations | 3 |
| STA 3381 | Probability and Statistics | 3 |
| One additional "3000" or "4000" level approved math or science class | | 3 |
| PHY 1420 | General Physics I | 4 |
| PHY 1430 | General Physics II | 4 |
| <i>Engineering Major (Energy and Environment)</i> | | |
| EGR 1301 | Introduction to Engineering | 3 |
| EGR 1302 | Introduction to Engineering Analysis | 3 |

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| EGR 3380 | Engineering Design I | 3 |
| EGR 4390 | Engineering Design II | 3 |
| ME 2320 | Statics | 3 |
| ME 2321 | Dynamics | 3 |
| ME 2345 | Thermodynamics | 3 |
| ME 3420 | Instrumentation and Measurements | 4 |
| ELC 2330 & ELC 2130 | Electrical Circuit Theory and Electrical Circuit Laboratory | 4 |
| ELC 3335 | Signals and Systems | 3 |
| Select one of the following: | | 4 |
| ELC 2337 & ELC 2137 | Digital Logic Design and Digital Logic Design Laboratory | |
| CSI 1401 | Introduction to Programming I | |
| CSI 1430 | Introduction to Computer Science I with Laboratory | |
| <i>Engineering Elective Requirements (Energy and Environment)</i> | | |
| ME 4305 | Sustainable Engineering | 3 |
| ME 4360 | Renewable Energy Devices | 3 |
| EGR 4361 | Conventional & Alternative Energy Systems | 3 |
| <i>Concentration Requirements (Energy and Environment)</i> | | |
| CHE 1302 | Basic Principles of Modern Chemistry II | 3 |
| ENV 3316 | Introduction to Air Quality | 3 |
| ENV 3387 | Environmental Chemistry | 3 |
| ENV 4345 | Water Management | 3 |
| ENV 4365 | The Environment and Energy | 3 |
| ANT 4321 | Climate Anthropology | 3 |
| A grade of "C" or better in all of the Engineering hours counted towards the major. | | |
| Total Hours | | 124 |