



MSU COLLEGE OF AEROSPACE, COMPUTING, ENGINEERING, AND DESIGN

Environmental Engineering (EVE) B.S. Minimum 128 credits

Minor (NOT required)

This is not an official list of degree requirements. Adjustments may be required due to curriculum changes. Starting Fall 2024. Recommendation only.

| First Year | | |
|-----------------------|---|----|
| Fall: 18 Credits | ENV 1200 Introduction to Environmental Science | 3 |
| | EVE 1215 Engineering Graphics-Solid Modeling | 3 |
| | MTH 1410 Calculus I | 4 |
| | CHE 1800 General Chemistry I AND CHE 1801 Laboratory | 5 |
| | Written Communication | 3 |
| Total Credits | | 18 |
| Spring: 18 Credits | EVE 1040 Introduction to Environmental Engineering | 3 |
| | ENV 2100 Environmental Sampling and Analysis | 3 |
| | PHY 2311 General Physics I AND PHY 2321 Laboratory | 5 |
| | MTH 2410 Calculus II | 4 |
| | Written Communication | 3 |
| Total Credits | | 18 |

| Third Year | | |
|-----------------------|--|----|
| Fall: 15 Credits | EVE 3185 Fundamental Fluid Mechanics with Laboratory | 4 |
| | Social Behavioral Sciences (GD or ESSJ)* | 3 |
| | Historical (GD or ESSJ)* | 3 |
| | PHY 2331 General Physics II AND PHY 2341 Laboratory | 5 |
| | EVE 3500 Fate/Transport of Contaminants in the Environment | 3 |
| Total Credits | | 18 |
| Spring: 16 Credits | EVE 3730 Environmental Risk Assessment | 3 |
| | BIO 1080 General Biology I AND BIO 1080 Laboratory | 4 |
| | Arts and Humanities (GD or ESSJ)* | 3 |
| | Social Behavioral Sciences (GD or ESSJ)* | 3 |
| | | |
| Total Credits | | 13 |

| Second Year | | |
|-----------------------|---|----|
| Fall: 18 Credits | CHE 1810 General Chemistry I AND CHE 1811 Laboratory | 5 |
| | MTH 2420 Calculus III | 4 |
| | EVE 2150 Mechanics of Statics Systems | 3 |
| | EVE 3000 Concepts in Environmental Engineering | 3 |
| | Arts and Humanities (GD or ESSJ)* | 3 |
| Total Credits | | 18 |
| Spring: 17 Credits | CPE 2350 Engineering Programming | 3 |
| | EVE 3135 Strength of Materials with Laboratory | 4 |
| | EVE 3160 Mechanics of Dynamics Systems | 3 |
| | MTH 3420 Differential Equations | 4 |
| | Oral Communications | 3 |
| Total Credits | | 17 |

| Fourth Year | | |
|-----------------------|---|----|
| Fall: 14 Credits | MTH 3210 Probability and Statistics | 4 |
| | EVE 3400 Engineered Water | 3 |
| | EVE 4160 Geotechnical Engineering with Laboratory | 4 |
| | EVE 4420 Wetland Studies | 3 |
| | EVE 4400 Water Resources Engineering | 3 |
| Total Credits | | 17 |
| Spring: 13 Credits | EVE 4500 Solid and Hazardous Waste Engineering | 3 |
| | EVE 4610 Capstone: Senior Design Project | 3 |
| | Approved Elective | 3 |
| | | |
| Total Credits | | 9 |

*GD = global diversity class *ESSJ = ethnic studies and social justice class

*Course Rotation Info.

(a) EVE 1215 = Every Fall Semester

(b) EVE 3980 (Internship): Each semester (Fall, Spring, Summer)

EVE Approved Electives : BIO 1081/BIO 1091, SCI 2600 (Earth Sci; each semester), EVE 3980 (Internship in Environmental Engineering), EVE 2250 (International Engineering Project; every other AY)

Note:

- ENV 3010 (applied pollution science) - This is covered in our new EVE core courses - No need to include it.
- ENV 3100 (Air pollution) - This is covered in our new EVE core courses - No need to include it.
- ENV 3710 (Environmental Remediation) - Not offered in the ENV Dept. and this is also covered in our EVE courses.
- ENV 3720 (Waste Management) - This is covered in our new EVE course (EVE 4500: Solid and Hazardous Waste Engineering) so EVE students should take Waste **Engineering**, not Management (also from the ABET perspective) - No need to take it
- ENV 3730 (Environmental Risk Assessment) - The same course is offered in our EVE core course (EVE 3730: Environmental Risk Assessment)
- ENV 4460 (Advanced Water Quality Analysis) - Several EVE core courses offer the contents and there is no need for EVE students to take it.
- GEL 4150 (Hydrology – Surface Water) - This is covered in our new EVE core course (EVE 4400: Water Resources Engineering)
- GEL 4250 (Hydrogeology – Groundwater) - This is covered in our new EVE core course (EVE 4400: Water Resources Engineering)

- The following science courses were all eliminated from the ABET perspective.
- ENV 4400 (Landscape Ecology), ENV 4440 (Limnology), ENV 4450 (Stream Ecology),
- Given that the SSE program has been eliminated, the following SSE courses were removed.
- SSE 2200, SSE 3175, SSE 3300, SSE 3500, SSE 4200.