

# ENVIRONMENTAL SYSTEMS ENGINEERING, B.S.

**Begin Campus:** Any Penn State Campus

**End Campus:** University Park

## Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2025-26 academic year. To access previous years' suggested academic plans, please visit the archive (<https://bulletins.psu.edu/undergraduate/archive/>) to view the appropriate Undergraduate Bulletin edition.

## Environmental Systems Engineering, B.S. at All Campuses

The course series listed below provides **only one** of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an **Academic Requirements** or **What If** report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

### First Year

| Fall  | Credits   | Spring                                      | Credits   |
|---|-----------|---|-----------|
| MATH 140 or 140G (GQ) <sup>†‡††</sup>                       | 4         | MATH 141 or 141G (GQ) <sup>†‡††</sup>       | 4         |
| CHEM 110 (GN) <sup>*††</sup>                                | 3         | CHEM 112 (GN)                               | 3         |
| CHEM 111 <sup>†</sup>                                       | 1         | PHYS 211 (GN) <sup>*††</sup>                | 4         |
| EMSC 100S (or CAS 100 by substitution) (GWS) <sup>††1</sup> | 3         | ENGL 15, 30H, or ESL 15 (GWS) <sup>††</sup> | 3         |
| General Education Knowledge Domain                          | 3         |   |           |
|   | <b>14</b> |   | <b>14</b> |

### Second Year

| Fall                              | Credits   | Spring   | Credits   |
|-----------------------------------|-----------|--|-----------|
| PHYS 212 (GN) <sup>*††</sup>      | 4         | CHEM 202   | 3         |
| EMCH 211                          | 3         | EME 210 (Take through DLC if not at UP)                    | 3         |
| MATH 251 <sup>*††</sup>           | 4         | EMCH 212   | 3         |
| GEOSC 1 <sup>*</sup>              | 3         | MICRB 106  | 3         |
| GEOG 160 or 260 (GS) <sup>†</sup> | 3         | General Education Knowledge Domain (GA;IL) (GH;IL) (GS;IL) | 3         |
|                                   | <b>17</b> |  | <b>15</b> |

### Third Year

| Fall   | Credits | Spring                              | Credits |
|--|---------|-------------------------------------|---------|
| EME 301 <sup>*</sup>                                       | 3       | MNPR 301 (SPRING ONLY) <sup>*</sup> | 3       |
| EME 303 (FALL ONLY) <sup>*</sup>                           | 3       | ENGL 202C (GWS) <sup>*††</sup>      | 3       |
| GEOSC 452  | 3       | EGEE 470 (SPRING ONLY)              | 3       |
| CE 370 <sup>*</sup>  | 3       | ENVSE 406 (SPRING ONLY)             | 3       |
| ENVSE 400 (FALL ONLY)                                      | 3       | EME 460                             | 3       |
| General Education Knowledge Domain (GA;US) (GH;US) (GS;US) | 3       | ENVSE 412 (SPRING ONLY)             | 1       |

General Education Health and Wellness (GHW)<sup>2</sup> 1.5

**18** **17.5**

### Fourth Year

| Fall   | Credits     | Spring   | Credits   |
|--|-------------|--|-----------|
| ENVSE 404W (WAC) (FALL ONLY)                                 | 4           | ENVSE 480 (SPRING ONLY)                                      | 3         |
| ENVSE 427 (FALL ONLY) <sup>*</sup>                           | 3           | ENVSE 470 (SPRING ONLY)                                      | 3         |
| ENVSE 450 (FALL ONLY)  | 3           | ENVSE 408 (SPRING ONLY)                                      | 3         |
| Supporting Course from approved department list <sup>2</sup> | 3           | Supporting course from approved department list <sup>2</sup> | 3         |
| General Education Knowledge Domain                           | 3           | General Education Knowledge Domain                           | 3         |
| General Education Health and Wellness (GHW) <sup>2</sup>     | 1.5         |  |           |
|  | <b>17.5</b> |  | <b>15</b> |

### Total Credits 128

\* Course requires a grade of C or better for the major

‡ Course requires a grade of C or better for General Education

# Course is an Entrance to Major requirement

† Course satisfies General Education and degree requirement

<sup>1</sup> Students who begin their studies at non-UP locations and/or join the college after their first year should substitute CAS 100A, CAS 100B, or CAS 100C (GWS) for EMSC 100S (GWS). EMSC 100S Earth and Mineral Sciences First year Seminar (3) is a required course only for students who begin their studies at UP in the College of Earth and Mineral Sciences.

<sup>2</sup> Students who complete Basic ROTC may substitute 6 credits of ROTC for 3 credits of GHW courses and 3 credits of Supporting Courses and Related Areas.

### University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy Cultural Diversity Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30H and CAS 100A/CAS 100B/CAS 100C. Each course is 3 credits.

### Advising Notes:

- To enter the major, students need a minimum 2.00 grade point average, third semester standing, and a C or better grade in MATH 140, MATH 141, MATH 251, CHEM 110, PHYS 211, and PHYS 212.
- Courses required for the major may be offered fall semester only, spring semester only, or both fall and spring semesters. Consult with your adviser and department to discuss your academic progress and course sequencing.
- Approved Electives for "Related Areas": <https://www.eme.psu.edu/undergraduate/academics/undergraduate-programs/envse> (<https://www.eme.psu.edu/undergraduate/academics/undergraduate-programs/envse/>).