

# ENERGY 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.

### Energy Engineering, B.S. at University Park Campus

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 (GQ) <sup>*‡††</sup>	4
CHEM 110 (GN) <sup>*‡†</sup>	3 ENGL 15, 30H, or ESL 15 (GWS) <sup>††</sup>	3
CHEM 111 (GN) <sup>*†</sup>	1 CHEM 112 (GN) <sup>*†</sup>	3
EMSC 100S (or CAS 100 by substitution) (GWS) <sup>††1</sup>	3 PHYS 211 (GN) <sup>*‡†</sup>	4
ECON 102, EBF 200, or ECON 14 (GS) <sup>†</sup>	3 General Education Knowledge Domain	3
	<b>14</b>	<b>17</b>

#### Second Year

Fall	Credits Spring	Credits
PHYS 212 (GN) <sup>*</sup>	4 EE 211	3
CHEM 202 or 210	3 MATH 231 <sup>*</sup>	2
MATH 251	4 CMPSC 200 or 201	3
General Education Knowledge Domain	3 General Education Knowledge Domain	3
General Education Knowledge Domain	3 PHIL 103 (GH) <sup>†</sup>	3
	General Education Health and Wellness (GHW)	1.5
	<b>17</b>	<b>15.5</b>

#### Third Year

Fall	Credits Spring	Credits
EME 301 <sup>*</sup>	3 EGEE 304 (SPRING ONLY) <sup>*</sup>	3
EME 303 (FALL ONLY) <sup>*</sup>	3 EGEE 437 (SPRING ONLY) <sup>*</sup>	3
EGEE 302 (FALL ONLY) <sup>*</sup>	3 EGEE 430 <sup>*</sup>	3
ENGL 202C (GWS) <sup>††</sup>	3 EGEE 451 or ENVSE 470 (SPRING ONLY) <sup>*</sup>	3
Material Science Elective from Approved Department List <sup>2</sup>	3 Fuel Science Elective from Approved Department List <sup>2</sup>	3

	General Education Health and Wellness (GHW)	1.5
	<b>15</b>	<b>16.5</b>
<b>Fourth Year</b>		
<b>Fall</b>	<b>Credits Spring</b>	<b>Credits</b>
Professional Elective from Approved Department List <sup>2</sup>	3 EGEE 464W (SPRING ONLY) <sup>*</sup>	3
Fuel Science Elective from Approved Department List <sup>2</sup>	3 Energy Systems Elective from Approved Department List <sup>2</sup>	3
EGEE 441 (FALL ONLY) <sup>*</sup>	3 Technical Elective from Approved Department List <sup>2</sup>	3
EME 460 or IE 302	3 Technical Elective from Approved Department List <sup>2,3</sup>	3
EGEE 411W <sup>*</sup>	3 Professional Elective from Approved Department List <sup>2</sup>	3
Technical Elective from Approved Department List <sup>2,3</sup>	3 Energy Systems Elective from Approved Department List <sup>2</sup>	3
	<b>18</b>	<b>18</b>

**Total Credits 131**

\* 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> Course lists for Energy Engineering can be found at the department website: <https://www.eme.psu.edu/undergraduate/academics/undergraduate-programs/energy-engineering-major> (<https://www.eme.psu.edu/undergraduate/academics/undergraduate-programs/energy-engineering-major/>).

<sup>3</sup> Students may apply 6 credits of ROTC to some of the elective choices.

#### 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 CHEM 110 GN (3), CHEM 111 GN (1), CHEM 112 GN (3), MATH 140 GQ (4), MATH 141 GQ (4), MATH 231 (2), PHYS 211 GN (4), and PHYS 212 GN (4).

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.

## Energy Engineering, B.S. at Commonwealth 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 (GQ) <sup>*†‡</sup>	4 MATH 141 (GQ) <sup>*†‡</sup>	4
CHEM 110 (GN) <sup>*†</sup>	3 ECON 102, EBF 200, or ECON 14 (GS) <sup>†</sup>	3
CHEM 111 (GN) <sup>*†</sup>	1 CHEM 112 (GN) <sup>*†</sup>	3
ENGL 15, 30H, or ESL 15 (GWS) <sup>†‡</sup>	3 PHYS 211 (GN) <sup>*†</sup>	4
General Education Knowledge Domain	3 General Education Knowledge Domain	3
	<b>14</b>	<b>17</b>

### Second Year

Fall	Credits Spring	Credits
PHYS 212 (GN) <sup>*</sup>	4 ENGL 202C (GWS) <sup>†‡</sup>	3
CHEM 202 or 210	3 MATH 231 <sup>*</sup>	2
MATH 251	4 CMPSC 200 or 201	3
CAS 100A, 100B, or 100C (GWS) <sup>†‡1</sup>	3 General Education Knowledge Domain	3
General Education Knowledge Domain	3 PHIL 103 (GH) <sup>†</sup>	3
	General Education Health and Wellness (GHW)	1.5
	<b>17</b>	<b>15.5</b>

### Third Year

Fall	Credits Spring	Credits
Material Science Elective from Approved Department List <sup>2</sup>	3 EGEE 304 (SPRING ONLY) <sup>*</sup>	3
EME 301 <sup>*</sup>	3 EGEE 437 (SPRING ONLY) <sup>*</sup>	3
EME 303 (FALL ONLY) <sup>*</sup>	3 EGEE 430 <sup>*</sup>	3
EGEE 302 (FALL ONLY) <sup>*</sup>	3 EGEE 451 or ENVSE 470 (SPRING ONLY) <sup>*</sup>	3
EE 211	3 Fuel Science Elective from Approved Department List	3
	General Education Health and Wellness (GHW)	1.5
	<b>15</b>	<b>16.5</b>

### Fourth Year

Fall	Credits Spring	Credits
Professional Elective from Approved Department List <sup>2</sup>	3 EGEE 464W (SPRING ONLY) <sup>*</sup>	3
Fuel Science Elective from Approved Department List <sup>2</sup>	3 Energy Systems Elective from Approved Department List <sup>2</sup>	3
EGEE 441 (FALL ONLY) <sup>*</sup>	3 Energy Systems Elective from Approved Department List <sup>2</sup>	3

EME 460 or IE 302	3 Technical Elective from Approved Department List <sup>2</sup>	3
EGEE 411W <sup>*</sup>	3 Technical Elective from Approved Department List <sup>2,3</sup>	3
Technical Elective from Approved Department List <sup>2,3</sup>	3 Professional Elective from Approved Department List <sup>2</sup>	3
	<b>18</b>	<b>18</b>

### Total Credits 131

\* 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> Course lists for Energy Engineering can be found at the department website: <https://www.eme.psu.edu/undergraduate/academics/undergraduate-programs/energy-engineering-major> (<https://www.eme.psu.edu/undergraduate/academics/undergraduate-programs/energy-engineering-major/>).

<sup>3</sup> Students may apply 6 credits of ROTC to some of the elective choices.

### 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.

### 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 CHEM 110 GN (3), CHEM 111 GN (1), CHEM 112 GN (3), MATH 140 GQ (4), MATH 141 GQ (4), MATH 231 (2), PHYS 211 GN (4), and PHYS 212 GN (4).

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.

Commonwealth Campus students are strongly advised to successfully complete their CHEM, MATH, PHYS, and GWS requirements before transitioning to University Park.