### Earth Science and Policy, 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 2021-22 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 (Note: the archive only contain suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin).

#### General Option: Earth Science and Policy, 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 in policies, procedures, educational offerings, and requirements at any University Park Campus.

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| Credits       | 15.5    |

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| Credits       | 3       |

#### Fourth Year

| Credits | 15      |

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| Credits       | 15      |

**Total Credits 120**

* 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

### University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy University 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.

GWS, GQ, GHW, GN, GA, GH, and GS are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GHW, GN, GA, GH, GS, and Integrative Studies). Foundations courses (GWS and GQ) require a grade of 'C' or better.

Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

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 replace both ENGL 30H and CAS 100. Each course is 3 credits.

### Advising notes:

General Option electives (27 credits): Must include one writing across the curriculum course


Select a total of 12 credits from the following:
3 to 6 credits from: CED 429(3), CED 431(3), EBF 484(3), ECON 302 GS(3), GEOG 424 US;IL(3)

Water and Land Use Option: Earth Science and Policy, B.S. at University Park Campus

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Students who begin their studies at non-UP locations and/or join the college after their first year should substitute CAS 100 (GWS), CAS 100A (GWS), CAS 100B (GWS), CAS 100C (GWS) or ENGL 202C (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.

**Advising notes:**

Water and Land Use Option electives (27 credits): Must include one writing across the curriculum course.

Select 3 credits from: EARTH 111 GN, US(3), GEOSC 160 GS(3), SOILS 101 GN(3)


Select a total of 12 credits from the following:

1. 3 to 6 credits from: CED 429(3), CED 431(3), CED 439(3), ECON 302 GS(3)
2. 6 to 9 credits from: CED 309(3), CED 409(3), CED 410(3), GEOSC 430(3), GEOSC 431(3), GEOSC 434(3), GEOSC 439(3), PLSC/STS 460(3), PUBPL 481(3)
Climate Change Option: Earth Science and Policy, B.S. at University Park Campus

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Total Credits 120

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† Students who begin their studies at non-UP locations and/or join the college after their first year should substitute CAS 100 (GWS), CAS 100A (GWS), CAS 100B (GWS), CAS 100C (GWS) or ENGL 202C (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.

### Advising notes:

Climate Change Option electives (27 credits): Must include one writing across the curriculum course

Select 3 credits from: EARTH 2 GN(3), GEOG 110 GN(3), METEO 3 GN(3), METEO 4 GN(3)

Select 12 credits from: GEOG 310(3), GEOG 412(3), GEOC 320(3), GEOSC/METEO 475(3), METEO 201(3), METEO 466(3)

Select a total of 12 credits from the following:

- 3 to 6 credits from: CED 429(3), CED 431(3), ECON 302(3)
- 6 to 9 credits from: CED 230(3), CED 410(3), EMSC/STS/SOC 420(3), GEOG 430(3), GEOG 434(3), GEOG 438W(3), PLSC/STS 460(3), STS 201(3)
Energy Option: Earth Science and Policy, B.S. at University Park Campus

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Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

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 replace both ENGL 30H and CAS 100. Each course is 3 credits.

1 Students who begin their studies at non-UP locations and/or join the college after their first year should substitute CAS 100 (GWS), CAS 100A (GWS), CAS 100B (GWS), CAS 100C (GWS) or ENGL 202C (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.

Advising notes:

Energy Option electives (27 credits): Must include one writing across the curriculum course

Select 3 credits from: EARTH 100 GN(3), EGEE 101 GN(3), EGEE 102 GN(3)
Select 9 credits from: EGEE 302(3), EGEE 401(3), EGEE 412(3), GEOSC 451(3), GEOSC 454(3), GEOSC 483(3)
Select 3 credits from: EBF 484(3), GEOG 424 US;IL(3)
### General Option: Earth Science and Policy, B.S. at Commonwealth Campuses

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#### Academic Requirements

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<th>Option Electives</th>
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#### Advising Notes:

General Option electives (27 credits): Must include one writing across the curriculum course


Select a total of 12 credits from the following:


Select a total of 12 credits from the following:

3 to 6 credits from: CED 429(3), CED 431(3), EBF 484(3), ECON 302 GS(3), GEOG 424 US,IL(3)


### First Year

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<td>MATH 110, 83, or 140 (GQ)††</td>
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<td>CHEM 110 (GN)‡</td>
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### Advising notes:

Water and Land Use Option electives (27 credits): Must include one writing across the curriculum course

Select 3 credits from: EARTH 111 GN;US(3), GEOG 160 GS(3), SOILS 101 GN(3)


Select a total of 12 credits from the following:

3 to 6 credits from: CED 429(3), CED 431(3), ECON 302 GS(3)

6 to 9 credits from: CED 309(3), CED 409(3), CED 410(3), GEOG 430(3), GEOG 431(3), GEOG 434(3), GEOG 439(3), PLSC/STS 460(3), PUBPL 481(3)
Climate Change Option: Earth Science and Policy, B.S. at Commonwealth Campuses

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† Course satisfies General Education and degree requirement

### University Requirements and General Education Notes:

US and IL are abbreviations used to designate courses that satisfy University 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.

GWS, GQ, GHW, GN, GA, GH, and GS are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GHW, GN, GA, GH, GS, and Integrative Studies). Foundations courses (GWS and GQ) require a grade of ‘C’ or better.

Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

^ Students who begin their studies at non-UP locations and/or join the college after their first year should substitute CAS 100 (GWS), CAS 100A (GWS), CAS 100B (GWS), CAS 100C (GWS) or ENGL 202C (GWS). ENGL 202C 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.

### Advising notes:

Climate Change Option electives (27 credits): Must include one writing across the curriculum course

Select 3 credits from: EARTH 2 GN(3), GEOG 110 GN(3), METEO 3 GN(3), METEO 4 GN(3)

Select 12 credits from: GEOG 310(3), GEOG 412(3), GEOSC 320(3), GEOSC/METEO 475(3), METEO 201(3), METEO 466(3)

Select a total of 12 credits from the following: 3 to 6 credits from: CED 429(3), CED 431(3), CED 302(3), 6 to 9 credits from: CED 230(3), CED 410(3), EMSC/STS/SOC 420(3), GEOG 430(3), GEOG 434(3), GEOG 438W(3), PLSC/STS 460(3), STS 201(3)
**Energy Option: Earth Science and Policy, 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

<table>
<thead>
<tr>
<th>Fall</th>
<th>Credits</th>
<th>Spring</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ENGL 15, 30H, or ESL 15 (GWS)†</td>
<td>3</td>
<td>MATH 111 or 141</td>
<td>4</td>
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<tr>
<td>ECON 102†</td>
<td>3</td>
<td>Elective (2 cr needed if schedule MATH 111)</td>
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<tr>
<td>MATH 110, 83, or 140 (GQ)‡†</td>
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<td>CHEM 112</td>
<td>3</td>
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<tr>
<td>CHEM 110 (GN)‡</td>
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<td>CHEM 113</td>
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<tr>
<td>CHEM 111†</td>
<td>1</td>
<td>PLSC 1 (GS)†</td>
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<tr>
<td>General Education-Knowledge Domain</td>
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### Second Year

<table>
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<th>Fall</th>
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<tbody>
<tr>
<td>PHYS 211 or 250 (GN)†</td>
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<td>GEOSC 1 or 20</td>
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<td>BIOL 110 (GN)‡</td>
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<td>GEOG 126 (GS)†</td>
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<td>PHIL 118 (GH)†</td>
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<td>CAS 100, 100A, 100B, or 100C‡†</td>
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<td>ENGL 202C‡†</td>
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<td>General Education-Health and Wellness (GHW)</td>
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### Third Year

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<th>Spring</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>EARTH 402 (instead of EARTH 202)†</td>
<td>3</td>
<td>EARTH 400 (take SUST 200 in place of EARTH 400)</td>
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<tr>
<td>GEOSC 201, 202, or 203*</td>
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<td>GEOSC 201, 202, or 203*</td>
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<td>GEOG 364</td>
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<td>GEOSC 450*</td>
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<tr>
<td>Option elective</td>
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<tr>
<td>CED 201 or EBF 200</td>
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### Fourth Year

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<tr>
<td>EARTH 495</td>
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<td>Option elective</td>
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<td>EBF 472*</td>
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<tr>
<td>Option elective</td>
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<td>Option elective</td>
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<tr>
<td>General education-Knowledge domain</td>
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<td>General Education-Knowledge domain</td>
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</tr>
<tr>
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</tbody>
</table>

Total Credits 120

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† Course satisfies General Education and degree requirement