EARTH AND PLANETARY SCIENCES, BACHELOR OF ARTS

Earth and Planetary Sciences Major Requirements (B.A.)

(Also see Requirements for a Bachelor’s Degree. (https://e-catalogue.jhu.edu/arts-sciences/full-time-residential-programs/undergraduate-policies/academic-policies/requirements-for-a-bachelors-degree/))

The Bachelor of Arts in Earth and Planetary Sciences is for undergraduates interested in the study of the physical, chemical, and biological processes that shape the Earth and the other planets, drawing on the disciplines of geology, geochemistry, geophysics, hydrology, ecology, geobiology, oceanography, and atmospheric science.

Students should design a specific plan of appropriate courses in consultation with their advisor and the EPS Director of Undergraduate Studies (DUS). Those who wish to be majors may proceed directly to the introductory courses at the 200-level, but depending on the student’s background, it may be appropriate initially to take a freshman seminar or 100-level course designed for the non-major. Our courses provide a broad educational base in the Earth, planetary, and environmental sciences and enable exploration of a set of electives at the 300- and 400-level, depending on the area of interest. Students who plan to attend graduate school are strongly encouraged to engage in undergraduate research and complete a senior thesis under the supervision of a department faculty member.

The department requires a total of 9-11 credits at the 100-level or above and 12 credits at the 300-level or above in Earth, planetary, and environmental sciences (numbered AS.270.xxx), as well as science and math foundation courses from other departments. No more than one environmental studies course numbered AS.271.xxx may be counted towards these EPS elective course requirements without permission of the Director of Undergraduate Studies.

Other courses recommended to enrich the educational background of the major:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>AS.020.151</td>
<td>General Biology I</td>
<td>3</td>
</tr>
<tr>
<td>AS.020.152</td>
<td>General Biology II</td>
<td>3</td>
</tr>
<tr>
<td>EN.553.291</td>
<td>Linear Algebra and Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>Courses in Environmental Studies (AS.271.xxx) and/or Environmental Engineering (EN.570.xxx)</td>
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</table>

Sample Program of Study

**First Year**

**First Semester**

AS.171.101 General Physics: Physical Science Major I 4
or AS.171.103 General Physics I for Biological Science Majors 4
or AS.171.107 General Physics for Physical Sciences Majors (AL) 4

AS.171.102 General Physics: Physical Science Major II 4
or AS.171.104 General Physics/Biology Majors II 4
or AS.171.108 General Physics for Physical Science Majors (AL) 4

Second Year

**First Semester**

AS.030.101 Introductory Chemistry I 3

**Second Semester**

AS.270.220 3 AS.270.224 3
AS.270.221 2

**Third Year**

**First Semester**

AS.270.3xx-4xx 3 AS.270.3xx-4xx 3

**Fourth Year**

**First Semester**

AS.270.3xx-4xx 3 AS.270.3xx-4xx 3

**Honors in the Major**

To earn honors in the major, students must meet the following criteria:

- Take a challenging set of courses during the four years of study.
- Earn a GPA of 3.5 or higher in the major requirements.
• Complete a senior thesis (6 credits of AS.270.510 Senior Thesis taken over two semesters) at a level of quality judged to be sufficiently high by the faculty of the Department of Earth and Planetary Sciences.
• Present the results of the thesis orally in the Department of Earth and Planetary Sciences