

Requirements for **ESS B.S. Degree – BIOLOGY Option**

Department of Earth and Space Sciences

www.ess.washington.edu

General Education Requirements: College of the Environment (CoEnv)

| | | <i>Notes</i> |
|--|------|--------------|
| 1. English Composition (C) | 5cr | _____ |
| 2. Additional Writing | 10cr | _____ |
| 3. Quantitative & Symbolic Reasoning (Q/SR) | 10cr | _____ |
| 4. Diversity (DIV) | 3cr | _____ |
| 5. Areas of Knowledge (AoK) | | |
| Visual, Literary, and Performing Arts (VLPA) | 10cr | _____ |
| Individuals and Societies (I&S) | 20cr | _____ |
| The Natural World (NW) | 20cr | _____ |
| Additional AoKs | 10cr | _____ |

Note: 10 credits of I&S and 10 credits of NW must be outside the major (i.e., not a major prefix and no overlap with major)

Major Requirements: Department of Earth and Space Sciences (ESS)

Supporting Science Courses (45 credits)

| | | <i>Notes</i> |
|--|-------|--------------|
| CHEM 142, 152, 162 | 15cr | _____ |
| MATH 124, 125 | 10cr | _____ |
| PHYS 114/117 or 121 | 5cr | _____ |
| BIOL 180, 200 or BIOL 240 | 10cr | _____ |
| And one from this list: | 4-5cr | _____ |
| MATH 126; ESS 310; PHYS 115/118 or 122; BIOL 220 or 240; STAT 290, 311, or 390 | | |

ESS Core Courses (37-46 credits)

| | | Prerequisites | | |
|--|----------|---|--------|-------|
| 1. Three courses required.* | | | | |
| ESS 211 Physical Process Earth | AUT | MATH 124, 134, or QSCI 291; PHYS 114/117 or 121 | 5cr | _____ |
| ESS 212 Earth Materials/Processes | WIN | CHEM 142 or 145 | 5cr | _____ |
| ESS 213 Evolution of Earth | SPR | ESS 210, 211, or 212 | 5cr | _____ |
| 2. Three courses required.* | | | | |
| ESS 311 Geomechanics | WIN | MATH 125, 135, or QSCI 292; PHYS 114/117 or 121; ESS 211; MATLAB experience recommended | 5cr | _____ |
| ESS 312 Geochemistry | SPR | CHEM 142 or 145; MATH 125, 135, or QSCI 292; ESS 212 | 5cr | _____ |
| ESS 313 Geobiology | AUT | CHEM 142 or 145; ESS 213 | 5cr | _____ |
| ESS 314 Geophysics | AUT | MATH 126, 136, or ESS 310; PHYS 115/118 or 122 | 5cr | _____ |
| ESS 316 Geochemistry | SPR | CHEM 142 or 145; MATH 125, 135, or QSCI 292; ESS 212 | 5cr | _____ |
| 3. One of ESS 400 Field Geology, ESS 401 Field Geology with GIS, or ESS 449/BIOL 475 Paleobiology Field Methods and Research† | | | | |
| | SUM | ESS 211-213 and one of ESS 311-314; ESS 420 also required for ESS 401 | 3-12cr | _____ |
| 4. ESS 418 Geoscience Communication | | | | |
| | WIN, SPR | Two of ESS 201, 205, or 211-213 | 4cr | _____ |

ESS Elective Courses (12 credits)

ESS courses numbered 402 to 488 (excluding ESS 418) or approved ESS 490 courses (see Time Schedule). Extra course from ESS 311-314 or 316 not required above may also apply here. Some coursework from BIOL 421, 427, 430, 432, 437, 438, 439, 441, 443, 447, 448, 452, 453, 470, or 471 may be allowed for this Option; contact ESS Advising to request updates to degree audit (DARS). Other BIOL or BIOC courses require approval of Associate Chair. At least 3 credits must come from ESS-prefixed courses.

| Credits | Credits | Credits |
|-----------|-----------|-----------|
| ESS _____ | ESS _____ | ESS _____ |
| ESS _____ | ESS _____ | ESS _____ |

*2.0 grade required in prerequisites for all ESS core courses. See individual course prerequisites for additional grade requirements.

Note: Minimum 2.00 cumulative GPA in all ESS-prefixed courses required. Grade requirements for students who declared the ESS major prior to Summer 2018 may differ; please see ESS Advising if you have any questions.
† ESS 449/BIOL 475 may not be offered every year.