# Earth Sciences (7-12)

**Licensure Requirements Advising Form/Checklist**

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<th>Name ____________________________</th>
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## Education Courses

- EDUC 110 The Role of the School
- EDUC 251 Psychological Foundations of Education
- EDUC 367 Secondary Methods: Science (0.5)
- EDUC 369 Field Practicum: Secondary (0.5)
- EDUC 370 Secondary Teaching: Knowledge and Practice
- EDUC 377 Teaching Workshop: Supporting & Extending the Learning (0.5)
- *EDUC 471-473 Student Teaching: Secondary and Prek-12
- *EDUC 474 Being & Becoming a Professional: Secondary & PreK-12 Student Teaching Seminar (0.5)

*Concurrent enrollment during student teaching seminar.

## Earth Science Courses

- GEOL 110 Physical and Environmental Geology
- GEOL 111 Physical and Environmental Geology Lab (0.25)
- GEOL 112 History of the Earth
- GEOG 375 Weather, Climate and Climate Change
- ASTR 110 Elementary Astronomy
- ASTR 111 The Astronomical Universe and Lab (1.25)

**Choose at least one from each group (minimum = 3 courses):**

- GEOL 270 Economic Geology and Lab (1.25) OR
- GEOL 290 Mineralogy and Lab (1.25) OR
- GEOL 310 Igneous & Metamorphic Petrology and Lab (1.25)

  **AND**

- GEOL 285 Tectonics: Earthquakes and Mountain Belts OR
- GEOL 340 Structural Geology and Lab (1.25) OR
- GEOL 345 Geological Techniques and Lab (1.25)

  **AND**

- GEOL 320 Paleontology and Lab (1.25) OR
- GEOL 330 Sedimentology and Stratigraphy and Lab (1.25)

## Other Science Courses

- **Choose at least one from each group:**
  - BIOL 122 Organisms and their Environment and Lab (1.25) OR
  - BOMI 125 Introduction to Microbiology and Lab (1.25) OR
  - BIOL 120 Introduction to Cell Biology and Lab (1.25)

  **AND**

- CHEM 110 General Chemistry I and Lab (1.25) OR
- CHEM 111 General Chemistry II and Lab (1.25)

  **AND**

- PHYS 110 General Physics for Physical Science Majors I and Lab (1.25) OR
- PHYS 111 General Physics for Physical Science Majors II and Lab (1.25) OR
- PHYS 115 Principles of Physics I and Lab (1.25) OR
- PHYS 116 Principles of Physics II and Lab (1.25)

Each course is 1 unit or 3.75 semester hours, unless otherwise specified.
**Addiitional Courses**

- ___ **One Additional Upper Level Lab Course**
- ___ Q Course, Quantitive Reasoning Requirement
- ___ *Diversity Courses (2)*
  - *Students seeking teaching licenses must complete two unit courses with a substantial focus on non-Euro-American topics.*

**Please Note:**

1. *Students also must complete the state-mandated examinations for licensure.*
2. *In order to graduate from OWU, students must declare an academic major and meet the requirements. Licensure requirements may differ from the requirements for the major.*

*Each course is 1 unit or 3.75 semester hours, unless otherwise specified.*

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