

**WOU Earth Science Program**  
**Expanded List of Student Learning Outcomes**

Students completing a degree in Earth Science will achieve the following outcomes:

1. Understanding of the various Earth system components as achieved through inquiry-based, interdisciplinary curricula in the physical and biological sciences.
2. Understanding of the complex interaction among Earth system components.
3. Understanding of the historical variation in Earth system components and their interactions, with a focus on how they might recur in the future.
4. Recognition that fundamental knowledge of our Earth system is critical for sustainable, long-term habitation of the planet by humans.
5. Understanding of natural hazards processes, their social impacts, and mitigation procedures.
6. Understanding of anthropogenic impacts to the Earth system and their social consequences, particularly with respect to water resources, mineral / energy resources, climate, and the biosphere.
7. Understanding of the origin, occurrence, and significance of basic Earth resources, including, but not limited to, water, soils, minerals, rock aggregates, metals, and fossil fuels.
8. Ability to interpret and reconstruct ancient landscapes over time and distance.
9. Application of quantitative megascopic and microscopic data from minerals, rocks, and fossils to resolve questions of economic and scientific interest.
10. Proficiency in techniques of applying the scientific method, knowledge acquisition, and transfer of information
11. Proficiency in the use of observing systems, geospatial technology, computers, information processing, and data analysis.
12. Proficiency in the areas of graphical presentation, mapping, oral communication, and scientific writing.