

**College: CLAS**

**Department: Environmental Sciences and Environmental Studies**

**Degree: B.A./B.S.**

### **Introduction**

Environmental science and management is the study of the interactions between society and the physical, chemical, ecological, and biological processes that structure and maintain ecosystems. Our work is critical to understanding and developing sustainable ecosystems, human societies, and economies. Environmental Science and Management at PSU focuses on processes that link terrestrial, urban and aquatic ecosystems, consequences of human alteration of those linkages, and development of policies to manage human interaction with the environment. We conduct our research by studying organisms and specific linkages and processes across systems and by studying interactions between organisms, processes, and linkages in a specific ecosystem or watershed, such as the Columbia River Basin. The Department of Environmental Science and Management prepares students to develop the skills and interdisciplinary understanding to be scholars and managers of human interaction with, and impact on, environmental systems.

The Department of Environmental Science and Management cooperates with several departments and centers, including the departments of Anthropology, Biology, Chemistry, Civil Engineering, Economics, Geography, Geology, History, Mathematics, Physics, Political Science, Sociology; and the School of Business Administration and the College of Urban and Public Affairs. Environmental Science and Management Program is located in the School of the Environment.

### **Undergraduate Program Learning Outcomes**

#### **Environmental Science and Management Student Learning Outcomes**

Students completing an ESM degree will be able to:

1. Explain interactions among physical, biological, chemical, and human components of the environment.
2. Evaluate the validity and limitations of scientific theories and claims about the environment.
3. Develop and test hypotheses to address environmental questions.
4. Identify anthropogenic drivers of environmental problems and analyze the relative merits of policy solutions.
5. Generate and communicate informed positions on current local, regional, and global environmental issues.
6. Evaluate the advantages and limitations of public and private environmental management approaches.
7. Work collaboratively in a team to develop approaches to address environmental issues.