

## Oregon State University Extended Campus

**Project Title:** Professional Sciences Master's Degree in Environmental Science

**Sponsoring School and College:** Graduate School, Environmental Sciences Graduate Program (ESGP)

**Contact:** Carolyn Fonyo Boggess, Interim Director, ESGP

**Effective Term:** Summer 2016

**Reference:** tbd

Ecampus submits this memorandum to the Curriculum Council, according to the [Curriculum Council Review Process for Ecampus Proposals](#), as an information item, to indicate that the proposed program includes the same curricular requirements as the already-approved, already-offered major on campus. The description below summarizes the program requirements that are currently in place for the Corvallis campus program, and will be the same for the Ecampus program offering.

### Summary

The Professional Science Master's degree in Environmental Sciences (PSM@ENSC) provides advanced training for early- and mid-career professionals with a need for expertise in environmental sciences. Preferably applicants would have at least two years of experience working in the environmental field, but this is not mandatory for admission.

The PSM@ENSC degree is offered as a non-thesis program only. Students have an advisor and graduate committee to review their program of study, provide career and internship advice, and evaluate a final report based on the internship or project experience.

The PSM@ENSC degree is an integrated curriculum designed to provide advanced, professional training in four areas: (1) core knowledge in environmental science and management; (2) environmental policy; (3) human dimensions of environmental policy and management; and (4) professional skills and abilities. In addition, each student will participate in an intensive internship or project experience engaging students in real world work situations involving technical problems, teamwork, communication skills, and decision-making. Specific learning outcomes for the each of the major components of the PSM@ENSC degree are listed below.

### Environmental Sciences

Through their chosen coursework, graduates of the PSM@ENSC will have an in-depth understanding of:

- complex interrelationships among biological, physical, and human components of ecosystems;
- spatial and temporal variation in ecosystem structure and processes;
- application of ecosystem principles in development and implementation of holistic approaches to management;
- information requirements to support application of conservation principles and develop approaches for specific ecosystems or specific organisms within these ecosystems; and
- application of quantitative tools to evaluate scientific data and assess alternative environmental management scenarios and outcomes.

## **Social Sciences**

Through their chosen coursework, graduates of the PSM@ENSC will be able to:

- identify and evaluate interactions between humanity and nature;
- incorporate social information (e.g., demographics, environmental policy, economic systems) to develop conservation plans and environmental decision making;
- understand fundamental operations and assumptions of human institutions, including political, economic, cultural, historical and social/value systems; and
- understand how the environment is affected by actions dependent on human philosophy, ethics, world views, religion, and psychology.

## **Professional Skills and Abilities**

Through their chosen coursework and internship project, graduates of the PSM@ENSC will have an understanding of:

- concepts in communications, group organization, and conflict resolution in environmental management;
- research skills and effective written communication;
- the effectiveness of agency or organization structure and project management;
- ethical issues in scientific and social settings; and
- how to apply scientific knowledge in a variety of settings and by working as part of a multidisciplinary team.

## **General Degree Requirements:**

PSM Degree Requirements (45 credits)

Environmental Sciences core courses (9 credits)

- Numerical skills (6–8 credits)
- Environmental Sciences track electives (8–10 credits)
- Professional core courses (8 credits)
- Professional electives (6 credits)
- Internship or project (6 credits)

Course substitutions must be approved by the program advisor. Many of our courses are offered through Ecampus, but some may be offered through Corvallis, Cascades or Hatfield Marine Science Center. Please check course offerings through the online catalog or consult with the program advisor.

Students completing the PSM degree in Environmental Sciences (PSM@ENSC) will have received graduate-level education emphasizing one of seven tracks or areas of concentration (<http://psm.science.oregonstate.edu/program-curriculum-m-s-environmental-sciences>):

1. *Biogeochemistry*
2. *Ecology*
3. *Environmental Education*
4. *Quantitative Analysis*
5. *Social Science*
6. *Natural Resources*
7. *Water Resources*

**Catalog Description:** <http://catalog.oregonstate.edu/MajorDetail.aspx?id=924>

**Link to Ecampus Policy and Procedures**

<http://oregonstate.edu/admin/aa/apaa/book/export/html/227>