### Course Description:
Second of two-course sequence. This fast-paced two-course sequence provides an advanced introduction to marine systems. The sequence covers multiple scales, from cells to ocean basins. It is structured in three discipline-centric segments (cross-scale circulation processes, marine biogeochemistry, and marine organisms). This course covers marine organisms and estuary-plume-scale circulation.

### Credit hours:
4

### Prerequisites or Concurrent Enrollment Requirements:
EOS I is recommended, but not required.

### Term, Year, and Campus:
Spring 2014, Marquam Hill

### Faculty Information:
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Phone: 503-346-3423  
Address & Office Number: HRC 3, Room 316  
Office Hours: TBD

Name: Margo Haygood  
E-mail:  
Phone: 503-346-  
Address & Office Number:  
Office Hours: TBD

### General Course Meeting Day and Time:
Tues, Thurs 9:00-10:50 AM

### Course Objectives, Competencies, or Outcomes:
Estuary and Ocean Systems II (EOS-II) provides a comprehensive introduction to biological oceanography and marine biology, covering topics such as primary production, food webs, microbial diversity, harmful algal blooms, physical-biological coupling, bioluminescence, and fisheries. Working knowledge of these topics will be tested through class presentations, exams, and an assignment that incorporate the use of oceanographic data sets. Upon completion of EOS-II, students will be able to:

1. Name and describe the dominant groups of marine phytoplankton;
2. Calculate rates of primary production;
3. Describe marine food webs and understand energy flow through them;
4. Explain the importance of the microbial loop;
5. Describe the different marine habitats and explain how they influence the organisms that occupy them;
6. Understand how physical forces shape biological productivity and community structure;
7) Explain the function and importance of bioluminescence;
8) Be knowledgeable about harmful algal blooms and their impacts on human health and well-being;
9) Be familiar with the diversity of bioactive compounds found in marine environments.

**Required Texts or Readings:**


**Supplemental or Suggested Readings or Reference Materials:**

**Attendance Requirements:**

All scheduled class times

**Grading Criteria, Academic Standards, & Release of Final Grades:**

Final course grades will be posted with the OHSU Registrar the Monday following the last day of the term. OHSU’s grading system for official grade reports includes:

- 4.0 = Exceptional
- 3.0 = Superior
- 2.0 = Average
- 0.0 = Failure

Grading:
Assignments: 25%
Student presentation: 25%
Final exam: 50%

**Copyright Information:**

Every reasonable effort has been made to protect the copyright requirements of materials used in this course. Class participants are warned not to copy, audio, or videotape in violation of copyright laws. Journal articles will be kept on reserve at the library or online for student access. Copyright law does allow for making one personal copy of each article from the original article. This limit also applies to electronic sources.

**Syllabus Changes and Retention:**

This syllabus is not to be considered a contract between the student and Graduate Studies. It is recognized that changes may be made as the need arises. Students are responsible for keeping a copy of the course syllabus for their records.

**Accommodations:**

Our program is committed to all students achieving their potential. If you have a disability or think you may have a disability (physical, learning, hearing, vision, psychological) which may need a reasonable accommodation, please contact Student Access at 503-494-0082 to discuss your needs. Because accommodations can take time to implement, it is important to have this discussion as soon as possible. All information regarding a student’s disability is kept in accordance with relevant state and federal laws.

You may also visit [http://www.ohsu.edu/academic/acad/osahome.html](http://www.ohsu.edu/academic/acad/osahome.html) to identify your Program Accommodation Liaison (PAL). Click Access Services.
## COURSE OUTLINE

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<td>2) <strong>Lecture 2</strong> – Benthic habitats</td>
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<td>Week 2</td>
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<td>Week 8</td>
<td>1) <strong>Lecture 15</strong> – Estuaries (ecology)</td>
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<td>2) <strong>Lecture 16</strong> – Oceans and human health – drug discovery</td>
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<td>Week 9</td>
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