NOTE to prospective students: This syllabus is intended to provide students who are considering taking this course an idea of what they will be learning. A more detailed syllabus will be available on the course Blackboard site for enrolled students and may be more current than this sample syllabus.

Oregon State University Extended Campus – Department of Fisheries and Wildlife  
FW 462-562: Ecosystem Services

Credits: 3 (This 3-credit course involves approximately 90 hours of instruction, online activities, and assignments for undergraduate students and 120 hours for graduate students.)

Course Description: This course introduces students to the ecological, economic, and social/ethical issues involved in the study of ecosystem services, with a major focus on biological components involved in ecosystem services. Topics covered include: 1) an introduction to the roles that living organisms play in the provision of ecosystem services, 2) the relationship of ecosystem functions and services, 3) the societal factors that influence this relationship, 3) general categories of ecosystem services, 4) identification of potential ecosystem services in terrestrial and aquatic systems, 5) an overview of methods of valuation, and 6) translating ecosystems functions to services. Case studies will be used to illustrate key concepts and relationships within different ecological and social contexts.

Prerequisites: BI 370 (General Ecology)

For more information, contact: BRUCE DUGGER, NASH 166, 541-737-2465

Canvas: This course will be delivered via Canvas, your online learning community, where you will interact with your classmates and your instructor. Within the course Canvas site you will access the learning materials and syllabus; discuss issues; submit assignments; take quizzes; email other students and the instructor; participate in online activities; and display your projects. To preview how an online course works, visit the Ecampus Course Demo. For technical assistance, Canvas and otherwise, please visit Ecampus Technical Help. Canvas/Blackboard Login Information - http://ecampus.oregonstate.edu/services/start/canvas-login.htm?expand=yes

Communication: If you have general course "housekeeping" questions (e.g., “How do I submit assignment 3?”), please check the Announcements, the “General Course Questions” discussion board, and the course syllabus first. If you don't see an answer there, post your question on the “General Course Questions” discussion board so that the whole class may benefit from the conversation. Please email your instructor concerning matters of a personal nature. Replies to
course-related questions and emails should be expected within 24-48 hours. Your instructor will strive to grade course activities and assignments within a week of the due date.

**Measurable Student Learning Outcomes:**
As a result of completing this course, students will be able to:

1. describe the relationship between ecosystem functions and services, and illustrate the dependence of this relationship on its political, social, and economic context;
2. explain the different categories of services provided by ecosystems;
3. describe the diversity of living organisms involved in the provision of ecosystem services;
4. explain the complexity of the relationship between the physical and biological environment of organisms and their ecological function;
5. identify the challenges of measuring ecological functions associated with biological populations and communities in real world systems;
6. summarize common methods of valuation and evaluate the advantages and limitations of various approaches;
7. assess the social and ethical issues that contribute to controversy in valuing ecosystem services;
8. identify the underlying assumptions and validity of interdisciplinary approaches that incorporate the value of ecosystem services into natural resource management;
9. illustrate with examples the dynamic nature of the provision and valuation of ecosystem services and the impact of ecological, social, and political factors; and
10. assemble their knowledge of ecosystem services in a synthesis of the literature or in a grant proposal.

**Expectations for Undergraduate and Graduate Students with Regard to Learning Outcomes:**
Different expectations for learning outcomes for undergraduate and graduate students are reflected in assignments and their assessment. Each week, undergraduate students will read one article in addition to a general reading selection that may be assigned. Graduate students will read the same selections as undergraduate students as well as an additional, more challenging, paper. Assignments and discussion board contributions for graduate students should not only reflect knowledge gained from their additional readings, but also should clearly show an ability to synthesize the readings and class materials. Quizzes for graduate students will not only cover additional readings, but will demand a more sophisticated understanding of the content. For the final project, undergraduate students will synthesize their learning in a final research paper, while graduate students will choose between an expanded research paper or a grant proposal that incorporates an ecosystem services component in their area of interest.

**Learning Resources:** There is no required textbook for the course, but students will be assigned weekly readings that include one or two papers from scientific and professional journals.
### Evaluation of Student Performance and Due Dates:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Point Value</th>
<th>Description</th>
<th>Deadlines*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>150</td>
<td>Covers all content of two-week period, including readings, overviews, microlectures, and videos – 5 at 30 pts each</td>
<td>Bi-weekly, on Sunday</td>
</tr>
<tr>
<td>Discussion Board</td>
<td>150</td>
<td>One original contribution and two replies (15 pts a week)</td>
<td>On Sunday at the end of each week</td>
</tr>
<tr>
<td>Graduate Journal Club</td>
<td>150</td>
<td>Graduate students will participate in an on-line journal club over additional assigned readings (Three contributions per week, and one week serving as discussion leader) (15 pts a week)</td>
<td>On Sunday at the end of each week</td>
</tr>
<tr>
<td>Homework Assignments</td>
<td>140</td>
<td>One on-line presentation (100 points) Feedback on four classmates’ presentations (40 points)</td>
<td>Grad Students: Presentation: Sunday, Week 5 Feedback: Sunday, Week 8</td>
</tr>
<tr>
<td>Final Project</td>
<td>150</td>
<td>Synthetic Project (one of the following):</td>
<td>Sunday, Week 10</td>
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<tr>
<td></td>
<td></td>
<td>• Research Review</td>
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<tr>
<td></td>
<td></td>
<td>• Grant Proposal (FW 562 option only)</td>
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</tr>
</tbody>
</table>

*For our purposes, weeks will begin on Monday and end on Sunday and all deadlines are for 11:59 PM Pacific Time

### Grading Scale

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>92.5-100%</td>
</tr>
<tr>
<td>A-</td>
<td>89.9-92.4%</td>
</tr>
<tr>
<td>B+</td>
<td>88.0-89.8%</td>
</tr>
<tr>
<td>B</td>
<td>82.5-87.9%</td>
</tr>
<tr>
<td>B-</td>
<td>79.9-82.4%</td>
</tr>
<tr>
<td>C+</td>
<td>78.0-79.8%</td>
</tr>
<tr>
<td>C</td>
<td>72.5-77.9%</td>
</tr>
<tr>
<td>C-</td>
<td>69.9-72.4%</td>
</tr>
<tr>
<td>D+</td>
<td>68.0-69.8%</td>
</tr>
<tr>
<td>D</td>
<td>62.5-67.9%</td>
</tr>
<tr>
<td>D-</td>
<td>59.9-62.4%</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 59.9</td>
</tr>
</tbody>
</table>

### Course Policies

**Makeup Quiz Policy:** Makeup quizzes will be given only for missed quizzes excused in advance by the instructor. Excused absences will not be given for airline reservations, routine illness (colds, flu, stomach aches), or other common ailments. Excused absences will generally not be given after the absence has occurred, except under very unusual circumstances.
Late Assignments and Discussion Contributions: Late homework and projects will be penalized 10% of the total points of the assignment per day. Late discussion board contributions will not receive any credit.

Incompletes: Incomplete (I) grades are given only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child) and if the student has turned in 75% of the points possible. If you are having any difficulty that might prevent you from completing the coursework, please don’t wait until the end of the term; let your instructor know right away.

Statement Regarding Students with Disabilities: Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS). Students with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

Expectations for Student Conduct: In an academic community, students, faculty, and staff each have responsibility for maintaining an appropriate learning environment, whether online or in the classroom. Students, faculty, and staff have the responsibility to treat each other with understanding, dignity and respect. Disruption of teaching, administration, research, and other institutional activities is prohibited by Oregon Administrative Rule 576-015-0015 and is subject to sanctions under university policies.

Academic Integrity: Students are expected to comply with all regulations pertaining to academic honesty. Academic dishonesty is defined as an intentional act of deception in which a student seeks to claim credit for the work or effort of another person or uses unauthorized materials or fabricated information in any academic work. For further information, refer to OSU’s Expectations for Student Conduct at http://oregonstate.edu/admin/stucon/achon.htm or contact the office of Student Conduct and Mediation at 541-737-3656.

Plagiarism: You are expected to submit your own work in all your assignments, projects, postings to the discussion board, and other communications, and to clearly give credit to the work of others when you use it. Please visit the following websites to review definitions and examples of plagiarism and how to avoid it: http://plagiarism.org/plagiarism-101/overview/ and http://owl.english.purdue.edu/owl/resource/589/01/. Plagiarism or any other form of academic dishonesty will result in a grade of “F” for the course.

Conduct in the Online Classroom: Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the university’s regulations regarding civility. Students will be expected to treat all others with the same respect as they would want afforded themselves. Disrespectful behavior to others (such as harassing behavior, personal insults, inappropriate language) or disruptive behaviors in the course (such as persistent and unreasonable demands for time and attention both in and out of the classroom) is unacceptable and can result in sanctions as defined by Oregon Administrative
Ground Rules for Online Communication & Participation:
- Online discussions are public messages, and all writings in this area will be viewable by the entire class or assigned group members. If you prefer that only the instructor sees your communication, send it by email, and be sure to identify yourself and the class.
- Posting of personal contact information is discouraged (e.g. telephone number, address, personal website address).
- Observation of "Netiquette": All your online communications need to be composed with fairness, honesty and tact. Spelling and grammar are very important in an online course, both for discussion board postings and for emails to fellow students and your instructor. What you put into an online course reflects on your level of professionalism. All emails to other students and faculty should include a salutation/greeting and a closing that includes your name. Use complete sentences and do not use text acronyms. For more information about “netiquette,” go to http://www.albion.com/netiquette/corerules.html.

Guidelines for a productive and effective online classroom
- The discussion board is your space to interact with your colleagues related to current topics and respond to your colleagues’ ideas and statements. It is expected that each student will participate in a mature and respectful fashion.
- Participate actively in the discussions, having completed the readings and thought about the issues. To count for credit, contributions must be more than simply agreeing or disagreeing with someone else’s post. Review the discussion board rubric to see how you will be graded.
- Pay close attention to what your classmates write in their online comments. Ask clarifying questions, when appropriate. These questions are meant to probe and shed new light, not to minimize or devalue comments.
- Think through and reread your comments before you post them.
- Assume the best of others in the class and expect the best from them.
- Value the diversity of the class. Recognize and value the experiences, abilities, and knowledge each person brings to class.
- Disagree with ideas, but do not make personal attacks. Do not demean or embarrass others. Do not make sexist, racist, homophobic, or victim-blaming comments.
- Be open to be challenged or confronted on your ideas or prejudices.

Student Assistance
Technical Assistance: If you experience computer difficulties, need help downloading a browser or plug-in, assistance logging into the course, or if you experience any errors or problems while in your online course, contact the OSU Help Desk for assistance. You can call (541) 737-3474 or visit the OSU Computer Helpdesk online.
- COURSE DEMO
- GETTING STARTED
**Tutoring:** Online tutoring service is available through NetTutor to meet the needs of Ecampus students. NetTutor is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Students connect to live tutors from any computer that has Internet access. NetTutor provides a virtual whiteboard that allows tutors and students to work on problems in a real time environment. They also have an online writing lab where tutors critique and return essays within 24 to 48 hours.

**OSU Student Evaluation of Teaching:** Course evaluation results are extremely important and are used to help improve this course and the learning experience of future students. Results from the multiple choice questions are tabulated anonymously and go directly to instructors and department heads. Student comments on the open-ended questions are compiled and confidentially forwarded to each instructor, per OSU procedures. The online Student Evaluation of Teaching form will be available toward the end of each term, and you will be sent instructions by Ecampus. You will login to “Student Online Services” to respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted.

**REFUND POLICY INFORMATION**

Please see the Ecampus website for policy information on refunds and late fees.