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 site for enrolled students and may be more current than this sample syllabus.

FW 524
Introduction to Fisheries Assessment

COURSE CREDITS:
(3) This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits.

PREREQUISITES, CO-REQUISITES AND ENFORCED PREREQUISITES:
College algebra and introductory statistics are recommended. For those unfamiliar with data collection and analysis methods in fisheries, FW 454/554, Fishery Biology, is a good precursor to this course.

COURSE DESCRIPTION FROM CATALOG
Fisheries management strategies rely on models that predict a population's responses to exploitation. This course introduces approaches commonly used to assess and evaluate the dynamics and status of a population. Provides an overview of the terminology, data requirements, underlying rationale, assumptions, limitations and uncertainty associated with stock assessments.

CONTACT INFORMATION:
Course Supervisor name: Selina Heppell
Instructor email: Selina.heppell@oregonstate.edu
Instructor phone: 541-737-9039
Link to instructor bio or website: http://oregonstate.edu/heppell
Teaching Assistant name and contact info: varies

Please post all course-related questions in the General Discussion Forum so that the whole class may benefit from our conversation. Please email your instructor for matters of a personal nature. The instructor will reply to course-related questions and email
within 24-48 hours. I will strive to return your assignments and grades for course activities to you within five days of the due date.

For accuracy, please check the [ECampus Schedule of Classes](http://ecampus.oregonstate.edu) to see the most current information for the instructor of this course each term. You can also search for instructor contact information by name from the OSU Home Page.

**LEARNING RESOURCES:**

No textbook is required for this course; portions of book chapters and primary literature readings will be provided. Optional texts include:


**NOTE:** For textbook accuracy, please always check the textbook list at the [OSU Bookstore website](http://bookstore.oregonstate.edu). Sample syllabi may not have the most up-to-date information.

Students can also click the OSU Beaver Store link associated with the course information in the [Ecampus schedule of classes](http://ecampus.oregonstate.edu) for course textbook information and ordering.

**COURSE SPECIFIC MEASURABLE STUDENT LEARNING OUTCOMES:**

By the end of this course, all students will have demonstrated their ability to:

- describe the data requirements and assumptions of typical stock assessment methods *(knowledge)*

- discuss the influence of uncertainty and abiotic processes on biological reference points *(comprehension)*

- compare, contrast, and summarize details from published stock assessments *(synthesis)*

- identify alternative assessment approaches *(application)*

- evaluate the strengths and weaknesses of a stock assessment *(analysis)*
■ demonstrate ways in which ecosystem considerations could be incorporated into an assessment (evaluation)
■ apply skills in verbal and written communication through PowerPoint presentation and group discussions (application)

COURSE CONTENT AND POLICIES:
A list of topics by week and associated readings are provided on the last pages of this document. Readings and assignments are expected to take 5-6 hours/week. Lecture review time is equivalent to a 3 credit course, about 3 hours/week. Participation in Discussion Forums is expected to take 1-2 hours/week.

Course Organization: The course will consist of 1-2 PowerPoint lectures each week, weekly discussions of assigned reading, and four homework exercises. Discussions based on assigned reading and lectures represent the core of this course. Students will regularly interact with each other and the instructor via Blackboard or Canvas. Within the course Blackboard site, students will access all required materials, homework exercises, discuss course material, and communicate with other students and the instructor. A discussion board on Blackboard will serve as a question-answer forum. To preview how an online course works, visit the Ecampus Course Demo. For technical assistance, Blackboard and otherwise, see http://ecampus.oregonstate.edu/services/technical-help.htm

Proctored Exams
There are no exams required for this course.

Incompletes
Incomplete (I) grades will be granted 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 80% of the points possible (in other words, usually everything but the final paper). If you are having any difficulty that might prevent you completing the coursework, please don’t wait until the end of the term; let me know right away.

Course Content

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Reading Assignments</th>
<th>Learning Activities</th>
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<tbody>
<tr>
<td>1</td>
<td>Overview &amp; Objectives of Fishery Assessments&lt;br&gt;Framework of fisheries assessments</td>
<td>Branch et al. 2011&lt;br&gt;Hilborn and Walters 1992 pp 1-21</td>
<td>Online discussion</td>
</tr>
<tr>
<td>2</td>
<td>Population dynamics and structure</td>
<td>Hilborn et al. 2003&lt;br&gt;Levins 1966</td>
<td>Online discussion, spreadsheet assignment</td>
</tr>
<tr>
<td>3</td>
<td>Estimating abundance, vital rates and diversity</td>
<td>Wilkins 1986&lt;br&gt;Maunder and Wong 2011</td>
<td>Online discussion</td>
</tr>
</tbody>
</table>
|   | Stock-recruit relationships | Wooster and Bailey 1989  
|   |                             | Scott et al. 1999  
|   | Biological reference points and indicators | Hilborn and Stokes 2010  
|   |                             | Samhourri et al. 2010  
|   | Age-structured models | Wang et al. 2005  
|   | Biomass and size-based models | Hollowed et al. 2000  
|   |                             | Mueter and Megrey 2006  
|   | Parameter estimation, error and uncertainty | Chlles 1998  
|   |                             | Fulton et al. 2011  
|   | Ecosystem considerations | Overholtz et al. 2008  
|   |                             | Schirripa et al. 2009  
|   | NO LECTURE OR READING ASSIGNMENT |  
|   | Fisheries assessments: future directions | Fulton et al. 2014  
|   |                             | Salomon et al. 2011  
|   | Finals |  

**Guidelines for a Productive and Effective Online Classroom**

Students are expected to conduct themselves in the course (e.g., on discussion boards, email) in compliance with the university’s regulations regarding civility.

Civility is an essential ingredient for academic discourse. All communications for this course should be conducted constructively, civilly, and respectfully. Differences in beliefs, opinions, and approaches are to be expected. In all you say and do for this course, be professional. Please bring any communications you believe to be in violation of this class policy to the attention of your instructor.

Active interaction with peers and your instructor is essential to success in this online course, paying particular attention to the following:

Unless indicated otherwise, please complete the readings and view other instructional materials for each week before participating in the discussion board.

Read your posts carefully before submitting them.

Be respectful of others and their opinions, valuing diversity in backgrounds, abilities, and experiences.

Challenging the ideas held by others is an integral aspect of critical thinking and the academic process. Please word your responses carefully, and recognize that others are expected to challenge your ideas. A positive atmosphere of healthy debate is encouraged.

**EVALUATION OF STUDENT PERFORMANCE:**

**Homework Assignments:**

Four assignments will be due over the course of the quarter. Each assignment will be available on our Blackboard site at least one week in advance. Two assignments will be in the form of Excel spreadsheet exercises and two will be based on your review and
interpretation of stock assessments. The final project assignment will be a Power Point presentation that summarizes a fishery, status of a stock, and method used for assessment.

**Reading/Discussion:**
Portions of book chapters or published research articles will be assigned each week as required reading (see course schedule for specific details). On-line discussion based on assigned reading serves as a foundation for this course.

Participation in each week’s discussion forum is required. You will need to check and contribute to discussion boards frequently each week. A majority of your grade will be derived from your participation and contributions in these discussions (see Expectations for Student Conduct for more information). If you will be unable to participate over the course of a week, please notify and make arrangements with the instructor in advance. *In order to develop these discussion forums, you will be expected to have completed each week’s assigned reading by Wednesday of each week.*

Each week, a question to prompt conversation and questions on the assigned reading will be posted to Blackboard under the “Discussion Board” menu. This initial post is not intended to serve as the sole emphasis of our weekly conversation. Your additional questions, musings, criticisms, or accolades are likely to take our discussion in many interesting directions. Although the instructor will initiate discussions most weeks, each student will be responsible for prompting discussion one time during the quarter. Dates and assignments for these student initiated discussion weeks will be presented in detail on Blackboard as the quarter progresses. Your level of participation in discussions will determine about half of your grade, so it is important to keep up with the readings.

**Discussion Participation**
Your level of participation in discussions will determine 55% of your grade. Discussion during the last week of the quarter will be worth 30 points because of the amount of material that is being covered. During the remainder of the quarter, you may earn up to 20 points for your participation in discussion.

Discussions will be graded as follows:

**Total Points Possible (20/30):**

20: Question and insightful response posted, your questions/comment starts a thread of discussion, and you offer useful comments on another student’s posting. Introducing additional information is welcomed, but not necessary.

19: Insightful response posted, and your comment starts a thread of discussion. Replied to other discussion threads.

18: Substantial response/questions posted. Replied to other discussion threads.
17: Substantial response/questions posted. Replied to other discussion threads.

16: Response or question related to assigned reading or weekly topic posted. Offer comments on another posting (no more than 2 posts submitted).

15: Response or question to assigned reading posted (single posting).

10: Maximum points for a late posting – contribute in a timely fashion so that others may consider and respond to your post. If your first comment on a weekly reading is posted on a Monday, it will be considered late (initial questions for the week’s reading will be posted each Wednesday).

0: No comment posted on a weekly discussion of assigned reading. Posting to a discussion more 7 days after it was initiated will be considered as “no comment” rather than “late” since other members of the class will not benefit from the late contribution.

STATEMENT REGARDING STUDENTS WITH DISABILITIES
Oregon State University is committed to student success; however, we do not require students to use accommodations nor will we provide them unless they are requested by the student. The student, as a legal adult, is responsible to request appropriate accommodations. The student must take the lead in applying to Disability Access Services (DAS) and submit requests for accommodations each term through DAS Online. OSU students apply to DAS and request accommodations at our Getting Started with DAS page.

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.

ACADEMIC INTEGRITY AND STUDENT CONDUCT (OSU POLICY)
Students are expected to be honest and ethical in their academic work. Intentional acts of academic dishonesty such as cheating or plagiarism may be penalized by imposing an “F” grade in the course. For more info please see:

- Statement of Expectations for Student Conduct
- Student Conduct and Community Standards
- Policy On Disruptive Behavior
PLAGIARISM
You are expected to submit your own work in all your assignments, postings to the discussion board, and other communications, and to clearly give credit to the work of others when you use it. Academic dishonesty will result in a grade of “F.”
- Statement of Expectations for Student Conduct
- Avoiding Academic Dishonesty

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, email osuhelpdesk@oregonstate.edu or visit the OSU Computer Helpdesk online.

TUTORING
For information about possible tutoring for this course, please visit our Ecampus NetTutor page. Other resources include:
- Writing Center
- Online Writing Lab

STUDENT EVALUATION OF TEACHING
We encourage you to engage in the course evaluation process each term – online, of course. The evaluation form will be available toward the end of each term, and you will be sent instructions through ONID. You will login to “Online Services/MyOSU” to respond to the online questionnaire. The results on the form are anonymous and are not tabulated until after grades are posted. Course evaluation results are very important and are used to help improve courses and the learning experience of future students. Results from questions are tabulated anonymously and go directly to instructors and unit heads/supervisors. Unless a comment is “signed,” which will associate a name with a comment, student comments on the open-ended questions are anonymous and forwarded to each instructor. “Signed” comments are forwarded to the unit head/supervisor.