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. Summer term courses may be accelerated – please check the Ecampus Schedule of Classes for more information.

FW 454/554
Fishery Biology - 4 credits

COURSE CREDIT:
(4) This course combines approximately 120 hours of instruction, online activities, and assignments for 4 credits.

PREREQUISITES, CO-REQUISITES AND ENFORCED PREREQUISITES:
FW 315 [D-] and FW 320 [D-].

COURSE DESCRIPTION:
FW 454. FISHERY BIOLOGY (4).
Principles and methods used in studying the biology of fishes; ecological requirements of freshwater and anadromous fishes; principles and practices in sport fishery management. (Writing Intensive Course).
Baccalaureate Core Course Attributes: Core, skills, WIC

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

Sample syllabi may not have the most up-to-date information. For accuracy, please check the ECampus Schedule of Classes to see the most current instructor information. You can search for contact information by name from the OSU Home Page.

LEARNING RESOURCES:
Textbooks, lab manuals, etc.; indicate if required or optional.
NOTE: For textbook accuracy, please always check the textbook list at the OSU Bookstore website. 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 for course textbook information and ordering.

COURSE SPECIFIC MEASURABLE STUDENT LEARNING OUTCOMES:

By the end of this course, students will be able to:
1. Calculate fecundity, age at maturity, and stock-recruitment relationships
2. Analyze fishery data to estimate growth rates, mortality rates, and generate population size estimates using standard fisheries techniques
3. Explain the purpose of conducting biological assessments of fish populations
4. Assess freshwater and marine habitat as it relates to managing healthy fisheries
5. Apply knowledge of species-specific life history and behavior information to more effectively manage fisheries
6. Recognize the specific role that habitat plays in framing life history and the potential impacts that affect fish habitat
7. Read and evaluate a scientific article related to fishery biology, and compare different viewpoints relating to fishery biology both orally and in writing
8. Collaborate with other students to produce a group writing project

To fulfill the Writing Intensive Course requirements, students will:
1. Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing.
2. Demonstrate knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline.
3. Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft

In addition to the above outcomes, graduate students will be able to:
1. Manage an assessment team directed at developing ecosystem-based fishery management strategies
2. Synthesize and edit multiple components of an ecosystem-based management plan, and complete a final, cohesive management document

COURSE CONTENT AND POLICIES:

Lectures: Fishery Biology Theory

The first few lectures will focus on what Fishery Biology is and whether or not we currently face a crisis in fisheries as often reported in the literature and the popular press. Following this introduction, lectures will cover many of the topics associated with why and how we assess fish populations, their habitats, and life history. Although we will not be able to cover all the activities in which fishery biologists engage, this course will cover many of the
components that go into assessing the condition and status of stocks and their environments. The lecture portion of the course will include information about the data types that go into a biological assessment and the theory and practice behind the collection of these data. This will include models for growth, mortality, population size and the assumptions and caveats associated with them. The importance of habitat will be reviewed as well as some of the laws important to the management of fish populations, both commercial and recreational. Concepts related to the management of an ecosystem will be introduced and ecosystem-based fishery management as a potential future direction for fisheries management will be discussed.

**Laboratories: Data analysis and computer modeling**
You will need proficiency in Excel to complete the laboratory exercises. Seek out an online tutorial if you need one. Laboratory exercises will feature the use of spreadsheet models to analyze data. However, this course is not designed to be a quantitative modeling course. This course is designed to expose students to some of the very basic types of models used in stock assessment.

**Writing Assignments: Intensive practice to improve scientific writing skills**
This is a writing intensive course (WIC) that satisfies the WIC requirement for the undergraduate Fisheries and Wildlife major. Informal and formal writing assignments will be utilized to explore, learn and reinforce concepts in fishery biology. Instructors will provide guidance on the writing process and there are many resources provided through the university to assist student writing. Students will receive feedback and will be provided with time to produce revised drafts for some assignments. The three primary objectives associated with the writing component of this class are:

1. Writing to understand and apply Standard Written English conventions to the field of fishery biology
2. Writing to assist critical thinking in the field of fishery biology
3. Taking a document through the writing process from concept to conclusion. There are three primary writing assignments associated with this class. Explicit information on each type, including grading, will be provided in separate documents.

These objectives will be evaluated by numerous types of writing which are thoroughly outlined in the Assignments Guide model on Canvas and listed in the “Components of Final Grade” below.

**Policy for Late Submission of Assignments and Projects:**
One letter grade per day late will be deducted after grading any work submitted after the due date and time.

**EVALUATION OF STUDENT PERFORMANCE:**
GRADING
Unless otherwise indicated, grading will be done on a standard 100% scale:

- 92-100 A 80-81.9% B- 68-69.9% D+
- 90-91.9% A- 78-79.9% C+ 62-67.9% D
- 88-89.9% B+ 72-77.9% C 60-61.9% D-
- 82-87.9% B 70-71.9% C- <60% F

COMPONENTS OF FINAL GRADE:

<table>
<thead>
<tr>
<th>FW 454</th>
<th>Pts each</th>
<th># of Assignments</th>
<th>Points</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>10</td>
<td>8</td>
<td>80</td>
<td>11.3</td>
</tr>
<tr>
<td>Synthesis</td>
<td>20</td>
<td>4</td>
<td>80</td>
<td>11.3</td>
</tr>
<tr>
<td>Discussion board</td>
<td>10</td>
<td>8</td>
<td>80</td>
<td>11.3</td>
</tr>
<tr>
<td>Laboratories</td>
<td>10</td>
<td>7</td>
<td>70</td>
<td>9.9</td>
</tr>
<tr>
<td>Freshwater project</td>
<td>100</td>
<td>1</td>
<td>100</td>
<td>14.1</td>
</tr>
<tr>
<td>Marine project</td>
<td>100</td>
<td>1</td>
<td>100</td>
<td>14.1</td>
</tr>
<tr>
<td>Exam 1</td>
<td>100</td>
<td>1</td>
<td>100</td>
<td>14.1</td>
</tr>
<tr>
<td>Exam 2</td>
<td>100</td>
<td>1</td>
<td>100</td>
<td>14.1</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td>710</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FW 554</th>
<th>Pts each</th>
<th># of Assignments</th>
<th>Points</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary</td>
<td>10</td>
<td>8</td>
<td>80</td>
<td>13.1</td>
</tr>
<tr>
<td>Synthesis</td>
<td>20</td>
<td>4</td>
<td>80</td>
<td>13.1</td>
</tr>
<tr>
<td>Discussion board</td>
<td>10</td>
<td>8</td>
<td>80</td>
<td>13.1</td>
</tr>
<tr>
<td>Laboratories</td>
<td>10</td>
<td>7</td>
<td>70</td>
<td>11.5</td>
</tr>
<tr>
<td>Freshwater project</td>
<td>100</td>
<td>1</td>
<td>100</td>
<td>16.4</td>
</tr>
<tr>
<td>Marine project</td>
<td>200</td>
<td>1</td>
<td>200</td>
<td>32.8</td>
</tr>
<tr>
<td>Totals</td>
<td></td>
<td></td>
<td>610</td>
<td>100</td>
</tr>
</tbody>
</table>

COURSE SITE LOGIN INFORMATION
Information on how to login to your course site can be found HERE.

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.

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.

Additionally, Canvas, the learning management system through which this course is offered, provides a vendor statement certifying how the platform is accessible to students with disabilities.

**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.

Student conduct is governed by the universities policies, as explained in the Office of the Dean of Student Life: Student Conduct and Community Standards. In an academic community, students and 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.

Students are expected to conduct themselves in the course (e.g. on discussion boards, email postings, etc.) 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 to themselves. Disrespectful behavior (such as harassing behavior, personal insults, inappropriate language) or disruptive behaviors are unacceptable and can result in sanctions as defined by Student Conduct and Community Standards.

For more info on these topics please see:

- Statement of Expectations for Student Conduct
- Student Conduct and Community Standards - Offenses
- 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.

• COURSE DEMO
• GETTING STARTED

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
The online Student Evaluation of Teaching form will be available in week 9 and close at the end of finals week. Students will be sent instructions via ONID by the Office of Academic Programs, Assessment, and Accreditation. Students will log in 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. 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.

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