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.

FW497/597 Aquaculture

CRN:18872, 3 credit hours

Course Instructors: Chris Langdon: chris.langdon@oregonstate.edu
Evan Durland: durlande@onid.oregonstate.edu

Office Hours: by appointment, at HMSC
Baccalaureate Core Course Attributes: Core, Skills, WIC

Course Description:
Principles and practices for the aquaculture of fish, shellfish, and algae. Taught at Hatfield Marine Science Center. (Writing Intensive Course.) PREREQS: 9 credits of upper-division biology.

This course combines approximately 90 hours of instruction, online activities, and assignments for 3 credits

Overview
Aquaculture, the farming of aquatic plants and animals is an ancient form of agriculture that has seen a meteoric rise in the past 30 years. Today, aquaculture accounts for >50% of all seafood eaten in the US. The vast majority of aquaculture products come from Asia; seafood imports in America amount to the second largest trade deficit behind only oil. Despite the imbalance, domestic aquaculture is also the fastest growing sector of agriculture in America. This burgeoning industry will drastically change the way we conceptualize marine resources in the coming decades and the next generation of regulators, farms and farmers will dictate whether this industry is a burden or a boon to aquatic ecosystems.

FW497/597 Aquaculture will introduce students to this dynamic and diverse industry. Course material will provide broad coverage of the major topics in fish and shellfish farming including: biology, nutrition, diseases, system design, water quality and environmental considerations. This course will utilize diverse web resources to deliver content. Student participation will be assessed by weekly quizzes, short essays and thoughtful contribution to discussion forums. A course-long project will be assigned where students adapt concepts learned in class to a model organism of their choosing. This “Species Profile” paper will be crafted and revised throughout the term culminating in a final draft that will contribute significantly to the final grade. Weekly participation is required from all students and grasp of concepts and materials will be evaluated by a comprehensive final at the end of the course.
Prerequisites
One year of introductory biology and chemistry courses is required. Additionally, as this is a Writing Intensive Course (WIC), education and classwork in composition and writing is strongly encouraged.

Literature sources
A large assortment of literature will be linked to and attached within the weekly unit folders. A large portion of these journals and articles will be required reading to complement the lectures and videos. There will also be a large list of “supplemental reading” that will be made available to students to provide background information. No textbook is required but the class will follow along closely with the following textbook:


**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.

Learner Outcomes
By the end of this course students will be able to

- **Evaluate** different aquaculture systems and species, identifying the suitability of each to different environments and markets.
- **Describe** the different components of aquaculture systems
- **Explain** how different components of aquaculture are effectively combined to create culture systems.
- **Summarize** the interplay of biology, chemistry and engineering in aquaculture
- **Appraise** popular and scientific resources on their quality and veracity
- **Demonstrate** proper writing style and citation format for scientific works.
- **Construct** a scientific paper that draws on diverse information sources to inform a scientific review of a species found in aquaculture.

Grading:
40% Species profile or position paper (200 pts)
20% Online discussion participation (100 pts)
10% Short essays (50 pts)
10% Quizzes (50 pts)
20% Final exam (100 pts)

Total: 500 pts

Your discussion contributions will be worth 20 points per week (5 weeks total). You will be required to construct one thread of your own, due Wednesday by midnight and comment on a minimum of two other student’s subject threads before Saturday at midnight. Points will be awarded based on quality and structure of posts as well as how well your comments contribute to the discussion as a whole. Grading scale for the course will follow traditional cutoffs: >90% for an A, 80-89 for a B etc.

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 541-737-4097.

**Cheating and Plagiarism**
Discussion, interaction and collaboration are encouraged throughout this course. Assessments (writings, quizzes, exams), however, must be completed singularly: anyone found cheating or plagiarizing will forfeit their grade for the course. For further information, visit [Student Conduct and Community Standards](#).

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<th>Schedule:</th>
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<tbody>
<tr>
<td><strong>Week</strong></td>
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**Attendance:**
Online materials will be made available at 8:00 AM every Monday during the term and remain posted for the duration of the course. Although no specific meeting times are established, students will need to log on and “attend” multiple times per week to review content, complete assignments and contribute to discussion forums. Late work will be penalized 10% per day past due.

**Graduate level (FW597) expectations:**
Research a particular aquaculture system or controversial issue and construct a report summarizing the aspects of it. This project will be discussed in detail with graduate students the first week of class.

This course is offered through Oregon State University Extended Campus. For more information, contact:
Web: ecampus.oregonstate.edu Email: ecampus@oregonstate.edu Tel: 800-667-1465
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 60% 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.

Writing Intensive Course (WIC) requirements
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.

We will satisfy these requirements by:
1) Giving students regular and frequent opportunities to write, including both graded and ungraded writing.
2) Include at least one paper that addresses a controversial question and that asks students to integrate information from more than one source;
3) Require at least 5,000 words (including drafts, in-class writing, informal papers, and polished papers); 2,000 words of this total will be in polished papers which students have revised after receiving feedback and criticism.

Canvas
This course will be delivered via Canvas where you will interact with your classmates and with your instructor. Within the course Canvas site, you will access the learning materials, such as the syllabus, class discussions, assignments, projects, and quizzes. To preview how an online course works, visit the Ecampus Course Demo. For technical assistance, please visit Ecampus Technical Help.

Other important links:
- Academic Integrity
- Student Conduct Home
- NetTutor link
- Exam & proctoring link

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.
Grading Rubric for “Species Profile” Paper:

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<tr>
<th>Criteria</th>
<th>Poor (0-60%)</th>
<th>Good (61-80%)</th>
<th>Excellent (81-100%)</th>
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<tr>
<td>Format/Layout (30pts)</td>
<td>Follows requirements poorly, unkempt formatting</td>
<td>Follows requirements, some sloppiness but good overall</td>
<td>Polished and neat, sections crisp, tables and figures fit nicely within text</td>
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<td>Content/Information (100pts)</td>
<td>Information is lacking, detail is absent, vague overall</td>
<td>Fairly complete, all the bases covered but gaps remain. Some questions remain unanswered</td>
<td>Comprehensive background and review of the species and its culture practices. No stone unturned.</td>
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<td>Quality of Writing (40pts)</td>
<td>Choppy, fragmented style, grammatical errors prevalent. Confusing at times</td>
<td>Well strung together, some transitions still awkward/abrupt. Some grammar problems but readable</td>
<td>Fluid, concise and well-constructed. Sections flow naturally into one another and interest is held throughout.</td>
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<tr>
<td>References and use (30pts)</td>
<td>References lacking and/or from inappropriate sources</td>
<td>Assortment of references, some from scientific publications, many not.</td>
<td>Comprehensive list of references, from scientific journals and reputable websites</td>
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Total: 200 points