

AQUA-1: Intro to Aquaculture

Course Information

Semester & Year: Fall 2025

Course ID & Section #: AQUA-1- V9058

Instructors Name: Jasmine Iniguez

Day/Time of required meetings: asynchronous

Course units: 3

Instructor Contact Information

Office location: SCI 216I

Lab Office Location: HU125A Science Prep Room

Office hours: In person by appointment or via ZOOM

Phone number: (707) 476-4528

Email address: jasmine-iniguez@redwoods.edu

Social Media: [CR_Aquaculture](#)

Required Course Materials:

Aquaculture: Farming Aquatic Animals and Plants, 3rd Edition

Author: John S. Lucas & Paul C. Southgate

Publisher: Wiley-Blackwell

ISBN: 9781119230861

The ebook is made available on Canvas

Aquaculture Production System, 2012

Author: James. H. Tidwell

Publisher: World Aquaculture Society and Wiley Blackwell

ISBN: 9780813801261

eBook FREE access at:

<https://ebookcentral.proquest.com/lib/redwoods-ebooks/detail.action?docID=827051&pq-origsite=prim>

Supplemental References:

Southern Regional Aquaculture Center Fact Sheets: <https://srac.tamu.edu/>

Catalog Description

This course provides students with a general understanding of aquaculture: the science and business of culturing and rearing aquatic organisms. Students learn the broad history and current state of the industry. The course will include aquaculture production systems for breeding,

growing, and harvesting of various species cultured locally and globally, including finfish, bivalves, crustaceans, and seaweeds. Students explore issues of water quality, nutrition, disease prevention, environmental impacts, and sustainability. This course also covers the current state of aquaculture as an industry, its economic impacts, and its role in global food production.

Course Student Learning Outcomes

1. Identify different systems and techniques for breeding, growing, and harvesting various aquaculture species including strategies for prevention and water quality optimization
2. Discuss past and present issues in aquaculture, analyze legal, social, economics, and environmental context in which the industry operates.

Prerequisites/corequisites/ recommended preparation

None

Evaluation & Grading Policy

Grading:

Course Requirements	Percent of Total Grade	Due Date
Exam 1	20	Week 4
Exam 2	20	Week 9
Final Exam	15	Week 17
Research Paper	10	TBA
Quizzes	15	Sundays
Discussion Boards	20	Sundays

CR has a set policy for how course percentages convert to grades:

A > 92%; A- 90-92%; B+ 87-89%; B 83-86%; B- 80-82%; C+ 77-79%; C 70-76%; D 60-69%; F

Late Assignments:

Each student is responsible for completing all assignments and activities as specified by the instructor by the date indicated. If you have an emergency (e.g. hospitalization, death in the family, car accident) please notify me as soon as you can if this affects your coursework or attendance. Please contact me immediately if something in the foreseeable future is approaching as well.

Late assignments will be penalized 5% per day. Assignments will only be accepted for up to one week past the due date. Be mindful that Discussion Boards and Quizzes will close after one week for late submission.

Exam Make-up Policy:

This class will have a total of **three exams (100 points each), which make up 55% of your grade!** The course is broken up into three units. These three units make up each exam, which means the exams are not cumulative, but some topics may be repeated, and you may see them on other exams. The final is not cumulative. ***You must have a serious and verifiable excuse to miss a lecture exam. If you have an emergency (hospitalization, family/friend death, car accident, quarantine) please notify me as soon as you can if this affects your ability to take the exam on the scheduled date.*** Please contact me 12 hours in advance if something in the foreseeable future is approaching as well. If you do not notify me and or do not provide a legitimate excuse an automatic 10% will be taken from your makeup exam.

Netiquette

While we are not communicating face-to-face, please remember to be respectful. This includes opinions and thoughts that are made by your peers on the discussion boards. We should all be supportive and encouraging to the difference of opinion of others – as we can grow from this! We should all support each other in the course to achieve our goals and be successful. An online classroom will still be a safe place for your peers just as much as an in-person setting should be.

Discussion Boards

Each Monday you will have a new weekly discussion board to post on. You will have to read or watch the content that is provided on the discussion board and answer the discussion board questions. The discussion posts must be done by **Friday of the given week at 11:59pm**. You will then need to respond to another classmate's post on the discussion board. These **responses must be done by Sunday of the given week at 11:59 pm**. Your initial post will be graded by the thoughtful, detail, and effort that was taken into the discussion and your responses post will be graded by effort and detail. These discussion boards are worth **20% of your grade**.

- **Initial post:** Must be done on Fridays. You will be graded on the following: detail, insight, contribution, originality, and thoughtfulness.
- **Response Post:** Due on Sundays at midnight. Please be engaged with your peers. Posts with text verbiage such as “OMG and LOL” will not be accepted. Please try to engage and avoid posts such as “Nice work” or “That makes sense, thanks for sharing”. These posts with little engagement and thoughtfulness will not receive credit

Quizzes:

Quizzes will be made available on Canvas that will have questions corresponding with the given week's lectures. Please refer to textbook readings for further clarification on the content. **Quizzes will be due 11:59pm on Sundays. You will have two attempts at each quiz, and the highest grade is kept. Quizzes are worth 15% of your grade!**

Assignments:

You will have 1 main assignment in this class. See Canvas Assignment for more details

Aquaculture Research Paper and Symposium:

Students are required to write a literature review research paper describing one cultured aquaculture species of their choice.

DUE DATES:

Sunday, Sept 21: Topic identified on discussion board

Sunday, Oct 19: Outline

Sunday, Nov 23: First Rough Draft

Sunday, Dec 14: Final Draft

FORMAT:

- MLA Format
- Submit in Word document NOT pdf so I can make suggestions via track changes
- Typed with 12- point Font in Times New Roman
- Double spaced
- 4-6 pages in Length
- At least 5 peer-reviewed references should be cited from a research journal.
- Pictures, diagrams, and tables are highly encouraged but *not* required. They will not count towards page requirements.

OUTLINE:

- I. Introduction
- II. Life History
- III. Water Quality Requirements
- IV. Reproduction and Larval Culture
- V. Production Methods (Techniques and Systems used)
- VI. Nutritional Requirements
- VII. Disease
- VIII. Future Directions for the Industry
- IX. References

References: Utilize google scholar (<https://scholar.google.com/>) to search for academic journals. If there is a research manuscript you are unable to access, please let me know. I may be able to get it for you.

Tentative Course Schedule

AQUA-1: Intro to Aquaculture				
Module	Week 1	Topic	Textbook	Assignment
1	Aug 25-31	Course Overview Intro to Aquaculture/Historical	Tidwell Ch. 2	DB: 1 Quiz 1
Module	Week 2			
2	Sept 1-7	Functions and Characteristics of Aquaculture Systems	Tidwell, Ch. 3 Lucas et al. Ch. 3	DB: 2 Quiz 2
Module	Week 3			
3	Sept 8-14	Water Sources Water Quality	Tidwell, Ch.3 Lucas et al., Ch.4	DB: 3 Quiz 3
Module	Week 4			
4	Sept 15-21	EXAM 1		
Module	Week 5			
5	Sept 22-28	Ponds & Raceways	Tidwell, Ch. 10	DB: 4 Quiz 4
Module	Week 6			
6	Sept 29-Oct 5	Cages and Offshore Net Pens Integrated Multi-Trophic Aqua	Tidwell, Ch. 6 & 7 Tidwell, Ch. 11	DB: 5 Quiz 5
Module	Week 7			
7	Oct 6- 12	Recirculating Aquaculture System	Lucas et al. Ch. 8 & 15	DB: 6 Quiz: 6
Module	Week 8			
8	Oct 13-19	Aquaponics Biofloc Based	Tidwell Ch. 12	DB: 7 Quiz: 7
Module	Week 9			
9	Oct 20-26	EXAM 2		
Module	Week 10			
10	Oct 27- Nov 2	Seaweed Production	Lucas et al. Ch. 24 & Ch. 6	DB: 8 Quiz: 8
Module	Week 11			
11	Nov 3-9	Fish Reproduction	Lucas et al. Ch. 6	DB: 9 Quiz: 9
Module	Week 12			
12	Nov 10-16	Fish Feeding Practices & Nutrition	Lucas et al. Ch. 8	DB: 10 Quiz 10
Module	Week 13			
13	Nov 17- 23	Fish Health and Disease	Lucas et al. Ch.10	DB: 11
Module	Week 14			

14	Nov 24-30	Thanksgiving Break		
Module	Week 15			
15	Dec 1 – 7	Bivalve Production		No Quiz or DB
Module	Week 16			
16	Dec 8-14	Final Exam Review		
Module	Week 17			
17	Dec 14-19	FINAL EXAM		

**** THIS IS A TENTATIVE SCHEDULE AND IT IS SUBJECT TO CHANGE.**

Educational Accessibility & Support

College of the Redwoods is committed to providing reasonable accommodations for qualified students who could benefit from additional educational support and services. You may qualify if you have a physical, mental, sensory, or intellectual condition which causes you to struggle academically, including but not limited to:

- Mental health conditions such as depression, anxiety, PTSD, or bipolar disorder
- Common ailments such as arthritis, asthma, diabetes, autoimmune disorders, and diseases
- Temporary impairments such as a broken bone, recovery from significant surgery, or a pregnancy-related disability
- Neurodevelopmental disorders such as a learning disability, intellectual disability, autism, acquired brain injury, or ADHD
- Vision, hearing, or mobility conditions

Available services include extended test time, quiet testing environments, academic assistance and tutoring through the [LIGHT Center](#), counseling and advising, alternate formats of course materials (e.g., audio books, braille, E-texts), assistive technology, learning disability assessments, approval for personal attendants, interpreters, priority registration, on-campus transportation, adaptive physical education and living skills courses, and more. If you believe you might benefit from disability- or health-related services and accommodations, please contact [Student Accessibility Support Services \(SASS\)](#). If you are unsure whether you qualify, please contact Student Accessibility Support Services (SASS) for a consultation: sass@redwoods.edu.

SASS office locations and phone numbers

Eureka campus

- Phone: 707-476-4280
- Location: Learning Resource Center (Library)

Del Norte campus

- Phone: 707-465-2353
- Location: main building, near the Library

Klamath-Trinity campus

- Phone: 707-476-4280