

Fish Culture (Biology/Water 386/586)

Fall 2018

Required Texts:

Tidwell, J.H. (ed.) 2012. Aquaculture Production Systems. Wiley-Blackwell Publ.
 [Available at Text-Rental]

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Office Hours: (or by appointment)

Wed 9 – 10 am & Friday 1 – 2 pm

Lecture Outline:

Week of:	Lecture Topic	Chapter in Text	Lab Exercise
Introduction			
9/5	History, value & markets	1, 2	
Water & Culture Methods			
9/12	Water sources & quality	3	Pumps
9/19	Water quality & effluents	3	Aeration & water quality
9/26	Ponds	10	Pond soil
10/3	Flow-through (raceways)	9	Mechanical filtration
10/10	Recirculating (recycle)	11	Exam
Biology & Products			
10/17	Aquaponics	14	<i>Trip: Trout Farm*</i>
10/24	Cage, net pens & PAS	6, 7, 13, 15	<i>Trip: Aquaponics*</i>
10/31	Spawning & reproduction		<i>Trip: Wild Rose Hatchery*</i>
11/7	Nutrition & stocking		Chemical filtration
Business & Value			
11/14	Harvest & transport		Exam
11/21	Processing & products	<i>Thanksgiving</i>	<i>Economics: take home lab (issued 11/21)</i>
11/28	Sustainability & conservation		<i>Fish disease workshop</i>
12/5	BMP, biosecurity & HACCP		Student presentations
12/12	Economics		Final exam

Supplemental Readings:

Required additional readings will be assigned throughout the semester. Notification of each reading will be announced in lecture as we cover the appropriate topic. Readings may supplement the lecture or laboratory topic. Articles will be available on the course D2L site (as pdf documents). Material in the readings will be partially covered in class and will be fully covered on the exams. If you have questions about the material in the articles, ask questions in class.

Grading:

Three Exams	Exam 1 (in class (October 12), 100 pts)	20%
	Exam 2 (in class (November 16), 100 pts)	20%
	Exam 3 (Final exam (December 17, 12:30 pm), 100 pts)	20%
Lab Exercises	(7 @ 15 pts each)	24%
Project	(1 @ 100 pts; Due December 7)	8%
Field Trips	(3 @ 27.7 pts each)	8%
Total	(300 pts for exams; 285 pts labs, project & field trips)	100%

Discretionary points: Points may be added or subtracted from your final course grade based on effort, improvement, participation, alacrity, and attitude.

Grade Distribution (in %):

A =	100-94	B- =	83-80	D+ =	69-67
A- =	93-90	C+ =	79-77	D =	66-60
B+ =	89-87	C =	76-74	F =	<60
B =	86-84	C- =	73-70		

Lab Exercises:

You will be required to complete 7 lab exercises. Data collection will be accomplished in class; data analysis & summaries should be completed during and after class. Reports are due one week after the exercise. Credit can be earned with exercise accuracy, proper calculations, thorough analysis and explanations, and neatness.

Project:

Each student will be required to give a presentation on **December 7** showing and describing **three** slogans representing the Wisconsin Aquaculture Industry. Details to follow.

Field Trips:

Three field trips to fish culture facilities will be scheduled during the semester. Handouts and on-site exercises will be distributed and graded based on the field trip. Dates listed in the course schedule may have to be adjusted based on the availability of the facility. Be prepared for any type of weather. **The field trips will require extended lab time, so plan early.** The trips are **required** for completion of the course.

Rules & Grades:

There are NO "make-ups" for lab exercises. Lab exercises will be due one week from completion in class. Two points (-2) will be subtracted each day for late submissions.

Only university approved absences, accompanied by appropriate evidence (see undergraduate catalog), will be accepted if you miss the exams. A make-up exam must be taken within 3 class days of the actual exam date. Contact the instructor **before** the exam if there may be a problem. Exams will be returned one week after the exam date. Discussion regarding grades or grading practices will only be conducted during office hours or appointments; this ensures privacy and confidentiality.

Academic Misconduct: You are responsible for the honest completion and representation of your work and for the respect of others' academic endeavors. Any act of cheating, plagiarism, or academic misconduct is subject to the penalties outlined in UWS Chapter 14; <http://www.uwsp.edu/admin/stuaffairs/rights/rightsCommBillRights.pdf>

Students with Special Needs: First see Student Disability Services and complete the necessary paperwork. Then, contact me so that arrangements can be made for note-taking, testing, report completion and field trip activities.