

Principles of Aquaponics
Biology 380/580 Section
 Spring 2017

Required Text:

Nelson, R.L. 2008. Aquaponic food production: Raising fish and plants for food and profit. Available at UWSP Bookstore, Amazon.com, or <http://aquaponics.com> (\$29.95)

Instructors:

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Lecture Outline:

Date lecture is active online:	Lecture Topic	Chapter in Text	Time
Introduction:			
February 22	Introduction	1, 2	Two 1-hour lectures
February 27	Aquaponics history		
Aquaponics Systems:			
March 1	Aquaponic Applications and Benefits	3	1-hour lecture
March 6	Aquaponics Systems and Components 1	4,5	Two 1-hour lectures
March 8	Aquaponics Systems and Components 2		
March 13	Environmental Control	17,18	Two 1-hour lectures
March 15	Greenhouse Energy Efficiency		
Biology of Integrated Crops:			
March 27	Water Quality Dynamics 1	16	Two 1-hour lectures
March 29	Water Quality Dynamics 2		
April 3	Plant Biology	7,10,11,12	Two 1-hour lectures
April 5	Crop choices, seeding, transplanting, harvesting		
April 10	Fish Selection	6,14,15	Two 1-hour lectures
April 12	Fish Biology, Physiology & Nutrition		
April 17	Integrated Pest Management	13	Two 1-hour lectures
April 19	Biosecurity		
April 24	Daily Operation Recordkeeping	9	1-hour lecture
April 26	Good Agricultural Practices/Best Aquaculture Practices; Rules and Regulations		1-hour lecture
Business & Economics:			
May 1	Aquaponics/Greenhouse planning & start-up	8	Two 1-hour lectures
May 3	Economics of aquaponics		
May 8	Marketing Products	22	1-hour lecture

Supplemental Readings & Online Discussion:

Required additional readings will be assigned throughout the semester. Articles will be available on the course Desire2Learn (D2L) site (as pdf documents).

Online discussion sessions will be held continuously during the semester. They can be accessed through the course Desire2Learn site from the Discussions Tab. This is a time for all students to ask questions about lectures, supplemental readings, and review topics. Participation is considered a required part of the course.

Grading:

Three Exams	Exam 1 (March 27; 100 pts)	30%
	Exam 2 (April 21; 100 pts)	30%
	Exam 3 (May 12; 100 pts)	30%
	Participation in Online Discussions	10%
Total	(300 pts for exams, 33 pts participation)	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	

Exams: Exams will be emailed and posted on the course D2L site on the date listed (above) at 12 pm (noon) CST. They will be due 48 hours later by 12 pm (noon) CST. While any course content, scientific-based, and economic-based material may be used as references when answering exam questions, ***you should cite your sources, not plagiarize or extensively "quote", and be very critical of web-based information.*** Most web-based information is opinion and may be inaccurate or difficult to substantiate and **should not** be used as a source.

Online Discussions: A portion of your grade (10%) in the course is based on participation in online discussion forums. Forums are used to address questions about lecture topics or similarly associated topics. To earn the 10% you **must** participate in the forum discussions.

Rules & Grades:

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. Discussion regarding grades or grading practices will only be conducted during appointments with the instructors; 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.