Aquaculture, NREM 5453  
Syllabus Spring 2015  
Lecture: MWF 10:30a, 014 Ag Hall

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303D Ag Hall, 744-3854  
Office Hrs: by appointment

Note: Syllabus subject to change. Students are responsible for all changes announced in class.


Course objectives: Introduction to the principles of freshwater finfish production with an emphasis on warm water species. The student will become familiar with methods and practices involved in fish farming. The intent is to provide fisheries biologists with an overview sufficient to assist prospective fish farmers, to effectively interact with established fish farmers and to understand hatchery operations upon which stocking programs depend.

Learner outcomes:

Application of aquaculture concepts in analyzing the feasibility of specific production proposals.

Comprehension of the operation and basic advantages and disadvantages of the four main types of aquaculture production systems:

- Ponds – Standing water impoundments, the most common finfish production system
- Raceways – Flowing water systems, usually limited to sites with large springs
- Recirculating systems – Tank systems in which water is filtered and reused
- Cages – Low cost mesh enclosures, which make use of existing water bodies

Comprehension of water quality dynamics and interpretation of basic water quality data.

Calculation of common chemical treatments used in fish production.

Comprehension of factors promoting fish health and recognition of disease symptoms.

Comprehension of the basic principles of artificial diet preparation and techniques of feeding.

Comprehension of factors involved in the cost of production and the essential role of marketing in private aquaculture.

Description of species specific factors affecting the production of selected freshwater finfish species.
Grading: A paper will be written analyzing the viability or lack of viability of a specific culture system and species under local conditions. Papers which demonstrates the ability to apply a broad range of aquaculture concepts and which include good documentation will be worth 100 points.

Two mid-term examinations worth 100 points each. Final examination worth 150 points. Exam content will be partly cumulative. Class participation, discussion and pop quizzes will be worth a total of 50 points.

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<th>Percentage</th>
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<tr>
<td>90-100%</td>
<td>450-500</td>
<td>A</td>
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<td>80-89%</td>
<td>400-449</td>
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<td>70-79%</td>
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<td>60-69%</td>
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<td>&lt;60%</td>
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Errors on tests must be brought to the instructor’s attention within one week from the time the graded test is returned to you.

Course materials: Bring 3x5 inch cards to each lecture for pop quizzes and thought exercises.

Attendance: You are expected to attend all lectures and one field trip.

Class policies: All assignments are to be done individually, unless otherwise instructed. Any assignment where it appears more likely than not that the student has copied work from another student (current or former) will be handled in accordance with the OSU Academic Integrity Policy. This course will adhere to additional information posted online at: http://academicaffairs.okstate.edu/images/Patty/FacultyandStaffResources/Syllabus/spring%202015%20syllabus.pdf

Late assignments will be penalized at a rate of 5 percent for each day late, or portion thereof.

Make-up exams will be given on the Friday of finals week, by appointment.

Etiquette: As natural resource professionals in training, high standards of proper behavior are expected from you. The classroom environment is preparation for the professional world. By being engaged with the subject matter and interacting constructively with the instructor, the class experience is improved for everyone.

Special needs: If you have a disability and need special accommodations of any nature, I will work with you and the Office of Disabled Student Services (326 Student Union) to provide reasonable accommodations so that you have a fair opportunity to perform successfully in this class. Please let me know about your disability and the accommodations you desire by the end of the second week of class.