Fish and Crustacean Nutrition- FAS 6165

1 Overview

This course will acquaint students with basic principles of nutrition and formulation of diets for fish and crustaceans in aquaculture. Lectures will cover digestive physiology, nutrients, feed formulation, and specific nutritional requirements for numerous aquatic organisms.

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Students will be required to give one oral presentations on assigned topics using PowerPoint and narrating it in Voicethread. Students will watch the other student lectures and participate in online discussion of the topics covered.

- 3 Credits
- Fall Semester
- 100% online, asynchronous
- http://elearning.ufl.edu/

Course Prerequisites: none

Instructor: Cortney L Ohs, Ph.D. cohs@ufl.edu, UF/IFAS Indian River Research and Education Center (IRREC), 2199 South Rock Road Ft. Pierce, FL 34945, 772-577-7348.

- Please use the Canvas message/Inbox feature for fastest response.
- Office hours: available by email or phone; office visits available by appointment.

Textbook(s) and/or readings: There is no required text for the course. Online readings will be provided for each learning topic.

2 Learning Outcomes

At the end of this course, each student will be able to:

- Describe the basic principles of fish and crustacean nutrition.
- Describe various nutrients and differentiate their utilization in fish and crustaceans.
- Create dietary plans to meet the requirements of various species and life stages of fish and crustaceans.
- Present and communicate knowledge of fish and crustacean nutrition.

3 Course Logistics

This course is entirely web-based and students may access lectures, readings, and supporting materials at their own paces. Exams are available only on the dates listed in the syllabus.

Each learning module will have a narrated PowerPoint presentation. Each presentation will have numerous photographs or diagrams and will summarize important information for each topic. You will

be able to go back and view and listen to each slide as many times as you wish during the initial viewing of the lecture or at a later date. Learning modules build on previous modules so you should complete the learning modules in the order presented.

Each learning module has required readings beyond the lecture. This information will be covered on quizzes and exams. These files will all be made available for you to view on your computer, save, or print. There will also be references to additional (optional) readings if you desire further investigation of a topic.

Learning modules covered on the mid-term exam (modules 1-8 and 9 the video field trip) will be available from the beginning of the semester. Learning modules covered on the final exam (modules 10-17) will be available after the mid-term exam.

Technology Requirements:

- A computer or mobile device with high-speed internet connection.
- A headset and/or microphone and speakers; a web cam is suggested.
- Latest version of web browser. Canvas supports only the two most recent versions of any given browser. What browser am I using?
- Voicethread: http://ufl.voicethread.com (more instructions will be provided)

3.1 Assignments & Deliverables

Quizzes & Exams

Each learning module will have a five to ten question quiz. The questions will require the student to go through the PowerPoint presentation, watch any attached videos, and read the assigned readings to answer the questions correctly. These quizzes will contribute to the grade. All quizzes will be taken from your computer.

Mid-term and final exams: Each exam will consist of 50 questions. Some of the questions will come directly from the lecture quizzes. These exams will consist of multiple choice questions and maybe a few matching questions. The mid-term will consist of questions from the first half of the learning modules. The final exam will consist of questions from the last half of the learning modules. The exams will be taken on your computer. Exams are only available on the days indicated.

- February 17 – Mid-term exam available
- April 25 - May 1 – Final exam available

Discussion Participation

There will be five discussion topics following different lectures. Students are required to participate in all 5 discussions. Participation can include posting answers or additional, pertinent questions. A robust discussion rather than a few simple answers will make this a more useful enterprise. In particular, students posing questions/thoughts discussed by other students in the class will provide an excellent learning environment. Instructors will assist in moderating to ensure a fact-based discussion.

Presentation Assignment

A PowerPoint presentation will be developed by the student on an assigned topic and it will be presented and narrated online through a program called Voice Thread. This presentation will be critiqued and discussed online by other students. This presentation and discussion will be equivalent to an exam in points. Students must submit the powerpoint file in addition to recording the lecture in voicethread.

- March 16 – PowerPoint and VoiceThread lecture due
- April 22 – Comments and discussion on VoiceThread lectures due

3.2 Grades & Grading Scale

34% or 180 points Quizzes (10 points each)

9% or 50 points Discussion Participation (10 points each)

19% or 100 points Mid-term exam (Learning modules 1-9)

19% or 100 points Powerpoint & Voicethread assignment

19% or 100 points Final exam (Learning modules 10-18)

530 points total

> **Grading Scale (%)**
> A 90-100
> B+ 85-89.99
> B 80-84.99
> C+ 75-79.99
> C 70-74.99
> D+ 65-69.99
> D 60-64.99
> E < 60

For information on current UF policies for assigning grade points, see
https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

4 Course Content

Learning Modules

1. Digestive Physiology
2. Energy, Digestibility, Proximate Analysis
3. Lipids and Fatty Acids
4. Proteins and Amino Acids
5. Carbohydrates
6. Vitamins and Minerals
7. Feed Formulation
8. Feed Manufacture
9. Virtual Field Trip: Feed Mill Video Tour
10. Catfish
11. Hybrid Striped Bass
12. Tilapia
13. Salmon
14. Shrimp and Prawns
15. Marine Fish
16. Larval Diets and Live Feeds
17. Broodstock

5   Policies and Requirements

This syllabus represents current plans and objectives for this course. As the semester progresses, changes may need to be made to accommodate timing, logistics, or to enhance learning. Such changes, communicated clearly, are not unusual and should be expected.

5.1   Late Submissions & Make-up Requests

It is the responsibility of the student to access on-line lectures, readings, quizzes, and exams and to maintain satisfactory progress in the course.

Late writing assignments will be penalized 10% for the first day and 5% per day thereafter unless prior written arrangements are made or there is an exceptional circumstance. Missed exams cannot be taken after the scheduled date without prior written consent of the instructor except under exceptional circumstances.

Computer or other hardware failures, except failure of the UF e-Learning system, will not excuse students for missing assignments. Any late submissions due to technical issues MUST be accompanied by the ticket number received from the Helpdesk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request consideration.

For computer, software compatibility, or access problems call the HELP DESK phone number—352-392-HELP = 352- 392-4357 (option 2).

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:
https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

5.2   Semester Evaluation Process

Student assessment of instruction is an important part of efforts to improve teaching and learning.

At approximately the mid-point of the semester, the School of Forest Resources & Conservation will request anonymous feedback on student satisfaction on various aspects of this course. These surveys will be sent out through Canvas and are not required, but encouraged. This is not the UF Faculty Evaluation!

At the end of the semester, students are expected to provide UF with feedback on the quality of instruction in this course using a standard set of university and college criteria (UF Faculty Evaluations). These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.

5.3 Netiquette: Communication Courtesy

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Failure to do so may result in loss of participation points and/or referral to the Dean of Students' Office. http://teach.ufl.edu/docs/NetiquetteGuideforOnlineCourses.pdf

5.4 Academic Honesty Policy

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *"We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity."*

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied*: "On my honor, I have neither given nor received unauthorized aid in doing this assignment."*

It is assumed that you will complete all work independently in each course unless them instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct or appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated.

Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code.

5.5 University Policy on Accommodating Students with Disabilities:

Students requesting accommodation for disabilities must first register with the Dean of Students Office (http://www.dso.ufl.edu/drc/). The Dean of Students Office will provide documentation to the student who must then provide this documentation to the instructor when requesting accommodation. You must submit this documentation prior to submitting assignments or taking the quizzes or exams. Accommodations are not retroactive, therefore, students should contact the office as soon as possible in the term for which they are seeking accommodations.

5.6 Software Use

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

6 Getting Help

For issues with technical difficulties for e-learning in Canvas, please post your question to the Technical Help Discussion in your course, or contact the UF Help Desk at:

- Learning-support@ufl.edu | (352) 392-HELP - select option 2 | http://elearning.ufl.edu
- Library Help Desk support http://cms.uflib.ufl.edu/ask
- SFRC Academic Hub https://ufl.instructure.com/courses/303721

6.1 Student Life, Wellness, and Counseling Help

- Counseling and Wellness resources http://www.counseling.ufl.edu/cwc/
- U Matter, We Care http://www.umatter.ufl.edu/
- Career Resource Center http://www.crc.ufl.edu/
- Other resources are available at http://www.distance.ufl.edu/getting-help for online students.

6.2 Student Complaint Process

The School of Forest Resources & Conservation cares about your experience and we will make every effort to address course concerns. We request that all of our online students complete a course satisfaction survey each semester, which is a time for you to voice your thoughts on how your course is being delivered.

If you have a more urgent concern, your first point of contact should be the SFRC Academic Coordinator or the Graduate/Undergraduate Coordinator for the program offering the course. You may also submit a complaint directly to UF administration:

- Students in online courses: http://www.distance.ufl.edu/student-complaint-process
- Students in face-to-face courses:
  https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf