Ichthyology ZOO3930, Spring 2020

This course provides an introduction to fish biology and covers (in varying amounts of detail) the following topics: diversity, systematics, functional anatomy, physiology, ecology, evolution and conservation.

Course Objectives

At the end of the semester, the student will be able to perform the following:

- Understand morphological and physiological adaptations of fishes and their role in the aquatic environment
- Understand the general form, function and diversity of fishes
- Understand general concepts of biogeography and evolution of fishes

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***PREREQUISITES*:**

A grade of C or better in BIOII.

TIME AND PLACE:

Lecture: 1:30 pm – 2:50 Tuesday & Thursday, BIO209

LECTURE INSTRUCTOR
Michelle R. Gaither
Department of Biology
Office: BMS 132A
E-mail: michelle.gaither@ucf.edu
Web Site: https://webcourses.ucf.edu/
Office Hours: 3:00pm to 4:00pm Tues/Thurs (or by appointment)

OFFICE HOURS:

Generally, I will be available during my office hours. However, this may not be the case on any specific day. Therefore, you are requested to please email and schedule an appointment with me.

WEBCOURSES SITE:

I have a course web site set up on Webcourses (https://webcourses.ucf.edu) that I will use to post materials for the course, including the syllabus, PowerPoints, quizzes, and your grades.

If you need to contact me, please do so using the Inbox function in Webcourses.

REQUIRED MATERIALS:

1) Helfman, G., Collette, B., Facey, D. and Bowen, B. 2009. The Diversity of Fishes, Second Edition. Wiley-Blackwell Publishers.

CLASS POLICIES:

1. Attendance is not strictly required but many studies have shown that students who do not attend class do poorly. In addition, material not covered in the text will be presented class. This material will be on the exams. Lastly, in class assignments count toward extra credit (up to 5% of total grade).
2. Only materials covered in the lecture will be on the exams. Lectures will emphasize important concepts and not necessarily present details. Therefore, reading text that corresponds to the lectures is highly recommended.
3. Exam make ups will not be given without valid documentation that is presented **prior** to the absence or **within 24 hours** of the administration of the test.

4. Quizzes are due BEFORE midnight on the due date. Late quizzes will not be accepted and the student will receive a zero for any late or missed quiz. Quizzes will cover all assigned readings for that week (including Thursday classes).
5. Assigned readings should be completed before attending class and taking quizzes. Quizzes will assess your knowledge of assigned readings and material covered in class.
6. You are encouraged to discuss any and all portions of the class with me. Please feel free to come to my office hours or make an appointment to discuss the class, especially if you are having trouble in the class.
7. Respect should be given to fellow students and the instructor. Please do not arrive late to class, walk out in the middle of class, or leave early.
8. Hateful or offensive speech or writing will not be tolerated.
9. Cell phones, iPods, and other electronic devices should be turned off and put away before class starts (except for use on Squarecap questions). If one of these devices disrupts class the owner will be asked to leave.
10. Academic dishonesty (cheating and plagiarism) is strictly prohibited and will be taken very seriously and will result at least in an "F" for that assignment (and may, depending on the severity of the case, lead to an "F" for the entire course) and may be subject to appropriate referral to the Office of Student Conduct for further action. See the UCF Golden Rule for further information.

COURSE ACCESSIBILITY:
It is my goal that this class be an accessible and welcoming experience for all students, including those with disabilities that may impact learning in this class. If anyone believes the design of this course poses barriers to effectively participating and/or demonstrating learning in this course, please meet with me to discuss reasonable options or adjustments. You may also contact SDES (Ferrell Commons 185; 407-823-2371; sas@ucf.edu) to talk about academic accommodations.

EVALUATION:
The grade for this course will be based on:

(1) Three exams: Two midterms will be given-the first will be worth 20% and the second and final exams will be worth 25% of your grade. The final exam will *NOT* be cumulative. Exams will consist of multiple choice, short answer, fill in the blank, illustrations, etc. (70% of total)
(2) Online quizzes will be administered through Webcourses approximately once a week. You will be expected to read assigned readings before class and take a short quiz to assess your knowledge of the chapters. All quizzes are due **BEFORE midnight on their due dates which are typically Thursday of each week**. You may take each quiz twice and the *highest* of the two scores will be your grade for that quiz. The lowest quiz will be dropped. (15% of total)
(3) Each student will be expected to participate in a group project and PowerPoint presentation. Presentations will be of approximately 20 min in length. The details of this assignment will be discussed in class. The student will be graded on a written summary of assignment, clarity of presentation, thoroughness, timing (staying within time limit), slide design, etc. (15% of total)

GRADES:

The following scale will be used to assign course grades.

90-100 = A
89-80 = B
79-70 = C
69-60 = D
≤59 = F

TENTATIVE LECTURE SCHEDULE AND DISCUSSION TOPICS

This schedule will change! Changes will be announced in class and posted on Webcourses!

Date	Topic	Readings/Helfman Chapter	Quiz
1/7/2018	Introduction to fish diversity	1	
1/9/2018	Systematics and external anatomy	2&3	Quiz 1-3
1/14/2018	Locomotion and feeding	8	
1/16/2018	Internal anatomy, respiration and buoyancy	4&5	Quiz 4,5,8
1/21/2018	Sensory systems	6	
1/23/2018	Thermo and osmoregulation	7	Quiz 6&7
1/28/2018	Early life history	9	
1/30/2018	Juveniles, adults, age, and growth	10	Quiz 9&10
2/4/2018	Exam I		
2/6/2018	The history and evolution of fishes	11	No quiz
2/11/2018	The history and evolution of fishes		
2/13/2018	Chondrichthyes & primitive fishes (student presentations)	12	Student input on talks
2/18/2018	Chondrichthyes & primitive fishes (student presentations)	13	Student input on talks
2/20/2018	Teleosts I (student presentations)	14	Student input on talks
2/25/2018	Teleosts II (student presentations)	15	Student input on talks
2/27/2018	Teleosts III, exam review		Student input on talks
3/3/2018	Biogeography	16	
3/5/2018	Exam II		
3/10/2018	Spring Break		
3/12/2018	Spring Break		
3/17/2018	Biogeography cont. & fish genetics	17	
3/19/2018	Fish genetics to genomics		Quiz 16-17
3/24/2018	Special habitats and special adaptations	18	
3/26/2018	Predators and Prey	19&20	Quiz 18-20
3/31/2018	Reproduction	21	
4/2/2018	Communication, schooling & symbiosis	22	Quiz 21-22
4/7/2018	Cycles of behavior & Migration	23	
4/9/2018	Individuals to ecosystems	24&25	Quiz 23-25
4/14/2018	Conservation	26	
4/16/2018	Exam review		
4/21	Final Exam (1pm)		