

Ichthyology (ZOO 5456)
Spring 2018

Professor: Joel Trexler; Department of Biological Sciences
Office (BBC): MSB room 361 (phone: 305-348-1966)

Section:

B51 (BBC)
Tuesday 11-12:15; Location MSB room 111

U01 (MMC)
Thursday 11-12:15; Location: OBCC 119

Office Hours:

Tuesday 9:30 -10:45 at BBC, MSB room 361
Thursday 9:30 -10:45 P.M. at MMC, OE 148
Other times by appointment

Required Text: Helfman, G.S., B.B. Collette, D. E. Facey, and B.W. Bowen. 2009. The Diversity of Fishes, 2nd Ed. Wiley-Blackwell.

This class is being taught in a ‘hybrid’ format. Pre-recorded lectures will be made available for listening prior to each class. Lectures have been recorded using PowerPoint and each student is expected to have access to this software. Each student must listen to the assigned lecture before class and be prepared for a short test on the materials covered.

Week	Sec. B52	Sec. U01	Topic	Readings
1	Jan. 9	Jan. 11	Course orientation, history ichthyology	Chapter 1
2	Jan. 16	Jan. 18	Systematics and diversification	Chapters 2, 11
3	Jan. 23	Jan. 25	Form and external anatomy	Pages 33, 35-39
4	Jan. 30	Feb. 1	Skeleton and muscles	Pages 23-35, 41, 44, 124-125
5	Feb. 6	Feb. 8	Buoyancy and respiration	Pages 50-52, 57-66, 68-70
6	Feb. 13	Feb. 15	Exam One	
7	Feb. 20	Feb. 22	Blood, circulation, homeostasis	Pages 45-48, Chapter 7
8	Feb. 27	Mar. 1	Feeding, nutrition, excretion	Pages 52, 119-124, 126
9	Mar. 6	Mar. 8	Growth and locomotion	Pages 111-119, 129, 159-161
10	Mar 13	Mar 15	Spring Break – No Class	
11	Mar. 20	Mar. 22	Reproduction and life history	Pgs 52-54,130-136, 153-156, 511-522
12	Mar. 27	Mar. 29	Sensory systems and behavior	Chapter 6, 21
13	Apr. 3	Apr. 5	Exam Two	
14	Apr. 10	Apr. 12	Zoogeography	Chapter 16
15	Apr. 17	Apr. 19	Conservation and management	Chapter 26
16	Apr. 25	Apr. 27	Final Exam week – exam times TBA	

Purpose: The purpose of this class is to provide an overview of the biology of fishes, along with a general appreciation of the great diversity of taxa in this group. To meet these goals, we will cover both marine and freshwater taxa with equal emphasis.

Prerequisites: Enrollment in an FIU graduate program relevant to this course

Student responsibilities: You are expected to do the assigned reading, listen to the recorded lectures, complete short tests at the start of class, participate in class discussions, and prepare a research paper on a topic agreed upon with the instructor. Evidence of cheating on tests or plagiarism of materials for your oral presentation will be adjudicated following the FIU code of student conduct found in the Student Handbook that is available from the Current Students webpage (<http://www.fiu.edu/current-students/>).

Grades: Class grades will be based on your performance on tests, quizzes, and your research paper. There will be at least eight short tests (20%), two long tests (20% each); and a comprehensive final exam (25%). Your research paper will account for the remaining 15%.

Short tests: Short test (15 minutes) will be offered at the start of each class. Short Tests will include a *reflection question* and several *vocabulary questions*. Reflection questions will be from the online lecture and scored on effort scale (points for using material from lecture and/or textbook in answer). **Scoring:** 0 (question not answered), 1 (answer partially correct), 2 (answer correct and used information from lecture/text).

Vocabulary questions (family names and questions from online lectures): multiple choice, matching (sometimes on a diagram), fill-in-the-blank (family names only)

Scoring: One point for each correct answer.

Exams (in-class time): labelling diagrams, multiple choice, fill-in-the-blank, short answer

Scoring: Points only awarded for correct answers to labels, fill-in-the-blank, and multiple-choice questions. Partial credit will be awarded at the discretion of the instructor for imperfect answers.

Final exam (cumulative)

Scoring: same as regular in-class exams.

Research papers (a more complete description of the assignment will be provided soon after class starts). A bibliography of relevant references for the paper will be due on February 8; a draft of the paper will be due on March 22; and the final paper will be due on April 19.

Scoring: 10% of grade will be on the bibliography; 40% of the grade will be on the draft; 50% of the grade will be on the final paper. The paper will be scored on content, completeness of coverage of the topic, and grammar and style.

Last date to drop with a DR grade: March 19, 2018

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and to honestly demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.