

FAS 4202C: BIOLOGY OF FISHES

Field Trip (Mandatory): Our destination will be the Florida Aquarium in Tampa where you will collect data for your Fish Behavior Assignment and get a behinds-the-scene tour. This trip is on Thursday, Sept 26 2013, and our charter bus will leave Newins-Ziegler at 7:45 a.m. and return by 7 p.m. (assuming no traffic delays). You will be provided with a note (if necessary) to be excused from your other classes on this day. It will be up to you to make-up for material that you miss in your other courses (as per your instructors). Please discuss this field trip with your other instructors to insure that you will be able to go on the field trip, as it is mandatory and forms the basis for a major paper (and grade) in the course. You can either pack your own lunch and snacks or purchase them at the Aquarium's cafeteria. There is a \$25.00 field trip fee to cover the costs of the coach and aquarium entrance.

Course Communication:

This course will take advantage of e-Learning support to post course information and to allow you day-to-day access to your grades. Please visit <http://lss.at.ufl.edu> to access the course via the e-Learning link and for information on how use the e-Learning site (Please use the help desk as your first course of action if you have any difficulties).

Lectures are based on PowerPoint presentations to facilitate the use of figures and visual representation of fish attributes. Please note that a lecture outline in point form will be handed out many classes or sometimes figures (complex ones). It will be your responsibility to take notes. A minimal number of slides requiring color for interpretation, along with any complex figures, will be posted on the e-Learning site. It will also be your responsibility to get lecture notes from your classmates if you miss any lectures.

Participation and Attendance:

Participation and attendance is expected for all lectures and labs. Contact me as early as possible if you must legitimately miss a scheduled exam. If an emergency situation arises immediately before an exam, notify me as soon as the emergency is resolved. Make-up quizzes or exams will not be given except for an excused absence with written substantiation (e.g., official University event, illness, family emergency, etc.). Attendance in the laboratory is especially critical because it is difficult, if not impossible, to make up missed lab exercises.

Lab exercises will involve both demonstrations using preserved specimens and handling of freshly thawed fish specimens. Wear a lab coat or old field clothes when in the lab. Each student is responsible for bringing a basic dissection kit containing a minimum of: 1 blunt probe, 1 pair fine scissors, 1 pair large dissecting scissors, 1 pair fine small forceps and 1 pair blunt medium forceps. Handouts for the lab exercises will be given out in a lecture class prior to the lab and will also be available online. It is expected that you will have read through the handout prior to attending your lab section.

Please conduct yourself in a professional manner while in lectures and labs and give consideration to your fellow classmates. Do not use electronic devices (e.g., cell phones, iPods) or perform activities (e.g., texting, Facebook, web surfacing, talking) that can interrupt the class. We want to create an atmosphere of mutual respect. I and my TA's will reserve the right to request that you leave if you engage in distractive behavior.

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Course Format and Grading:

This course is offered for four (4) credits in the Fall semester. It consists of three hours of lectures per week, and a two hour laboratory each week.

Lecture exams will be based on material given during class lectures.

Supplemental readings from the recommended textbook (Helfman et al. 2009) will aid in understanding this material. Exam questions may include multiple-choice, matching, true/false, list/explain, and short answers, as well as short essays. The grade point allocation is: A (94-100%), A- (90-93), B⁺ (86-89%), B (82-85%), B- (78-81%), C⁺ (74-77%), C (67-73%), C- (63-66%), D⁺ (59-62%), D (55-58%), D- (51-54%), and E (<50%).

Due Date	Lecture Item	% of Total Grade
Due each Sunday at midnight	Weekly Quizzes (online) starting 2 nd week (4-5 questions on lecture) 1 pt. each	15
23-Sep	Lecture Midterm A	10
28-Oct	Lecture Midterm B	15
9-Dec	Lecture Midterm C (5:30 pm)	15
	Lecture Total	55

Due Date	Laboratory Item	% of Total Grade
Sept 5	External Description of Assigned Fish	3
20-Sep	Fish Family e-Poster	8
10-Oct	Lab Exam A	5
25-Oct	Fish Behavior Paper	20
21-Nov	Lab Exam B	5
25-NOV	Fish Age and Growth Lab Due via Sakai by 1159 pm	5
	Laboratory TOTAL	45

Course Text:

Helfman, G. S., B. B. Collette, D. E. Facey, and B. W. Bowen. 2009. The Diversity of Fishes, 2nd ed. Wiley-Blackwell, West Sussex, UK.

Supplemental Texts (on reserve in the Marston Science Library):

Barton, M. 2007. Bond's Biology of Fishes, 3rd edition. Brooks/Cole.

Bond, C. 1996. Biology of fishes, 2nd ed. Saunders College Publishing, Orlando, FL.

Bone, Q., N.B. Marshall, and J.H.S. Blaxter. 1995. Biology of fishes, 2nd ed. Blackie Academic and Professional, Glasgow (Chapman and Hall, New York).

Evans, D.H. (ed.). 1998. The physiology of fishes. CRC Press, Boca Raton, Florida.

Moyle, P.B., and J.J. Cech, Jr. 1996. Fishes: an introduction to ichthyology, 3rd ed. Prentice-Hall, New Jersey.

Recommended Species Identification Guides (These will be available in the lab):

Page, L.M., and B.M. Burr. 2012. A field guide to freshwater fishes of North America north of Mexico (Peterson field guide). Houghton Mifflin Co., Boston.

Robins, C.R., and G.C. Ray. 1986. A field guide to Atlantic coast fishes of North America (Peterson field guide). Houghton Mifflin Co., Boston.

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Hoese, H.D., and R.H. Moore. 1977. Fishes of the Gulf of Mexico, Texas, Louisiana, and adjacent waters. Texas A & M Univ. Press, College Station, Texas. 327 pp.

Academic Honesty:

In the past three years I have seen an increasing degree of Academic Dishonesty in this course. Plagiarism is by far the most common form of cheating I have observed.

However, students have been caught using electronic devices such as smart phones during a test. If you do not understand what constitutes plagiarism please contact me. **A student found cheating will receive a ZERO on that assignment and their case will be forwarded to Student Conduct and Conflict Resolution in the Dean of Students Office.** For repeat offenders with dishonesty on the record, the student honor court may become involved with their case and expulsion can result.

As a result of completing the registration form at the University of Florida, every student has signed the following statement: "I understand that the University of Florida expects its students to be honest in all their academic work. I agree to adhere to this commitment to academic honesty and understand that my failure to comply with this commitment may result in disciplinary action up to and including expulsion from the University."

UF Counseling Services:

Resources are available on-campus for students having personal problems or lacking clear career and academic goals which interfere with their academic performance.

These resources include:

1. University Counseling Center, 301 Peabody Hall, 392-1575, personal and career counseling;
2. Student Mental Health, Student Health Care Center, 392-1171, personal counseling;
3. Sexual Assault Recovery Services (SARS), Student Health Care Center, 392-1161, sexual assault counseling; and
4. Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

Accommodations for Students with Disabilities:

Students requesting classroom or laboratory accommodation must first register with the Dean of Students Office. The Dean of Students Office will provide documentation to the student who must then provide this documentation to the Instructor when requesting accommodation.

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.

We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.

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Lecture Schedule: Please see revised, updated lecture schedule (color coded by Midterm material).

Date	LABORATORY TOPIC
22-Aug	No Lab
29-Aug	First Lab! External morphology of fishes; morphometrics and meristics; primitive versus advanced features, types of scales, primitive versus advanced features.
5-Sept	Internal morphology of fishes; Description of external anatomy of fish due
12-Sept	Morphology and diversity of feeding structures; teeth, gut allometry, and diet relations
19-Sep	Observing Fishes, analysis and writing a scientific paper.
26-Sept	FIELD TRIP TO FLORIDA AQUARIUM: Leave NZ at 8 am and return NZ at 7 pm
3-Oct	Fish Health and Diseases
10-Oct	Lab Exam A
17-Oct	Identification of Recreational and Commercially important fishes of Florida
24-Oct	Tagging and tracking fishes
31-Oct	Reproductive Morphology and Development and Hallowe'en. Yes you can dress up
7-Nov	Methods of Aging Fishes
14-Nov	Fish Capture Methods
21-Nov	Lab Exam B