Invertebrate Biodiversity ZOO4205C Spring 2019

Instructor: Patrick Baker, pkbaker@ufl.edu (preferred), telephone 273-3629
Teaching Assistant: Shamindri Tennakoon

Course Times: Tuesday & Thursday, 10:40 AM - 12:35 PM
Labs: Tuesday 3:00-6:00 Carr 120
      Tuesday 6:15-9:15 Carr 120
      Wednesday 9:35-12:35 Carr 120
      Wednesday 1:55-4:55 Carr 120

Course Materials: There is no required text. Recommended texts include the following:
  and Ruppert and Fox. 1983. Seashore Animals of the Southeast, Univ. South Carolina Press,
      ISBN 0872495353
There are required notebook materials, including:
  Drawing supplies: (e.g. Strathmore 400 or 500 series, or Blick 60- or 80-weight). If the paper
      is loose, provide a binder as well. Number 2 HB pencils are acceptable, but you may care for a
      range of harder and softer pencils. Colored pencils are optional.
  Field notebook: 5x7” (actual dimensions may vary) waterproof field notebook, plus pencil or
      oil-based ink pens.
      A basic standard dissection kit is required, including probe, scissors, and scalpel. There is also
      required footwear, rubber boots, disposable shoes, or neoprene shoes; see below in Field Trips
      and Attendance for more information.

Grade Scoring: Grading for is broken down as follows.

     |                           | Grade |
---|---------------------------|------|
Quiz 1 | 5%                        | Grades |
Lab Notebook check | 2%     | 93% = A |
Midterm | 15%                        | 90% = A- |
Quiz 2 | 5%                        | 87% = B+ |
Field Trip Attendance | 8%     | 83% = B |
Lab Exam | 10%                        | 80% = B- |
Field Notebook | 5%     | 77% = C+ |
Lab Notebook | 25%                        | 73% = C |
Final Exam | 30%                        | 70% = C- |
**Lectures:** I will be using a mixture of prepared PowerPoint slides and white-board drawings. If the students want, I can post copies of the lectures to Canvas, but they will be insufficient to prepare for exams, as diagrams will not be included.

**Tests:** The quizzes, midterm and final exams will focus on lecture material and assigned readings. If material is not in specified passages of assigned reading, on a PowerPoint slide, or written on the white-board, it won’t show up on a quiz or exam except as extra credit. The final exam is not comprehensive except for material specifically covered in the midterm exam or quizzes; any material in the midterm or quizzes may be used again, possibly re-worded or combined with other questions. Any of the contents of this syllabus may be used in a quiz or exam, and the answer to Did you Read the Syllabus Secret Question is “one louder.”

The lab exam will revisit specimens we looked at earlier during labs, and you will be asked to provide information such as taxonomic information, anatomical features, habitat, and possibly key ecological functions.

**Lab Attendance:** Attendance at labs will not be taken, but please note that the lab notebook is worth 27% of your grade (including the lab notebook check). If you leave early without completing your drawings, with the intention of finishing it later or at home, your grade will likely suffer.

**Lab Notebooks:** Drawing paper will be used to make at least ten detailed studies (one large drawing or several related drawings) over the duration of the course. As with field notebooks, the purpose is to sharpen your observational skills. Use graphite pencils only for the drawing; colored pencils may be used sparingly only after the drawing is made to add useful color details. Artistic skill is not needed, but lack of artistic skill is no excuse for careless drawings. You will be graded on effort more than precision. All drawings should be accompanied by the following information:

- Taxonomy: phylum & other useful taxonomic levels, plus genus & species, if known.
- Habitat from which the specimen was collected, if known. If it is from a collection or culture, note that.
- Scale (e.g. life-size, ¼ life size, or provide the microscope magnification). In some instances, a scale bar may be appropriate.
- Specimen preparation. Is it live, anesthetized, or dead? How was it anesthetized or killed? Is it fresh or preserved? How was it preserved? Is it dissected?
- Specimen orientation. What side are you drawing? Right? Dorsal?
- Label everything you can see. Use lab guides or other texts for information, but do not copy those guides in your drawings.
Lab Notebooks (continued): Photographs are not an acceptable substitute for drawings, because they don’t help you observe the specimen. Do not include them in a notebook; they will be rejected. You may, however, take a photograph to help you draw the specimen, although the common student practice of taking a photo in the lab and going home to draw it results in poorer drawings.

Field Notebooks: Waterproof notebooks will be taken into the field on every trip. Take notes that will then be used to write a short essay, using formal sentence structure, describing the trip. Relevant information include time & date, location, a description of the field site, climate and tide conditions if relevant, observations of invertebrates, sampling methods, species collected or observed, and relevant ecological information. The purpose of the field notebook is to develop observational habits, and you will be graded on your effort. Legibility is also important.

Field Trips and Attendance:

The field trip schedule is highly tentative. Each student is required to attend two field trips, although more are permitted with availability. Please keep your Saturdays flexible.

You need rubber boots, neoprene shoes, or disposable shoes with enclosed toes, and clothes that can get dirty. Bare feet or open-toed footwear will not be permitted in most field sites. There may be rain and some field trips will be chilly, although we will not go out if there are thunderstorms. Some sites involves long drives (up to 2 hours) in a van.

Students are permitted to drive themselves (but not each other) to the FAS (Fisheries and Aquatic Sciences) satellite campus.

Damp clothes, mud, and slime are not dangerous, and you will be expected to get wet and handle organisms.

Safety: Safety will be discussed for lab and field situations where appropriate. Egregious violations will be reflected in the field grade; repeat violations that endanger yourself or others will result in you being asked to leave the course.
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<thead>
<tr>
<th>Proposed Schedule: Classes and Labs</th>
<th>Field Trips</th>
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<tr>
<td>January 8-10 – Introduction, Porifera, no labs</td>
<td>no field trip</td>
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<tr>
<td>January 15-17 – Cnidaria, Lab: technical drawing</td>
<td>January 19, FAS Ponds</td>
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<tr>
<td>January 22-24 – Flatworms &amp; minor phyla, Lab: intro to microscopes, Cnidaria</td>
<td>January 26, Cedar Key (0.1 at 11:42 am)</td>
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<td>January 29-31 – Nemertea &amp; Annelids, Quiz 1, Lab: Worms</td>
<td>no field trip</td>
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<td>February 5-7 – Annelids, Lab: Worms</td>
<td>February 9, FAS ponds back-up date</td>
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<td>February 12-14 – Annelids, Mollusks, Lab: Mollusks</td>
<td>February 16, Matanzas Inlet (-.1 at 2:46 pm)</td>
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<td>February 19-21 – Mollusks, Lab: Mollusks</td>
<td>February 23, Cedar Key (0.1 at 10:32 am)</td>
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<td>February 26-Mollusks, Midterm Exam, Lab: Cephalopods, Lab Notebook Check</td>
<td>no field trip</td>
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<td>March 5-7 – no class, spring break</td>
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<td>March 12-14 – Lophophorates, Lab: Bryozoans &amp; Brachiopods</td>
<td>March 16, Matanzas Inlet (0 at 2:22 pm)</td>
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<td>March 19-21 – Nematodes, Arthropods, Lab: Nematodes, Chelicerates</td>
<td>March 23, FAS ponds back-up date</td>
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<td>March 26-28 – Insects, Quiz 2, Lab: Insects</td>
<td>March 30, FAS ponds back-up date</td>
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<td>April 2-4 – Crustaceans, Lab: Crustaceans</td>
<td>April 6, FAS ponds back-up date</td>
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<td>April 9-11 – Echinoderms, Lab: Echinoderms</td>
<td>April 13, Matanzas Inlet (-.1 at 12:59 pm)</td>
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<td>April 16-18 – Echinoderms, Chordates, Lab: Lab Exam</td>
<td>no field trip</td>
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<td>May 2 – Final Exam, 12:30 to 2:30</td>
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UNIVERSITY OF FLORIDA POLICIES:

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.

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