

Syllabus supplement
WL 367L Ichthyology Lab
Fall 2009

Learning Outcomes:

1. Students will learn to properly care for specimens and identify fishes.
2. Students will integrate knowledge of fish anatomy between the structures and functions learned in lecture and the location and appearance of anatomical features in the laboratory.
3. Through careful, detailed study of distinguishing characteristics, students will associate phylum, class, order, family, genus, and species with at least 80 fishes.

Tips for success:

When you were toddlers, you learned the names of hundreds of objects, animals, plants, and people. Unfortunately, you probably didn't learn the names of many different fishes, BUT...you could have! Now, you have the opportunity. The problem is that toddlers are a lot better at exploring, repeating experiments, and absorbing information in the world around them than we are as adults. Adults tend to think that they can look at something once and remember it, but in general, they can't.

My tip is: see, draw, write the name, say the name, and repeat until you've got it. During each 3-hour lab time, you will have the opportunity to see, touch, draw, and study a new group of fishes. Your lab instructors will be available during this time to assist you in recognizing the distinguishing characteristics among the fishes.

Species identification flashcards and dichotomous keys:

During each of the labs where we learn new fishes, you will be required to draw representations of each fish and note distinguishing characteristics. Regardless of your artistic abilities, by forcing your brain to think about the shape and features of each fish and translating it into an image on your own flashcards, you will be helping yourself to think really critically about what makes each fish different from all the others. It will also help you slow down and take a little more time with each fish, which will increase your chances of recognizing it in the future (on a laboratory exam, perhaps?!?!). Before the end of each lab you will show your instructor the dichotomous key and flashcard drawings that distinguish among each of the fish assigned that day. You will earn **10 points** for satisfactory completion.

Lab schedule:

Week of 8/31: No labs – first week of classes
Week of 9/7: No labs – Labor Day holiday
Week of 9/14: Anatomy, Counts, and Measurements
Week of 9/21: Systematics and Taxonomy
Week of 9/28: Species ID – Ancestral Fishes
Week of 10/5: Cyprinidae I
Week of 10/12: No labs – Native American Day holiday
Week of 10/19: **Midterm Practical Exam**
Week of 10/26: Cyprinidae II
Week of 11/2: Catostomidae and Ictaluridae
Week of 11/9: No labs – Veterans Day holiday
Week of 11/16: Esocids to Percids
Week of 11/23: Moronidae and Centrarchidae
Week of 11/30: Percidae to Latimeridae
Week of 12/7: **Final Practical Exam**