

**HERPETOLOGY, BIOL 3920 & 5920, Sections A & B**  
**SPRING 2010**  
**LECTURE AND LABORATORY SYLLABUS**

**Lecture**—Tuesday & Thursday, 8:00 am-9:15 am, BC 1025

**Laboratory**—Section A, Thursday 1-3:50 pm, Section B, Friday 12:00 pm-01:50 pm, BC 1088

**Course Objectives**--The objectives of Herpetology are:

- (1) To develop an appreciation for the diversity of herptiles.
- (2) To understand this diversity as a function of their systematics and taxonomy.
- (3) To develop an appreciation for the biology unique to the herptiles.
- (4) To develop an understanding of the role herptiles have played in the evolution of vertebrates.

**Textbooks**

- Herpetology; By FH Pough, RM Andrews, JE Cadle, ML Crumps, AH Savitzky, and KD Wells; Prentice Hall Publishers. 3<sup>rd</sup> Ed., 726 pgs
- Reptiles and Amphibians of the Eastern United States, By R Conant and JT Collins, Houghton Mifflin Press. 616 pgs.

**LECTURE**

Lecture Topics	
Topic Description	Chapter
Evolution of Herptiles	2
Amphibian Classification and Biology Unique to Taxa	3
Reptilian Classification and Biology Unique to Taxa	4
Ecology and Behavior	10-13
Life Histories, Reproductive Strategies, Behaviors, and Associated Anatomy and Morphology	7, 12

The above list of topics is tentative, but little if any change will be made in the materials covered. It is assumed that you have had up through Zoology or at least a sequence of two introductory biology courses and possibly several other biology courses prior to this course.

Reading Assignments for Lecture:	
Chapter/Topic	Pages in Text
Chapter 1-Test 1	3-20
Chapter 2 -Test 1	21-40
Chapter 3 -Test 1	41-96
Chapter 5-Test 1, No lecture covering this material.	174-227
Chapter 4-Test 2	75-136
Chapter 6-9-Final	231-351
Chapter 14-Final	495-528

Specific readings will be given in class so not all of every chapter will be read.

**Special note on lectures:** While much of the lecture portion of the course involves the systematics and taxonomy of herptiles, discussion of certain taxa will be used to introduce topics of importance in biology. For example, in the salamander family Plethodontidae there are some species that are obligate subterranean species. When discussing these salamanders, I will also introduce the topic of regressive evolution. Therefore, keep in mind

that special topics introduced while discussing various taxa are being done so as to broaden your understanding of biology in general. Also, these topics will be tested in the tests given during the semester.

### TESTS

Tests will be a combination of short essay, multiple choice, matching, and fill-in-the-blank questions and worth 100 points. The final will be comprehensive, approximately 50% over old material and 50% over untested material, will not contain any essay questions, and will be equivalent to two regular tests (200 points). The final will be matching and/or multiple choice.

Test	Content
One	Evolution of Herptiles and all or most of amphibian classification plus assigned readings from textbook.
Two	All of reptilian classification plus assigned readings from textbook.
Final	5 May 06, Friday, 12:30-2:30 pm, comprehensive multiple choice or matching test and will include the laboratory test. Assigned readings from textbook will not be covered on the final, only lecture notes.

#### Lecture Grades:

1. 25% for each semester test
2. 50% for final, the final will be comprehensive, with 50% on old test material and 50% on material not yet tested on.

### LABORATORY PERIODS AND FIELDTRIPS

#### Laboratory activities will be as follows:

1. Learn to identify herptiles in the VSU collection.
2. Learn the basic external anatomy of herptiles.
3. Sort, identify, label, and catalogue any uncatalogued specimens in the collection.
4. Harden, preserve, and label specimens collected in the field during class fieldtrips and during personal collecting trips.
5. Catalog and record all herptiles preserved during the semester in the VSU Herpetology collection using Microsoft Access.

**Special Assignment for Graduates:** Graduate students will aid in the development of lists of herptiles collected during the semester. They will also develop web pages discussing and listing the parks and their herptiles to include:

- Taxonomic group
- Life histories of taxon members
- Distributions of taxon members
- Reproductive biology of taxon members
- Recent research of taxon members

**Hardening and Preservation:** Herptiles will be hardened in 10% formalin and preserved in 55% isopropyl alcohol. All specimens will be identified and the appropriate waterproof label placed in the jar or attached to the specimen. Labels will be completed using water insoluble ink. Pens and labels will be provided in class. Do not place labels in jars of alcohol without allowing at least one day for the labels to dry. After properly labeling the jars, the dates, locations, and numbers of each, students must input the collection data into a computer base that must be turned in to the GA DNR.

Information that you will need to know for laboratory tests includes the following: 1) order, 2) family, 3) genus, 4) species, 5) subspecies (when appropriate), and 6) general information from your field guide (example-feeding behavior, habitat preference, mating behavior and season, etc.).

**Fieldtrips:** Each student will be expected to attend at least three (3) Friday fieldtrips and one evening fieldtrip. Otherwise, you may attend as many trips as you wish. Biology has only one 15 passenger van available for trips. Therefore, if more than 14 students attend a particular fieldtrip, some students may have to drive their own personal vehicle. Sign up sheets for each trip will be available so students can sign up for specific trips. If you do not attend a specific fieldtrip, your assignment is to study for upcoming laboratory tests. The list of fieldtrips below is tentative and may be changed as needed to accommodate problems that arise or changes in dates. Friday field trips may leave as early as 10 am and not return to the main campus until 3 pm.

**Laboratory and Trip Schedule**—If specific activities are not listed for a particular date, we will still meet to study specimens for the next test or prepare, preserve and place specimens on the shelves. On some days besides those listed, we may run an inventory of all specimens on the shelves and update the herp listings.

<b>Date 2012</b>	<b>Laboratory and Trip description</b>
12 & 13 January	Introduction to the herpetology collection. Set up of materials and amphibian specimens for lab study.
19 & 20 January	Study for laboratory practical #1
26 & 27 January	Study for laboratory practical #1
2 February	<b>Laboratory Test 1 on amphibians</b> — Given at 8 am during lecture period, Rm 1088.
9 & 10 February	Set up of materials and reptile specimens for lab study.
19 & 17 February	Study for laboratory practical #2
23 & 24 February	Study for laboratory practical #2
1 March	<b>Laboratory Test 2 on reptiles</b> — Given at 8 am during lecture period, Rm 1088.
8 & 9 March	<b>Night trip</b> to Lake Louise Field Station and/or other nearby locations to observe winter frogs, Lowndes Co.
15 & 16 March	Jacksonville Zoological Gardens, Possible dates for JAX Zoo
22 & 23 March	Initial review, update and records corrections of all herptiles in the VSU collection.
29 & 30 March	<b>Night trip</b> Route 187 barrow pits, Echols and Clinch Counties. Date may be changed as rain and w needed to bring out herptiles. Focus→frogs.
5 & 6 April	Grand Bay Wildlife Management Area and Education Center
12 & 13 April	Freedom Park (12 April), Langdale Park (13 April)
19 & 20 April	Lowndes County School District farm at Pine Grove Elementary School
26 & 27 April	Final review, update and records corrections of all herptiles in the VSU collection.

**Field Equipment:** You should have or will need the following items on any of the above fieldtrips:

1. A good stout potato rake with prongs not more than 4-5 inches long.
2. A laundry bag or pillow case without any holes in it.
3. A pair of boots that come up over your ankles.
4. A pair of heavy leather gloves that cover the wrist.
5. A bright flash light for use during night collecting.
6. Insect repellent optional.

**CAUTION:** If you are concerned about snake bites below the knees you may wish to buy a pair of protective leggings or make some by cutting the lower half of a pair of blue jeans off. These can then be slipped over your regular pants and pinned on to them. This will also help protect you from thorns. You can also buy lumberjack boots or snake chaps which come up to your knees at some local stores such as those that sell outdoor supplies and hunting apparel.

**Poisonous Snake Policy:** If you have any doubts about capturing a poisonous snake, do not do it. It is better to let dangerous snakes escape than it is to capture them and risk the chance of being bitten. If you do capture and bag a poisonous snake do not carry the bag next to your body as you would normally do. Let the class know that you have a poisonous reptile so that they do not make a potentially fatal error by reaching in the bag or grasping it with their hands.

**ALCOHOL POLICY:** There will be no alcoholic beverages on fieldtrips.

**Lab Grades:** The lab grade will be based on the following:

1. 15% on properly preparing, identifying, labeling and cataloging specimens currently in the VSU collections or collected as part of class collections. Note, you must record/identify all your work so I can give you credit for it.
2. 15% for participation in five fieldtrips. This means that you not only go on the fieldtrip but that you actively participate in the hunting and collecting of herptiles.
3. 70% on the tests given in lab. For lab tests you will be responsible for being able to do the following for selected species set out for the tests— (A) correctly identify the order, family, genus and species, (B) be able to identify external anatomical structures, and (C) know the ecological and behavioral facts for given in the field guide.

### **COURSE GRADE:**

The final grade for the course will be as follows:

$$\text{Course grade} = 0.75(\text{Lecture Grade}) + 0.25(\text{Lab})$$

### **Graduate Student Requirements**

Graduate students will have an additional assignment besides those listed above. This assignment is detailed in a separate handout entitled Graduate Herpetology Project.

### **General Information**

**Academic Dishonesty:** Anyone caught cheating on a test will receive an automatic "F" for the course. Please refer to the Student Handbook for a detailed explanation on academic honesty.

**Class Attendance and Behavior:** When I am lecturing, I expect students to behave themselves and maintain silence; however, your questions are encouraged. Students who repeatedly make noise and disrupt the class will be removed from the class and if necessary dropped from the course. You are now preparing for your future, and successful completion of this course may determine your future job prospects and the programs that you are admitted to. Class disruption is rude and inconsiderate of others who are trying to learn. Therefore, good behavior in class is expected, for you are now an adult and you should behave as such.

While class attendance is not formally taken each period, I will take attendance on some class days and note when individuals are absent, **Students missing five lectures or two labs will receive an F for the course.** If you are ill or a bonifide emergency occurs, exceptions will be made after proof of the illness or emergency is provided. It is your responsibility to attend class regularly and get the notes and assignments.

### **Important Dates.**

4 March—Midterm. Last day to drop courses'

Holidays: 15 January & 15-19 March

No one will be dropped after the last drop date unless there are extenuating circumstances beyond your control and the dean of students agrees to your being dropped.

**Disabled Students:** Students requiring classroom accommodations or modifications because of documented disabilities should discuss their needs with me at the beginning of the quarter. Disabled students not registered with the Special Services Program should contact the program officer in Nevins Hall (phone: 245-2498).

**Buckly Amendment or Privacy Act:** It is illegal to release to others personal information about an individual. Therefore, grades, averages, and other personal information about an individual will not be released to anyone but that individual, posted, sent by e-mail (not a secure system) or given over the phone.

**Contact Information:** Office: Room BC 2030      Office Phone: 333-5759

Generally, I will be available 15 minutes after class or during lab for consultation. Other times can be arranged by appointment. Please do not call me at home. Once I leave the office and go home, my life belongs to my family and me.

### **Information**

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Please do not call me at home except for emergencies.