

# ZOO4926 Herpetology

## ***Instructors***

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## ***Course Summary***

This course features lectures and laboratory sections that provide a broad introduction to the diversity, evolution, and biology of amphibians and reptiles. Topics include evolutionary history, systematics, diversity, ecology, behavior, physiology, anatomy, and natural history. Laboratory sections provide hands-on experience with amphibians and reptiles and make use of the scientific collections of the Florida Museum of Natural History. In addition to the lectures and laboratory activities, the course involves several local field trips to see living species. 4 Credit hours.

## ***Course Lectures and Laboratory Sections***

The course will meet for lecture once each week and once for laboratory each week.  
Lecture: Monday, Wednesday, and Friday, Period 2 (8:30 – 9:20 am), Bartram 211  
Laboratory Sections, Carr 110

Section (1), Tuesday, Periods 6 and 7 (12:50 pm – 2:45 pm)

Section (2), Wednesday, Periods 6 and 7 (12:50 pm – 2:45 pm)

## ***Required Course Materials***

Textbook: Pough, F.H., R.M. Andrews, M.L. Crump, A.H. Savitzky, K.D. Wells, and M.C. Brandley. 2015. *Herpetology*. 4<sup>th</sup> Edition. Sinauer Associates.

## ***Course Objectives***

Undergraduate students:

- (1) identify major groups of amphibians and reptiles in the United States
- (2) demonstrate familiarity with natural history of amphibians and reptiles
- (3) summarize basic biology of major groups of amphibians and reptiles
- (4) describe major research themes in herpetology

## ***Grading and Exams:***

Grades will be based on one term paper, attendance in class and field trips, exams, laboratory assignments, and lab practicals. Exams will include content from both lecture and laboratory assignments.

Term paper	25%
3 exams, in class	30%
Attendance (including field trip)	15%
Laboratory assignments	20%
Laboratory practical	10%
<b>Total:</b>	<b>100%</b>

Term paper

A 3-page essay (chosen in consultation with the instructors) based on a review of the scientific literature on a herpetological topic, including, for example, a summary of the biology and natural history of a specific species or genus.

**Final course grades will likely be assigned as follows: A ( $\geq 930$ ), A- (929-900), B+ (899-870 pts), B (869-830 pts), B- (829-800 pts), C+ (799-770), C (769-730), C- (729-700), D+ (699-670 pts), D (669-670 pts), D- (629-600 pts), E (<600 pts). Please note this scale could possibly be changed if justified by the overall class performance.**

### ***Laboratories***

Each week, students will participate in one of the two-hour laboratory sections. Labs will be organized taxonomically with a different focus each week (i.e., crocodilians, turtles, lizards). The labs will make use of the scientific specimens (both skeletons and preserved in alcohol) preserved in the Florida Museum of Natural History. Labs will focus on providing students with hands-on familiarity with major lineages of amphibians and reptiles around the world as well as the diversity found in Florida. Lab assignments will guide students through examination of specimens for each week's focal group and build skills in identification. The lab practical will evaluate identification skills but also important biological themes (e.g., locomotion, feeding, life history) as they relate to anatomy of preserved specimens.

### ***Class and University of Florida Policy Statements***

#### **Grades and Grade Points**

For information on current UF policies for assigning grade points, see: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

#### **Absences and Make-Up Work**

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at: <https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

There are *no* make-up exams, unless previously arranged or an exam is missed owing to a legitimate emergency. *Exam scores are considered final two weeks after an exam is returned.*

Students are expected to attend all classes and laboratories. There will be no switching of lab sections without permission, and there are no make-up laboratories available.

#### **Online Course Evaluation Process**

Student assessment of instruction is an important part of efforts to improve teaching and learning. At the end of the semester, students are expected to provide feedback on the quality of instruction in this course using a standard set of university and college criteria. These evaluations are conducted online at <https://evaluations.ufl.edu>. Evaluations are typically open for students to complete during the last two or three weeks of the semester; students will be notified of the specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results>.

## **Academic Honesty**

As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge: *“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”* You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied: *“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”*

It is assumed that you will complete all work independently in each course unless the instructor provides explicit permission for you to collaborate on course tasks (e.g. assignments, papers, quizzes, exams). Furthermore, as part of your obligation to uphold the Honor Code, you should report any condition that facilitates academic misconduct to appropriate personnel. It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For more information regarding the Student Honor Code, please see: <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

## **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.

## **Campus Helping Resources**

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university’s counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance.

- University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575, [www.counseling.ufl.edu/cwc/](http://www.counseling.ufl.edu/cwc/)
  - Counseling Services
  - Groups and Workshops
  - Outreach and Consultation
  - Self-Help Library
  - Training Programs
- U Matter We Care, [www.umatter.ufl.edu/](http://www.umatter.ufl.edu/)
- Career Resource Center, First Floor JWRU, 392-1601, [www.crc.ufl.edu/](http://www.crc.ufl.edu/)

## **Services for Students with Disabilities**

The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services and mediating faculty-student disability related issues. Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, [www.dso.ufl.edu/drc/](http://www.dso.ufl.edu/drc/)) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### **Student Complaints**

Each online distance learning program has a process for, and will make every attempt to resolve, student complaints within its academic and administrative departments at the program level. See <http://www.distance.ufl.edu/student-complaint-process> for more details.

### **Sexual Harassment**

It is the policy of The University of Florida to provide an educational and working environment for its students, faculty, and staff that is free from sex discrimination and sexual harassment. In accordance with federal and state law, the University prohibits discrimination on the basis of sex, including sexual harassment. Sex discrimination and sexual harassment will not be tolerated, and individuals who engage in such conduct will be subject to disciplinary action. The University encourages students, faculty, staff, and visitors to promptly report sex discrimination and sexual harassment. If you believe you have been subjected to sex discrimination or sexual harassment please report the incident to me or any University official, administrator, or supervisor. The Office of Human Resource Services investigates all complaints. Incidents should be reported as soon as possible after the time of their occurrence ([larry-ellis@ufl.edu](mailto:larry-ellis@ufl.edu)).

## Topical Lecture and Laboratory Schedule

## LAB 6 – Turtles Required Reading

### Week 1

Introduction to course: Approaches,  
Expectations, and Philosophy

Chapter 1

### Weeks 2–5:

#### What are they? (Diversity, Phylogeny, & Distribution)

### Week 2

Origins of Amphibians & Reptiles  
Diversity & Evolution of Salamanders  
Diversity & Evolution of Caecilians  
LAB 1 – Salamanders and Caecilians

Chapters 2 & 3

### Week 3

Diversity & Evolution of Frogs  
Diversity & Evolution of Lizards (Part I)  
LAB 2 – Frogs

Chapter 3  
Chapter 4

### Week 4

Diversity & Evolution of Lizards (Part II)  
Diversity & Evolution of Snakes  
LAB 3 – Lizards (Part I)

Chapter 4

### Week 5

Diversity & Evolution of Archosaurs  
Diversity & Evolution of Turtles  
Diversity & Evolution of Crocodylians  
LAB 4 – Lizards (Part II)

Chapter 4  
Chapter 4

### Week 6

**EXAM 1 covers lectures in Weeks 1–5**

### Weeks 6–9:

#### How do they work? (Structure & Function)

### Week 6:

Temperature, Thermoregulation &  
Ectothermy  
LAB 5 – Snakes

Chapters 1, 6

### Week 7

Locomotion

Chapter 10

Week 8  
Feeding  
Respiration & Circulation  
LAB 7 – Crocodylians

Chapter 11  
Chapter 7

Week 9  
Water Balance (*Lillywhite*)  
**EXAM 2 covers lectures in Weeks 6–9**  
NO LAB

Chapter 6

—Spring Break—

**Weeks 10–13:**  
**What do they do? (Reproduction, Ecology,**  
**and more); Conservation**

Week 10  
Amphibian Reproduction and Life History  
Reptile Reproduction and Life History (Part I)  
LAB 8: Field Methods in Herpetology

Chapter 8  
Chapter 9

Week 11  
Reptile Reproduction and Life History (Part II)  
Sensory Systems & Communication  
LAB 9: Review

Chapter 13

Week 12  
Community Ecology  
Invasive Species  
**LAB EXAM covers Labs 1–9**

Chapters 12, 16

Week 13  
Threats to Amphibians & Reptiles  
Conservation Efforts  
LAB: *Field Trip to Sante Fe Zoo*

Chapters 12, 15

Week 14  
Conservation, General Discussion  
**EXAM 3 covers lectures Weeks 10–14**

Chapter 17