

COURSE INFORMATION**HERPETOLOGY Biology 4146****Louisiana State University****Lectures: Tuesday & Thursday 1:40-2:30 214 Foster Hall**
Laboratory: Tuesday & Thursday 2:40-5:30 214 Foster HallInstructor: Christopher AustinTeaching Assistant: TBAOffice: B9 Foster HallOffice Hours: Tuesday & Thursday 5:30-6:30 and *by appointment*. Please feel free to talk with me whenever you want.Office/Lab tele: 578-2841Mobile: 266-3626 (for emergencies and coordination during field trips)E-mail: ccaustin@lsu.edu (this is *the* best way to get in touch with me)Required Text:

(1) *Herpetology, 2nd Edition*. By Zug, Vitt, and Caldwell (2001). Academic Press. ISBN 012782622X. This text is a large and comprehensive view of Herpetology. In this one semester course we will not have the opportunity to cover every chapter. I will assign specific chapters to read. I expect you to come to class having read the assigned reading- this will greatly enhance your understanding of the lecture material and will undoubtedly have a positive effect on your grade.

(2) *A Field Guide to the Reptiles and Amphibians: Eastern/Central North America, 3rd ed. Expanded*. (1998). By Roger Conant, and Joseph T. Collins. Boston: Houghton-Mifflin.

Information on the Web: <http://www.museum.lsu.edu/Austin/Lab.html> **AND BlackBoard**. Many materials associated with this course (e.g. this syllabus, lecture and lab handouts, grades) will be distributed through the BlackBoard web site (accessed via your PAWS account under Student Services). It is **required** you check this website twice per week (yes I can keep tabs on the who, when, and what on this site- scary but true). The “*I did not know*” excuse will not work. Many interesting Herpetological links will be placed on my web site as the semester progresses.

Course Description:

Herpetology is the study of amphibians and non-avian reptiles. This is an unnatural (non-monophyletic) and somewhat strange grouping. Crocodylians and amphibians have not shared a common ancestor for over 300,000,000 years, crocodylians are more closely related to birds than lizards (birds are simply highly modified reptiles), and lizards are more closely related to mammals than frogs! Herpetology, therefore, is somewhat a science of convenience. This course will survey the origin, evolution, systematics, taxonomy, and diversity of amphibians and non-avian reptiles. A strong emphasis will be placed on systematics and evolutionary relationships, as this evolutionary perspective is a fundamental framework for understanding all aspects of reptile and amphibian biology. The course will examine global diversity of frogs, salamanders, caecilians, lizards, tuataras, snakes, turtles and crocodylians but there will be a special emphasis in the laboratory and field components of this class on the diverse herpetofauna of Louisiana. The state of Louisiana is probably one of *the* best places in the world for taking a herpetology class. The laboratory component of this course will make use of preserved specimens to illustrate morphology, taxonomy, natural history, reproduction, biogeography, conservation and other aspects of reptile and amphibian biology. Field trips will allow hands-on experience (*except* for venomous snakes) with reptiles and amphibians.

Laboratory: Much of the material covered in lecture will be enhanced and expanded in the laboratory component of this course. The Teaching Assistant, Jamie Oaks, will be primarily responsible for the lab component of this course. You will be tested on this material during the scheduled exam periods. You need to check BlackBoard to download and print lab notes preceding each lab meeting.

Field Trips: Two weekend field trips and four afternoon field trips are scheduled. The afternoon field trips are mandatory. The weekend field trips are *not mandatory*, although I encourage you to attend both of them. To encourage attendance in the field, up to 10 bonus points will be given to those who keep field notes from the field trips. If you attend both weekend field trips and take reasonably good notes you can expect to receive the full 10 points (the equivalent of an increase in one full letter grade on an exam e.g. B→A). Fewer bonus points will be given to those individuals who attend fewer fieldtrips and/or take poor quality field notes. Field trips are one of the most exciting and fun aspects of this course. Seeing reptiles and amphibians in the field is not only enjoyable but will enhance your appreciation and understanding of the material being presented in lecture and laboratory. The dates of the two weekend field trips will be announced in class.

Venomous Snakes: Never pick up a snake you even **THINK** might be

venomous. If you are not absolutely certain the snake is non-venomous do not pick it up. If you have doubts, do not pick it up. **Any student who handles a venomous snake will AUTOMATICALLY FAIL THIS COURSE!!!**

Exams & Grading: There will be four exams: three ‘midterm’ exams and a final. All exams are 100 points and will cover *both* lecture and laboratory material. *Your lowest exam score will be dropped and your grade will be based on your best three exams.* There will be no make-up exams. For a valid absence from a second exam, the grading scheme will be at the discretion of the instructor (typically a 15 page research paper). Trust me, you do not want to miss a second exam if at all possible. Exam 1 will cover the first third of the class. Exam 2 will cover the second third of the class[‡]. Exam 3 will cover the final third of the class[‡]. The final exam will be comprehensive covering the entire semester.

[‡]*Some components of exam 2 and exam 3, such as systematics, phylogeny, and biogeography will be comprehensive.*

Exam 1	100	points
Exam 2	100	points
Exam 3	100	points
<u>Exam 4</u>	<u>100</u>	<u>points</u>
Total Credit	300	points (<i>lowest exam is dropped</i>)

Your course grade is based on your performance in this course. In order to perform well in this class you will need to comprehend, interpret, and synthesize the information presented in the lectures, laboratories, and the assigned reading. It will help significantly if you have done the reading prior to coming to the lectures.

Grades will be assigned based on the breakdown below:

A	90 —	100%
B	80 —	89%
C	70 —	79%
D	60 —	69%
F	0 —	59%

Note: The final grading scale may be curved based on class performance. However, the scale will NOT be raised such that a student’s grade suffers (i.e., changes may raise your grade, but will NOT lower it).

Your grade should not be a mystery. The information below should allow you to gauge how well (or poorly) you are doing in this course. If you are not doing as well in this course as you would like, I strongly encourage you to talk with me during office hours to come up with a plan of action to help improve your performance in this course.

Final Exam: Monday 8 May at 5:30-7:30 pm in 214 Foster.

Disability Statement:

If you have emergency medical information to share with me, if you need special arrangements in case the building must be evacuated, or if you need accommodations in this course because of a disability, please make an appointment with me as soon as possible. My office location and hours are located on this syllabus. If you plan to request disability accommodations you please contact the Office of Disability Services (112 Johnston Hall, 578-5919).

Academic Honesty:

I expect all students to conduct themselves with academic honesty at all times. The guidelines of student conduct can be found on LSU's website. I take academic integrity very seriously. Academic dishonesty will not be tolerated; all students are expected to do his or her own work.

Supplementary (not required) Reading: I have listed several books below; this is by no means and exhaustive list. The first subset should be ***Enjoyable Reading*** that will enhance your pleasure and comprehension of herpetology (none of them except *Lizard Man Speaks* deal exclusively with Herpetology). ***This is not required reading*** but I do suggest you pick *one* of these books that best reflects your interest in biology and read it. Feel free to ask me about other books if none of these titles strike you as interesting. The second and third subsets are reference books and additional field guides.

Enjoyable herpetologyesque and biology reading:

- *Lizard Man Speaks*. By Eric Pianka (1994). University of Texas Press. (horribly edited but comical. Quick read.)
- *The Song of the Dodo*. Island Biogeography in an Age of Extinctions, by David Quammen (1996). Scribner Inc. (probably *the* best book on this list)
- *Monster of God*. By David Quammen (2003). W.W. Norton and Co. (one good section on Crocodylians).
- *The Flight of the Iguana; A Sidelong View of Science and Nature*. by David Quammen (1998). Anchor Books
- *The Beak of the Finch : A Story of Evolution in our Time*. Jonathan Weiner (1994). Anchor Books (exclusively about birds but . . .).
- *Antipode: seasons with the extraordinary wildlife and culture of Madagascar*. By Heather E. Heying (2002). St. Martin's Press. (I have not read this book).

Reference books:

- *Biology of Amphibians*. By Bill Duellman and Linda Trueb (1986). McGraw Hill Inc.
- *Lizard Ecology*. By Laurie Vitt and Eric Pianka (1994). Princeton University Press.
- *Snakes*. By Harry Greene (1997). University of California Press (great book!)
- *Lizards*. By Eric Pianka and Laurie Vitt (2003). University of California Press (nice photos and good information)
- *Herpetology 3rd Edition*. By Pough et al (2004). Pearson Prentice Hall. (the other major herpetology textbook on the market)

Other field guides:

- *Western Reptiles and Amphibians 3rd edition*. By Robert Stebbins (2003). Peterson Field Guides. (good for the Western US and Baja).
- *Amphibians and Reptiles of Baja California*. By Lee Grismer (2002). University of California Press. (*the* most outstanding 'field guide' around. Doubles as a coffee table book; brilliant photographs).

Tentative Lecture Schedule
Tuesday & Thursday 1:40-2:30 214 Foster Hall

Lecture	Date	Topic	Reading
1	Jan 17	Introduction, systematics, phylogenetics, taxonomy	Chapter 1
2	Jan 19	Biogeography & Species Concepts	Chapter 1
3	Jan 24	Origin and evolution of amphibians	Chapter 3 pp. 77-86
4	Jan 26	Frogs	Chapter 17
5	Jan 31	Frogs	Chapter 17
6	Feb 2	Frogs/Caecilians	Chapter 15
	Feb 7	Afternoon Field Trip *	Field Guide
7	Feb 9	Salamanders	Chapter 16
	Feb 14	Exam 1	
8	Feb 16	Salamanders	Chapter 16
9	Feb 21	Origin and early evolution of Reptiles	Chapter 3 pp. 87-102
10	Feb 23	Lizards/Tuataras	Chapter 20
	Feb 28	Mardi Gras Break	
	Mar 2	Afternoon Field Trip *	Field Guide
11	Mar 7	Lizards	Chapter 20
12	Mar 9	Lizards/Speciation	Chapter 20
Weekend	Mar 10-12	Weekend Field Trip **	Field Guide
13	Mar 14	Lizards	Chapter 20
14	Mar 16	Lizards/Snakes	Chapter 21
15	Mar 21	Snakes	Chapter 21
	Mar 23	Exam 2	
16	Mar 28	Snakes	Chapter 21
	Mar 30	Afternoon Field Trip *	Field Guide
17	Apr 4	Snakes	
18	Apr 6	Snakes	Chapter 21
	Apr 11	Spring Break	
	Apr 13	Spring Break	
19	Apr 18	Snakes	Chapter 21
20	Apr 20	Turtles	Chapter 18
	Apr 25	Afternoon Field Trip *	Field Guide
21	Apr 27	Turtles	Chapter 19
Weekend	TBA	Weekend Field Trip **	Field Guide
22	May 2	Crocodylians	Chapter 19
	May 4	Exam 3	
	May 8	—Final Exam 4 5:30 to 7:30 214 Foster Hall—	

*Wear appropriate field clothes and shoes and bring your field guide and notebook.

** Weekend/overnight field trip.