

Herpetology Biology 488 Fall 2022

Lecture: 1630-1745 TTh Castetter 57

Lab: F 1400-1800 Castetter 53

Instructor: Steven Poe anolis@unm.edu Castetter 180

Teaching Assistant: Joseph Barnett

josephcbarnett@unm.edu

Office hours: after lecture, or by appointment

Office hours: to be announced

Texts:

--Pough, FH. 2013. Herpetology, 4th edition. Pearson Prentice Hall.

--Stebbins, RC. 2003 [2018]. A Field Guide to Western Reptiles and Amphibians, 3rd edition.

Peterson field guide series. Houghton Mifflin Harcourt.

--Duellman, WE, L Trueb. 1994. Biology of Amphibians. Johns Hopkins University Press.

--Degenhardt, W, C Painter, A Price. 1996. Amphibians and Reptiles of New Mexico. UNM Press.

--Powell, R, JT Collins, ED Hooper. 2019. A Key to Amphibians & Reptiles of the Continental United States and Canada. University Press of Kansas.

--Leenders, T. 2016. Amphibians of Costa Rica. Zona Tropical Publications.

--Leenders, T. 2019. Reptiles of Costa Rica. Zona Tropical Publications.

Grading and requirements:

One of two overall grading schemes will be used

--Scheme 1: A = 90-100%, B = 80-89.99%, C = 70-79.99%, D = 60-69.99%, F = 0-59.99%

--Scheme 2: At the end of the semester we examine the distribution of points among students. We look for clumps of scores near 90, 80, 70, etc., and distributional breaks between such clumps. Scores in the top clump receive an A, in the second clump receive a B, and so on. Scores below 60 receive a failing grade.

--We will use the grading scheme that gives the most students the highest grades.

Lecture (65%)

--Three exams (1: 12%, 2: 15%, 3:18%): Exams are likely to be multiple choice and short answer format

--Research presentation 20% (18% presentation, 1% judging student talks, 1% summary): Class projects are completed by individual students. The project is to be an exercise in applying the scientific method to a particular herpetological question of interest to the student. At the end of the semester each student presents her or his results to the class in a 12-15 minute presentation, with 3-5 minutes for questions. The grade for this endeavor reflects the quality of the science and of the presentation. Students will meet two deadlines with regard to this project. By **September 27**, students will present a ½-1 page summary of their project background, methods, and anticipated results to Poe. Before this date, it is imperative that you discuss potential projects with TA Barnett and Instructor Poe. On **November 22**, you will turn in a summary of your project that describes, in not more than two pages, your project (including background, methods, and results). From **November 29 to December 6 students will present their work to the class**. Projects may be one of two kinds: 1) collect and analyze your own field data; 2) collect and analyze some data from the literature. Option 1) has a higher grade ceiling than option 2).

Positive aspects of presentations (i.e., higher grades): Student tests a hypothesis; student collects data; student analyzes data; detailed handout given to class; report is publishable; good presentation style.

Negative aspects of presentations (i.e., lower grades): Book reports (no data collected, no analyses done); Wikipedia syndrome; few data; handout vague or not presented; poor presentation style: under 10 minutes, no hypothesis tested, reading slides, slides wordy or cluttered, poor organization, weak background info, use of profanity, poorly cited...

Lab (35%)

See lab syllabus (26 August) for details

Field trip:

Costa Rica

This trip is planned for the week of Fall break. We will visit Northern Costa Rica with three goals: 1) to observe and photograph the wonderful reptile and amphibian fauna of northern Costa Rica, 2) to collect *Anolis* lizards, 3) to take data on sleeping *Anolis*. We will leave Albuquerque on approximately October 9 and be in Costa Rica for six or seven days. Cost is \$1050, with **\$500 due on 25 August**. You will need to sign multiple documents of responsibility for the trip.

Course Schedule

Week	Date	
1	23 Aug	Introduction
	25 Aug	The study of herpetology
2	30 Aug	Herps of Albuquerque
	1 Sep	Evolution, phylogenetics, species, characters
3	6 Sep	Evolution, phylogenetics, species, characters
	8 Sep	Evolution, phylogenetics, species, characters
4	13 Sep	Test 1
	15 Sep	Chytridiomycosis in frogs
5	20 Sep	Amphibians; salamanders
	22 Sep	Frogs
6	27 Sep	Caecilians// preliminary project plan due
	29 Sep	Costa Rica herps
7	4 Oct	Amphibian reproduction
	6 Oct	Reptiles; Turtles
8	11 Oct	Costa Rica field trip
	13 Oct	Costa Rica field trip [Fall break]
9	18 Oct	To be announced
	20 Oct	Test 2
10	25 Oct	Crocodylians
	27 Oct	Lizards 1
11	1 Nov	Herpetologist Tom Giermakowski
	3 Nov	Herpetologist Lisa Barrow
12	8 Nov	Lizards 2 (snakes)
	10 Nov	Reptile reproduction
13	15 Nov	Locomotion
	17 Nov	Invasive species
14	22 Nov	To be announced// project report due
	24 Nov	Thanksgiving
15	29 Nov	Student presentations
	1 Dec	Student presentations
16	6 Dec	Student presentations
	8 Dec	Test 3