

General Vertebrate Zoology Biology 386 Spring 2023

Lecture: TTH 1400-1515 Castetter 41 53 Lab: M 1000-1300, 1500-1800 Castetter 53

Instructor: Steve Poe Castetter 180/anolis@unm.edu Teaching Assistant: Jonathan Keller

Reading: announced in lecture

Lecture materials: stevenpoe.net

Grading and requirements:

One of two overall grading schemes will be used

--Scheme 1: A = 90-100%, B = 80-89.9%, C = 70-79.9%, D = 60-69.9%, F = 0-59.9%

--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 (60%)

--Three exams (12%, 15%, 17%): Exams are likely to be a mix of multiple choice and short answer formats.

--Research Day summaries (1%): Students will view one poster and one student oral presentation at UNM Research Day (7 April) and turn in a written ½-1 page summary for each. Include information on question/hypothesis, methods, and conclusions. Include and justify your judgement of the quality of the presentation. Grammar and spelling count.

--Research project, 15% (1% judging student talks; 14% talk [see below]): Projects are completed by individual students. *The project is a summary of information for a species or group of species of vertebrate that was not covered in depth during lecture.* The student chooses a species/group to work on and presents a summary of the biology of and recent research on the species/group. Your goal is to become the world's expert on a species or group of species of vertebrate and convey this information as an oral presentation to the class.

The order of presentations will be determined by random draw on presentation days (i.e., April 20, 25, 27).

The presentation should be 12 minutes long, and should include the following:

--relationships of the studied species/group, including what analyses and data were used to estimate relationships

--natural history, range/distribution, habitat, behavior, and ecology of the species/group

--conservation status of the species/group, including how this status was determined

--discussion of a research paper published **after 2012** that tested an important biological hypothesis using your species/group as the primary study organism

--use of information from and proper citation of at least five publications from scientific journals (i.e., not from nonpeer-reviewed sources on the internet)

--meet a minimum time requirement of 10 minutes, maximum of 14 minutes

--good organization (background, species info, research paper, summary)

--PowerPoint or similar program used

--good presentation style: talk slow, speak to audience, don't read slides, slides well-organized with concise and grammatically correct text without spelling errors, good photos, answer questions well, etc.

Negative aspects of presentation (i.e., aspects that result in lower grades):

--poor use of sources/superficial treatment—most information taken from Wikipedia or similar source

--research publication poorly understood or poorly presented

--lots of information available for the species/group that was not presented

--poor presentation style: confusing organization, talk too fast, stare at notes or slides, unhelpful figures/photos, slide text wordy or with spelling errors, use of profanity, handle questions poorly, etc.

--presentation is too long or too short

A summary of your presentation is due 18 April. This summary should be approximately 200 words (excluding citations) and include your choice of species/group, citation of the primary research publication you plan to discuss and a statement of the important findings of this publication, and some general information on your species/group. You are encouraged to discuss your choice of study organism with Poe.

Lab (40%)

Lab syllabus will be handed out on 23 January 2023

Week	Date	
1	17 Jan	Course logistics; sources of information
	19 Jan	History; species
2	24 Jan	Evolution, phylogenetics, species
	26 Jan	Evolution, phylogenetics, species
3	31 Jan	Close relatives of vertebrates
	2 Feb	Test 1
4	7 Feb	Cartilaginous fish
	9 Feb	Ray-finned fish
5	14 Feb	Coelacanth, lungfish; transition to land, tetrapod characteristics
	16 Feb	Amphibians; salamanders
6	21 Sep	Caecilians; frogs
	23 Sep	Frogs
7	28 Feb	Amniota; lizards
	2 March	lizards
8	7 March	Crocodylians
	9 March	Test 2
9	14 March	Spring Break
	16 March	Spring Break
10	21 March	To be announced
	23 March	Turtles
11	28 March	Dinosaurs; birds
	30 March	Birds
12	4 April	Mammals
	6 April	Research Day presentations
13	11 April	Primates; humans
	13 April	To be announced
14	18 April	To be announced/ Project summary due
	20 April	To be announced
15	25 April	Student presentations
	27 April	Student presentations
16	2 May	Student presentations
	4 May	Test 3