

General Vertebrate Zoology Biology 386 Spring 2018

Lecture: TTH 1230-145 Castetter 51

Instructor: Steve Poe

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Text: Pough, FH et al. 2012. Vertebrate Life, 9th edition.

Reading: announced in lecture

Lab: M 1100-200//1500-1800

Teaching Assistant: Gregor Hamilton

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 (15% each): Exams are likely to be short answer format

--Research presentation, 15% (1% summary, 1% judging student talks; 13% talk): Class projects are completed by individual students. The project is a summary of information for a species or group of species of vertebrates that was not covered in depth during lecture. The student chooses a species/group to work on and presents a summary of relationships, ecology, and recent research on the species/group. Your goal is to become the world's expert on a species or group of species of vertebrates and present what you know to the class.

The order of presentations will be determined by random draw on presentation days (i.e., April 19, 24, 26, May 1).

The presentation should be 10 to 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 2007** 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 8 minutes

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

--PowerPoint or similar program used

--an informative handout accompanies the presentation

--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 with spelling errors, use of profanity, handle questions poorly, etc.

A summary of your presentation is due April 17. 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, at least five citations of journal articles that you are incorporating in your talk, and general information on your species/group. You are encouraged to discuss your choice of study organism with Poe.

--Research Day summary (extra 1%): Write a summary of one student poster or talk from UNM Research Day that studies a vertebrate group. This summary should be approximately 300 words, and should include statements describing the research question, methods, results, and significance of your chosen presentation. Your goal is to clearly communicate the major points of the presentation with no esoteric biological jargon and no grammatical or spelling errors.

Lab (40 %)

Lab syllabus will be handed out on 22 January.

Week	Date	
1	16 Jan	Course logistics; brief introduction to Vertebrates
	18 Jan	Evolution, phylogenetics, species
2	23 Jan	Evolution, phylogenetics, species
	25 Jan	To be announced
3	30 Jan	Evolution, phylogenetics, species
	1 Feb	Close relatives of Vertebrates
4	6 Feb	Cartilaginous fish
	8 Feb	Ray-finned fish
5	13 Feb	Test 1
	15 Feb	Coelacanth, lungfish, transition to land, tetrapod characteristics
6	20 Feb	Amphibians; caecilians
	22 Feb	Salamanders
7	27 Feb	Frogs
	1 Mar	Amniotes; lizards
8	6 Mar	Lizards
	8 Mar	To be announced
9	13 Mar	Spring Break
	15 Mar	Spring Break
10	20 Mar	Dinosaurs
	22 Mar	UNM Research Day
11	27 Mar	Test 2
	29 Mar	Crocodylians
12	3 Apr	Birds 1
	5 Apr	Birds 2
13	10 Apr	Turtles
	12 Apr	Mammals 1
14	17 Apr	Mammals 2/ presentation summary due
	19 Apr	Student presentations
15	24 Apr	Student presentations
	26 Apr	Student presentations
16	1 May	Student presentations
	3 May	Test 3