

The Evolution and Paleobiology of
Dinosaurs

Geology 12

Winter Quarter, 2020

Tuesday and Thursday, 12:10 - 1:00 PM

1001 Giedt Hall

Credit: 2 units **Prerequisites:** none **Grading:** letter grade
Instructor: Sandy Carlson **Telephone:** 752-2834 **E-mail:** sjcarlson@ucdavis.edu
Office Hours: Tuesday & Thursday 10:30-11:30 am or by appt., Rm. 2123 Earth & Physical Sciences Bldg.
Teaching Assistant: Tracy Thomson **E-mail:** tjthomson@ucdavis.edu
Recommended Text: *Dinosaurs: a Concise Natural History* by D.E. Fastovsky and D.B. Weishampel, 3rd Edition, 2016, Cambridge University Press, Cambridge. 432 pp.
Requirements: One midterm exam (40%), a 300-word essay on a current event (15%), and a final, cumulative exam (45% of grade).

Date	Lecture	Reading: Chapters
January 7	Introduction to Dinosaurs: History of study	15
January 9	Dinosaurs in Temporal Perspective: Geological time	2
January 14	Geology and Climate in the Mesozoic Era	2
January 16	Collecting Dinosaurs: How is it done?	1
January 21	Dinosaur Ancestors: Who are they?	3, 4, and 5
January 23	Dinosaur Relationships I: Saurischia	6, 7, and 9
January 28	Dinosaur Relationships II: Ornithischia	10, 11, and 12
January 30	Dinosaur Biomechanics I: Postcranial	Review 6-12
February 4	Dinosaur Biomechanics II: Dental and cranial	Review 6-12
February 6	MIDTERM: during class time, in 1001 Giedt Hall	-----
February 11	Pterosaurs	-----
February 13	The Origin of Birds	8
February 18	Dinosaur Physiology I: Endothermy Hypothesis	13
February 20	Dinosaur Physiology II: Testing the Hypothesis	13
February 25	Dinosaur Behavior I: Functional Morphology; Trackways	Review 6-12
February 27	Dinosaurs Behavior II: Reproductive Behavior	Review 6-12
March 3	Life in Mesozoic Seas: Marine Reptiles	----
March 5	Hot New Topics in Dinosaur Paleobiology	-----
March 10	Dinosaur Extinction I: Hypotheses	14 and 16
March 12	Dinosaur Extinction II: Testing the Hypotheses	16
March 18	FINAL EXAM: 3:30 to 5:30 pm in 1001 Giedt Hall	