OEB 126: Vertebrate Evolution

Professor: Stephanie E. Pierce Teaching Fellow: Phil Fahn-Lai

Lectures: Tues., Thurs., 12:00-1:15pm, Room MCZ 101 Laboratory section: Thurs., 3:00-5:45pm, Room NWBldg B311

Spring 2020 course structure:

Tues., Jan 28 – (1) Introduction to Vertebrate Evolution

Thurs., Jan 30 – (2) Anatomy, Phylogeny, & Poster presentation

NO LAB

Tues., Feb 4 - (3) Inception of the vertebrate bauplan

Thurs., Feb 6 - (4) Life without jaws: 'agnathan' fish

LAB 1 (2%)

Tues., Feb 11 - (5) The making of JAWS

Thurs., Feb 13 - (6) An introduction to early jawed vertebrates

LAB 2 (2%)

Quiz 1 (1%)

Tues., Feb 18 - (7) Bony fish and the rise of ray-fins

Thurs., Feb 20 - (8) Sarcopts I: the lobed-finned fishes

LAB 3 (2%)

Quiz 2 (1%)

*Fri., February 21 – Clade of choice for poster presentation due (1%)

Tues., Feb 25 – (9) Sarcopts II: tetrapods emerging

Thurs., Feb 27 – (10) Amphibians: exploring the terrestrial realm

LAB 4 (2%)

Quiz 3 (1%)

Tues., Mar 3 - (11) Breaking ties with water: amniotes (guest: Tiago Simões)

Thurs., Mar 5 – Lecture Mid-term (20%) – in class

NO LAB

Tues., Mar 10 – (12) Things that slither: lizards and snakes (guest: Tiago Simões)

Thurs., Mar 12 - (13) Crocodile origins and diversity

LAB 5 (2%) Quiz 4 (1%)

*Fri., March 13 – Literature survey for poster presentation due (2%)

Tues., Mar 16

Thurs., Mar 20

SPRING RECESS: Thomas Farm Field Trip!

Tues., Mar 24 – (14) Welcome to the world of dinosaurs (guest: Robert Brocklehurst) Thurs., Mar 26 – (15) Feathered dinosaurs & avian origins (guest: Robert Brocklehurst)

> LAB 6 (2%) Quiz 5 (1%)

Tues., Mar 31 - (16) Sea monsters are real

Thurs., Apr 2 - (17) Pterosaurs and turtles, oh my!

LAB 7 (2%) Quiz 6 (1%)

*Fri., Apr 3 – Title and abstract for poster presentation due (5%)

Tues., Apr 7 - (18) The forerunners of mammals (guest: Megan Whitney)

Thurs., Apr 9 - (19) Cynodonts and the making of a mammal (guest: Megan Whitney)

LAB 8 (2%) Quiz 7 (1%)

Tues., Apr 14 – (20) Mesozoic mammals and our pouched cousins

Thurs., Apr 16 - (21) Introducing placental mammals

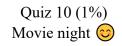
LAB 9 (2%) Quiz 8 (1%)

*Fri., Apr 17 – Draft of poster for feedback due (2%)

Tues., Apr 21 – (22) Diverse dentitions: evolution of mammalian feeding (guest: Katrina Jones) Thurs., Apr 23 – (23) Navigating new environments: evolution of mammalian locomotion (guest: Katrina Jones)

LAB 10 (2%) Quiz 9 (1%)

Tues., Apr 28 – Lecture FINAL EXAM (25%) – in class



Wed., Apr. 29 – Wed., May 7 – Reading period

POSTER PRESENTATION date TBD (15%)

Grading

Lecture Mid-Term = 20%; Lecture Final = 25%; Lab participation = 20%; Lab Quizzes = 10%; Poster presentation = 25%

Supplementary reading list (plus other literature provided on the course website)

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Michael J. Benton	2015 (hard copy and online)	Vertebrate Palaeontology, Fourth Edition
John A. Long	2011 (hard copy)	The Rise of Fishes: 500 Million Years of Evolution
Jennifer A. Clack	2012 (hard copy and online)	Gaining Ground: The Origin and Evolution of Tetrapods
Robert Carroll	2009 (hard copy)	The Rise of Amphibians: 365 Million Years of Evolution
Hans-Dieter Sues	2019 (online)	The Rise of Reptiles: 320 Million Years of Evolution
T. S. Kemp	2005 (hard copy)	The Origin & Evolution of Mammals
Kenneth D. Rose and J. David Archibald	2005 (hard copy)	The Rise of Placental Mammals: Origins and Relationships of The Major Extant Clades

Contact details

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