

Earth Sciences 615 -- PALEOECOLOGY

Autumn Quarter 2008

Instructor: William I. Ausich
Lectures: MTWR 2:30, 80 Orton
Laboratories: F 2:30-4:18
Rm. 80 Orton Hall

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Note, this course is a core course in the Evolutionary Studies minor. Information regarding the minor and its requirements may be found online at <<http://artsandsciences.osu.edu/interdisciplinary>>.

Course Schedule

September

- 24 Introduction (Prothero, 1998, p. 117-146)
- 25 Introduction
- 26 LAB: Sampling

- 29 Niches
- 30 Suspension feeders (Levinton, p. 269-277)
 - 1 Deposit feeders (Levinton, p. 277-282)
 - 2 Plankton/Nekton (Levinton, Ch. 10 – won't do whole chapter)
 - 3 NO CLASS: GSA

October

- 6 NO CLASS: GSA
- 7 NO CLASS: GSA
- 8 NO CLASS: GSA
- 9 NO CLASS: GSA
- 10 LAB: Numerical Methods; Introduce Lab Project 1: Devonian Communities

- 13 5-minute talks on ecology papers; Introduce Lab Project 1
- 14 Plankton/Nekton
- 15 Living on the bottom
- 16 Taphonomy (Dodd and Stanton, p. 233-276)
- 17 LAB: Numerical Methods

- 20 Taphonomy
- 21 Taphonomy
- 22 Community Paleoecology (Dodd and Stanton, p. 323-384)
- 23 Community Paleoecology
- 24 LAB: Numerical Methods; Introduce Lab Project 2

- 27 Community Paleoecology
- 28 Community Paleoecology
- 29 Community Paleoecology
- 30 MIDTERM EXAMINATION
- 31 LAB: Lab Project 3: Paleobiology Database ?

November

- 3 Community metrics
- 4 Community Paleoecology
- 5 Hierarchies in Paleoecology (Jablonski and Lipps, Ch. 3)
- 6 Evolutionary Paleoecology (Brenchley and Harper, Ch. 9; Allmon and Bottjer, Chs. 1, 4)
- 7 LAB: Devonian wrap up and Lab Project

- 10 The Sepkoski Curve
- 11 The Sepkoski Curve
- 12 Evolutionary Paleoecology of the Marine Biosphere
- 13 Evolutionary Paleoecology of the Marine Biosphere
- 14 NO CLASS: VETERAN'S DAY

- 17 Evolutionary Paleoecology of the Marine Biosphere
- 18 Evolutionary Paleoecology of the Marine Biosphere
- 19 Evolutionary Paleoecology of the Marine Biosphere
- 20 Evolutionary Paleoecology of the Marine Biosphere
- 21 LAB: Lab Consulting

- 24 Evolutionary Paleoecology of the Marine Biosphere
- 25 Evolutionary Paleoecology of the Marine Biosphere
- 26 Evolutionary Paleoecology of the Marine Biosphere
- 27 NO CLASS: THANKSGIVING
- 28 NO CLASS: THANKSGIVING

December

- 1 Evolutionary Paleoecology of the Marine Biosphere
- 2 Lab Presentations
- 3 Lab Presentations
- 4 Lab Presentations
- 5 Evolutionary Paleoecology of the Marine Biosphere

FINAL EXAMINATION -- Wednesday, December 10, 2008, 1:30-3:18

CONTENT

Concepts and numerical methods for the advanced treatment of autecology, marine community paleoecology, and evolutionary paleoecology in the fossil record.

TEXT

No text book is required, readings will be from the primary literature.

FORMATS

Midterm, one hour, essay exam

Final, 2 hours, essay exam

Lab Exercise and due dates will be discussed individually

Presentation of Lab Exercises during class in 10th week

ATTENDANCE

Strongly encouraged

GRADING: A 90-80-70 (lowest A, B, C) etc. will be followed.

Midterm Examination	25%
Final Examination	40%
Laboratory	25%
Class Presentations & Participation	10%