

THE OHIO STATE UNIVERSITY  
Department of Geological Sciences

**GEOLOGICAL SCIENCES 614**  
**PALEOBIOLOGY**

**Instructors:** William I. Ausich  
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**Office Hours:** 8:30 – 9:30 M-F

**Instructors:** Loren E. Babcock  
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**Office Hours:** 11:30-12:30 M, W, F

**Lectures:** M, T, W, R 9:30-10:18 80 Orton Hall  
**Laboratories:** F 9:30-11:18 80 Orton Hall

**Textbook:** Feldmann, R.M. (ed.). 1996. Fossils of Ohio. Ohio Division of Geological Survey, Bulletin 70, 577 p.

**COURSE SCHEDULE**

Sept 21 -A- Introduction, Margulis, etc.  
Sept 22 -A- Systematics  
Sept 23 -A- Systematics; LAB: Caminacules

Sept 26 -B- Evolution  
Sept 27 -B- Evolution  
Sept 28 -B- Macroevolution  
Sept 29 -B- Divergence of Animals  
Sept 30 -B- LAB: Preparation Techniques

Oct 3 -B- PC paleontology  
Oct 4 -B- PC paleontology  
Oct 5 -B- PC paleontology/Ediacaran  
Oct 6 -B- Trace Fossils  
Oct 7 -B- LAB: Trace Fossils

Oct 10 -B- Phylogenetics  
Oct 11 -B- Phylogenetics  
Oct 12 -A- Making a living on the ocean floor  
Oct 13 -A- Functional morphology of colonial organisms – Bryozoa  
Oct 14 - GSA: Work on Paleobiology Paper

Oct 17 -GSA: Work on Paleobiology Paper  
Oct 18 -GSA: Work on Paleobiology Paper  
Oct 19 - GSA: Work on Paleobiology Paper  
Oct 20 - GSA: Work on Paleobiology Paper  
Oct 21 -A- Functional morphology of colonial organisms – Bryozoa

Oct 24 - B- Divergence of Arthropods  
Oct 25 -B- Classification versus Phylogeny  
Oct 26 -B- Arthropods  
Oct 27 -**LECTURE MIDTERM EXAMINATION**  
Oct 28 -B- LAB:Phylogeny

Oct 31 -B- Arthropods  
Nov 1 -B- Arthropods  
Nov 2 -B- Taphonomy  
Nov 3 - B- Taphonomy  
Nov 4 - LAB: Macroevolutionary Trends through the Phanerozoic

Nov 7 - B- Taphonomy  
Nov 8 - A- Student Paleobiology Talks  
Nov 9 -A- Student Paleobiology Talks  
Nov 10 -A- Student Paleobiology Talks  
Nov 11 - NO CLASSES – Veteran's Day

Nov 14 -A- Brachiopods – A New Taxonomy  
Nov 15 -A- Brachiopods – A New Taxonomy  
Nov 16 - -A- Evolution of the Echinoderm Bauplan  
Nov 17 -A- Functional Morphology of Crinoids  
Nov 18 -A- LAB: Rarefaction techniques

Nov 21 - A- Morphologic vs Molecular Phylogeny in Echinoids  
Nov 22 - A- Mesozoic Marine Revolution  
Nov 23 -A- Mesozoic Marine Revolution  
Nov 24 - No Classes Thanksgiving  
Nov 25 - No Classes Thanksgiving

Dec 28 -A- Allometry and Constructional Morphology  
Dec 29 -A- Stable Isotopes and Molluscs  
Dec 30 -A- Diversity through time  
Dec 1 -A- Diversity through time  
Dec 2 -A- LAB: Photographic Techniques

December, 7, Wednesday, **FINAL LECTURE EXAMINATION (7:30 - 9 :18 a.m.)** To be discussed and hopefully modified to 9:30 - 11:18 a. m.

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**Purpose of Course:** Advanced consideration of topics and methodology in current research on the morphology, phylogeny, paleoecology, taphonomy, biogeography, and interactions of major groups of macroinvertebrate fossils.

**Gradable Items:** The Midterm will cover material studied through Arthropods. The Final Exam will focus on, but not be restricted to, materials covered after the midterm. In addition there will be several graded laboratories, lecture assignments, and one written paper. The paper is one on any topic of Paleobiology. Your final grade will be based on Midterm (25%), Final Exam (30%), Lab Exercises (15%), Lecture Exercises (15%), and Paleobiology Paper (15%). The first draft of the Paleobiology Paper is due November 15, 2005, and the final draft is due December 2, 2005.

### **ACADEMIC MISCONDUCT**

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <[http://studentaffairs.osu.edu/info\\_for\\_students/csc.asp](http://studentaffairs.osu.edu/info_for_students/csc.asp)>.

### **DISABILITY SERVICES**

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; 292-3307, TDD 292-0901; <<http://www.ods.ohio-state.edu/>>.