

GEOL 104 Dinosaurs: A Natural History

Fall Semester 2006

PLS 1130 10:00-10:50 am MWF

Instructor: Dr. Thomas R. Holtz, Jr.

Room: Centreville 1216 Office Hours: T 8:30-11 am, or by appointment

Phone: x54084, Email: tholtz@umd.edu

NOTE: It is your responsibility as a student to completely read through and understand this syllabus. If you have questions about it, please contact Dr. Holtz. You will be held responsible for following all requirements of this syllabus.

Course Organization: 3 meetings per week (Monday, Wednesday, Friday).

Grade:	Test 1: 20%	Smithsonian Assignment I:	12.5%
	Test 2: 20%	Smithsonian Assignment II:	12.5%
	Final: 20%	Other Homework, Quizzes:	15%

No separate extra credit assignments are planned for this course.

NOTE: Late Assignments will be docked 25% of the total grade for the first class day missed (without a valid excuse) and an additional 25% for the next. After that point, the grade for that assignment will be a 0.

Grade Scale: ≥ 90 , A; 80-89, B; 70-79, C; 60-69, D; < 60 , F. “+” and “-” grades are given to the top and bottom two-point range, respectively, within each grade.

Dinosaurs: A Natural History is a CORE course. CORE Distributive Studies courses are designed to ensure that you will take a look at several different academic disciplines and the way they create and analyze knowledge about the world. A faculty and student committee approved this CORE Distributive Studies course because it will introduce you to the ideas and issues that are central to a major intellectual discipline and because it promises to involve you actively in the learning process. Please take advantage of the opportunities this course offers you.

Required Text: David E. Fastovsky and David B. Weishampel. 2005. *The Evolution and Extinction of the Dinosaurs*. 2nd Edition. Cambridge Univ. Press, 485 pp. ISBN 0-521-81172-4

(Additional reading resources, not required for this class, are listed after the syllabus and on the web page).

Website: <http://www.geol.umd.edu/~tholtz/G104/>
The Website contains a copy of the course policies, the syllabus, lecture notes, copies of the handouts, dinosaur-related web links, and other features. Please feel free to utilize this resource, and email Dr. Holtz with any suggestions on improving this resource.

Email Discussion List: In order to facilitate discussion, an email discussion list will be organized for this class. This list can be used to propose questions for discussion; to ask for clarification of topics; and so forth. Details will be provided during the second week of class.

Policies: Academic integrity: The University of Maryland has a nationally recognized Code of Academic Integrity, administered by the Student Honor Council. This Code sets standards for academic integrity at Maryland for all undergraduate and graduate students. As a student you are responsible for upholding these standards for this course. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism. For more information on the Code of Academic Integrity or the Student Honor Council, please visit <http://www.studenthonorcouncil.umd.edu/whatis.html>

The University of Maryland is one of a small number of universities with a student-administered Honors Code and an Honors Pledge, available on the web at

<http://www.jpo.umd.edu/aca/honorpledge.html>. The code prohibits students from cheating on exams, plagiarizing papers, submitting the same paper for credit in two courses without authorization, buying papers, submitting fraudulent documents, and forging signatures. The University Senate encourages instructors to ask students to write the following signed statement on each examination or assignment: "I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or assignment)."

Academic Accommodations: If you have a documented disability, you should contact Disability Support Services 0126 Shoemaker Hall. Each semester students with documented disabilities should apply to DSS for accommodation request forms which you can provide to your professors as proof of your eligibility for accommodations. The rules for eligibility and the types of accommodations a student may request can be reviewed on the DSS web site at http://www.counseling.umd.edu/DSS/receiving_serv.html.

Religious Observances: The University System of Maryland policy provides that students should not be penalized because of observances of their religious beliefs, students shall be given an opportunity, whenever feasible, to make up within a reasonable time any academic assignment that is missed due to individual participation in religious observances. It is the responsibility of the student to inform the instructor of any intended absences for religious observances in advance. **Notice should be provided as soon as possible but no later than the end of the schedule adjustment period (September 13).** Faculty should further remind students that prior notification is especially important in connection with final exams, since failure to reschedule a final exam before the conclusion of the final examination period may result in loss of credits during the semester. The problem is especially likely to arise when final exams are scheduled on Saturdays.

Other: All work on tests, homework, etc. must be your own. Although group study can be very useful, make sure that all your work you turn in is your own.

Absences from exams will not be excused except for those causes approved by University policy (see p. 33-34 of the *UMCP Undergraduate Catalog 2006/2007*). Only those students excused for these causes will be eligible for a make-up exam.

Quizzes will, for the most part, be unannounced, be at the start of class, and cover both the readings and lectures.

Attendance in class is expected. Much of the information presented is not available in the textbook. If you cannot make a certain lecture, try and find another student who might lend your their notes. (In fact, establishing a study group early in the course has proven useful for many students in the past). Furthermore, absence from class may result in you missing an unannounced quiz.

Keep up with the required readings! Although the format of the lectures and the chapters do not always match, the readings are important as well. Some of the material to be tested is covered in more detail in the readings than in class.

Readings should be done **prior** to the classtime they are listed.

NOTE: As part of the nature of the course, there will be a lot of memorization (less than a foreign language class, but more than that found in more mathematically-oriented introductory science classes). This will include lots of anatomical, geological, and paleontological terms, as well as evolutionary and temporal relationships. If you have difficulty memorizing, this may not be the class for you. Also, if there are words or concepts with which you are not familiar, feel free to ask Dr. Holtz (in class, after class, over email, etc.) for an explanation or clarification.

Course Evaluations: As with all CMPS classes, the course evaluations will be done online during the last several weeks of the semester. The expectation is that all students will complete these. This is YOUR chance to anonymously evaluate this class: please use this opportunity!

MAIN SYLLABUS

- Aug. 30 Introduction: What is Science? What are Dinosaurs?
Reading: Chap. 1
- Sept. 1 Fossils and Rocks; The Meaning of Fossils
Reading: Chap. 2
- Sept. 4 LABOR DAY—No Class
- Sept. 6 The History of Prehistory: Dinosaur research through time
Geology Assignment is handed out
- Sept. 8 Deep Time I: Dating the fossil record
Reading: Chap. 2
- Sept. 11 Deep Time II: Millions of years ago...
Reading: Chap. 2
- Sept. 13 Plate Tectonics and the Earth Engine
Reading: Chap. 2
Smithsonian Assignment I is handed out
- Sept. 15 Our Bodies, Our Selves: Introduction to Vertebrate Osteology
Reading: Chaps 3-4
- Sept. 18 Evolution I: Descent with Modification
Reading: Chaps. 3-4
Geology Assignment is DUE
- Sept. 20 Evolution II: On the Origin of Species by Means of Natural Selection
Reading: Chaps. 3-4
- Sept. 22 Evolution III: Patterns and Processes; and Systematics I: Taxonomy
Reading: Chaps. 3-4
Anatomy & Systematics Assignment is handed out
- Sept. 25 Systematics II: The Tree of Life
Reading: Chaps. 3-4
- Sept. 27 Systematics III: Cladistics
Reading: Chaps. 3-4
- Sept. 29 Evolution of the Vertebrates I & II
Reading: Chaps. 4 & 5
Anatomy & Systematics Assignment is DUE
- Oct. 2 Life on Land Before the Dinosaurs
Reading: Chap. 5
- Oct. 4 The Origin of Dinosauria
Reading: Chap. 5

- Oct. 8 **TEST I**
- Oct. 9 The Dinosaur Family Tree: What is a dinosaur?
Reading: pp. 102-106, 222-226
Smithsonian Assignment I is DUE!
- Oct. 11 Thyreophora: Defense! Defense! Defense!
Reading: Chaps. 6-7
- Oct. 13 Ornithopoda: Beaks, bills & crests
Reading: Chap. 10
Video Assignment is handed out
- Oct. 16 Marginocephalia: That's using your head!
Readings: Chaps. 8-9
Smithsonian Assignment II is handed out
- Oct. 18, 20 No lectures: work on the video assignment this week. During the week of October 17-21, you will be required to view a set of videos on Dial Access on the Nonprint Media room of Hornbake Library. You will be required to turn in your answers to the take-home video assignments on Friday November 4.
- Oct. 23 Sauropodomorpha: Size Matters!
Reading: Chap. 11
- Oct. 25 Theropoda I: Dinosaurs Red in Tooth and Claw
Dinosaur Relationships Assignment is handed out
Reading: Chap. 12
- Oct. 27 Theropoda II, Coelurosauria: Tyrant Kings and Lesser Royals
Reading: Chap. 13
- Oct. 29 **Daylight Savings Time ends: Set your clocks so that you don't miss class!**
- Oct. 30 Theropoda III, Eumaniraptora: Dinosaurs of the Air
Reading: Chap. 14
- Nov. 1 Theropoda IV: Dinosaurs Take Flight!
Reading: Chap. 14
Dinosaur Relationships Assignment is DUE
- Nov. 3 Dinosaur History I: Dinosaurs Inherit the Earth
Reading: Chap. 16
Video Assignment is DUE!
- Nov. 6 Dinosaur History II: Time of the Titans and Flowering of the Age of Dinosaurs
Reading: Chap. 16
- Nov. 8 Dinosaur History III: The Many Worlds of the Late Cretaceous
Reading: Chap. 16
- Nov. 10 **TEST II**
- Nov. 13 Dinosaur Growth and Behavior
Reading: Chap. 15

- Nov. 15 Hot- or Cold-Running Dinosaurs?
Dinosaur Physiology Assignment is handed out
 Reading: Chap. 15
- Nov. 17 Hearts, Lungs, and Faces: New Approaches to Dinosaur Physiology
 Reading: Chap. 15
- Nov. 20 Eat or be Eaten: Dinosaur Paleoecology
 Reading: Chap. 15
- Nov. 21 Dinosaur Physiology roundup
 Reading: Chap. 15
Smithsonian Assignment II is DUE!
- Nov. 23-26 **Thanksgiving Recess: enjoy your roasted maniraptoran**
- Nov. 27 Dragons of the Sea and Air: Marine Reptiles and Pterosaurs
Dinosaur Physiology Assignment is DUE
- Nov. 28 In the Shadow of the Dinosaurs: The First 7/10th of Mammalian History
- Dec. 1 The Cretaceous-Tertiary Extinction I: All Good Things...
 Reading: Chaps. 17-18
Dinosaur Extinction Assignment is handed out
- Dec. 4 The Cretaceous-Tertiary Extinction II: One REALLY Bad Day!
 Reading: Chaps. 17-18
- Dec. 6 The Cretaceous-Tertiary Extinction III: Not With a Bang, But a Whimper
 Reading: Chaps. 17-18
- Dec. 8 The Cretaceous-Tertiary Extinction IV: The Big Picture
 Reading: Chaps. 17-18
Dinosaur Extinction Assignment is DUE!
- Dec. 11 Walking with Dinosaurs in Jurassic Park: Dinosaurs in Pop Culture
- Dec. 20 (**WEDNESDAY!!**) **FINAL EXAM**, PLS 1130, 8:00-10:00 am
[PLEASE NOTE: Final Schedule according to *Schedule of Classes, Fall 2006 First Edition*. Consult *Final Edition* for actual time and date, if any changes. Changes have been known to happen!]