

GEOL 104 Dinosaurs: A Natural History

Fall Semester 2011

Section 0101

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:	15%
Test 2: 20%	Smithsonian Assignment II:	5%
Final: 20%	Online Quizzes:	15%
	Video Review Assignment:	5%

No separate extra credit assignments are planned for this course. However, tests and some quizzes and assignments have extra credit questions.

NOTE: Late Smithsonian or Video Review Assignments will be docked 25% of the total grade if not turned in on time, but turned in (at my mailbox in the Geology Building or at my office) prior to the next class day, or docked 50% if handed in the next class day. After that point, the grade for that assignment will be a 0. Online Quizzes cannot be completed for a grade after their regularly assigned due date passes.

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.

LEARNING OUTCOMES: By the end of the semester, every student should be able to:

- Identify the major clades of dinosaurs and their primary attributes (anatomy, behavior, stratigraphic and geographic distribution, etc.)
- Interpret cladograms in determining evolutionary relationships and distribution of specializations
- Assess claims of inferred dinosaurian behavior, physiology, and extinction patterns from fossil evidence

No required textbook for purchase. However, please keep current with the online lecture notes (<http://www.geol.umd.edu/~tholtz/G104/104Syl.html>)

Websites: <http://www.geol.umd.edu/~tholtz/G104/>
This Website contains a copy of the course policies, the syllabus, lecture notes, copies of some 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.

<http://elms.umd.edu/> Course ID: 201108_GEOL104_THOLTZ_0101

The ELMS Blackboard site will include required weekly online quizzes; announcements concerning the class; class discussion list; copies of the handouts; and so forth. If you have not already done so, make sure that you get access to ELMS.

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.studentconduct.umd.edu/Info/Students/AcadHonorPledge.aspx>. 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 14).** 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, quizzes, 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 <http://www.umd.edu/catalog/index.cfm/show/content.section/c/27/ss/1584/s/1540> of the *University of Maryland Undergraduate Catalog*). Only those students excused for these causes will be eligible for a make-up exam.

Throughout the course there will be a series of online quizzes using the ELMS system. Please make certain that you stay current with these: once the deadline has passed, you will not be able to make them up and you will receive a 0 for that quiz.

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).

In cases of inclement weather or other unexpected emergencies, the University may close. Please consult the University main webpage (<http://www.umd.edu>) or call 301-405-7669 (SNOW) to confirm such cancellations. Dr. Holtz will contact students via ELMS in order to inform them concerning delays of due dates for projects to be handed in or for exams: typically these will be shifted until the next available class date.

Keep up with the online notes! Although the format of the lectures and the notes do not always match, these readings are important as well.

Readings should be done **prior** to the classtime they are list

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: CourseEvalUM will be open for students to complete their evaluations for Fall 2011 courses between Tuesday, November 29, and Wednesday, December 14. Students can go directly to the website (www.courseevalum.umd.edu) to complete their evaluations, beginning November 29. You will be alerted about these dates and provided more information closer to that time, and students will be alerted via their official University e-mail account.

Students who complete evaluations for all of their courses in the previous semester (excluding summer), can access the posted results via Testudo's CourseEvalUM Reporting link for any course on campus that has at least a 70% response rate. You can find more information, including periodic updates, at the IRPA course evaluation website:
https://www.irpa.umd.edu/Assessment/CourseEval/fac_faq.shtml

The expectation is that all students will complete these. This is YOUR chance to anonymously evaluate this class: please use this opportunity!

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MAIN SYLLABUS

- Aug. 31 Introduction to the Course; What are Dinosaurs?
- Sept. 2 What is Science? The Meaning of Fossils
- Sept. 5 LABOR DAY – No class
- Sept. 7 The History of Prehistory: the Great Exposition through Great Expeditions
- Sept. 9 Basics of Geology: Every Rock is a Record of the Environment in Which It Formed
- Sep. 12 Fossils and Fossilization
Quiz 1 due

- Sept. 14 Deep Time I: Ruins of an Older World
- Sept. 16 Deep Time II: Plate Tectonics and the Earth Engine
- Sept. 19 Our Bodies, Our Selves: Introduction to Vertebrate Osteology
- Sept. 21 Taxonomy and Species
- Sept. 23 Evolution I: Descent with Modification
Quiz 2 due
Smithsonian Assignment I available
- Sept. 26 Evolution II: On the Origin of Species by Means of Natural Selection
- Sept. 28 Evolution III: Patterns and Processes
- Sept. 30 Systematics I: The Tree of Life
- Oct. 3 Systematics II: Tree-Based Thinking
Quiz 3 due
- Oct. 5 **TEST I**
- Oct. 7 The Colonization of Land
- Oct. 10 Life on Land Before the Dinosaurs
- Oct. 12 The Rise of the Dinosaurs
- Oct. 14 Thyreophora: Defense! Defense! Defense!
Quiz 4 due
- Oct. 17 Ornithopoda: Beaks, bills & crests
- Oct. 19 Marginocephalia: That's using your head!
- Oct. 21 Sauropodomorpha I: Dawn of the Thunder
Smithsonian Assignment I is DUE!
- Oct. 24 Sauropodomorpha II, Neosauropoda: Size Matters! & Theropoda I: Basal Theropods
Quiz 5 due
- Oct. 26 Theropoda II: Dinosaurs Red in Tooth and Claw
- Oct. 28 Theropoda III, Coelurosauria: Tyrant Kings and Lesser Royals
Video Assignment available
- Oct. 31 Theropoda IV, Maniraptora: The Feathered Dinosaurs
Smithsonian Assignment II available
- Nov. 2, 4 During the week of October 31-November 4, 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 Wednesday November 16.

- Nov. 7 Theropoda V: Rise of Birds & Dinosaurs Take Flight!; The Worlds of Dinosaurs: Dinosaur Paleocology part I
- Nov. 9 The Worlds of Dinosaurs: Dinosaur Paleocology part II
Quiz 6 due
- Nov. 11 **TEST II**
- Nov. 14 Dinosaur Olympics: Locomotion and Dinosaurs in the World of Physics
- Nov. 16 *Tyrannosaurus* Sex: Dinosaur Social Behavior
Video Assignment due
- Nov. 18 Bringing Up Baby: Dinosaur Families and Growth
- Nov. 21 The Hot-Blooded Dinosaurs
Quiz 7 due
- Nov. 23 Heart Beats & Deep Breaths
- Nov. 24-25 **Thanksgiving Recess: enjoy your roasted maniraptoran**
- Nov. 28 So You Want To Be An Endotherm?
- Nov. 30 Dinosaur Physiology roundup
- Dec. 2 In the Shadow of the Dinosaurs: Pterosaurs, Marine Reptiles, Mesozoic Mammals, Mesozoic Plants
Quiz 8 due
Smithsonian Assignment II is DUE!
- Dec. 5 The Cretaceous-Paleogene Extinction I: All Good Things...
- Dec. 7 The Cretaceous-Paleogene Extinction II: One REALLY Bad Day!
- Dec. 9 The Cretaceous-Paleogene Extinction III: Not With a Bang, But a Whimper
- Dec. 12 The Cretaceous-Paleogene Extinction IV: The Big Picture; The Future of Dinosaur Science
Quiz 9 due
- Dec. 21 (**WEDNESDAY!!**) **FINAL EXAM**, PLS 1130, 8:00-10:00 am