

01:460:206:01 Fall 2020
DINOSAURS

Department of Earth and Planetary Sciences, Geological Sciences, Rutgers University

Instructor: Dr. Lauren Neitzke Adamo

Dinosaurs (3 credits) is a survey of dinosaurian evolution and diversity. We will explore the history of discovery and collection, reconstruct anatomy, behavior, physiology and habitats from the fossil record and interpret origins, evolutionary radiation, and extinction.

CLASS MEETINGS:

Online ONLY! No in-class meetings

OFFICE HOURS:

By appointment and during weekly Zoom hours (will be announced each week).
Contact Dr. Adamo at lauren.adamo@rutgers.edu or 848-932-7243 (not currently in office, but I will get voicemail sent to me by email) to set up an appointment.

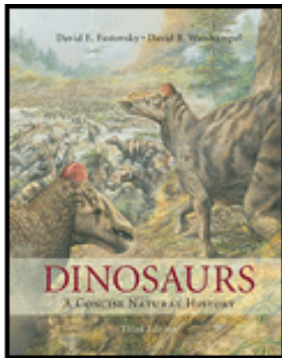
COURSE PRE-REQUISITES: Nothing but an interest in dinosaurian paleobiology.

REQUIRED COURSE MATERIALS:

Reliable access to the internet, computer, webcam (for video conferences), and camera phone (to upload images/documents as needed).

Please visit the Rutgers Student Tech Guide page for resources available to all students. If you do not have the appropriate technology for financial reasons, please email Dean of Students deanofstudents@echo.rutgers.edu or complete the contact form for assistance. If you are facing other financial hardships, please visit the Office of Financial Aid at <https://financialaid.rutgers.edu/>."

SUGGESTED COURSE MATERIALS:



DINOSAURS (3rd Ed.), by FASTOVSKY

- The textbook can be found online or at the Rutgers University Bookstore. I recommend that you purchase a used copy of the older edition online from amazon.com, half.com, etc. It is much cheaper than the bookstore for the same thing.

CONTACTING ME:

Email is the best way to reach me. I will make every effort to reply to all emails within 24 hours. However, I will not respond to questions about grades or grading. Please make an appointment to come talk to me if you want to discuss grades.

- Office Hours
 - Please email me to set up an appointment. I am around most days, but need some advance notice to make sure I there at that time. I am also available to talk before or after class.
- Course Chatroom
 - The chatroom is another place to post non-urgent questions that either myself or the rest of the class can answer.

GRADED WORK:

You will be given 2 exams, each covering approximately half of the course material. These exams are not cumulative but you cannot forget the material from the first half of class and it continues over into the second half. The rest of the course points will be various written assignments and online activities. These will all have due dates at various times of the semester, so it is very important to stay on top of the course announcements, etc.

Total Points: 650
Exam 1: 100 points
Exam 2: 100 points
Online Discussions: 200 points
Paleontology in the News Project: 50 points
Dinosaurs Around Us Assignment: 100 points
Virtual Dinosaur Lab Assignment: 60 points
Lecture Quizzes: 40 points

The following is the break down of the final grades that will be assigned based on the total amount of points earned in the class. These point values are final and borderline grades will not be changed. Up to 15 extra credit points will be offered throughout the semester, so if you think you have a borderline grade, the only way to obtain the higher grade is to complete the extra credit assignments.

Grade A: 578 points or higher
Grade B+: 576 to 550 points
Grade B: 549 to 517 points
Grade C+: 516 to 485 points
Grade C: 484 to 448 points
Grade D: 447 to 380 points
Grade F: 379 points or lower

Grades will be posted on the course website throughout the semester, so be sure to keep track of your grade and hand in all assignments before the end of the semester. No assignments will be accepted after the due dates, except in the case of written permission from an official.

I will not discuss grades over email. If you have any questions concerning grading or grades, set up an appointment to meet at my office or over google chat. Grades will not be changed once they are submitted to the registrar, except in the case of written permission from the dean.

Course Website:

Sakai@Rutgers (<http://sakai.rutgers.edu>):

Log on to our course website to obtain copies of the syllabus, handouts, study guides, exam schedules, test scores, and the museum extra credit assignment. This website will also be used to submit the two written assignments. Downloading and printing handouts prior to class lecture will be extremely useful. Use your Rutgers netid and password to access all of your class websites and click on the tab *Dinosaurs Spring 2020*. If you cannot access our course website, please contact me as soon as possible at the above email address.

Academic Integrity

Rutgers University adheres to a strict no-tolerance policy for breaches of Academic Integrity. If you are caught violating **ANY** of the Academic Integrity policies, disciplinary actions **WILL** be taken. Please refer to the University's Academic Integrity policies for questions regarding disciplinary actions. A copy of these policies is posted on the course website (sakai) and can be found online at <http://academicintegrity.rutgers.edu/integrity.shtml>.

If you are caught cheating on a test or plagiarizing an assignment, you will receive an **AUTOMATIC ZERO** on an assignment, and must redo the assignment. Redone assignments will still receive a ZERO, however, if the student does not or refuses to redo the plagiarized assignment, the student will receive an automatic failing ("F") for the course and the case will be handed over to the Dean of Academic Integrity. If you are caught cheating on an exam you will automatically be reported to the Dean of Academic Integrity and receive an **AUTOMATIC ZERO** on the exam.

Course and Department Policies:

Please visit <http://geology.rutgers.edu/policy.shtml> to view the departmental policies for this course.

If you have questions about these policies and do not feel comfortable talking to me, please contact the Earth and Planetary Sciences Departmental Chair, Dr. Greg Mountain (gmtn@eps.rutgers.edu).

Course Schedule:

-----September-----

1- Week of September 1st

Video Lecture

- 00- Dinosaur Myths

2- Week of September 7th

Video Lecture

- 01- Geologic Time
- 02- Major Unifying Theories

Textbook Readings- Chapters 1, 2, and 3

Handouts- Geologic Time Scale

3- Week of September 14th

Video Lecture

- 03- Basic Concepts of Species and Macroevolution
- 04- Philosophies of Dinosaur Systematics

Textbook Readings- Chapters 3, 4, and 14

Handouts- Vertebrata Cladogram

4- Week of September 21st

Video Lecture

- 05- Evolution of the Earliest Vertebrates

Textbook Readings- Chapter 4

Handouts- Pisces Cladogram

5- Week of September 28th

Video Lecture

- 06a- Invasion of the Land: The Terrestrial Ecosystem before the Dinosaurs

Textbook Readings- Chapter 4

Handouts- Amphibia Cladogram

-----**October**-----

6- Week of October 5th

Video Lecture

- 06b- Invasion of the Land Continued
- 07- What is a Reptile? The Amphibian-Reptile Transition
- History of Paleo Art

Textbook Readings- Chapter 4

Handouts- Reptile Cladogram

7- Week of October 12th

Video Lecture

- 08- The Reptilian Precursors to the Dinosaur Ecosystem (The Archosaurs)
- Walking with Dinosaurs- New Blood

Textbook Readings- Chapter 4

8- Week of October 19th

Exam 1 MUST be taken online with ProctorTrack between 12 am EST Tuesday, October 20th and 11:59 pm EST Wednesday, October 21st.

9- Week of October 26th

Video Lecture

- 09- Classification of the Dinosaurs
- Walking with Dinosaurs- Giants of the Skies

Textbook Readings- Part II (pg 76-83) and Part III (pg 156-159)

Handouts- Dinosauria Cladogram

-----**November**-----

10- Week of November 2nd

Video Lecture

- 10- The First Saurischian Dinosaurs: The Sauropodomorphs
- Walking with Dinosaurs- Time of the Titans

Textbook Readings- Chapter 8

Handouts- Sauropod Cladogram

11- Week of November 9th

Video Lecture

- 11- The Carnivorous Saurischians: The Theropods
- Walking with Dinosaurs- Cruel Seas

Textbook Readings- Chapters 9 and 10

Handouts- Theropod Cladogram

12- Week of November 16th

Video Lectures

- 12- The Armored Ornithischians: Stegosaurs, Ankylosaurs
- 13- The Bipedal Ornithischians: Hypsilophodonts, Iguanodonts, and Hadrosaurs

Textbook Readings- Chapter 5 and 7

Handouts- Thyreophoran and Ornithopod Cladogram

13- Week of November 23rd

Thanksgiving Week/Break, No Classes

14- Week of November 30th

Video Lecture

- 14- The Last Ornithischians: Ceratopsians and the Peculiar Pachycephalosaurs
- 15- The Structure and Evolution of the Dinosaur Ecosystem

Textbook Readings- Chapter 6 and 12

Handouts- Marginocephalian Cladogram

-----**December**-----

15- Week of December 7th

Video Lecture

- 16- End of the Dinosaurs
- Walking with Dinosaurs- Death of a Dynasty
- BBC documentary- Day the Dinosaurs Died
- Dinosaurs Return to Life

Textbook Readings- Chapter 15

Exam Review and final projects.

December 14th to December 22nd – Reading Day and Finals Week

Note: Exam 2 will be taken online with ProctorTrack during a scheduled 48 hour period during Exams weeks. This exam is not cumulative, as it covers the second ½ of the course material.

Exam 2- 12 am EST Tuesday, December 5th and 11:59 pm EST Wednesday, December 6th.