

The Rise and Fall of the Dinosaurs

Earth Sciences 103

Section: D100

Term: 2005 Summer

Instructor: Robbie Dunlop

Discussion Topics: General:

EASC 103 is an introductory course that deals with Dinosauria, and in particular, how our understanding of this extinct group of animals has been radically altered in the light of new discoveries during the last few decades. There are no pre-requisites for this course, although completion of EASC 102 would be an asset.

Course Topics:

1. Introduction to the fossil record, the Mesozoic Era, plate tectonics and climates during the Mesozoic, hierarchy and organic evolution.
2. What is a dinosaur? What criteria are employed to recognize an extinct organism as a dinosaur?
3. Summaries of the main dinosaur groups are explored. Assessments of the paleontological evidence for new theories and heresies of dinosaur appearance, biomechanics, behaviour, etc. are given.
4. Context of the Rise of Dinosaurs. What groups did they replace? How did they come to dominate the Earth?
5. Discussion of dinosaur adaptive radiation with particular reference to the Triassic, Jurassic and Cretaceous Periods. Discussion of associated animal groups cohabiting the Earth with dinosaurs during these time periods.
6. Discussion of the Dinosaur to Bird evolutionary theory and "feathered" dinosaurs.
7. The fall of the Dinosaurs. Summary of the various theories and relevant paleontological data regarding dinosaur extinction.

Course Organization: One 2- hour lecture and one 2-hour laboratory period per week.

Grading: Lecture Writing Assignments 18%

Laboratory Writing Assignments 42%

Midterm Exam: 10%

Final Exam: 30%

Required Texts: Dinosaurs the Textbook, Spencer G. Lucas, 4th Edition, 2004.

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Recommended Texts:

Materials/Supplies:

Prerequisite/Corequisite:

Notes: Labs will include some hands-on work with fossil specimens, but will mainly be video-driven with discussions and short lab reports on selected subjects.

This outline is derived from a course outline repository database that was maintained by SFU Student Services and the University's IT Services Department. The database was retired in 2014 and the data migrated to SFU Archives in 2015.