



EFFECTIVE: MAY 2004
CURRICULUM GUIDELINES

A. Division: Instructional Effective Date: May 2004

B. Department / Program Area: Science and Technology Revision New Course

If Revision, Section(s) Revised:
 Date of Previous Revision:
 Date of Current Revision:

C: GEOL 130 **D:** Dinosaur Planet **E:** 3

Subject & Course No.	Descriptive Title	Semester Credits												
<p>F: Calendar Description: This course is about Dinosaurs: their behavior, evolution, and extinction. We will discuss public perception of dinosaurs, how new discoveries have changed scientific ideas about dinosaurs, and how the study of these creatures fits into science overall. Although there are no prerequisites, this course will also be of interest to those who have taken other courses in Geology.</p>														
<p>G: Allocation of Contact Hours to Type of Instruction / Learning Settings</p> <p>Primary Methods of Instructional Delivery and/or Learning Settings: Lecture / Laboratory</p> <p>Number of Contact Hours: (per week / semester for each descriptor) 2 / 2</p> <p>Number of Weeks per Semester: 15</p>	<p>H: Course Prerequisites: None</p>													
	<p>I: Course Corequisites: None</p>													
	<p>J: Course for which this Course is a Prerequisite None</p>													
	<p>K: Maximum Class Size: 35</p>													
<p>L: PLEASE INDICATE:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 5%; border: 1px solid black; text-align: center;"><input type="checkbox"/></td> <td style="width: 25%;">Non-Credit</td> <td style="width: 50%;"></td> <td style="width: 20%;"></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;"><input type="checkbox"/></td> <td>College Credit Non-Transfer</td> <td></td> <td></td> </tr> <tr> <td style="border: 1px solid black; text-align: center;"><input checked="" type="checkbox"/></td> <td>College Credit Transfer:</td> <td style="text-align: center;">Requested X</td> <td style="text-align: center;">Granted</td> </tr> </table> <p>SEE BC TRANSFER GUIDE FOR TRANSFER DETAILS (www.bccat.bc.ca)</p> <p>S.F.U. EASC 103 (3 credits) U.B.C. EOSC 116 (3 credits)</p>			<input type="checkbox"/>	Non-Credit			<input type="checkbox"/>	College Credit Non-Transfer			<input checked="" type="checkbox"/>	College Credit Transfer:	Requested X	Granted
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M: Course Objectives / Learning Outcomes

Upon completion of the course the student will be able to:

1. Name and define the major groups and sub-groups of dinosaurs, and describe their evolutionary relationships.
2. Describe the Mesozoic paleoenvironments, and the ecological roles played by dinosaurs.
3. Recognize representative dinosaur bones and teeth.
4. Discuss how the study of dinosaurs illustrates the procedures of science and use of uniformitarian perspective.
5. Explain how scientists infer dinosaur behavior from fossil remains such as bones and trackways.

N: Course Content:

1. The fossil record: what it is, how it is interpreted, and how taphonomic processes influence
2. Geologic time, uniformitarian thinking, and global processes: plate tectonics and global change.
3. Classification, systematics, and organic evolution: old and new viewpoints.
4. Defining the Dinosaur: characteristics that identify an organism. Why ichthyosaurs are not dinosaurs.
5. The major groups of dinosaurs: Saurischia and Ornithischia, and subgroups. Old and new interpretations of appearance in life, physiology (warm or cold blooded), and behavior.
6. The origins of dinosaurs and the groups they replaced: how the dinosaurs competed successfully and became dominant on Earth.
7. Dinosaur evolution and adaptive radiations throughout the Mesozoic (Triassic, Jurassic and Cretaceous periods).
8. The Mesozoic non-dinosaurs: other animals that were present and how they interacted with dinosaurs.
9. Dinosaurs, feathers, and the rise of birds: how it is possible that some dinosaurs are still extant, flying all around us.
10. Dinosaur extinction (aside from the birds): summary of the hypotheses available, with special attention to the Chicxulub crater and the impact hypothesis. How such an event could happen in the future, and how it might affect humans.
11. How dinosaur extinction affected the evolution of mammals. Human evolution if dinosaurs had not become extinct.
12. Evolutionary speculation: How their descendants might look, if the dinosaurs had not become extinct.

O: Methods of Instruction

Lecture
 Laboratory with practical exercises
 Videos
 Internet searches

P: Textbooks and Materials to be Purchased by Students

Fastovsky, D.E. and Weishampel, D.B.; The Evolution and Extinction of Dinosaurs; latest edition; Cambridge University Press.

Q: Means of Assessment
Mid-term exam 20%
Lab Assignments 40%
Paper / diagnosis of species 10%
Final exam 30%
R: Prior Learning Assessment and Recognition: specify whether course is open for PLAR
No.

Course Designer(s) Michael Wilson

Education Council / Curriculum Committee Representative

Dean / Director

Registrar