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GEO 311.01: Paleobiology

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Recommended Citation

Stanley, George D., "GEO 311.01: Paleobiology" (2015). *University of Montana Course Syllabi*. 2855.
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Course Syllabus Spring, 2015

GEOS 311 - PALEOBIOLOGY

INSTRUCTOR: George Stanley email: george.stanley@umontana.edu

Required Text: P.N.W. Jackson Introducing Palaeontology (available from Bookstore)

OFFICE: C.H. Clapp 302

TELEPHONE: 243-5693

Office hours: TTh 1-3 or by appointment

Date	Subject and Practicals	Assigned Readings
Jan 26	Introduction to the course and paleobiology	--
28	Fossils and early ideas about them	1.1 & 1.8
30	Preservation of fossils	1.2 + handout
Feb 02	Preservation of fossils	Lab 1 1.2
04	Taxonomy and classification of fossils	1.5
06	Use of fossils in geology and biology	1.6
09	Use of fossils in geology and biology	1.6
11	Darwin and evolution	1.6
13	The field, research collection and taxonomy	1.3-1.5
16	Presidents Day- No class meeting	--
18	Lagerstätten – unusual preservation of fossils	1.7
20	Unicellular fossils and sponges	2.2-2.3
23	Paleobiology of Cnidaria	2.4
25	Cnidaria and formation of reefs	2.4 + reading
27	Sponges and Cnidaria	Lab 2 2.2-2.3
Mar 02	Sponges and cnidarians	Lab 2 cont 2.4
04	Bryozoans	2.5
06	Paleobiology of mollusks	2.6
09	Mollusks continued	2.6
11	Mollusk lab	Lab 3 2.6
13	Molluscan lab	Lab 3 cont 2.6
16	Mid-Term Exam on above topics	--
18	Paleobiology of brachiopods	2.7
20	Brachiopod lab	Lab 4 2.7
23	Paleobiology of the Echinodermata	2.8

25	Echinodermata	continued		2.8
27	The Echinodermata lab		Lab 5	2.8
30	SPRING BREAK–no class meeting			
Apr 01	SPRING BREAK–no class meeting			
03	SPRING BREAK–no class meeting			
06	Echinoderm lab	continued	Lab 5 cont	2.8
08	Arthropods			2.9
10	Arthropod		Lab 6	2.9
13	Graptolites			2.10
15	Graptolites review		Lab 7	2.10
17	Conodonts and vertebrates			2.11-2.13
20	Paleobiology of vertebrates	continued		2.13
22	Vertebrates	continued		2.13
24	Vertebrate lab		Lab 8	2.13
27	Interpretation of Trace fossils			2.18
29	Trace fossil lab		Lab 9	2.18
May 01	Student presentations	start today		TBA
04	Student presentations	continue		TBA
06	Final student presentations	(term paper due)		
08	Course review			TBA
12	Final exam is scheduled today at	10:10-12:10		

Basis for grading:

Eight lab exercises (one may be missed or lowest lab dropped)	32%
Mid-term exam	20%
Student presentations	5%
Homework and topic assignments	5%
Final exam (comprehensive)	30%
Field trip to collect fossils (TBA)	8%

The University of Montana Student Conduct Code

Academic dishonesty is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at:

http://www.umt.edu/vpsa/policies/student_conduct.php

Course Description: This course introduces you to paleobiology principles, the fascinating aspect of ancient life and the applications to geoscience. The learning objectives are to gain an understanding of the principles of paleobiology and the geologically important groups. Emphasis will be on observation and application of paleobiological principles in interpreting the geological record. The course will consist of lectures, student interaction and labs as well as a field trip to be arranged later in the course.

Chapter questions: due before the start of class the day due or points deducted.

Practicals: These “lab” experiences provide “hands-on” work with fossils and will follow topics covered in lectures and readings. Due dates are normally a week after being handed out. To prepare, read assigned chapters and distributed materials. Assignments are due as posted and for unexcused lateness, points are deducted for each day late. No credit is given one week beyond due date. You are encouraged to work together to learn but your completed labs are your own work. Be aware that copying from another student’s work in all assignments is a form of academic dishonesty and will not be tolerated. If you have any questions, please contact the instructor.

Attendance: Attendance is required for successful completion of the course as is reading, completion of labs, chapter questions and group participation near the end of the course. For illness or a valid excused absence, please inform instructor.

Official UM policy: “Students are expected to attend all class meetings and complete all assignments for the course. Instructors may excuse brief and occasional absences for reasons of illness, injury, family emergency, religious observance or participation in a University sponsored activity. (University sponsored activities include for example, field trips, ASUM service, music or drama performances, and intercollegiate athletics.) Instructors shall excuse absences for reasons of military service or mandatory public service.”

So if you have an excused absence for miss assignments, please make arrangements with instructor as soon as possible for making them up.

The basis for grading is as follows:

A	93-100%	B	83-86%	C	73-76%	D	63-66%
A-	90-92%	B-	80-82%	C-	70-72%	D-	60-62%
B+	87-89%	C+	77-79%	D+	67-69%	F	59 or below