

1-2013

## GEO 106N.01: History of Life

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GEOLOGY 106N - HISTORY OF LIFE  
SPRING 2013

Instructor: Amy Singer E-mail: [amy.singer@umontana.edu](mailto:amy.singer@umontana.edu) Office: CHCB 101

**Required Text:** R. Cowen - THE HISTORY OF LIFE, 4<sup>th</sup> Edition

Office Hours: Wednesday and Friday, 2-3pm

DATE	TOPIC	ASSIGNED READING
January 28	Introduction to class, what is science, geologic time, evolution and the view of life	
30	Fossils / Origin of Life / Darwin and Evolution	Bowler, 2009 Science
February 1	<b>Geologic Time activity</b>	Chapter 1
2,4	Life's Earliest rocks and what they mean	Chapter 2
8	<b>Fossilization activity</b>	
11,12	Evolution of Sex and Eukaryotes	Chapter 3
15	<b>Practical 1</b> / Ch. 1,2 Questions due	
18	<b>No Class / Presidents Day</b>	
20	<b>Practical 2</b> / Ch. 3 Questions due	
22,25	Metazoans and the Great Explosion of Life	Chapters 4
27	The Burgess Shale / Chengjiang Biota	Chapters 5
March 1	<b>Practical 3</b> / Ch. 4,5 Questions Due	
4,6	A Changing World & Mass Extinctions	Chapter 6
8	<b>Practical 4</b> / Ch. 6 Questions due	
11,13	The First Vertebrates	Chapter 7
15	<b>Practical 5</b> / Ch. 7 Questions Due	
18	Life and how it Moved to Land	Chapter 8
20	Reptiles and Amphibians / Heat Regulation	Chapter 9 & 10
22	<b>Practical 6</b> / Ch. 8,9 & 10 Questions Due	
25	The Triassic Takeover	Chapter 11
27	<b>Hour Exam</b>	
29	Dinosaurs	Chapter 12
April 1-5	<b>NO CLASS- SPRING BREAK</b>	
8	Dinosaurs, cont.	Chapter 12
10	The Evolution of Flight	Chapter 13
12	<b>Practical 7</b> / Ch. 11,12 & 13 Questions Due	
15	The Mesozoic Modernization of Life	Chapter 14
17	Mammals	Chapter 15
19	<b>Practical 8</b> / Ch. 14 & 15 Questions Due	
22	What killed the dinosaurs?	Chapter 16
24	Cenozoic Mammals & Ecologic Guilds	Chapter 17
26	<b>Practical 9</b> / Ch. 16 & 17 Questions Due	
29	Ancient Geography & Evolution	Chapter 18
May 1	Primates and Their Evolution	Chapter 19
3	Becoming Human: Hominids in Africa / The Ice Ages	Chapter 20 & 21
6	<b>Practical 10</b>	
8	Ice Ages and Climate Change / Humans Today and in the "Next" Extinction	Chapter 21
10	Wrap up - Review & Evaluation of the History of Life	
14	<b>Final Exam (Comprehensive)</b>	<b>3:20-5:20 P.M.</b>

**Course Description:** This class is an introduction to paleobiology. There will be an assignment every week. Lab practicals will be every Friday with a brief introduction and the remaining lab time devoted to hands-on work with rocks, earth materials, maps, and models of paleobiological processes. The objective of this course is to familiarize you with basic paleobiological concepts and the methods used to study them. Emphasis will be on observation and description, the building of a “paleobiology toolbox”, and application of these skills in interpreting the history of life.

**Chapter questions:** are to be **completed before your lab**. These are designed to prepare you for the lab topic so that you can complete the lab efficiently during your scheduled class period.

**Labs:** are designed so that you should be able to generally complete them and turn them in at the end of class. This is much more likely to occur **if you have read through the introductory material and lab activities in advance** of your scheduled lab. Labs are due the following Monday.

You are encouraged to work together with a group of students in class, but must hand in your own completed lab, written in your own words. Copying another student’s lab response is considered a form of academic dishonesty, and will not be tolerated.

**Attendance:**

Attendance is required for successful completion of course as is reading, completing practicals and chapter questions. If you are sick or need an excused absence, please inform instructor ahead of time if possible.

*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.”*

**Missing lab during the term:**

**The number one reason for failing this class is missing labs!** If you must miss a lab for a reason acceptable to your instructor, **you must make arrangements for making it up prior to your scheduled lab time**

**Assessment:**

Mid-term exam	20%
Practical exercises	50%
Chapter questions	10%
Final exam	20%

Final course grades will be assigned 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

Please note: You must take the class with traditional grading to apply it towards the Gen Ed lab science requirement. A minimum grade of C- must be earned for the course to be applied for the Gen Ed requirement.

**Online Content:**

The web site for your book is:

<http://www-geology.ucdavis.edu/~cowen/HistoryofLife/>

**Check it out and use this web site. It contains useful information keyed to your text chapter reading and the weekly assignments made.**

**Communication:** Useful information will be posted on Moodle, such as announcements, the syllabus, chapter questions, lecture notes, and handouts distributed in lab. You can also view your grades. Please note that I will use your **official UM email address** to communicate with you. **It is your responsibility to make sure you receive these messages sent to your UM email address in a timely manner.** Moodle is the program for online components of courses. You can log into Moodle by going to either OneStop and then UMOOnline, or directly to UMOOnline from the UM homepage. You will see your course listed when you enter Moodle. On the UMOOnline homepage, there are resources you can use to familiarize yourself with Moodle (UM Online Orientation and UMOOnline 101). If you have technical problems with Moodle call the UMOOnline Techs at 243-4999 (during regular working hours).

**The University of Montana Honor Code IV A.**

*All students must practice academic honesty. Academic misconduct 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.*

[http://life.umt.edu/vpsa/student\\_conduct.php](http://life.umt.edu/vpsa/student_conduct.php).

**Students with Disabilities:** Students with disabilities will receive reasonable modifications in this course. Your responsibilities are to request modifications with sufficient advance notice, and to be prepared to provide verification of disability and its impact from Disability Services. Please speak to your TA after class or during office hours to discuss the details. For more information, visit the Disability Services for Students website at <http://life.umt.edu/dss>.