

GEOL 102 – Earth - Life Through Time, Spring 2023, Section 1006, M/W 1:00 – 2:15 PM, HOS 210

Faculty:

Instructor: Dr. Aubrey Bonde

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Office Hours: Monday & Wednesday - 11:00am - 12:45 PM

Virtual and by appointment

General Information:

Course format: Lecture twice a week, Laboratory once a week

Textbook: The Evolving Earth by Don Prothero

Prerequisites: A minimum of a C in one of GEOL 100, GEOL 101 or GEOG 103

Learning Outcomes:

This class is designed as an introduction to the major evolutionary and geologic events on planet Earth. You will become reacquainted with basic geologic principles and familiar with the geologic time scale. We will then survey the interrelationships of life and geology through time. After successfully completing this course, students will be able to: 1) be comfortable with the geologic time scale and geologic time; 2) understand the relationship between life and the Earth through time; 3) understand the principles of geologic maps and plate tectonics; and 4) explain the formation and history of the Earth and the hypotheses which have led to our current understanding of Earth processes.

Grading policies:

- Students must pass both the lecture and the laboratory in order to pass GEOL 102.
- An average score of less than 60% in lecture will lead to a grade of F for GEOL 102.
- Either an average score of less than 60% in the GEOL 102 Lab or more than two missed lab assignments will lead to a grade of F for GEOL 102.
- Required reading means that the instructor may test on that material even if it has not been covered in lecture.
- No extra credit will be given.

Grade Calculation:

Each student's final grade will be calculated according to the following schedule. The calculated total will be rounded to the nearest integer number.

Seven lecture quizzes	60% (600 points, ~85 per quiz)
Comprehensive final project	15% (150 points, 120 paper/30 milestones)
Laboratory	25%
Total %	100%

Grade Assignment:

Final grades will be assigned according to the following schedule. The instructor may also elect to curve the final grades in the students favor.

Grade	Total %	Grade	Total %
A	93-100	C	73-76
A-	90-92	C-	70-72
B+	87-89	D+	67-69
B	83-86	D	63-66
B-	80-82	D-	60-62
C+	77-79	F	0-59

Class Schedule

Weekly schedule showing topics for lecture and laboratory, plus required reading assignments from the class textbook. The listed date is the start of each week.

Week 1 (Jan 16 & 18)

Lab: No Lab
Lecture 1: No class – MLK Holiday
Lecture 2: Geologic Time and Principles
Reading: Chapter 1
Assignment: CFP Milestone #1 (due 1/23)

Week 2 (Jan 23 & 25)

Lab: Geologic Mapping & Structures
Lecture 1: Minerals and Rocks
Lecture 2: Absolute Age Dating
Reading: Chapters 2 & 3
Assignment: CFP Milestone #2 (due 1/30)

Week 3 (Jan 30 & Feb 1)

Lab: Minerals, Igneous, and Met rocks
Lecture 1: Plate Tectonics
Lecture 2: Review & **Quiz 1**
Reading: Chapter 5

Week 4 (Feb 6 & 8)

Lab: Plate Tectonics
Lecture 1: Sedimentary Basins, Stratigraphy, Depositional Environments
Lecture 2: Sedimentary Basins, Stratigraphy, Depositional Environments
Reading: Chapters 4 & 5
Assignment: CFP Milestone #3 (due 2/13)

Week 5 (Feb 13 & 15)

Lab: Sedimentary Rocks & Structures
Lecture 1: Fossils & Evolution
Lecture 2: Fossils & Evolution
Reading: Chapter 6
Assignment: CFP Milestone #4 (due 2/22)

Week 6 (Feb 20 & 22)

Lab: No Lab
Lecture 1: No Class – President's Day
Lecture 2: Review & **Quiz 2**
Reading: No reading

Week 7 (Feb 27 & March 1)

Lab: Geologic Time & Stratigraphy
Lecture 1: Birth of the Earth
Lecture 2: Precambrian
Reading: Chapters 7 & 8

Week 8 (March 6 & 8)

Lab: Field Trip or No lab
Lecture 1: Precambrian & Origin of Life
Lecture 2: **Quiz 3** & Early Paleozoic Era
Reading: Chapters 8 & 9

SPRING BREAK – March 13-17

Week 9 (March 20 & 22)
Lab: Invertebrate Fossils I
Lecture 1: Early Paleozoic Era
Lecture 2: Early Paleozoic Era
Reading: Chapters 10 & 11

Week 10 (March 27 & 29)
Lab: Frenchman Mountain Virtual Trip
Lecture 1: Late Paleozoic Era
Lecture 2: Late Paleozoic Era & **Quiz 4**
Reading: Chapters 11 & 12
Assignment: CFP Milestone #5 (due 4/3)

Week 11 (April 3 & 5)
Lab: Invertebrate Fossils II
Lecture 1: Mass Extinctions
Lecture 2: Mesozoic Era
Reading: Chapter 13

Week 12 (April 10 & 12)
Lab: No Lab
Lecture 1: Mesozoic Era
Lecture 2: Mesozoic Era & **Quiz 5**
Reading: Chapter 13
Assignment: CFP Milestone #6 (due 4/17)

Week 13 (April 17 & 19)
Lab: Field Trip or No Lab
Lecture 1: Cenozoic Era
Lecture 2: Cenozoic Era
Reading: Chapter 14

Week 14 (April 24 & 26)
Lab: Instructor's choice (Extinctions, Vertebrate fossils, or Paleoecology)
Lecture 1: Cenozoic Era
Lecture 2: **Quiz 6** & Human Evolution
Reading: Chapters 14 & 15

Week 15 (May 1 & 3)
Lab: Paleoclimatology
Lecture 1: Human Evolution
Lecture 2: Holocene and Future & **Quiz 7**
Reading: Chapters 16 & 17

Week 16 (May 8)
NO FINAL EXAM – Comprehensive Final Paper is due Monday, May 8 @ 3pm

UNLV Academic Policies

Students taking this course are required to be familiar with the UNLV academic policies. [Read the current UNLV Academic Policies.](#)

GEOL 102 Policies

Office Hours

My office hours (see above) are times that I have set aside to answer student questions in person. Please feel free to stop by and knock on my door during those times. I will be happy to answer your questions to the best of my ability. If my scheduled office hours are not convenient for you, please email me and schedule an appointment at an alternate time.

Attendance

It is important to attend class because I will cover a lot of material, answer questions, and provide guidance on exams. Students who miss class are responsible for the material that was presented. It is often helpful to request notes from a classmate.

Missed Work

Exams, quizzes, assignments, and labs missed due to absence will receive a grade of zero unless the instructor is provided with advance notification of an exception for a religious holiday or university-sponsored extracurricular activity as specified in the University Catalog. In the case of an excused absence, the nature and format of the make-up work will be at the instructors' discretion.

Laboratory

All GEOL 102 students are required to enroll in a zero-credit laboratory section.

Field Trip

Students will be required to either participate in an all-day Saturday field trip. Details on the field trip will be announced later.

Administrative Drops/Classroom Conduct

All students are required to be familiar with university policies and procedures in the current UNLV Undergraduate Catalog. Importantly, we follow the policies on Administrative Drops/Classroom Conduct as stated in the most recent UNLV Undergraduate Catalog. Any student that does not comply with these requirements, and conducts themselves in a manner that is disruptive and interferes with the right of other students to learn, or of the instructor to teach will be administratively dropped from the course.

Non-enrolled Guests

Students are not allowed to bring guests, including children to either lecture or laboratory.

Academic Misconduct

This course operates under a "zero tolerance" policy. Any student who commits cheating or plagiarism will receive a grade of F for the class.

Changes to the Syllabus

The course schedule is tentative, minor adjustments may be made during the course of the semester. The instructor also reserves the right to change topics to reflect world events. Students will be provided with an updated syllabus if significant changes are necessary.