GEOL 101 - Introductory Geology: Exploring Planet Earth, Spring 2023, Section 1001, Tuesday and Thursday 11.30 AM – 12.45 PM, FDH109

Faculty:
Instructor: Dr. Simon Jowitt
Office: LFG 114
Phone: (702) 895-2447
Email: simon.jowitt@unlv.edu
Office Hours: Tuesday 10.00 am – 11.00 am, Wednesday 9.00 am – 10.30 am, and by appointment

General Information:
Course format: Lecture twice a week, Laboratory once a week
Textbook: Essentials of Geology by Marshak, 7th edition
Prerequisites: None

Learning Outcomes:
After successfully completing this course, students will be able to: 1) Identify common rocks and minerals and place them in the context of the rock cycle; 2) Locate major plate boundaries around the world, and identify the geological processes and features that may accompany those boundaries; 3) Explain the surface processes that have shaped the landscape over geologic time; and 4) Explain the origins and limitations of major renewable and non-renewable resources.

Grading Policies:
- Students must pass both the lecture and the laboratory in order to pass GEOL 101.
- An average score of less than 60% in lecture will lead to a grade of F for GEOL 101.
- Either an average score of less than 60% in the GEOL 101 Lab or more than two missed lab assignments will lead to a grade of F for GEOL 101.
- 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.

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Three lecture exams (15% each)</td>
<td>45%</td>
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<tr>
<td>Comprehensive final exam</td>
<td>20%</td>
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<tr>
<td>Lecture quizzes/assignments</td>
<td>10%</td>
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<tr>
<td>Laboratory</td>
<td>25%</td>
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<tr>
<td>Total %</td>
<td>100%</td>
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Grade Assignment:
Final grades will be assigned according to the following schedule. The instructor may elect to
curve the final grades in the students favor.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total %</th>
<th>Grade</th>
<th>Total %</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
<td>C</td>
<td>73-76</td>
</tr>
<tr>
<td>A-</td>
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<tr>
<td>B+</td>
<td>87-89</td>
<td>D+</td>
<td>67-69</td>
</tr>
<tr>
<td>B</td>
<td>83-86</td>
<td>D</td>
<td>63-66</td>
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<tr>
<td>B-</td>
<td>80-82</td>
<td>D-</td>
<td>60-62</td>
</tr>
<tr>
<td>C+</td>
<td>77-79</td>
<td>F</td>
<td>0-59</td>
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Lecture Exams:
- Exam 1: Feb. 9, covers: Prelude Box P1; Chapters 1, 3, 4, 5
- Exam 2: Mar. 7, covers: Chapters 6, 7, 10, 11; Interludes A, B2, C, E
- Exam 3: Apr. 11, covers: Chapters 8, 9, 14, 16, 17, 18; Interludes D, F
- Final Exam: Date/time TBA (check My UNLV and the UNLV website for details), covers:
  Cumulative with emphasis on Chapters 2, 9, 12, and 19

In-lecture Quizzes
The course has a total of four short in lecture quizzes that are based on the immediately
preceding lecture. These are as follows:

- February 14th (on Volcanoes)
- March 2nd (on Geochronology and the Fossil Record)
- March 23rd (on Winds and Deserts)
- April 4th (on Earthquakes)

Quizzes will be held at the beginning of each of the above lectures; please ensure you arrive for
the lecture in a timely fashion.

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 (Monday).

Week 1 (Jan. 16)
Lab: No labs this week
Lecture 1: Introduction, Scientific Method
Lecture 2: Minerals I
Reading: Prelude Box P1; Chapter 1, 3

Week 2 (Jan. 23)
Lab: Physical Properties
Lecture 1: Minerals II
Lecture 2: Formation and Structure of the Earth
Reading: Chapter 3
Week 3 (Jan. 30)
Lab: Mineral Identification
Lecture 1: Igneous Rocks I
Lecture 2: Igneous Rocks II
Reading: Chapter 4

Week 4 (Feb. 6)
Lab: Igneous Rocks
Lecture 1: Volcanism
Lecture 2: Exam 1
Reading: Chapter 5

Week 5 (Feb. 13)
Lab: Mineral and Igneous Rocks Practicum
Lecture 1: Sedimentary Rocks I, Quiz 1
Lecture 2: Sedimentary Rocks II
Reading: Chapter 6, Interludes A, B2, C

Week 6 (Feb. 20)
Lab: No labs this week
Lecture 1: Metamorphic Rocks I
Lecture 2: Metamorphic Rocks II and the Rock Cycle
Reading: Chapter 7

Week 7 (Feb. 27)
Lab: Sedimentary Rocks
Lecture 1: Geochronology and the Fossil Record
Lecture 2: Geologic Time and Paleontology, Quiz 2
Reading: Chapters 10, 11, Interlude E

Week 8 (Mar. 6)
Lab: Metamorphic Rocks
Lecture 1: Exam 2
Lecture 2: Rivers
Reading: Chapter 14

Spring Break (Mar. 13) NO LABS OR LECTURES

Week 9 (Mar. 20)
Lab: Topographic Maps
Lecture 1: Groundwater
Lecture 2: Winds and Deserts
Reading: Chapter 16; Interlude F

Week 10 (Mar. 27)
Lab: Rock Exam
Lecture 1: Glaciers, Quiz 3
Lecture 2: Earthquakes
Reading: Chapter 8, 18

Week 11 (Apr. 3)
Lab: Groundwater
Lecture 1: Earth’s Interior, Quiz 4
Lecture 2: Geologic Structure I
Reading: Chapters 8, 9; Interlude D

Week 12 (Apr. 10)
Lab: Geologic Structure
Lecture 1: Exam 3
Lecture 2: Geologic Structure II
Reading: Chapter 9

Week 13 (Apr. 17)
Lab: Geologic Structure
Lecture 1: Plate Tectonics
Lecture 2: Global Change
Reading: Chapters 2, 19

Week 14 (Apr. 24)
Lab: Plate Tectonics
Lecture 1: Energy
Lecture 2: Ore Deposits I
Reading: Chapter 12

Week 15 (May 1)
Lab: Applied Geology
Lecture 1: Ore Deposits II
Lecture 2: Climate change and the minerals industry
Reading: Chapter 12
Week 16 (May 8)
FINAL EXAM TBD; check UNLV website for further details

UNLV Academic Policies
Students taking this course are required to be familiar with the UNLV academic policies. You can read the current UNLV Academic Policies on this link or consult the word document entitled “Syllabus Content Spring 2023” on the course Webcampus page.
GEOL 101 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 101 students are required to enroll in a zero-credit laboratory section.

First Week Schedule
Unless stated otherwise on the course syllabus, the GEOL 101 laboratory meets the first week of each semester.

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.