GS 106: Introduction to Earth Science

Instructor Information and Availability

Andrew Lade
ladea@linnbenton.edu
Tuesday 4:50- 5:50 (or by appointment)
Office: BC 201

Course Information

Course name: GS 106: Introduction to Earth Science
Scheduled time/days: 2:30- 4:50 Tuesday and Thursday
Classroom: BC 207

Course Materials

Required:

- GS 106 lab manual
- Access to online readings at VisionLearning and Tulane

Course Description

Survey course providing non-science majors a broad background in Earth science. No previous science background required. Field trips highlight the topics discussed. There is no restriction on the order in which the courses are taken. This course includes a laboratory component.

Student Learning Outcomes

1. Describe key events in the history of science, with particular emphasis on Earth Science, and their impact on society.
2. Describe and apply the process of scientific inquiry.
3. Solve scientific problems with quantitative methods.
4. Identify the various Earth systems and define their physical, chemical, and/or geological make up.
5. Describe how matter and energy cycle through Earth systems.
6. Identify and classify Earth materials.

Class Policies

Behavior and Expectations

You are held accountable to the Student Code of Conduct, which outlines expectations pertaining to academic honesty (including cheating and plagiarism), classroom conduct, and general conduct. Avoid even the appearance of dishonesty. The effectiveness of our joint academic endeavor depends upon a basic commitment to honesty by all of us; therefore, I will not hesitate to report violations in order to preserve the value of a Linn Benton education for others. If you pretend to be original when you are borrowing someone else's ideas, you are deceiving others.

Guidelines for communication

Most of our out-of-class communication will occur through e-mail. Please let me know if you would

like to schedule a time to meet or would like to attend office hours. If you are having difficulties with the material or being successful in this class, please see sooner rather than later. I want you to be successful!

Use of cell phones

Do not use cell phones in class unless told otherwise.

Attendance/Tardiness Policy

You should attend every class. If you do miss a class, it is your responsibility to find out what you have missed. Generally attendance corresponds to performance (and enjoyment), meaning students who attend generally earn higher grades. I encourage you to find someone you can get the notes from.

Name: _____

Email: _____

Testing

We will have three tests, two during the semester and a final examination.
If you miss a test, you will have to make it up before the following class meeting.
The final exam is on 12/4 at 5:30PM in this room, BC 207.

Grading

Lab assignments (10): 100 points each
Tests (2): 400 points each
Final Exam: 600 points
Reading quizzes (10): 10 points each
Possible points = ~2500 points
*We may have additional in-class assignments. These could vary between 10-30 points.
The grade will be calculated by dividing all earned points by all possible points.

Final Grade Calculation:

- A = 90-100% Excellent Work
- B = 80-89% Good Work
- C = 70-79% Average Work
- D = 60-69% Poor Work
- F = 0-59% Failing Work

Letter Grade	Percentage	Performance
A	90-100%	Excellent Work
B	80-89%	Good Work
C	70-79%	Average Work
D	60-69%	Poor Work
F	0-59%	Failing Work

Late Assignment Policy

Late assignments will be penalized three points for each day late and will be capped at 40 points. An assignment is late if you have not turned it in by the beginning of class on the due date. You must complete all assignments before the final exam.

Expect a lab assignment to be due every Monday. Labs cannot be made up, but I will drop everyone's lowest lab grade.

Quizzes cannot be taken after the specified date without a valid excuse accompanied with documentation. Missed quizzes will receive a 0.

College Policies

LBCC Email and Course Communications

You are responsible for all communications sent via Moodle and to your LBCC email account. You are required to use your LBCC provided email account for all email communications at the College. You may access your LBCC student email account through Student Email and your Moodle account through Moodle.

Disability and Access Statement

Students who may need accommodations due to documented disabilities, who have medical information that the instructor should know, or who need special arrangements in an emergency should speak with their instructor during the first week of class. If you believe you may need accommodations but are not yet registered with CFAR, please visit the CFAR website at www.linnbenton.edu/cfar for steps on how to apply for services or call 541-917-4789.

Statement of Inclusion

To promote academic excellence and learning environments that encourage multiple perspectives and the free exchange of ideas, all courses at LBCC will provide students the opportunity to interact with values, opinions, and/or beliefs different than their own in safe, positive and nurturing learning environments. LBCC is committed to producing culturally literate individuals capable of interacting, collaborating and problem-solving in an ever-changing community and diverse workforce.

Title IX Reporting Policy

If you or another student are the victim of any form of sexual misconduct (including dating/domestic violence, stalking, sexual harassment), or any form of gender discrimination, LBCC can assist you. You can report a violation of our sexual misconduct policy directly to our Title IX Coordinator. You may also report the issue to a faculty member, who is required to notify the Coordinator, or you may make an appointment to speak confidentially to our Advising and Career Center by calling 541-917-4780.

Campus Police/Emergency Resources

You may review emergency services and resources at the LBCC Public Safety website. Campus Safety can be reached using the 'Code 2' button on any campus phone or by dialing x411 on campus or (541) 917-4440 off campus. Dial 911 for off campus emergencies.

Public Safety link for printed syllabus:

https://www.linnbenton.edu/future-students/stuff-parents-want-to-know/public-safety

Changes to the Syllabus

I reserve the right to change the contents of this syllabus due to unforeseen circumstances. You will be given notice of relevant changes in class or online through a Moodle Announcement or e-mail.

Class Calendar or Schedule

Week	Readings	Topic	Lab
1	The Process of Science, The Practice of Science	Introductions	Measuring and Scaling
2	Defining Minerals, Properties of Minerals, The Rock Cycle	Earth Materials	Minerals
3	Mining and Mining Methods, Oil and Gas Formation (Video), What are Alternative Energy Sources?	Energy and Mineral Resources	Rock types
4	Geologic Time, Nuclear Chemistry	**TEST I** Geologic time	Radioactive decay and Half life
5	Earth Structure, Origins of Plate Tectonic Theory, Plates, Plate Boundaries, and Driving Forces	Plate tectonics	Plate boundaries
6	Volcanoes, Stratovolcanoes, Understanding volcanic hazards can save lives, The Science of Earthquakes, Earthquake Hazards Overview, Cascadia Subduction Zone	Geologic Hazards	Topographic maps
7	The Hydrologic Cycle, Water: Properties and Behavior, The Water Cycle (Video)	**TEST II** Hydrologic Cycle 2/22 FIELD TRIP to OSU Wave Lab	Oceans
8	Composition of Earth's Atmosphere, What is Ozone?	Atmosphere Composition and Structure	Weather
9	Factors that Control Earth's Temperature, The Carbon Cycle, A blanket around the Earth, The consequences of climate change	Greenhouse Effect and Climate Change	Atmosphere and Climate Change
10	How Our Solar System Formed, Formation of the Solar System (Video), The Characteristics of the Eight Planets	The Solar System and Earth	Energy Budget
Final		**FINAL EXAM** (3/20, 4:30)	