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### PURPOSE OF THE COURSE

This course is designed as an introduction to physical characteristics and processes of the Earth. Through class participation, we will discuss the inter-relationship of people, society, and Earth in order to better understand our dependence on the finite resources of the planet and how we may live with a better awareness of Earth processes. This class will also convey an understanding of how scientists utilize scientific principles to gain knowledge of the Earth.

### COURSE OBJECTIVES

Upon completion of this course, you should have acquired an introductory, but comprehensive, understanding of the following topics:

- (a) The inter-relatedness of the Earth systems: Atmosphere, Hydrosphere, Biosphere, Solid Earth;
- (b) The Earth dynamic plate tectonic system;
- (c) Processes and products of water, groundwater, and glaciers on the Earth's surface;
- (d) Environmental conditions and processes of deserts;
- (e) Processes that produce the major rock types and soils (rock cycle);
- (f) The record and documentation of geologic time;
- (g) Processes and products of crustal deformation and earthquakes;
- (h) The dynamics and components of the Earth's interior; and
- (i) The inter-relatedness of humans and these Earth processes.

### LOGISTICS AND POLICIES

1. **Participation:** There are **no university prerequisites** for this course. Students that enroll in this course have different backgrounds and levels of educational training. As a result, you may find some material difficult, feel you are already familiar with some of the concepts, or have personal experiences that can inform us all. Whatever your situation, please share your position through class participation. Most importantly, if you are confused about a concept, **please ask questions** in class for clarification and further explanation. You will not be alone in your confusion. There are many ways to present this course material, and I will attempt to find one that works for you. If you do not feel comfortable asking questions in class, please write down your question(s), drop them on the front table as you enter the room, and they will be addressed during the class period.
2. **Attendance:** It is important that you attend class every week because we are required to cover much material (equivalent to three (3) day classes). I will provide guidance for reading assignments and exam questions regularly. You are responsible for all material covered in lectures and reading assignments, whether or not your absence is excused. If you miss a lecture, obtain the notes from a classmate. **Neither make-up lectures nor make-up exams will be given**, except as specified below. Topics covered may vary from the schedule, but exam dates remain fixed. If you are absent from either a scheduled lecture or a lab exam without a written medical or university excuse, you will receive a zero grade for that exam. Excused absences are evaluated on the average of exams actually taken. **The final exam is required of all students.** All exams are comprehensive, but will focus primarily on the most recently covered materials presented in lecture, laboratory, and reading assignments. **Concurrent enrollment in a lab section is required.** You must enroll for a section of GEY 101D, for zero credit hours. Required field trips will be held during your lab period. If you are enrolled in a night lab, field trips will be held on Saturdays or Sundays. Speak with your lab instructors about these field trips and plan accordingly. **If your regularly scheduled lab section falls on a holiday, you must attend a different lab section that week.** You will be working in small groups in the lab, and you will find that it is a good place to make friends and find people to form a study group.
3. **Cheating, Plagiarism, and Academic Dishonesty:** It is in your best interest to be familiar with university policies and procedures in the current UNLV Undergraduate Catalog. Importantly, we will follow the policies on Academic Honesty and Dishonesty that are stated in the most recent UNLV Undergraduate Catalog. In the hope of deterring cheating and/or plagiarism, this class employs a "zero tolerance" policy. If a student commits cheating or plagiarism, he/she will receive a grade of "F" for the course.
4. **Copyright Issues:** The University requires all members of the University Community to familiarize

themselves and to follow copyright and fair use requirements. YOU ARE INDIVIDUALLY AND SOLELY RESPONSIBLE FOR VIOLATIONS OF COPYRIGHT AND FAIR USE LAWS. THE UNIVERSITY WILL NEITHER PROTECT YOU, NOR DEFEND YOU, NOR ASSUME RESPONSIBILITY FOR EMPLOYEE OR STUDENT VIOLATIONS OF COPYRIGHT AND FAIR USE LAWS. Violations of copyright laws could subject you to federal and state civil liabilities, as well as disciplinary action under University policies. To familiarize yourself with copyright and fair use policies, the University encourages you to visit its copyright web page at <http://www.unlv.edu/committees/copyright>.

5. **Disability Services (DS):** If you have a **documented** disability that may require assistance, you will need to contact Disability Services (DS) for coordination in your academic accommodations. DS is located within the Learning Enhancement Service office in the Reynolds Student Services Center, Room 137. The DS phone number is (702) 895-0866 or TTD (702) 895-0652. If you have a special need/disability, please advise me during the first week of class. This allows for adjustment of plans so that problems may be minimized and the learning experience maximized. You may visit the DS website at <http://www.unlv.edu/studentlife/les>.
6. **Writing Center:** Students are welcome to use the UNLV Writing Center free of charge. Consultants can assist students at all stages of the writing process. Students may make appointments by calling the center (895-3908) or in person at FDH-240. The center can be particularly helpful for writing or rewriting your lab field reports.
7. **Religious Holidays:** A student that will miss a class or lab assignment because of observance of a religious holiday will have the opportunity to make up missed work. Notification should be given during the first week of class if this pertains to you, and a clear deadline will be set for completion of work.
8. **Nondiscrimination:** UNLV does not discriminate on the basis of race, color, creed, religion, national or ethnic origin, gender, age, sexual orientation, disability, or veteran status.
9. **Official Extracurricular Activity:** All students who represent UNLV at an official extracurricular activity have the opportunity to make up an assignment. However, you must provide official written notification prior to the missed class(es).
10. **Learning Environment:** The classroom is intended to be a place of learning. As such, and as specified in the UNLV Undergraduate Catalog, no pagers, cell phones, or other potentially disruptive devices are allowed in lecture or the laboratory.
11. **Text:** The text for this course is "Understanding Earth" by Press Siever, Grotzinger & Jordan, 4<sup>th</sup> edition.
12. **Assessment (Grading):** Your course grade in GEY 101 is based on the following criteria.
  - (a) Three (3) one-hour in-class exams will be given during the semester; your lowest score will be dropped. The remaining two exams will be worth 15% apiece, **30%** total.
  - (b) The final exam will take place from 8:10 p.m.- 9:40 p.m. on Tuesday, December 14<sup>th</sup>, and will count for **25%** of your grade. ~~Sample test questions may be found in an online book entitled "UNLV Department of Geoscience, Sample Exam Test Bank, Geology 101" at <http://ereserves.library.unlv.edu>.~~ As this question bank is not currently available on library reserve, I will provide sample exam questions in the form of homework questions and in class lectures.
  - (c) The lab is worth **25%** of your final grade, but if you fail the lab, then you fail the entire course. Also, if you miss three (3) lab sessions or fail to turn in three lab assignments, or some combination of the two, you will fail the lab.
  - (d) Due to the fact that is an evening lecture, class participation will count as **20%** of your final grade. Participation will consist of a combination of four homework assignments, **one class assignment**, and unannounced class attendances. If you are unable to attend lecture, please advise me before class by e-mail or phone to receive credit (no exceptions).
13. **Final grades are assigned as follows:** A = 100-90%, B = 89-80%, C = 79-70%, D = 69-60%, F = 59% or lower. A plus/minus system will also be utilized (e.g., 91, 90 will be recorded as an "A-", 89, 88 as a "B+"...). Final scores/grades will not be subject to a normal curve, which means you may study together to get better grades.
14. **Succeeding:** To do well in this course you must study the class material often (much like a foreign language or mathematics class). Even though not formally assigned, it is also very helpful to answer the questions at the end of each chapter. Quiz yourself and use the CD in your text. Develop a study group, you will more easily learn and understand the language and concepts of geology. You must keep current with reading assignments, labs, and lecture material. If you become confused or have questions that have not been resolved in lecture, and laboratory sessions. Please contact myself, or Drs. Andrew Hanson, Michael Wells, or Mike Nichols; all who are teaching GEY 101; or any of the lab instructors for any unresolved questions. As this is an evening class, normal office hours have proven difficult for most students to utilize. As a result, please do not hesitate to contact me by phone or e-mail and I will make the needed adjustments to meet with you at a time that is more convenient.

**CLASS SCHEDULE: Tuesday (7:00 p.m. – 9:45 p.m.) – August 31, through December 14, 2004**

<b>DATE</b>	<b>LECTURE TOPICS</b>	<b>LAB TOPIC</b>	<b>READING ASSIGNMENTS</b>
<b>Week 1</b>	<i>Lab #1: Plate Tectonics Video &amp; Reaction Paper</i>		
Aug. 31	Lecture: Introduction to Geology: Building a Planet Reading Assignment		Ch. 1 Ch.13
<b>Week 2</b>	<i>Lab #2: Topographic Maps 1</i>		
Sep. 07	Lecture: The Hydrologic Cycle and Groundwater Reading Assignment		Ch. 13 Ch. 14
<b>Week 3</b>	<i>Lab #3: Topographic Maps 2</i>		
Sep. 14	Lecture: Streams: Transport to the Oceans Reading Assignment		Ch. 14 Ch. 15
<b>Week 4</b>	<i>Lab #4: Las Vegas Wash Field Trip</i>		
Sep. 21	Homework Assignment #1 due Lecture: Winds and Deserts Reading Assignment		Ch. 15 Ch. 16
<b>Week 5</b>	<i>Lab #5: Groundwater Lab</i>		
Sep.28	Lecture: Glaciers: The Work of Ice Reading Assignment Reading Assignment		Ch. 16 Ch. 3 Ch. 4
<b>Week 6</b>	<i>Lab #6: Mineral Lab</i>		
Oct. 05	<b>Review for Exam #1</b> <b>Exam 1: Covers material from Chapters 13, 14, 15 &amp; 16</b>		
<b>Week 7</b>	<i>Lab #7: Rock Lab 1</i>		
Oct. 12	Return Exam #1 and Homework Assignment #1 Lecture: Minerals: Building Blocks of Rocks Lecture: Rocks: Record of Geologic Processes Reading Assignment Reading Assignment		Ch. 3 Ch. 4 Ch. 5 Ch. 6
<b>Week 8</b>	<i>Lab #8: Rock Lab 2</i>		
Oct. 19	Lecture: Igneous Rocks Lecture: Volcanism Reading Assignment Reading Assignment		Ch. 5 Ch. 6 Ch. 7 Ch. 8
<b>Week 9</b>	<i>Lab #9: Rock Lab 3</i>		
Oct. 26	Homework Assignment #2 due Lecture: Weathering and Erosion Lecture: Sediments and Sedimentary Rocks Reading Assignment Reading Assignment		Ch. 7 Ch. 8 Ch. 9 Ch. 10
<b>Week 10</b>	<i>Lab #10: Rock Lab Exam</i>		
Nov. 2	<b>Review for Exam # 2</b> <b>Exam 2: Covers material from Chapters 3, 4, 5, 6 &amp; 7</b> Reading Assignment Reading Assignment		Ch.10 Ch.11
<b>Week 11</b>	<i>Lab #11: Geologic History</i>		
Nov. 9	Return Exam #2 and Homework Assignment #2 Lecture: Metamorphic Rocks Lecture: The Rock Record and Geologic Time Scale Lecture: Folds, Faults, and Other Deformation Reading Assignment		Ch. 9 Ch. 10 Ch. 11 Ch. 19
<b>Week 12</b>	<i>Lab #12: Frenchman Mountain Field Trip</i>		
Nov. 16	Homework Assignment #3 due Lecture: Earthquakes <b>In-Class Assignment: Earthquakes (requires pencils &amp; calculators)</b>		Ch. 19

<b>Week 13</b>	<i>Lab #13: Geologic Structures</i>	
Nov. 23	Return In-Class Earthquake Assignment	
	<b>Review for Exam #3</b>	
	<b>Exam #3: Covers material from Chapters 8, 9, 10 &amp; 11</b>	
	Reading Assignment	Ch. 20
	Reading Assignment	Ch. 21
<b>Week 14</b>	<i>Lab #14: Geologic Maps</i>	
Nov. 30	Return Exam #3 and Homework Assignment #3	
	Lecture: Evolution of Continents	Ch. 20
	Lecture: Exploring the Earth Interior	Ch. 21
	Reading Assignment	Ch. 2
<b>Week 15</b>	<i>Lab #15: Geology of the Bright Angel Quadrangle</i>	
Dec. 07	Homework Assignment #4 due	
	Plate Tectonics	Ch. 2
	Discussion of Review Questions for Final Exam	
<b>Week 16</b>	<i>NO LAB FINAL</i>	
Dec. 14	<b>Review for Final Exam</b>	
	<b>Final Exam: Covers material from Chapters 19, 20, 21 &amp; 2</b>	
	<b>FINAL EXAM is scheduled from 8:10 – 9:40 p.m.</b>	