

ES 100 – The Earth as a System

FALL 2009

Instructor: Dr. L. Lyon
Office: NS 110-C
Office Hours: Mon. & Wed., 1:00 – 3:00 PM;
Tues. & Thurs., 4:00 – 4:30 PM; or by appointment.
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Course Objective:

Earth Science 100 is a broad survey course that will provide a foundation in the understanding of Earth and its processes. Unfortunately many people go about living on this planet without a thought about how their everyday lives are shaped by this planet. The objective of this course is to help the student develop an understanding of the components of the Earth Sciences. We will also consider the interaction of these components as a system in space and time as well as the interaction with humans. The Earth Science components to be included are geology, geography, oceanography, and astronomy which will be integrated through an Earth systems framework. We will discuss topics ranging from natural resources to natural disasters, rock cycles to carbon cycles, and ice ages to ice comets. Due to the wide diversity of the subject matter, it is not possible to cover all areas with equal emphasis or in a comprehensive manner. The main goal is for the student to gain an understanding and appreciation of the dynamic processes and inter-related systems that are at play on our planet.

Textbook and Other supplies:

Required Text: Foundations of Earth Science, Lutgens & Tarbuck, 5th Edition

The required textbook for this course is an excellent resource but should not be used as a substitute for class attendance. The attached reading and exam schedule outlines the topics to be covered in each class meeting. **It is highly recommended that textbook readings be completed prior to discussing the topic in class.** It is very important for you to keep up on the reading assignments. Textbooks should be brought to each class meeting for easy reference to important figures and diagrams. You may wish to bring a few colored pencils or colored markers for highlighting information in the textbook or for classroom drawings.

Class Attendance and Etiquette:

This is a 3-unit course transferable to a CSU or UC school and therefore the expectations for learning are the same as those at a CSU or UC school. As in most any entry-level course, you will essentially be expected to learn a whole new vocabulary centered on the scientific description of the oceans and its processes. Traditionally, students are expected to spend at least 3 hours studying for each hour of in-class time (more time if science "isn't your subject!"). Lectures will follow the text in general subject matter but material will be presented which is supplemental to required text readings. A significant part of class time may include films and slides related to concepts you will be expected to understand. Exam material will be taken from class lecture material and discussions of assignments. **Please note that you are responsible for everything covered or assigned in classroom sessions. Notes for sessions missed must be obtained from other students.**

Although I am here to facilitate your learning, it is each student who determines his or her own grade. In order to do well in class, you will need to attend class regularly. Although your attendance will not be directly factored into your grade, your grade will reflect your attendance. I encourage you to ask questions in class, but unnecessary talking will not be tolerated. Such behavior is disruptive to the class

and interferes with students who are in the class trying to learn the material. If you have a question, please don't have a conversation with your neighbor, raise your hand and ask me.

As a courtesy to your fellow students and to me, I expect you to arrive on time for class meetings and to arrive prepared for the class session. Also, I realize that some of you may have very busy schedules, but please, if you are extremely tired, go home and take a nap there, not in class!

Please note that assignments are collected and handouts will be available for you to pick up at the beginning of class. Should circumstances make you late for class, please enter the classroom quietly and quickly take a seat. Please do not interrupt me or the class by walking to the front to collect something or hand something in once I have started class. Also, please do not start putting your books/papers away before I have dismissed class...such behavior is disruptive to the class. Please do not eat and/or drink in class – it not only distracts you but is disruptive to your neighbors as well. Cell phones and iPods are also considered disruptive. These devices must be turned off and put away during class time. **Students disrupting the class will be asked to leave the classroom and may be subject to removal from the course for repeat offenses.**

Grades:

Final grades will be based on student comprehension as demonstrated on exams, quizzes, and assignments. There will be four equally weighted exams worth a total of 400 points. Two quizzes of 50 points each will also be given. Assignments will account for an additional 50 points of your final grade and a poster presentation will comprise the remaining 100 points. All exams and quizzes may contain any combination of the following: multiple choice, matching, true-false, sketches or drawings, definitions, and short essay questions. Exams and quizzes will cover all material based on lecture and assignments. It is your responsibility to bring a scantron and a #2 pencil to each exam. You must take all exams and quizzes; any missed exam or quiz will be assigned a zero. Make ups are not allowed except in the event of extenuating circumstances (it is the student's responsibility to provide written documentation of the circumstances).

Class assignments will be given throughout the duration of the course and will constitute about 10% of your final grade. Some assignments may be completed in class; others may require work outside of the classroom. There will be specific instructions for each assignment. All assignments and due dates will be announced in class and posted on the class web site. Assignments are considered due at the beginning of the class on the day specified. If for some reason you cannot attend class, arrangements must be made for the delivery of your work. I do not accept work via email. Information associated with these assignments is considered part of the course content and appears on quizzes.

In addition to the class assignments, each student will be involved in a poster presentation, which accounts for an additional 15% of your final grade. Details regarding the poster assignment will be discussed in class and in additional handouts.

At the end of the course, all points will be added together and compared to the total points possible on a percentage basis. Grades will be based on the following scale:

- 90% = A ⇒ Student has a superior understanding of the topic.
- 80% = B ⇒ Student has an accurate grasp of the topic.
- 65% = C ⇒ Student has an acceptable, but commonplace understanding of the topic.
- 55 % = D ⇒ Student has only a limited understanding of the topic.
- Below 55 % = F ⇒ Student has little or no grasp of the topic.

Extra credit exercises/points may be assigned at my discretion and is dependent upon overall class performance. Extra credit points may not be made up – you must be present in class to participate and to receive the points.

Academic Honesty:

Please note that committing any type of academic fraud is a very serious offense and that cheating and plagiarism are not tolerated in any of my classes. This class will be conducted in accordance with the Palomar College "Student Code of Conduct" and the basic standards of academic honesty. If I have reason to believe that plagiarism or cheating has occurred, you will receive a zero grade for the work in question. You will also be reported to the Director of Student Affairs. For your information, please note the following:

- ★ **Plagiarism** is using someone else's ideas or work without acknowledging them as a reference.
- ★ **Cheating** involves the copying someone else's work on a quiz, test, or homework question. It also includes intentionally or unintentionally giving or receiving help during an exam, using unauthorized information sources during an exam, or removal of an exam from the classroom.

Students with Disabilities

If you have a disability that requires some accommodation, please speak with me and provide official documentation within the first two weeks of class. Reasonable accommodation will be made.

Add-Withdrawal Information:

Only students who are officially registered may participate in this class. If you are given a permission code to add this class, you must officially add the class prior to the next class meeting. If you have difficulty using eServices to add, please notify me immediately. **The deadline for adding any class or using a permission code to add is Sept. 6, 2009. Under no circumstance will students be allowed to add this class after the add deadline.** The following table summarizes the Add/Drop time schedule:

Through Sept. 23	Sept. 24 through Oct. 17	Oct. 18 through the end of the semester
Visit Student eServices to drop classes. The instructor's permission is not required. No notation or grade will appear on your record. Last day to qualify for a refund is Sept. 6, 2009.	Visit Student eServices to drop classes. An instructor's permission is not required. A "W" will appear on your record.	No drops are allowed. An evaluative grade (A, B, C, D, F) must be given. Note: Incompletes are given only in documented cases of extenuating circumstances such as an accident or medical concern.

* Please note that it is the student's responsibility to initiate the procedure of withdrawing from a course by filing the proper information with administration; I can not do this for you. The instructor's signature is not required and you may withdraw through the 8th week of the semester. Although you officially do not need to inform me of your withdrawal, I would appreciate the chance to talk to you before you do so.

**Please remember that I am here to help you learn the material!
Please do not be afraid to ask questions!**

TENTATIVE READING AND EXAM SCHEDULE - ES 100 – Fall 2009

Section 71693, Tues. & Thurs., 9:30 – 10:50 AM, Room NS-131

<u>Week #</u>	<u>Week of:</u>	<u>Lecture Topic</u>	<u>Relevant Chapters</u>
1	Aug. 25	Introduction to Earth Systems & Scientific Inquiry Origin of Earth and Solar System	Introduction Chapter 15
2	Sept. 1	Origin of Earth and Solar System Minerals – Building Blocks and Resources	Chapter 15 Chapter 1
3	Sept. 8	Quiz – Introduction & Chapter 15 Minerals – Building Blocks and Resources	Chapter 1
4	Sept. 15	Rocks – Materials of the Solid Earth	Chapter 2
5	Sept. 22	Geologic Time Exam 1 – Chapters 1, 2, 8	Chapter 8
6	Sept. 29	Mass Wasting / Stream Processes Groundwater	Chapter 3 Chapter 3
7	Oct. 6	Quiz – Chapter 3 Plate Tectonics – A Scientific Theory Unfolds	Chapter 5, 6
8	Oct. 13	Plate Tectonics and Internal Processes	Chapters 6, 7
9	Oct. 20	Earthquake Dynamics Exam 2 – Chapters 5, 6, 7	Chapter 7
10	Oct. 27	Heating the Atmosphere / Clouds & Precipitation The Atmosphere in Motion	Chapters 11, 12 Chapter 13
11	Nov. 3	The Atmosphere in Motion	Chapter 13
12	Nov. 10	Oceans and Climate Storms and Severe Weather	Chapter 10 (part) Chapter 14 (part)
13	Nov. 17	Exam 3 – Chapters 10, 11, 12, 13, 14 Glacial and Arid Landscapes	Chapter 4
14	Nov. 24	Tuesday - Poster Presentations No Thursday class meeting – Happy Thanksgiving!	
15	Dec. 1	Ice Ages	Supplemental Readings
16	Dec. 8	Climate Change	Supplemental Readings

EXAM 4: Section 71693, Tues. Dec. 15, 8 AM; Chapter 4 + supplemental readings