

# Course Syllabus

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**Department** : Physical Sciences  
**Course Title** : GEOL 1404 Historical Geology w/lab  
**Section Name** : GEOL\_1404\_724  
**Start Date** : 08/23/2010  
**End Date** : 12/10/2010  
**Modality** : FACE-TO-FACE  
**Credits** : 4

## Instructor Information

**Name** : Dennis Edwards  
**OC Email** : dedwards@odessa.edu  
**OC Phone #** : 432-335-6558

## Course Description

Catalog's:

Students study the chronological sequence of events in the physical history of the Earth and its life forms. Laboratory activities involve the students in acquiring and evaluating data related to fossils and their relationship to ancient environments. Students also organize and process data related to the classification of fossils and principles underlying the relationships between lithology, age, structure and geological map interpretation. Lab fee required.

Instructor's:

Historical Geology is the study of the earth's history including fossils, geologic time, extinction, stratigraphy, sedimentary environments, plate tectonics and the geologic time scale events in detail. This course will use current knowledge and techniques of the earth's geology through historical record; including radiometric dating methods and geologic map interpretation.

## Prerequisites/Corequisites

GEOL 1403

[Scans](#) 6, 9

## Course Objectives

The objective of the study of a natural sciences component of a core curriculum is to enable students to understand, construct, and evaluate relationships in the natural sciences, and to enable the student to understand the bases for building and testing theories.

General objectives for this course include:

1. To understand and apply methods and appropriate technology to the study of natural sciences.
2. To recognize scientific and quantitative methods and the differences between these approaches and other methods of inquiry and to communicate findings, analyses, and interpretation both orally and in writing.
3. To identify and recognize the differences among competing scientific theories.
4. To demonstrate knowledge of the major issues and problems facing modern science, including issues related to ethics, values, and public policies.
5. To demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

### **Course Attendance**

Course attendance is the responsibility of the student. Excessive absences will not result in a student being dropped from a course. Attendance will be taken in class.

### **Academic Honesty**

Odessa College expects its students to maintain complete honesty and integrity in their academic pursuits. Students are responsible for understanding the code of Student Conduct found in the student handbook. Cheating will not be tolerated in any form.

### **Late Work Policy**

Missing lab tests and exams will result in a make up test the very next day (8:00 am). If this make-up time is missed the result is a zero. **DO NOT MISS EXAM AND LAB TEST DATES**

### **Cell Phone Use**

Cell phones, while an important communication tool in modern society, are a severe interruption to classroom instruction. Thus, cell phones are, as a rule, strictly prohibited from being seen or heard. If you must have a cell phone available to you in case of an emergency, your phone must be put up on your person (not in a desk, but in your pocket or on a belt) and set on vibrate or silent. You may at any time excuse yourself from the classroom to attend to your personal business. **There will be no cell phone use allowed in class. Strictly, no texting or internet surfing. During exams, in order to maintain integrity of the testing environment, all cell phones will be required to be off.**

### **Video /Audio Recording**

Video /audio recording of lectures or class activities is strictly prohibited unless special accommodations are warranted for students with disabilities. Violation of this policy will result in the student being removed from the class and receiving a grade of F.

### **Required Readings/Materials**

You must purchase the following *required* readings/materials:

Text: (Lecture) Earth System History (3e) Stanley

Text: (Lab) Laboratory Studies In Earth History (9e) Levin / Smith

## **Course Requirements (Lectures, Assignments and Assessments)**

### Specific objectives for this course include:

1. To obtain the intellectual ability to translate, interpret, and extrapolate the most important scientific models governing modern historical geology, the practices and methodologies used by modern geologists in constructing the geologic time scale, rise and fall in sea level, major mountain building events and fossil correlation.
2. To further develop critical thinking and problem solving skills in the area of historical geology and the natural science.

### Laboratory learning objectives include:

1. To complete historical geology practices through laboratory studies of sedimentary rocks, sedimentary structures, stratigraphy exercises, fossils and geologic maps.

**Topic/Overview:** This week focuses on Stanley (textbook -lecture)

**Summary of Assignments & Activities**

<b>Item(Name)</b>	<b>Type</b>	<b>Description</b>
Earth As A System	Lecture	Chapter 1
Minerals & Rocks	Lecture	Chapter 2
Sedimentary Environments	Lecture	Chapter 5
Geologic Time & Correlation	Lecture	Chapter 6
Life & Life Environments	Lecture	Chapter 3 & 4
Plate Tectonics	Lecture	Chapter 8
Tectonic Mountain Building	Lecture	Chapter 9
Exam I	Exam	Exam covering Chapters 1 -6, 8 &9
Archean & Proterozoic	Lecture	Chapter 11 & 12
Early Paleozoic	Lecture	Chapter 13
Middle Paleozoic	Lecture	Chapter 14
Late Paleozoic	Lecture	Chapter 15
Exam II	Exam	Exam covering Chapters 11 -15
Early Mesozoic	Lecture	Chapter 16
Late Mesozoic (Cretaceous)	Lecture	Chapter 17
Cenozoic (Paleogene)	Lecture	Chapter 18
Cenozoic (Neogene, Holocene)	Lecture	Chapter 19 & 20
Final Exam	Exam	Cumulative Final Exam

**Topic/Overview:** This week focuses on Lab

**Summary of Assignments & Activities**

Item(Name)	Type	Description
Sedimentary Rocks & Structures	Lab Assignment	Identify Sedimentary Rocks & Structures
Stratigraphy I	Lab Assignment	Stratigraphic Exercise I
Stratigraphy II	Lab Assignment	Stratigraphic Exercise II
Lab Test - Rocks & Stratigraphy	Lab Practical	Test over Sedimentary Rocks, Structures, & Stratigraphy
Fossilization and Fossils I	Lab Assignment	Identify Fossilization processes & Invertebrate Fossils
Fossils II	Lab Assignment	Identify Invertebrate Fossils
Fossils Review	Lab Assignment	Review Fossil Sets I & II
Lab Test - Fossils	Lab Practical	Test 50 Invertebrate Fossil Types from previous labs
Fossils III	Lab Assignment	Identify Invertebrate Fossils
Fossils IV	Lab Assignment	Identify Vertebrate Fossils & Plant Fossils
Lab Test - Fossils	Lab Practical	Test 50 Invertebrate, Vertebrate & Plant Fossil types from previous labs
Geologic Maps I	Lab Assignment	Geologic Map Exercise I
Geologic Maps II	Lab Assignment	Geologic Map Exercise II
Lab Test - Geologic Maps	Lab Practical	Test Knowledge of Geologic Maps from previous labs

**Grading Policy** Course grades are a culmination weekly labs, lab tests, chapter tests, and final exam grades. The percent breakdown for each of these is as follows: 25% Lab Tests, 50% Chapter Tests, and 25% Final Exam. While the laboratory constitutes only 25% of the course grade, it is important to understand that geology is fundamentally a laboratory-based science. Therefore, a failing grade in the lab will result in a failing grade in the course. While you will never receive a score lower than that numerically earned, I do reserve the right to rescale grades as I see fit at any time during the semester. Final grades will be assigned as follows:

Percentage %	Grade
90 - 100	A
80 - 89	B
70 - 79	C
60-69	D
00-59	F

Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at **Special Needs** Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act. Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

**Learning Resource Center (Library)** The Library, known as the [Learning Resources Center](#), provides research assistance via the [LRC's catalog \(print books, videos, e-books\)](#) and [databases \(journal and magazine articles\)](#). [Research guides](#) covering specific subject areas, [tutorials](#), and the "Ask a Librarian" service provide additional help.

**Student E-mail** Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

**Student Portal** Please access your [Odessa College Student E-mail](#), by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **All assignments or correspondence will be submitted using your Odessa College email.**

**Technical Support** For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](https://www.odessa.edu/dept/ssc/helpdesk_form.htm).

**Important School Policies** For information regarding student support services, academic dishonesty, disciplinary actions, special accommodations, or student's and instructors' right to academic freedom can be found in the [Odessa College Student Handbook](#).