

Florida International University
Department of Earth and Environment
GLY 1010-U02: Introduction to the Earth Sciences
Fall Term, 2009, Tu/Th 11:00-12:15, GL100B

Instructor

Dr. Dean Whitman

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Office Hours: W/Th 2:00-4:00 PM, or by appointment

Course Description:

This course provides a basic survey of geology and the solid earth sciences. Subjects covered include: formation of the solar system and the Earth, plate tectonics, formation and classification of minerals and rocks, geologic time, deformation of the Earth's crust, the geologic history of North America, ground water, and geologic aspects of South Florida.

Course Objectives/Learning Outcomes

Students should leave this course with a solid overview of the geological sciences and their impact on such societal issues such as natural hazards and mineral and energy resources. This course with its Lab (GLY1010L) fulfills the Physical Science Core Curriculum requirement.

Prerequisites:

This is an introductory level science course and there are no college level prerequisites for this course. A basic high school level knowledge of chemistry and algebra is assumed and students deficient in those areas are advised to review those subjects. A concurrent lab course, GLY 1010L, is not required, but is strongly recommended in order to give "hands on" practice and experience.

Reading

Required Textbook: E. J. Tarbuck and F. K. Lugens, *Earth: An Introduction to Physical Geology, 9th Edition*, available in the bookstore. You are responsible for reading the assigned chapters **before** lecture. Reading assignments will average around 60 pages per week. The book comes with an excellent interactive CDROM (GEODe:Earth).

- The textbook is also available at a substantial discount (~\$59) via a 180-day on-line subscription at <http://www.coursesmart.com/0131566997>

Web and email Resources

This is a web assisted course. A course webpage will be maintained with Blackboard, CE6. This page will contain this syllabus, copies of exercises, links, and announcements for the course.

To access this resource, go to <http://online.fiu.edu/login.html> and enter your Username and Password in the Blackboard CE6 login box. Use your Panther ID and your default password which is your date of birth, input as MMDDYYYY. You will be prompted to change your password.

The textbook also has an excellent webpage at: <http://www.prenhall.com/tarbuck/details.html> which contains additional material such as key concepts, on-line quizzes, and virtual field trips.

I will also communicate with you regularly through your blackboard email address. The message sent are important and may contain information on how to gain some bonus points, **so check your email at least one a week !!!**

Lecture attendance:

Attendance at lectures is required. It is extremely important that you do not miss lectures. I will be taking roll regularly. It is your responsibility to obtain notes and handouts from class if lectures are missed. I recommend that you bring your textbook to class as I will be referring to it in lecture and class activities. Excessive absences may be grounds for failure of this course.

- Please be courteous to others and me in class: arrive on time to lectures, and **turn off all cellular phones while in class.**

Grading:

The grade in this course will be based on an average score of attendance and class participation (10%), three incremental midterms (50% total), and a cumulative final (40%).

Exams will cover all material in the assigned readings, lectures, and handouts, and will generally consist of multiple choice, matching, fill in, and short answer questions. The midterm exams will be of 60 minute duration. The final exam will cover material for the whole course and will be 120 minutes in duration.

Grades on exams will be computed as follows (subject to change):

A: 100% - 86%; **B:** 85% - 76%; **C:** 75% - 61%; **D:** 60% - 45%; **F:** 44% - 0%.

Plus and minus grades will be assigned for the upper and lower bounds of each interval. Exam grades normally will not be curved.

Exam attendance:

Quiz and exam attendance is mandatory. A make-up midterm exam will **not** be offered except for *documented* cases of serious illness, emergency, or death in the family, and *only* at my discretion. If you must miss an exam for one of these reasons, I strongly recommend that you contact me by telephone or e-mail before the exam. Exams missed in other circumstances will count as zero towards your final grade. Please arrive on time for exams. All tests will start promptly at the beginning of class.

How to do well in this class

As with other college level courses, you should put in at least 2 hours of study time for each hour of lecture. That is, for this course, you should be spending at least 6 hours per week outside of class doing reading, organizing notes, working in study groups, exploring the course web sites. In addition, the following is recommended:

- Read the assigned reading before and after the lecture in which it is covered
- Answer the review questions at the end of each chapter and review the *key terms*
- Utilize the materials on the CD and web site including the self-tests.
- Download and print out the lecture outlines before class. Annotate the outlines while I lecture.
- Come to class. Even if you are tired or distracted, you will still retain more than if you skip the lecture. If you must miss lecture, get the notes from someone who came to class
- Ask questions in class and office hours.

University Policy on Academic Misconduct

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas, and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

GLY 1010-02 Tentative Schedule (subject to change) Fall Semester, 2009, Tu/Th 11:12:15, Room GL100B

Week	Date	Topic	Reading (whole chapter unless specified)
1	Aug 25 Aug 27	Organization, Introduction The Scientific Method, The Earth Systems	Ch 1:
2	Sep 1 & 3	Plate Tectonics	Ch 2
3	Sep 8 Sep 10	Matter, Atoms, Isotopes, Chemical bonds; Minerals Midterm 1: Ch 1-3	Ch 3
4	Sep 15 & 17	Igneous Rocks, Igneous Mineral Resources	Ch 4, Ch 23:643-647
5	Sep 22 Sep 24	Volcanism and Igneous Intrusive features. Weathering, Residual Ores	Ch 5 Ch 6, Ch 23:647-651
6	Sep 29 & Oct 1	Sedimentary Rocks, Energy Resources: Fossil Fuels	Ch 7, Ch 23:628-636
7	Oct 6 Oct 8	Metamorphic Rocks Midterm 2: Ch 4-8, 23	Ch 8
8	Oct 13 & 15 Friday, Oct 16	Geologic time and the rock record Last day to drop class with a DR grade	Ch 9
9	Oct 20 & 22	Deformation of rocks, Structural Geology	Ch 10
10	Oct 27 Oct. 29	Earthquakes Continental Tectonics, Evolution of North America	Chs 11 & 12: 326-329 Ch 13:366-372 Ch 14: 377-399 Ch 22:605-612
11	Nov 3 Nov 5	Continental Tectonics, Evolution of North America Midterm 3: Ch 9,10,11,13,14,22	
12	Nov 10 Nov 12	The Hydrologic Cycle and Surface Processes Mass wasting	Ch 16: 424-426 Ch 19: 516-522 Ch 15
13	Nov 17 Nov 19	Groundwater, karst and sinkholes Glaciers and the Ice Ages	Ch 17 Ch 18
14	Nov 24 Nov 26	Shorelines and Beaches Thanksgiving Break, University Closed	Ch 20
15	Dec 1 Dec 3	The geology and hydrology of Florida Extra Time/Review	Web links
Final	Th, Dec 10th 9:45 AM (tentative)	Final Exam: Cumulative, 2 hour exam	