

COURSE SYLLABUS

Instructor: George W. Kipphut
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Semester: Spring 2015
Time and Place: Lecture: 09:30 -10:20 MWF, BL 332
Laboratory: 13:30-15:20 M, BL 332I
Office Hours: 8:00-10:00 T/R, or by appointment

DEPARTMENT: Geosciences

COURSE PREFIX: GSC

COURSE NUMBER: 102-01

CREDIT HOURS: 4

I. Title: Earth Through Time

II. Course Description and Prerequisites: An introduction to the study of how the earth's environment has changed through time and the geological processes that are causing the changes. Topics include hypotheses regarding the earth's origin, the evolution of the earth's ocean and atmosphere, and the interaction between environmental factors and the appearance of life on earth. The methods that geologists use to measure time will be identified and described. Particular emphasis will be given to the North American continent. The laboratory will focus on interpretation of earth history through the study of minerals, rocks, and fossils.

Prerequisites: GSC 101 or GSC 199

III. Course Objectives: As a result of participation in this course, the student should be able to:

- A. Gain an appreciation of the methods of geological inquiry
- B. Become familiar with the scientific theories of the origin of the solar system and the earth
- C. Become familiar with the scientific theories regarding the development and evolution of the earth's oceans and atmosphere
- D. Become familiar with the geological processes that have caused changes in the surface features of the earth through time
- E. Understand the major methods and technologies by which geological time is measured or estimated
- F. Learn to identify certain rocks and minerals and to identify the clues that indicate the environment under which they were formed
- G. Become familiar with the techniques of fossil identification and the use of fossils in studying earth history
- H. Become familiar with the geological history of North America
- I. Gain an understanding of the major processes that are changing the earth's environment at the present time.

IV. Content Outline: Major topics to be discussed include:

- A. Discussion of scientific methods appropriate to the study of the earth through time.
- B. Theories of the origin of the solar system and the earth.
- C. Extended discussion of the methods by which geologists measure or estimate time.
- D. Identification of important geological processes that are changing the surface and climate of the earth
- E. Identification of factors that cause climate change through time
- E. Chronicling the geological history of the North American continent

The theme tying these topics together will be discussion of changing environmental conditions over the history of the earth.

V. Instructional Activities

- A. Lecture, with reliance on outside readings.
- B. Assigned Readings: Assigned text and selected articles from professional journals
- C. Graded Homework Assignments
- D. Weekly Laboratory
- E. In-Class small group activities
- F. One Saturday Field Trip

VI. Field, Clinical and/or Laboratory Experiences: The weekly two-hour laboratory is meant to be an integral part of this course. A schedule of Laboratory Activities will be distributed at the first laboratory. Note: laboratory sessions begin **Monday, January 26**. A **Saturday Field Trip** is a required course activity. The tentative date for the field trip is April 11; the date will be confirmed before Spring Break.

VII. Text and Resources:

Lecture Text:

Title: **Historical Geology**, 7th Edition, 2013

Authors: Reed Wicander and James S. Monroe

Publisher: Brooks/Cole CENGAGE Learning, ISBN: 13-978-1-111-98729-9

Laboratory Manual: None, materials to be provided

VIII. Evaluation and Grading Procedures: Assessment of student accomplishment is keyed to the course purpose and objectives. Accomplishment will be measured in the three general areas described below.

- A. **Understanding of Course Concepts:** 55 % of overall grade. Assessed in 3 written lecture examinations.
- B. **Application of Course Concepts:** 23 % of overall grade. Assessed in laboratory quizzes and in laboratory mid-term and final examinations.
- C. **Oral and Written Communication:** 22 % of overall grade. Assessed in graded evaluation of written newspaper or magazine assignments, in graded evaluation of written and/or oral individual and small-group classroom activities, and in graded evaluation of other written homework assignments.

A = >90% B= 80-90 C= 70-80 D= 60-70 E=<60 Any changes to grading procedures will be announced in class.

IX. Attendance: Classroom attendance is strongly encouraged. Much of the understanding of the course concepts is expected to come from classroom discussions and activities. Attendance will be taken during both lecture and laboratory sessions. **Students absent from more than 8 lecture sessions will receive reduced credit for their overall grade.** **NOTE:** Individual lecture make-up exams will not be given. If a student is absent from a scheduled lecture exam, the exam may be made up in a comprehensive exam offered during Final Exam week. Each student is permitted only one make-up lecture exam. Students will receive reduced credit for make-up laboratory quizzes or exams.

X. Academic Honesty Policy: Please refer to the Murray State University Undergraduate Bulletin for the MSU's policy statement regarding Academic Honesty. Also, please refer to the new official MSU statement regarding plagiarism that is posted on the GSC 102 CANVAS Site:

Specific policy for this class: Cheating or plagiarism on classroom exams, on laboratory exams, or on laboratory or homework assignments will result in a grade of zero being recorded for that exam or assignment. A second offense will result in a failing grade for the course.

XI. Non –Discrimination Policy Statement:

Murray State University endorses the intent of all federal and state laws created to prohibit discrimination. Murray State University does not discriminate on the basis of race, color, national origin, gender, sexual orientation, religion, age, veteran status, or disability in employment, admissions, or the provision of services and provides, upon request, reasonable accommodation including auxiliary aids and services necessary to afford individuals with disabilities equal access to participate in all programs and activities. For more information, contact the Director of Equal Opportunity, 103 Wells Hall. 270-809-3155 (voice), 270-809-3361 (TDD).

XII. Other Required Departmental or Collegiate Committee Information: N/A