

GENERAL COURSE SYLLABUS
TROY STATE UNIVERSITY
MAIN CAMPUS
Updated: Fall 2004

SCI 2234 -- EARTH AND SPACE SCIENCES

TEXT

Earth and Space Science by Tarbuck and Lutgens. 10th edition. Prentice Hall Publishing.

COURSE DESCRIPTION

Physical aspects of the earth and the forces that act upon it, atmospheric makeup, weather, and basic astronomy.

CO-REQUISITE:

SCI L234

COURSE OBJECTIVES

Upon completion of this course, the student will

1. Understand the scientific method as it applies to concepts in earth and space sciences.
2. Apply basic concepts of geology, oceanography, weather, the atmosphere, and astronomy.
3. Appreciate the evolving nature of the disciplines of earth and space sciences and the tentative nature of models and theories in these disciplines.
4. Use critical thinking and problem solving strategies in the application of basic concepts of earth and space sciences.

COURSE CONTENT

1. Introduction to earth and space sciences and scientific method
2. Physical characteristics of the earth and the forces that affect them
3. Plate tectonics
4. Geologic time and history of life
5. Rock, minerals and mineral resources
6. Weathering, soil, and mass wasting
7. Running water and ground water
8. Properties and make-up of the earth's atmosphere and their implications for organisms
9. Weather systems, humidity, clouds, and precipitation and their effect on the earth's climate and organisms
10. Radiation, greenhouse gases, and the ozone
11. Nature of the oceans and ocean circulation, shorelines, and shoreline processes
12. Earth and moon system
13. The Solar System
14. Space exploration and its importance to the study of earth and space sciences.
15. Conservation and its importance

COURSE REQUIREMENTS

Students are expected to attend lectures, complete assignments, and participate in class discussion.

ADDITIONAL SERVICES: AMERICANS WITH DISABILITIES ACT: Any student whose disabilities fall within ADA must inform the instructor at the beginning of the term of any special needs or equipment necessary to accomplish the requirements for this course.

Students who have or may be dealing with a disability or learning difficulty should speak with the instructor, contact the Office of Adaptive Needs Program (Trojan Center 215), or call 670-3220/3221. Various accommodations are available through the Adaptive Needs Program. The faculty in the School of Business makes every effort to accommodate unique and special needs of students with respect to speech, hearing, vision, seating, or other possible disabling conditions. Please notify the instructor as soon as possible of requested accommodations or ways to help.

CHEATING POLICY: The SGA and the Board of Trustees have approved a TSU Honor Code. The University has adopted a firm policy for incidents of academic dishonesty with potentially severe and long-term consequences for violators. All exams and outside work are to be considered as individual assignments unless instructed otherwise in writing. No unauthorized [i.e., by the instructor, beforehand] assistance may be given or received on any work submitted for grading. Giving unauthorized assistance is also considered “cheating”. The first incident will result in no credit for that assignment and the second incident will result in failure in the course. Students should be aware of the TSU Honor Code, the Academic Code, and the Penalties for Misconduct as published in the Oracle [available online from TSU homepage]. A friendly note of caution: my operational definition of plagiarism is five or more words used together by a second author in the same sequence as presented by their first author, without attributing the idea to the first author. Ideas and theoretical concepts should be attributed to their originator. Using quotation marks for longer strings of words is required. The consequences for plagiarism are harsh: one small occurrence, one letter grade, two small occurrences, two letter grades, etc. However, a single flagrant attempt at deception, once discovered, will result in an automatic failure in the course. You must give your work credibility by citing credible references in support of premises, facts, and expert opinions. In three words: Prudence, Credibility, and Integrity.

ATTENDANCE POLICY

University Policy - In registering for classes at the university, ...students accept responsibility for attending scheduled class meetings completing assignments on time, and contributing to class discussion and exploration of ideas.

A student will be excused for class absence for circumstances beyond the student’s control or if the student has been required to attend an activity sponsored by the university. Faculty members who sponsor activities that require class absences must send a list of student names to each member concerned at least three days before the scheduled absence.

Faculty Policy - Faculty members may levy academic penalties upon un-excused absences; however, such penalties for un-excused absences will be a part of each course

syllabus and will be distributed to each class at the beginning of each term, and a copy filed in the departmental office.

INCOMPLETE WORK POLICY

Incomplete grades are assigned at the discretion of the instructor. Students should refer to the appropriate bulletin for policies regarding the removal of incomplete grades.

GRADING POLICY

Grades will be assigned according to academic regulations in the *Bulletin*.

EVALUATION

Quizzes and exams will be given. Additional assignments will be given and evaluated as deemed appropriate by the instructor. A comprehensive final examination will be given at the end of the course. Evaluation and assignment of grades will be consistent with each individual faculty member's syllabus.

GENERAL COURSE SYLLABUS
TROY STATE UNIVERSITY
TROY CAMPUS
Updated: Spring 2003

SCI L234 -- EARTH SCIENCE LABORATORY

TEXT: *Applications & Investigations in Earth Science*, 4th Edition. Tarbuck, Lutgens, & Pinzke. Prentice Hall.

COURSE DESCRIPTION

Laboratory experiments in basic geology, astronomy, atmosphere and oceanography.

COREQUISITE:

Earth Science Lecture (SCI 2234)

COURSE OBJECTIVES

Upon completion of this course, the student will

1. Understand how to collect and interpret scientific data.
2. Apply the scientific method in hands on experiments in earth and space sciences.

COURSE CONTENT:

1. The study of minerals
2. Common rocks
3. Introduction to aerial photographs and topographic maps
4. Shaping Earth's Surface – Running water and Ground Water
5. Shaping Earth's Surface – Arid and Glacial Landscapes
6. Determining Geological Ages
7. Geologic Maps and Structures
8. Earthquakes and Earth's Interior
9. Introduction to Oceanography
10. The Dynamic Ocean Floor
11. Waves, Currents, and Tides
12. Atmospheric heat, moisture, pressure, and wind
13. Air Masses, Cyclones, and Weather Maps
14. The Moon and Sun
15. Location and Distance on Earth
16. Metric System and Scientific Inquiry

COURSE REQUIREMENTS

Students are expected to attend all laboratory sessions. Make-up laboratories will be allowed only for excused absences.

ADDITIONAL SERVICES: AMERICANS WITH DISABILITIES ACT: Any student whose disabilities fall within ADA must inform the instructor at the beginning of the term

of any special needs or equipment necessary to accomplish the requirements for this course.

Students who have or may be dealing with a disability or learning difficulty should speak with the instructor, contact the Office of Adaptive Needs Program (Trojan Center 215), or call 670-3220/3221. Various accommodations are available through the Adaptive Needs Program. The faculty in the School of Business makes every effort to accommodate unique and special needs of students with respect to speech, hearing, vision, seating, or other possible disabling conditions. Please notify the instructor as soon as possible of requested accommodations or ways to help.

CHEATING POLICY: The SGA and the Board of Trustees have approved a TSU Honor Code. The University has adopted a firm policy for incidents of academic dishonesty with potentially severe and long-term consequences for violators. All exams and outside work are to be considered as individual assignments unless instructed otherwise in writing. No unauthorized [i.e., by the instructor, beforehand] assistance may be given or received on any work submitted for grading. Giving unauthorized assistance is also considered “cheating”. The first incident will result in no credit for that assignment and the second incident will result in failure in the course. Students should be aware of the TSU Honor Code, the Academic Code, and the Penalties for Misconduct as published in the Oracle [available online from TSU homepage]. A friendly note of caution: my operational definition of plagiarism is five or more words used together by a second author in the same sequence as presented by their first author, without attributing the idea to the first author. Ideas and theoretical concepts should be attributed to their originator. Using quotation marks for longer strings of words is required. The consequences for plagiarism are harsh: one small occurrence, one letter grade, two small occurrences, two letter grades, etc. However, a single flagrant attempt at deception, once discovered, will result in an automatic failure in the course. You must give your work credibility by citing credible references in support of premises, facts, and expert opinions. In three words: Prudence, Credibility, and Integrity.

GRADING POLICY

Grades will be assigned according to academic regulations in the *Bulletin*.

EVALUATION

Students are evaluated by their performance on laboratory reports of data collection and analysis, and/or instructor exams.