

Earth Science (PHSC 4013)

Spring 2010

Department of Physics, Brailsford College of Arts and Sciences

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Office Hours: R 2:00 – 4:00 p.m.
Course Location: E.E. O'Banion Science Building
Class Meeting Days and Time: MW: 3:30– 4:50 p.m. Room A103

Course Abbreviation and Number: PHSC 4013

Catalogue Description: A course designed for science teachers in middle and high schools. It covers basic concepts of earth science. The content covers a study of geology, meteorology, hydrology, petrology and mineralogy.

Co-requisite: PHSC 4011

Required Text: Earth Science, 12th Ed; Authors: Tarbuck, E.J., Lutgens, F.K., Publisher: Pearson/Prentice Hall; ISBN-13: 978-0-13-602007-3.

Recommended Text: Earth Science and the Environment, 4th Ed; Authors: Thompson, G.R., Turk, J.T., Publisher: Thomson-Brooks/Cole; ISBN: 0-495-11287-9

Access to Learning Resources: PVAMU Library:
phone: (936) 261-1500
web: <http://www.tamu.edu/pvamu/library/>
University Bookstore:
phone: (936) 261-1990
web: <http://www.bkstr.com/Home/10001-10734-1?demoKey=d>

Course Goals or Overview:

This course is designed for students to understand the planet Earth, its neighbors in space and the physical processes in our environment. It is also for education majors for eligibility toward certification or standardized examinations. The following branches of Earth Science will be emphasized: Geology, Astronomy, Meteorology, and Oceanography

Course Objectives:

1. Students will be exposed to scientific inquiry and be able to develop an understanding of how science is carried out and how scientists work.
2. Students will be exposed to some problems encountered in scientific data collection and how to overcome such problems.
3. Students will be able to understand how hypotheses are formulated and tested.
4. Students will learn how theories evolve and develop.
5. Students will be familiar with the physical processes operating in our environment and the impact of those processes to humans.

Course Evaluation Methods:

This course will use the following instruments to determine student grades.

There are four examinations in this class; two examinations during the first half of the semester and two more examinations during the second half of the semester. Each exam is worth **20 points** and a total of **80 points** of your final grade. The remaining **20 points** of your final grade will come from homework, web assignments, quizzes, classroom discussions and term paper (s).

Grade Determination:

90 – 100	A
80 - 89	B
70 - 79	C
60 - 69	D
0 - 59	F

COURSE POLICIES:

This course uses audio-visual and inquiry based format. It is expected that you will need to spend at least two hours studying outside the class for each hour spent in class. That means you should plan to devote about six hours per week for this class. This is a business intensive class, so be prepared to work. My objective is to help you succeed.

Turn off all cell phones. Each time a cell phone is seen either in your hands or on your desk, five points will be deducted from your final number grade. Each time your cell phone rings, ten points will be deducted from your final number grade.

Course Procedures

Week	Topic	Note
1 (Jan. 19– 22, Jan 18 is Martin Luther King day, no classes)	Definition of Earth Science Review of Earthquakes and Earth’s Interior	Chap. 1 Chap. 8
2 (Jan. 25 – 29)	Intro. Mineralogy	Chap. 2
3 (Feb. 1 – 5)	Intro. Mineralogy continued	Chap. 2
4 (Feb. 8 – 12)	Intro. Petrology	Chap. 3 and Chap. 9
5 (Feb. 15 – 19)	Intro. Petrology Continued	<u>Exam #1</u>
6 (Feb. 22 - 26)	Weathering and Erosion	Chap. 4
7 (Mar. 1- 5)	Weathering and Erosion Cont.	Chap. 4
8 (Mar. 8 - 12)	Stratigraphy and Age dating	Chap. 11 Mid-Semester Examination Period <u>Mar. 11-12</u> <u>Exam #2</u>
9 (Mar. 15 – 19)	Spring Break	Spring Break
10 (Mar. 22 – 26)	Intro. Hydrology	Chap. 5
11 (Mar.29–Apr 2)	Intro. Hydrology continued	Good Friday/Easter Student Holiday <u>4/2/10</u>
12 (Apr. 5– 9)	Astronomy- Solar System	Chap. 22 <u>Exam #3</u>
13 (Apr. 12 – 16)	Plate Tectonics	Chap. 7
14 (Apr. 19 - 23)	Meteorology (Atmosphere, Composition, Structure, and Temperature)	Chap. 16
15 (Apr.26– 30)	Weather and Climate Oceanography	Chaps. 18, 19, 20 Chaps. 13, 14, 15
16 (May 3– May 4)	Course Review Days	
(May 5-6)	Study Days	
16/17 (May 7 -12)	Final Examination Period	<u>Exam #4</u>

THIS SCHEDULE IS SUBJECT TO CHANGE

Term Papers

Term Papers: 1. Title: <u>Weather and Climate</u> .
Use either the required or recommended text book or both.
Chapters, 18, 19, and 20
2. Title: <u>The Global Ocean</u>
Use either the required or the recommended text book or both, chapters 13, 14 and 15
Due Date: the last day of this class or as directed by the Professor.
Format: a. Cover page as instructed by the Professor, b. Title, c. Abstract, d. Introduction, e. Body, f. Conclusion and
g. References Cited.

Exam Policy:

Exams should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies. Students are responsible for providing the green scantrons for examinations and quizzes.

University Rules and Procedures

Disability statement (See Student Handbook):

Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator.

Academic misconduct (See Student Handbook):

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.

Forms of academic dishonesty:

1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations.
2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test.
3. Fabrication: use of invented information or falsified research.
4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.

Nonacademic misconduct (See Student Handbook)

The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either (1) the instructor's ability to conduct the class, (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.

Sexual misconduct (See Student Handbook):

Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.

Attendance Policy:

Prairie View A&M University requires regular class attendance. Excessive absences will result in lowered grades. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class.

Student Academic Appeals Process

Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.