

## PHSC 4011 Earth Science Laboratory

**INSTRUCTOR:** Mr. Brian M. Cudnik, Physics Laboratory Specialist  
**OFFICE:** E. E. O'Banion (New) Science Building, room 330 AE  
**OFFICE PHONE:** (936) 261-3136  
**E-MAIL:** [bmcudnik@pvamu.edu](mailto:bmcudnik@pvamu.edu)  
**OFFICE HOURS:** Tues. 11am – 2pm  
**TEXTBOOK:** none (materials will be provided in class)  
**COREQUISITES:** PHSC 4013

**COURSE GOALS:** This is the Laboratory course to support PHSC 4013. Exercises select from a variety of activities done in the context of Earth Science and are timed to reinforce what is done in class. A tentative list of the exercises selected for Fall 2008 is presented below. Elements from the Online Weather Studies and the Online Ocean Studies courses are included.

**LABORATORY SCHEDULE:** There will be a total of 11 in-class laboratory meetings, one make-up session, and two take-home labs. The take-home lab involves sky watching: weather and clouds by day, and the Moon, planets and stars by night (more details will be given in class). The schedule is tentative and could change at short notice. There will be no lab meeting the first week of class.

- LAB 1 (9/5): Orientation to Earth Science Laboratory; Density of Earth's Material and Earth's Internal Structure
- LAB 2 (9/12): Soil Types
- LAB 3 (9/19): Online Lab Exercises: Earthquake and Virtual Dating
- LAB 4 (9/26): Ocean Floor Mapping
- LAB 5 (10/3): The Reasons for the Seasons
- LAB 6 (10/10): Online Lab Exercises: Global Warming
- LAB 7 (10/17): Mid Semester Exams (no Labs)
- LAB 8 (10/24): Hurricane Tracking and Forecasting
- LAB 9 (10/31): Kepler's Laws applied: Jupiter's Galilean Moons
- LAB 10 (11/7): Fingerprinting Light, an Introduction to Spectroscopy
- LAB 11 (11/14): The Hertzsprung-Russell Diagram
- LAB 12 (11/21): Makeup Laboratory (The Sun and Space Weather),  
Take home lab exercises are due at this time.

**MEETING PLACE AND TIME:** This Laboratory meets every Friday of the Fall semester, starting September 5<sup>th</sup>, in room NSCI 301, from 3:00pm to 4:50pm. Every effort should be made to be on time, since we will start promptly at 3:00pm.

**LEARNING OBJECTIVES:** This laboratory course will enable students to have a hands-on laboratory experience with some of the main topics of Earth Science,

and will include the use of technology in exploring these topics. The exercises are meant to support the work done in the Earth Science course.

**GRADING, LAB REPORTS & ATTENDANCE:** Each in-class lab exercise will be worth 10 points and will be done in groups. The lab report, one per group, will be due at the end of class. One of the two take-home labs will involve ozone measurements and will be worth 10 points. The second take home lab will involve making observations of the sky and will be worth 20 points; it will be due no later than November 21. Attendance is required and a roll will be taken near the beginning of each class. Since this is the case, and the roll may influence borderline grade cases, it is again important to be on time, every time. No grade is given for lab periods where students do not have a valid excuse for missing class. Students can make up one missed lab at the end of the semester (note the Lab Make-up day scheduled near the end of the semester). Opportunities for extra credit may be given in a few of the labs.

**PRAIRIE VIEW A&M UNIVERSITY POLICY STATEMENTS:**

**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 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.

**ADA Statement:** Students with disabilities who believe they may need an adjustment in this class are encouraged to contact the Office of Disabilities Services at (936) 857-2693/2694 as soon as possible. Once you receive a letter of adjustment from the office, kindly make an appointment with me to discuss appropriate adjustments for this class.

**Cheating and Plagiarism:** Prairie View A&M University is dedicated to a high standard of academic integrity among its faculty and students. In becoming part of the Prairie View A&M academic community, students are responsible for honesty and independent effort. Disciplinary action will be taken against any student who alone or with others engages in any act of academic fraud or deceit.

**Grade of "I":** A grade of "I" may be given in cases of documented emergencies or tragedies that prohibit a student from completing a course. In order to receive a grade of "I", approval must be granted by the Department Head and Dean.