GEOLOGY 3326 - INTRODUCTION TO GEOLOGICAL FIELD METHODS
Spring Semester 2012
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Class Time and Place: Friday 11:00 - 11:50 a.m., ST 106, weekend field trips TBA
Office Hours: MW 11:00 a.m. – 01:00 p.m., F 12:00 – 01:00 p.m. or by appointment
Bates, R.L., Adkins-Heljeson, M.D., and Buchanan, R.C., eds.: Geowriting, a guide
to writing, editing, and printing in earth science: 5th ed. (revised), 2004, American
Geological Institute, ISBN 0-922152-14-4 (required)

Course Description
This course will introduce you to the basic techniques of geological fieldwork. The course will
 teach note taking in the field, proper use of Brunton compass and GPS, measuring and
describing rock units, and technical writing. Reports and small-area maps will be produced
from the field notes. Prerequisites: Physical Geology (GEOL 1403), Historical Geology (GEOL 1404),
Mineralogy (GEOL 3411, can be taken concurrently).

Learning Objectives
This class is designed to introduce you to the basic techniques of geologic fieldwork. Upon
successful completion of this course you should be familiar with:
• the observation, measurement, and description of rock units in igneous, sedimentary, and
metamorphic terrains,
• note-taking in the field,
• the proper use of a geological compass
• the presentation of geologic data, and
• report writing.

Instructional Methods and Activities
The class will meet during the first week in the classroom to cover the theoretical and practical
aspects of geological field techniques. Some activities may take place on campus outside the
classroom. This course also includes 4 days of field exercises that will take place during the
second week. Class lectures prepare you for the field trips and for working the field trip and
homework assignments. In addition, you are expected to read relevant textbook chapters as
announced in class in preparation for lecture and field trips.

Major Course Requirements:

Evaluation and Grade Assignment
Grades will be based on
A) Final report: 60%
B) Your performance in the field, i.e. how you move in the field, participate in field and camp
activities, address the rock units, strategize your data collection, etc., as assessed through your
interaction with the instructors: 10% of grade
B) Final exam: 30% of grade
**Class and field trip policies**

We will make every effort to make this course a positive, fun, and safe learning experience. To achieve this goal, we have to ask all students to participate and to adhere to established class policies. This includes that you engage actively in camp activities such as cooking and clean up. Please respect sleeping hours between 10 pm and 6 am by keeping the noise down. By signing up for this class you agree to refrain from any activities that expose you or others to unnecessary risk. The ultimate decision as to what behavior constitutes a risk is solely with the instructors. We will be camping and working in state parks. It is your responsibility to familiarize yourself with all applicable laws, regulations, and policies. This includes minimizing your impact on the natural environment and any unnecessary disturbance of the wild life. These rules apply to the entire duration of the trips. Violations may result in a failing grade. While group discussion and collaboration is encouraged during field trips and class exercises, the work you hand in is expected to be yours. The use of cell phones is not allowed in class.

The syllabus and course policies are subject to change as announced during class or by e-mail. It is your responsibility to provide a working e-mail address and to check your e-mail daily.

**Attendance policy**

Attendance on a regular basis will be essential to the successful completion of the course. There is no provision for making up late and/or missed work. It is your responsibility to obtain notes and announcements from fellow students in the event you miss a class. Three or more absences will result in a failing grade. Exceptions are granted only in cases of illness or under other unforeseeable circumstances and require a written petition with supporting documentation (e.g. doctor’s statement).

Field trips: Attendance of the entire trip is required to obtain full credit on the trip assignment. Vehicles will leave at the specified time even if you oversleep or are late. There will be no later opportunities to make up missed field trips. Transportation will be provided in university vehicles. University policy does not allow the use of private vehicles.

**Classroom/professional behavior**

Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

**Academic Integrity/Plagiarism**

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, falsification, forgery, complicity or plagiarism. (Plagiarism is the presentation of the work of another as one’s own work.) In this class, academic misconduct or complicity in an act of academic misconduct on an assignment or test will result in a failing grade.

**Dropping a Class**

I hope that you never find it necessary to drop this or any other class. However, events can sometimes occur that make dropping a course necessary or wise. Please consult with me before you decide to drop to be sure it is the best thing to do. Should dropping the course be the best course of action, you must initiate the process to drop the course by going to the Student Services Center and filling out a course drop form. Just stopping attendance and participation WILL NOT automatically result in your being dropped from the class.
Grade Appeals
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

Disabilities Accommodations
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

University policies
By enrolling in this course you agree to follow university policies as stated in the Course Catalog and in the Student Handbook, including policies concerning student conduct, integrity and honesty, and special needs. University alcohol and drug policies are strictly enforced.

Supplies
You will need the following items during class sessions and on field trips:

- A bound notebook (with at least 20-30 free pages, no loose pages or note pads)
- Mechanical pencil (cheap quality o.k., get a spare one), lead size of 0.5 mm or finer
- Colored pencils
- Metric ruler (cm/mm markings)
- Protractor or a ruler/protractor
- Eraser (get a good one)
- Pencil sharpener
- 10 sheets of metric graph paper (cm/mm ruling)

Schedule of Topics
- Course overview and equipment, field logistics and safety. Maps: Dimensions and scales (Ch. 10), Use of GPS for orientation.
- The Brunton Compass I: Basics, Triangulating (Ch. 2), Field strategies, note-taking, and sketches (Ch. 3 and 4).
- The Brunton Compass II: Strike, dip, trend, plunge (Ch. 2), fossils, sedimentary rocks (Ch. 5 and 6).
- Igneous and metamorphic rocks, structural information (Ch. 7, 8, 9), contact relationships, describing stratigraphic sections, use of the Jacob’s staff (Ch. 2).
- Sampling, photography (Ch. 12 and 13), data presentation, geowriting, Final Exam.
- Field Exercises