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GEOL 130.01: Introductory Field Geology and Maps

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G130 Syllabus; Spring, 2004

Instructor: Marc Hendrix

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This course is designed to acquaint you with the examination, analysis, and documentation of geology in the field and the use of maps as repositories of geologic information. Our normal class schedule will entail one weekly meeting on Thursday afternoons from 1-5PM. On several of the outings (marked on the tentative schedule below), it is possible that we may not return to campus until around 6PM.

The whole point of this class is to learn how to observe, understand, and document geology in the field. Therefore each of the Thursday outings is required. We will take attendance each week. Be Aware: Each unexcused absence will lower your final grade by one full letter.

Each week, an exercise will be assigned. The exercise in its entirety will be due the following Thursday at the beginning of class time. For most of these exercises, you will be encouraged to work in teams of 2 or 3 (max), in order to develop your interpersonal working skills. Unless otherwise indicated, each team can turn in a single assignment.

Most of the reading for this class will come from the required book *Geology in the Field* by Robert R. Compton. This is an excellent guide to all sorts of field geologic work; I recommend you keep it at the end of the semester and make it part of your permanent library.

Your final grade will be based on the following: 1) attendance of each outing (missing class meetings will pull down your grade as explained); 2) Thursday field exercises and supplementary in-class exercises (75% of final grade); 3) weekly quizzes (designed to make sure you did the reading and understand the class materials to date; 10% of final grade); 4) final exam (10% of final grade).

Please be aware that much of the class material (exercise descriptions, supplementary information) will be posted on the www throughout the semester. The web address for this course is:

<http://www2.umt.edu/geology/faculty/hendrix/g130/g130.htm>

Below is our tentative schedule for the semester.

DATE	EXERCISE / ACTIVITY	READING (Compton)
Jan. 29	Review of rock types; Intro to geologic maps	Chapters 1 and 4
Feb. 5	Map exercises, cont.; Intro to cross-sections	Chapters 6 and 7
Feb. 12	Map exercises, cross-sections, cont.	
Feb. 19	Intro. to campus geology; contouring, hydrogeology exercises	Chapters 2 and 3
Feb. 26	Use of a compass; Map making using pace and compass method	Review Ch. 2
March 4	Total Station/computer work on campus	
March 11	Total Station/computer work on campus	
March 18	Beavertail Hill - cross-cutting relations	Chapter 5; rev. Ch. 4
March 25	Cross-section I – Missoula valley	Chapters 9 and 10
April 1	NO CLASS (SPRING BREAK)	
April 8 **	Cross sections II – Arlee Valley	Chapters 12 and 13
April 15	Rattler Gulch – structural geology I	Chapters 14 and 15
April 22 **	Rattler Gulch - structural geology II	
April 29**	Bitterroot – metamorphic geology	Chapter 11
May 8	Final Exam	

** possible return to campus no later than 6PM