

FLUVIAL GEOMORPHOLOGY

ESS 426 SPRING 2006

GOALS OF THE COURSE

It is intended that you will learn the main theoretical principles concerning the behavior of rivers and their relations to their drainage basins. You will also practice observing, measuring, and analyzing various characteristics of rivers in the field, using the theoretical principles described in lecture and in labs, and standard field equipment and techniques.

The course will cover the following elements that you should find useful in the future:

1. Theoretical principles using the physics and math you have completed;
2. Problem-solving in the field with the aid of theoretical principles;
3. Management and integration of disparate data sets;
4. Computing with the aid of spreadsheets; and
5. Technical report writing.

FIELD TRIPS

The trips are designed to allow you to practice applying theory to the analysis of field problems in fluvial geomorphology. All three field trips are all required; under special circumstances and by *prior* arrangement, a less pleasant alternative is available for those who must miss one. You are particularly encouraged to withdraw from the course if know you cannot attend the first trip (April 8th).

FIELD TRIP REPORTS

Each report should consist of a five-page, single-spaced, 12-point typed manuscript suitable for submission as a technical report of work to an institution outside of the University. Additional detail on the content and organization of field trip reports is discussed on a separate sheet. The reports will be edited by both the TA and the professor and graded by the latter. This is a W course, and so developing your writing skills is an integral part of the course activity and grading.

The field data collection, reduction, and analysis will require collaboration, and that is encouraged. However, you are expected to interpret and explain the results independently of

your partners, so there should be significant differences between the individual reports of collaborators. Identical reports will not receive a grade.

Readings in the course text (Knighton) are required for both undergraduates and graduates; familiarity with this material will be useful in keeping up with the lectures and essential for writing satisfactory reports.

GRADING

Your course grade will consist of 33% for each field trip report. There is no final exam. Due dates for each assignment are noted on the course calendar. They exist to ensure that you receive feedback on one report before completing the next, to maintain fairness in the evaluation of all students, and to keep from burying the instructors with an unmanageable level of review. For these reasons, due dates are almost entirely *inflexible* and never without prior arrangement. Note that a loss of 33% credit will make a decent grade in the course unattainable. FYI this is how it goes in the real world, too—if you omit to do one-third of a job, the entire contract (or position, or whatever) is generally forfeit, too!

Graduate students and undergraduate students will be evaluated on each paper as an undivided group but assigned final grades separately.

There is a course fee to cover costs of the lecture notes, supplemental readings, and field trips. Note: they tell me that if you don't pay the fee, you won't receive a grade.