The University of Vermont
GEOL 101 FIELD GEOLOGY

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and

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Introduction
Field Geology is a project-oriented course that is conducted both outdoors and in the Delehanty computer lab. The course involves numerous field excursions to local rock, sediment and soil outcrops. These excursions will challenge you to collect various types of geologic data, learn new geological concepts, and improve your skills in analytical reasoning. In the laboratory, you will learn how to analyze the data you collect and to piece together your observations and interpretations of geologic processes in several professional-style geological reports. Although it requires a considerable amount of work both in the field and at home, field geology is a lot of fun, particularly if you are interested in learning how geologists study and make inferences about the natural world. Class is held on Tuesday and Thursday from 11:30 to 4:30. If we work efficiently, I may have you back at campus earlier. Projects are done both individually and in teams of 2 to 3 people.

Course goals and skills you will learn
- To develop an understanding of the basic methods and applications of field geology.
- To learn to identify various types of geologic materials and features, and to develop an ability to document and interpret their evolution.
- To learn how to record and analyze spatial relationships among geologic features in the field.
- To learn to write field reports (both written and oral) that present and synthesize the geologic information collected in the field.

Assessment
Grades are based on your performance in field projects, in-class quizzes, homework assignments, written field reports, oral presentations, field notebooks, and class participation. Class participation is based on your level of understanding of the material and concepts developed in the field. There is a final written and oral report instead of a final exam.

Textbook
Your textbooks will be a combination of class notes and your field notebook, which will contain all of your observations and elements of field geology you learn throughout the semester. Your notebook should contain not only the data that you collect from the field, but it should also contain concepts, speculations and interpretations of the problems presented during each of the projects. We will develop the necessary geological terminology and concepts during the semester. Well-labeled diagrams and field sketches are particularly helpful. I consider your notebooks so important that they may be collected periodically and graded as to neatness and content. Please use the type of notebook that is listed below.

Materials needed for field work:
1. During the first month of this course, we may be in the sun all afternoon. Some of the quarries, in particular, can be very hot with little shade. You should always plan on bringing a hat and sunblock to protect you while we are in the quarry. The terrain we will be on is rocky, uneven and commonly steep. PLEASE DO NOT wear flip-flops or sandals. These are forbidden. During days in the woods, plan on wearing long pants and a shirt with long sleeves or something similar to avoid contact with poison ivy. Several of our projects will be in wooded areas.
2. Wear boots or shoes suitable for walking on rocks and hiking (i.e. shoes that cover your ankle). **NO FLIP FLOPS.**

3. Bring a small backpack. You will need this for carrying field gear, water, food, rain gear.

4. **Field gear includes:**

   A. A compass. It must have a clinometer and a level bubble on it. These compasses can be purchased at the bookstore. You will need one... don't leave home without it. The level bubble can be purchased from the Department of Geology for about $5. You can purchase one during first day of class.

   B. Colored pencils (Double colored pencils can be purchased at Brooks Drug or a similar place downtown).

   C. Hand lens (bookstore).

   D. Notebook - It must have graph paper. A"write-on-the-rain" notebook is best. As an alternative: a 10 1/8 inch by 7 7/8 inch, hard covered notebook produced by The National Blank Book Co. will work. (bookstore)

   E. A mechanical pencil that takes 0.5 lead (Staedtler, Pentel, etc.; bookstore).

   F. A protractor and a metric ruler marked into 10ths (bookstore). The small red plastic ones that combine a ruler and protractor in one are best.

   G. A pencil sharpener (bookstore).

   H. A wooden clipboard. The clipboard should be about 7 inches by 5 inches. If you can, please cut a "v" shaped groove in it. I will show you examples of this during class.

   I. An eraser.

**COME PREPARED TO THE FIRST CLASS, WE WILL BE GOING OUT INTO THE FIELD**