Lab Test 2 will consist of everything that we have covered since the rocks and mineral test. You will not be tested on rock and mineral identification during this exam!

**BRING: PENCIL, CALCULATOR, AND SMALL RULER!**

For this exam you should be able to:
(1) Read basic information from topographic map (ie. quadrangle name, date published, contour information, declination (include direction), scale, latitude and longitude, etc.)
(2) Measure distance on a topographic map and convert to and from different units (ie. inches to feet, feet to miles, etc.)
(3) Produce a contour a map (perhaps for groundwater) given a basemap with spot elevations
(4) Tell direction of stream (river) flow by looking at contour lines
(5) Identify different types of folded and faulted rocks
(6) Identify different types of folded and faulted rocks
(7) Perform geologic reconstructions (see back of this page)
(8) Identify glacial features on topographic maps

The test will be weighted approximately as follows:
20% basic map skills
20% contouring problem
20% earthquake location exercise
20% plate tectonics
20% geologic reconstruction
Geologic Reconstructions
Using Block Diagrams

One of the major tasks of geology is to reconstruct the sequence of events which makes up earth history. The only evidence we have to do this is that preserved in the rock record. In order to successfully accomplish this, you must do this exercise you must draw on all of the geologic knowledge you have gained so far, including:

(1) Recognizing and identifying geologic structures, (faults, unconformities, etc.)
(2) Interpreting the historical meaning of specific rock types from your knowledge of how they formed.
(3) Logically arranging geologic events in sequential order (by superposition, cross-cutting relations, etc.)

Look specifically for the following features in the cross section.
- Sequential Evidence
  - Superposition (which unit sits on which unit?)
  - Cross-cutting relationships (what cuts what)
  - Original horizontality (or lack thereof)
- Structures
  - Faults (be sure to name which kind)
  - Folding events (indicate how you know it occurred)
- Unconformities
  - Name what kind!
- Interpretations made from specific rock types
  - The type of rock that is present can give you information about certain geologic events.