

STUDY GUIDE FOR LAB FINAL

The lab final will concentrate chiefly on the interpretation of topographic and geologic maps. However, there **will** be 6 rock samples for you to identify.

THINGS THAT YOU *WILL* DEFINITELY HAVE TO DO ON THE EXAM

1. Identify six rock samples and explain what rock group (extrusive or intrusive igneous, metamorphic, clastic sedimentary, chemical sedimentary) each belongs to.
2. Carefully outline a drainage basin, i.e., draw the drainage divide
3. Determine the direction of groundwater flow from a water-table map
4. Interpret the origin of the landforms on a map from their topographic expression: e.g., be able to recognize features indicating valley glacier erosion, valley glacier deposition, continental glacial erosion, continental glacial deposition, solution, sand dunes; alluvial fans; deltas; river terraces, floodplains, meander scars, cutoffs; features indicative of marine erosion or deposition; direction of longshore transport; marine terraces; volcanos and volcanic flows. Be able to cite the evidence on the map that you used to deduce the origin (e.g., cirques, U-shaped valleys, kettles, end moraines, eskers, drumlins, sinkholes, spits, etc.)
5. Given a geologic map, be able to draw a geologic cross-section. Given a geologic map or geologic cross-section, determine the sequence of events from oldest to youngest, including all episodes of deposition, intrusion, metamorphism, folding/tilting, faulting, and erosion.
6. Determine/ analyze geologic hazards from information contained on a geologic or topographic map. These hazards might include: flooding, landsliding, high water table, solution collapse, rapid coastal erosion, volcanic eruption

THINGS YOU *MAY* HAVE TO DO

1. Determine the depth to the water table or the position of the water table from a topographic map or a topographic map in combination with a water-table map.
2. Use the "rule of V's" to determine strike and dip of a bed on a geologic map.
3. Determine type of fold and direction of plunge from outcrop pattern and/ or age relationships of beds in an eroded fold.
4. Determine type of fault from information on a geologic map.

THIS STUDY GUIDE IS TO GIVE YOU THE MAIN OUTLINE OF WHAT I WILL BE THINKING ABOUT WHEN CONSTRUCTING THE LAB FINAL. REFER TO THE "WHAT IS EXPECTED OF YOU" SECTIONS OF THE LAB ASSIGNMENTS FOR FURTHER GUIDANCE