Geology 101 – Prelab Assignment

Lab 4 – Sedimentary Rocks
Due: Tuesday, April 28

Instructions: After completing the assigned lab readings complete the following prelab assignment before coming to lab. Assignments will not be accepted after the beginning of class on the due date.

Readings: Review the background materials for Lab 4 in the lab manual (p. 45-56). In addition, read through the section of Chapter 6 in your textbook on Sedimentary Rocks.

Questions:

(1) List the four most stable minerals – the ones that are most resistant to chemical weathering. (These are some of the most common minerals found in sedimentary rocks.)

(2) (a) List the following grain sizes from smallest to largest (silt, gravel, clay, sand).

(b) Which of the above grain sizes is most likely to be deposited in a low energy (quiet water) environment?

(3) Which type of sedimentary rocks are made of mineral and rock fragments? (circle one)
   detrital sedimentary rocks / chemical sedimentary rocks

(4) Practice using the ID charts on pages 55-56 to identify the 2 sedimentary rocks described below.

   (a) Rock Name: ________________
   Description: clastic texture, sand-sized grains, well-sorted, well-rounded, made of quartz

   (b) Rock Name: ________________
   Description: crystalline texture, made of a mineral that scratches glass

(5) In what type of environment do oscillation (symmetrical) ripples form?