April 2, 2009 – Class Assignment – Taylor Out-of-Town

Environmental Geology
NS218 3:00-5:00 PM

Professor Brown will be setting you up with a video assignment. She will also handout some additional materials for you to work on. Here's your chore list while I'm gone:

(1) During class time, April 2, watch the following two digital videos on the big screen in NS215 using windows Media Player; answer the attached review questions:

a. I:\Taylor\envgeo_quakes.mpg (25 minutes)
b. I:\Taylor\hanford.mpg (50 minutes)

Note: Professor Brown will be able to point you to the drive and folder from her faculty login.

(2) Homework for next week (due Tuesday April 7):
a. Read over the following paper that is linked on the class web site:

DOGAMI (1999) - Special Paper 32 Mitigating Geologic Hazards in Oregon

http://www.wou.edu/las/physci/taylor/g473/specpapr32.pdf

b. Write a 2 page article summary, following the procedure outlined in the syllabus. An example summary to use as a model is linked on the class web site at:

http://www.wou.edu/las/physci/taylor/g473/eg_summ.pdf

ES473 – Introductory Video Exercise

Short Answer Review Questions from Video

Video 1: La Loma Prieta Earthquake

1. Where was the earthquake and how large was it?
2. The tectonics of what two plates was the Loma Prieta Quake a result of?
3. What was the magnitude of the Earthquake?
4. Where was the epicenter of the earthquake located?
5. How far below the ground was the fault movement?
6. How far was the damage felt from the epicenter?
7. Why must geologists get out and explore the surrounding areas of land quickly after and earthquake?
8. What is the most important information to get out to the public after an earthquake?
9. Describe the movement of the plates that caused the earthquakes.
10. Why was the shaking in the "marina area" much worse than other places?
11. Why was the Bay Area so susceptible to damage from an earthquake?
12. What can we do to make old and new buildings safe?
13. What can we do to prepare for earthquakes?

Video 2: Hanford Nuclear Cleanup

1. What was the nuclear plant built for?
2. Why was Hanford such an ideal place to build this nuclear facility?
3. What does the "Deadly Mile" refer to?
4. Did the government know what the long term effects would be to the area?
5. How many radioactive reactors are there?
6. How many tons of possibly lethal fuel is sitting in the basins?
7. What is the major issue that still poses a threat to the water table?
8. What are downwinders?
9. Describe the Hanford site. Include the 100 zone, 200 zone, and buffer zones.
10. Are there effects on the Columbia River ¼ mile away from the plant? Explain.
11. Why can't we just leave the waste there and lock up the area?
12. Who is involved in the decision of cleaning up? What are researchers doing in order to attempt to clean up this highly contaminated area?

Long Answer Essay Questions

A. How do each of the video presentations relate to humans, and their respective ecosystem, to geologic principles and processes?

B. Compare and contrast the video clips to one another. How are humans and the Earth interacting with one another in each case study?