PHYSICAL GEOLOGY 1303 & EARTH HISTORY 1404

EXTRA CREDIT OPPORTUNITIES

METHOD 1: Attending Seminar

Attend any of the Science Seminars, held on various Fridays during the semester, in the Coles Building Room 326; generally from 1:00 PM to 2:00 PM. (Your guests are also invited)

Extra Credit 1: “3 points” will be added to your overall grade/seminar for the full hour attendance

Extra Credit 2 for attendees: “3 extra points” will be added to your overall grade/seminar for writing a ONE PAGE REPORT for each seminar (using guidelines set below – “Writing Seminar Papers”) which would give you a total of 6 points/seminar

METHOD 2: Non-attending Seminar But Viewing Streaming Video of the Seminar

If you cannot attend the conference, view a streaming video of the seminar. This can be found generally a week after the seminar. Go to the DMC Geology website, click on the Kramer faculty webpage and click on “Natural Science Lecture Series” to view the seminar.

Extra Credit for non-attendees: “6 extra points” will be added to your overall grade/seminar for writing a TWO PAGE REPORT for each seminar (using guidelines set below – “Writing Seminar Papers”)

WRITING STANDARDS FOR PAPERS FOR CURRENT SEMINARS

Typed papers format:
- 1 page (attendees) or 2 pages (for non-attendees)
- Typed
- Single-spaced
- 12 pt Arial
- ¾ inch margins on left, bottom, right and top
- Multiple Paragraphs
- Complete sentences, good grammar and punctuation, spell-checked

Include at top: Your Name and Class Period and Date of Report
Name of Seminar and Speaker

EMAIL TO ME AS A WORD DOCUMENT (WKRAMER@DELMAR.EDU) OR AS A PDF ATTACHMENT (WORKS AND WORD PERFECT, ETC. NOT ACCEPTABLE)

(Email to yourself first to check that it works – I will email confirmation when I receive your report)

AGAIN: To view the seminar; log on to: http://www.delmar.edu/nsci/geology/wkramer/ and click on “Natural Science Lecture Series”

ALL “PAPERS” MUST BE E-MAILED BY DATE GIVEN IN CLASS

(WILL NOT BE ACCEPTED AT THE END OF THE SEMESTER)
Today’s price for oil is ninety-three dollars per barrel, which is slightly down from one hundred dollars, but it will definitely hit the hundred marks by winter. The all time high for oil for inflation is one hundred dollars that was due to the Iran-Iraq war in December of 1979. They were both large producers of oil and gas and when things go wrong in wither of the two countries, the cost of oil and gas rises.

Geology is a distinct science and it uses all other sciences including math, physics, electronics and biology. Math like calculus is also important because the formulas are derived from this particular math. The science of geology combined with engineering and the business aspects are combined but dollars take the main stage. Knowledge is money and the more understood about science the better off one is because there is a competitive advantage.

Finding commercial quantities of oil and gas is a capital-intensive industry so there are big risks but also big rewards. In South Texas, the exploration centers on natural gas since most of the shallow oil has already been found. Exploration for oil and gas requires many technical people such as geologists, engineers and land and legal advisors. Computers are often used, therefore; lots of hardware and software are required. This exploration can cost millions of dollars so a strong financial backing is required such as a bank to take out loans or private investors.

There is a common misconception derived in the sixties that oil and gas comes from decomposed dinosaur fossils. Oil and gas originates from tiny microorganisms that float in the water of marine sediments or lakes. When the organisms die, they are mixed in with the mud and over time, the mud turns into rock. The oil is generated from the contained microorganisms by temperature and pressure changes. Another misconception is that oil can be found in giant lakes or pools underground. The oil is found within the space of rocks. Colonel Drake drilled the first oil well in the United States in 1859 and he drilled 69 and a half feet. His oil well produced twenty barrels of oil a day and at that time, it was equivalent to $400 a barrel. The first Texas oil well discovery was at Spindletop in 1901 and was drilled to 1139 feet. This well produced over 100,000 barrels of oil a day.

Oil and gas are hydrocarbons and are not distributed evenly throughout the earth. They primarily occur in sedimentary rocks with a source rock such as shale and a reservoir rock like sandstone or limestone. Sedimentary rocks occur within large thick sequences called basins. In North American, there are many scattered basins including the Gulf of Mexico basin. The basin in the Gulf produces about 50% of the oil for North America and so it is extremely important to this country.

ETC. ETC……ETC.

SAMPLE REPORT