GEOLOGY - 580  
Seismic Interpretation  
Fall Semester 2013  
Instructor: Bennett Z. Spevack  
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Course Summary:

The interpretation of seismic data is one of the most important tools used by the petroleum industry to discover and develop oil and gas fields. Seismic data is also used in academic studies of geologic structure, stratigraphy and basin evolution as well in various environmental studies. This course will provide students with a basic understanding of the nature (physics) of seismic data and how it is acquired and processed. The student will also be given instruction on use of Kingdom Suite software which is a seismic interpretation package commonly used by professional geologists and geophysicists in the oil and gas industry. The ultimate objective of the class is to provide students a basic working knowledge of how to use seismic data to evaluate the main risk elements of the hydrocarbon system: trap, reservoir, seal, source and migration for an individual prospect or basin analysis.

Grading/Seismic Interpretation Project:

Students will complete two interpretation projects. The mid-term project will be an individual seismic mapping assignment and the final project will be worked in teams of 3-4 students integrating well logs with 2D and 3D seismic. These projects will account for ~75% of your grade. The rest of grade will come from quizzes and/or lab exercises that are not part of the interpretation project as well as active participation in the class.

Guest Speakers

Several guest speakers have been invited to give lectures. They are all professionals in their field working on state of the art issues such as the use of seismic in the development of shale resource plays.
Schedule

Class hours are Monday 5-8 pm. It is possible that the instructors’ work emergencies could create a need to change class day or hours. Class schedules may also need to be modified to accommodate weekend student field trips (from other geology classes) or the schedules of guest speakers.

Learning Disabilities

Students who need accommodations of their disabilities should contact me privately, to discuss specific accommodations for which they have received authorization. If you need accommodation due to a disability, but have not registered with Student Disability Services (619) 594-6473 (Calpulli Center, Suite 3101), please do so before making an appointment with me.

Academic Dishonesty

Section 41301 of Title V of the California Code of Regulations defines academic misconduct as “cheating or plagiarism in connection with an academic program at a campus.” Examples of cheating include using notes or copying others’ work during an exam, falsifying data or records for an exercise, or entering responses into other students’ clickers. Examples of plagiarism include copying other students’ answers or, when working in collaborative groups, not stating an answer in your own words, based on your understanding. Cheating will not be tolerated in these laboratory sections, and any person who is seen cheating will receive an automatic zero for that day and be asked to leave.

This class when taken in conjunction with Petroleum Geology and participation in the AAPG Imperial Barrel program should provide a student with an interest in working in the Petroleum business an excellent idea of what that work entails. Students are also encouraged to take any relevant short courses offered by the AAPG and GSA.