

Petro DaYzZ: An Interactive Approach to Bringing Petroleum Geoscience to High School Students

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Abstract

Working together, the Memorial University Let's Talk Science Partnership Program (MUN LTSP) and the Memorial University Geoscience Society (MUN GeoS) in the Department of Earth Sciences successfully executed a two-day interactive geoscience experience for local high school students that introduced them to the everyday workings of the petroleum industry. The LTSP at Memorial is a very successful science outreach program that does work within the local St. John's area, all across Newfoundland and Labrador and also hosts many large on-campus events. The newly formed MUN GeoS focuses much of their time on educational outreach and promotion of geoscience to K-12 students, making a natural partnership with the MUN LTSP.

Petro DaYzZ was designed for students interested in science careers and who wanted to learn about the petroleum industry. The targeted audience was students at the Grades 11 and 12 levels in the metro St. John's area. Students were selected to participate in this program through a nomination process completed at each metro high school and participant names were put forth by the Science Department Heads at each institute.

The two-day interactive geoscience program covered a broad range of topics and was meant to give the students a little taste of what scientists do every day in the oil and gas industry. The course was delivered by a combination of experts from the university community and ExxonMobil. On the first day of events, students were introduced to the petroleum system and the conditions necessary for oil and gas to form, along with an introduction to how the industry works from upstream to downstream and all the careers in between. The second day introduced students to seismic data, petrophysical logs and core, their theory and applications. The whole program came to a close when on the second afternoon; students were combined in teams or pseudo-oil companies. They were given a specific budget of many millions of dollars and expected to make decisions about data they would like to purchase and ultimately drill locations for wells. The aim was to make strategic decisions to come out on top with the most money. Tensions were high and there was a mad dash at the end of the competition with the stakes set high. In the end, all of the students came out of the program with a compact but realistic view of how oil companies operate day-to-day.

The interactive approach taught by university grads coupled with the incorporation of real industry employees and real-time industry data allowed students to actively engage in learning outside of their normal curriculum and every day classroom.