Calderas, Arches and Student Success: The Peaks and Potholes of Implementing a Field Course at a Two-Year College

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Field Studies in the Geosciences Course Structure



- 10 weeks, 3.5 hours of lecture and lab exercises
- 10-day field days

Spring 2011: Yellowstone Supervolcano and Geologic Features of the West



Spring 2012: Geology of the Grand Canyon



Spring 2013: Arches, Canyons and Pinnacles, Geology of the Colorado Plateau



50 mi

Peaks

• Student engagement









• Utilize available resources











• Don't reinvent the wheel!







Peaks

• Schedule down time









Improvement of field notes





Mod volcanses stop.1. Antelope island, Utaho 6/6/11 C. ~ 4:30 pm, cloudy, windy 8 17-20 mph wind . 44 3 7' 30.3"N F Telus 7297 110° 26' 5.62 F PH= 8.0 **E**A 8 is basic F 7790 Ft. FA 1-14 one is most acidic N49°3'3.8" . The outlet has organge to white 5 63 thermophiles. Also avange - brown, F W1120152.7W * Metallosphacara FER Conductivity - OR -* Thiomonus Fauge 13 9- 1990 A acidimicrobium S greater than 19901 St drags * Degulfure/la -Playa lake-90 - The acid sulfate spring is steaming Dry Desert area -the creek coming into the spring 33Ft depth is causing hydrothermal crosion watatch monts and a terations. golt Quirrh - Oaker vuts survineline B.) Mue Volcano - 137°F Laramide orogenyk Nocks are old my mains yours 100 44°37′28.1″N EN 7764 110° 26' 4.2'w Oregeny-montanbuilding event Where its bubbiling there & gypello us Bonneville salt flats downs to NE Hermophiles. through canada, anan at be * hydrogenobaerlum called acab lands Large mud crack? 4235 Ft (elev)

Geologic time



• Spatial literacy



• Assessment challenges



• Novelty of field sites







 Environmental and safety factors















Summary

<u>Peaks</u>

- Student engagement
- Utilize available resources
- Don't reinvent the wheel!
- Schedule down time
- Improvement of field notes

Potholes

- Geologic time
- Spatial literacy
- Assessment challenges
- Novelty of field sites
- Environmental and safety factors