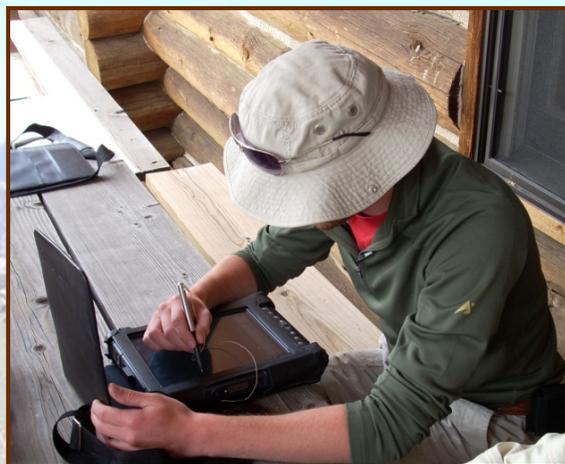


# BGSU Geology Field Camp

## with Tablet PC, GPS and GIS



**PROGRAM** - Portable computers, Global Positioning System (GPS) receivers, and Geographic Information Systems (GIS) are integral to the way field geology is done. In order to train the next generation of geologists, Bowling Green has developed a field course that integrates training in traditional field methods with new technologies. Students are instructed in geologic mapping and the observation and interpretation of geologic phenomena. They are then shown how to navigate using GPS, to map digitally using ruggedized tablet computers and to analyze data using GIS. Each team of 2-3 students is provided with a tablet computer and a GPS receiver. Projects include measuring and analysis of sedimentary sections, construction of geologic maps (both by hand and digitally), structural analysis of folds and faults, mapping of surficial deposits, slope stability analysis, and environmental assessments.



**LOCATION** – The first two weeks are spent in northern New Mexico near Albuquerque and then near Los Alamos along the margins of the Rio Grande rift. The third week is spent near Buena Vista, Colorado in the Cenozoic volcanic fields and Proterozoic plutonic rocks, at the northern end of the Rio Grande rift. The last 2.5 weeks are spent working with igneous, sedimentary and metamorphic rocks in and around the San Juan Mountains near Gunnison, Creede, Durango and Silverton, Colorado.

**FACILITIES** – With the exception of the first week, the field program operates out of permanent facilities. In Nathrop, we stay in a lodge overlooking the 14,000 foot peaks of the Collegiate Range. The lodge is located a short distance from the Arkansas River, known as one of Colorado's most popular white water rafting and fishing rivers. We will spend several nights camping near Gunnison and in the Creede Mining district before traveling to Durango, where we stay in the dorms of Fort Lewis College. Durango is a popular tourist area and serves as the gateway for the San Juan Mountains and Mesa Verde area.

**SCHEDULE** - The program consists of 5 1/2 weeks of field work and six travel days. The dates for the 2016 camp are **May 23 – June 28**. Recreational activities, such as fishing, hiking, and white-water rafting, are popular on full- and half-day breaks in the schedule.

**PREREQUISITES** – Mineralogy and Structural Geology are required. Sedimentology/Stratigraphy and Petrology are recommended. Familiarity with personal computers is recommended.

**COURSE NUMBERS** - The field course may be taken as one of three courses, all for 6 credit hours.

GEOL 4940 - For undergraduate geology majors

GEOL 4930 - For earth science education majors

GEOL 6930 - For geology graduate students



**COST** - The total cost for Ohio residents is approximately **\$3,900** for undergraduates and **\$4,300** for graduate students. The non-resident fee is approximately **\$1,800**. The costs above include transportation, lodging, most meals, tuition, and fees.

**FINANCIAL AID** - Financial aid is available on a competitive basis to both resident and non-resident students. Students entering the graduate program at BGSU with an assistantship are eligible to receive a tuition scholarship for the course.



*For selected projects, field mapping is done using ruggedized tablet PC computers with a wireless Global Positioning System receivers. The MS Surface tablet has the ability to run the typical suite of applications for a standard PC including ArcGIS. For digital mapping projects, a customized version of ArcPad is used for user-friendly data input in the field.*

**HOW TO APPLY** - Application forms or additional information may be obtained from our web site:

<http://www.bgsu.edu/arts-and-sciences/earth-environment-and-society/geology/field-camp.html>



## **QUESTIONS CONTACT -**

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