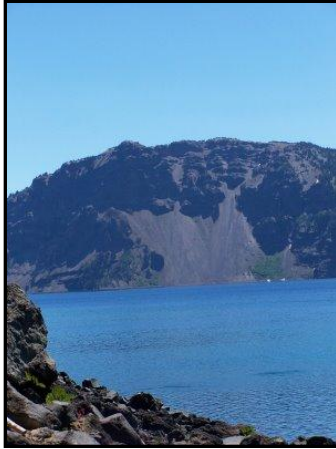


# SUMMER 2010 MTSU GEOLOGY FIELD COURSE

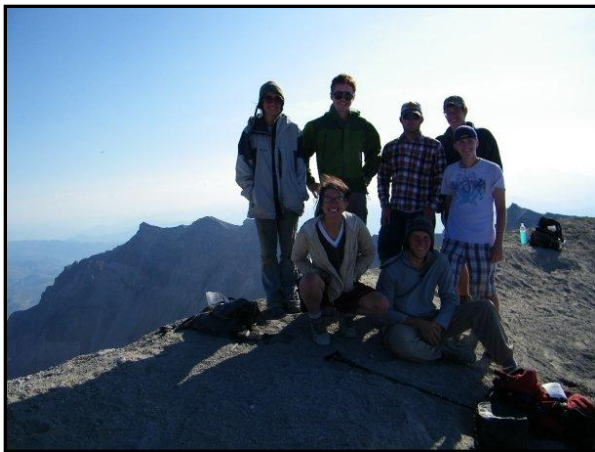
## Volcanoes of Oregon and Washington

Tentative Dates: July 10 – July 24, 2010

(followed by optional one week field research, July 24 – July 31)



**GEOL 3401 is a two week field course during which students visit and study important and spectacular volcanic mountains throughout the Oregon and Washington Cascade Range. Volcanoes visited include Mt. Rainier, Mt. St. Helens, Mt. Hood, and Crater Lake. The objective of the course is to develop a fundamental understanding of the origin, evolution, and eruption styles of volcanoes through direct field-observations. The course is taught at the freshman-sophomore level, and is appropriate for students of all majors.**



Throughout the course, students learn and apply basic geology field techniques to the study of volcanoes and volcanic rocks. Weather and volcanic activity conditions permitting, students complete hikes at each volcano to observe important volcanic landforms and processes. Included in the course is a climb up the south flank of Mt. St. Helens to observe and study the effects of the volcano's recent eruptions. Due to the relatively remote localities of the study areas, most nights are spent at campgrounds. Although July is typically the 'dry season' in the Cascade Range, students almost certainly will encounter some rainy weather. Temperatures may vary from warm 80° days to cool 40° nights. While hiking at higher altitudes, students will encounter snow .



### Estimated Cost

**Undergraduate In-State Tuition (4 credit hours):  
~ \$1050**

**Field Expenses : ~ \$750 (Includes: field transportation, hotels, camping, national park admission fees, Mt. St. Helens climbing fee. Does not include food.)**

**Total estimated tuition + fees ~ \$1800**

**Note: Airfare to and from Portland, Oregon is not included in the Course Fees. All students must purchase air tickets separately. All students also must have health insurance.**

**For additional information, contact Dr. Warner Cribb (cribb@mtsu.edu, 898-2379)**



# Undergraduate Research on Volcanoes Summer and Fall Semesters, 2010

**Are you an undergraduate interested in research on VOLCANOES?**

The Department of Geosciences will offer a two-week field course and one-week field research project on volcanoes in Oregon and Washington in July, 2010. During the field course, students will study major volcanic landforms in the Cascade Range. Immediately following the field course, an optional one week field-research project will focus on the geologic history of Cascade Range volcanoes. Laboratory research on geologic samples collected by students will continue at MTSU during Fall Semester, and all students will present results of their research at a scientific conference during Spring Semester, 2011. Each student also will co-author a published paper or abstract on his/her research.



## Volcanoes Visited During Field Course

Mt. Hood Volcano  
Newberry Crater National Volcano Monument  
Crater Lake National Park  
Mt. St. Helens National Volcano Monument  
Mt. Rainier National Park

## Fall Semester Research Activities

Petrographic Thin Section Preparation  
Petrographic Analysis  
X-ray Fluorescence Spectrometry  
Inductively Coupled Plasma Mass- Spectrometry

Undergraduate experience in research is a proven resume builder for post-college careers. Students who participate in undergraduate research receive better job offers and are more likely to receive graduate school scholarships. Recent MTSU students completing undergraduate geology research have received graduate school scholarships to universities such as Vanderbilt, Notre Dame, and Oklahoma, and are employed in a wide variety of professional positions. This is an excellent opportunity to gain valuable experience in both field and laboratory research skills, spend three weeks in the only volcanic mountain range in the contiguous 48 states, attend a professional scientific conference, and become a published author. Academic credit will be awarded for Geology Field Course (GEOL 3401 – 4 credit hours, Summer 2010) and Problems in Geology (GEOL 4090 – 3 credit hours, Fall Semester 2010). Credits may be applied to a major or minor in Geosciences.

## Approximate Cost:

Summer 2-week Field Course (GEOL 3401):  
Tuition (4 cr. hrs.) + Field Expenses ~ \$1800

Summer 1 week field research ~ \$325

Each student is responsible for his/her own food and airfare to Portland, OR

Fall Semester Research Course (GEOL 4090):  
Tuition (3 cr. hrs.) is dependent upon total number of credit hours registered. If registered for more than 12 hours, tuition is only ~ \$30.

Enrollment Limit: 15 students. Students participating in the research project are required to take GEOL 3401.

## [Additional Information:](#)

Dr. Warner Cribb  
898-2379  
cribb@mtsu.edu