# Status Report on Geoscience Summer Field Camps



Report by the American Geological Institute, Geoscience Workforce <a href="http://www.agiweb.org">http://www.agiweb.org</a>

Report by Margaret Anne Baker Report GW-06-003

Field camp has traditionally served as a central part of undergraduate geoscience curricula, but this tradition appears to be disappearing. There are several reasons for the decline in the number of departments offering traditional summer field camp experiences, including the rising costs of liability insurance for colleges and universities to run such programs and the changing face of geoscience departments in smaller schools that are combining forces with geography and environmental science programs. Also, summer field camps increase the overall budget of the department in its cost that it must cover to support students and that its costs for faculty summer salaries. Regardless, the number of geoscience departments offering summer field camps has decreased by more than half over the last twenty years.

Concerns about the decreasing number of summer field camps led to a Forum on "Does Need Exist for a National Center for Geoscience Education in the Field?" in August 2006. Participants from academia, industry, and professional societies attended a three-day forum at Indiana University's Judson Mean Geologic Field Station in Montana. The attendees agreed that field experience is an important and unique component of geoscience education and that it provides a hands-on approach to education that should be encouraged as an integral part of professional training.

In preparation for this forum, the American Geological Institute (AGI) performed a census of geoscience departments in the United States to identify schools that have offered geoscience field camps in the past two years. According to this search, there are currently 103 schools that offer summer field camps. This number marks a 60%

decrease in the number of departments offering traditional summer field courses. The 1985 Directory of Geoscience Departments (DGD) listed 259 schools as offering summer field camps, and the 1995 DGD listed 257 schools as offering summer field camps. The current number of schools offering summer field camps represents less than 15% of the 695 schools listed in the 2006 DGD in the United States. In 1985 and 1995 close to 35% of schools offered summer field courses for geoscience students.

A majority of the existing field camp programs are open to outside enrollment and are designed as upper-level programs for undergraduate geoscience students. The cost for attending these summer courses is on average more than \$2000 for tuition, with additional costs for transportation to the camp location and required field equipment. Most of the programs run 4-8 weeks and provide 4-8 credits that can be transferred to the student's home university. Two multiinstitution field consortiums were identified that have pooled their resources to provide a more traditional field camp experience – the Wasatch-Uinta Field Camp Group and a group of schools from Virginia and North Carolina. There are several programs that have partnered with another local program to design and teach field camp. This past summer 66 programs offered field camps. The majority of these programs are traditional mapping-based geology field camps, but an increasing number of programs are being offered in environmental science, hydrology, and geophysics.

Despite the decrease in summer field camp options, a majority of the Bachelors of Science degrees in geology/earth science require field experiences as part of the core curriculum. Many departments are allowing for field experiences other than formal field camps to be used to fulfill this requirement. An increasing number of schools are offering semester field courses that combine field experience with written course work, while others allow field-based research projects to serve as field courses. Many departments offer a wide range of field trips and short weekend field experiences to introduce students to field techniques, instead of the summer course.

It is unclear, at this point, how many undergraduate departments offer field options other than traditional 4-8 week summer field camp. Adding to the reduction in field camps being offered is that fact that fewer graduate programs are now requiring field camp as prerequisites for acceptance to graduate school. The combination of decreased demand from graduate programs and the high costs of summer field courses, has led many students in departments that do not require a field camp for graduation from attending these programs. To gain more information on geoscience education in the field, AGI will be undertaking a survey of geoscience departments to determine the number of departments, both undergraduate and graduate, that require students to take a summer field course and to investigate the range of field-based experiences currently being offered by geoscience departments.

## **Schools with Summer Field Camps**

Albion College

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http://www.bsu.edu/csh/geology/dept/fchome.htm Rick Fluegeman rfluegem@bsu.edu

**Boise State University** 

http://earth.boisestate.edu/summercamp/ Claude Spinosa cspinosa@boisestate.edu

**Boston University** 

http://www.bu.edu/es/fieldcamp/ Offers a joint field camp in Ireland with James Madison University

**Bowling Green State University** 

http://geology.bgsu.edu/Fieldcamp/

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Brigham Young University, Idaho

http://www.byui.edu/travelprograms/NatSciExpedition/ Dan Moore moored@byui.edu

California State University, East Bay

http://www.sci.csueastbay.edu/geology/field.html Luther Strayer lstrayer@csuhayward.edu

California State University, Long Beach

http://seis.natsci.csulb.edu/deptweb/fieldcamp.html Tom Kelty tkelty@csulb.edu

**Central Washington University** 

http://www.geology.cwu.edu/dept/courses/g489/ Alex Glass glassa@geology.cwu.edu

**Clemson University** 

http://www.ces.clemson.edu/hydro/FieldCamp/index.html Larry Murdoch lmurdoch@clemson.edu This is a hydrology based field camp

**Colorado School of Mines** 

http://www.mines.edu/academic/geology/courses/gegn316/index.html

Greg Holden gholden@mines.edu
Offers a geophysical based field camp in addition to a traditional geology field camp

**Concord University** 

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**Cornell University** 

http://www.geo.cornell.edu/geology/classes/eas417/eas417\_2004.html
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**East Carolina University** 

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http://www2.gsu.edu/~geohab/pages/geol4009/geol4120-4121.htm

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**Idaho State University** 

http://geology.isu.edu/FieldCamp/

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#### **Illinois State University**

http://www.geo.ilstu.edu/geology/field\_experiences/

geology\_field\_camp.shtml

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### **Indiana University, Bloomington**

http://www.indiana.edu/~iugfs/

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#### Iowa State University of Science & Technology

http://www.geosciences.unl.edu/geology\_field\_cam

p/index.htm

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Nebraska-Lincoln

#### James Madison University

http://www.jmu.edu/geology/fieldcourse/ Steven Whitmeyer whitmesj@jmu.edu Offers a field camp joint with Boston University

#### **Kent State University**

http://dept.kent.edu/geology/courses/fieldcamp.html Daniel Holm dholm@kent.edu

#### Lehigh University

http://www.lehigh.edu/~fjp3/fieldcamp/index.html Frank Pazzaglia fjp3@lehigh.edu Offers an environmental science based field camp in addition to a traditional field camp

#### Louisiana State University

http://www.geol.lsu.edu/FieldCamp/index.html Marty Horn horn@geol.lsu.edu

#### Mesa State College

http://www.mesastate.edu/snsm/geology/academics/field/field.htm

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#### Miami University-Ohio

http://casnov1.cas.muohio.edu/glg/fieldgeology/ William Hart hartwk@muohio.edu

## Michigan State University

http://www.d.umn.edu/%7Epmorton/fieldcamppage/frontpagefieldcamp.html

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## **Montana State University**

http://www.montana.edu/wwwes/programs/fieldcamp.htm
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## New Mexico Institute of Mining and Technology

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#### **Northern Kentucky University**

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## Oklahoma State University

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#### **Oregon State University**

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## Pennsylvania State University, University Park

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## **Salem State College**

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http://www.geosun.sjsu.edu/fieldcamp/fldcmp\_06.htm Jonathan Miller jsmiller@email.sjsu.edu

#### South Dakota School of Mines & Technology

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#### **Southern Oregon University**

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## University of Arizona

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#### University of Arkansas, Fayetteville

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## University of Florida

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#### University of Georgia

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http://www.geo.ku.edu/~geology/fieldActivities/fieldCamp.html

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#### **University of Montana**

http://www2.umt.edu/Geology/faculty/hendrix/g429/g429\_2006.htm

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#### **University of South Alabama**

 $http://www.usouthal.edu/geography/allison/FieldCo\\urseInfo.htm$ 

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#### **University of Texas at Austin**

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#### University of Texas, Dallas

http://www.utdallas.edu/geosciences/undergraduates/camp.html

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http://www.geo.utep.edu/pub/ladewig/SYLLABUS/4665%20Field%20Camp.pdf

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### Western Michigan University

http://www.geology.wmich.edu/Academic/Field\_Courses.htm

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#### Wheaton College

http://www.wheaton.edu/BlackHills/ Jeffrey Greenberg Jeffrey.K.Greenberg@wheaton.edu

#### Wichita State University

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## Wright State University

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