## GEOLOGY STUDENT FIELD EXPERIENCE CAMPAIGN

THE OHIO STATE UNIVERSITY COLLEGE OF ARTS AND SCIENCES

SCHOOL OF EARTH SCIENCES earthsciences.osu.edu

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"Ask any Ohio State graduate for a defining moment in college and they will probably say 'Saturday at the Horseshoe." **Ask the same of a** geoscientist, and they will reply, 'Field Camp."

— MIKE MORGAN '69, BS GEOLOGY

"Field camp matured me as a geologist and a person. It allowed me to develop the ability to visualize concepts in three dimensions."

- JOE NEWHART '69, BS GEOLOGY

## FIELD EXPERIENCES ARE VITAL TO THE SCHOOL OF EARTH SCIENCES

Decreasing university support for educational expenses and increased trip costs have forced the School of Earth Sciences to rely almost exclusively on donations, internal funds, and field trip fees to support educational field experiences for students. Despite these challenges, we want to keep Field Camp viable and affordable to students far into the future, giving them access to world-class mapping areas in Utah, and exposing them to the amazing geology of the Wasatch Mountains, Great Basin, Canyonlands and Capitol Reef. But we need your help.

The following proposal seeks your support in helping to ensure a sustainable future for Field Camp through a gift toward an endowment. Together, with generous gifts from other alumni and friends, we can make sure that generations of Ohio State students are immersed in hands-on geology through the transformational experience of Field Camp.

The Ohio State University's School of Earth Sciences investigates the history of our planet, its material structure and resources, and the processes that have driven its evolution and continue to shape our environments. The school is known for creating and disseminating knowledge about our planet, developing new techniques to explore and understand it, and sharing knowledge and technical skills with colleagues, students and society.

Field work has always been a critical component of our curriculum and it will continue to be in the future. What students learn in the field areas as remote as the McMurdo Dry Valleys, the Guadalupe Mountains, or even as close as the Appalachian Basin — and how they grow through personal discovery — is impossible to replicate in the classroom.

Certain common experiences can be derived from students' field work — hiking the landscape, recording mapping observations, getting rained out in a gullywasher, and slipping on a scree slope — that go beyond merely building memories. These shared experiences are what make us Earth scientists.

That's why the School of Earth Sciences has a long tradition of training undergraduates and graduates in the critical skills of field observation, measurement and interpretation.

# ABOUT FIELD CAMP

When Edmund Spieker established Ohio State's first field geology course in 1947, his axiom of effective field training for students was "put the responsibility to see, to think, to relate, and to conclude onto the student, rather than have teachers point and tell".

For nearly 75 years, that is what the Field Camp experience has done, continuing to meet Professor Spieker's goal of providing a unique environment for field-based research experiences for undergraduates, graduates, and faculty.

Today, this vision is maintained through the designation of Field Camp as a capstone course that allows undergraduate bachelor of science majors to:

- Apply classroom principles to real geological problems
- Integrate concepts that are "compartmentalized" in courses
- Grasp spatial and temporal scale of processes
- Synthesize geological histories
- Examine controversial interpretations
- Construct interpretations from limited data

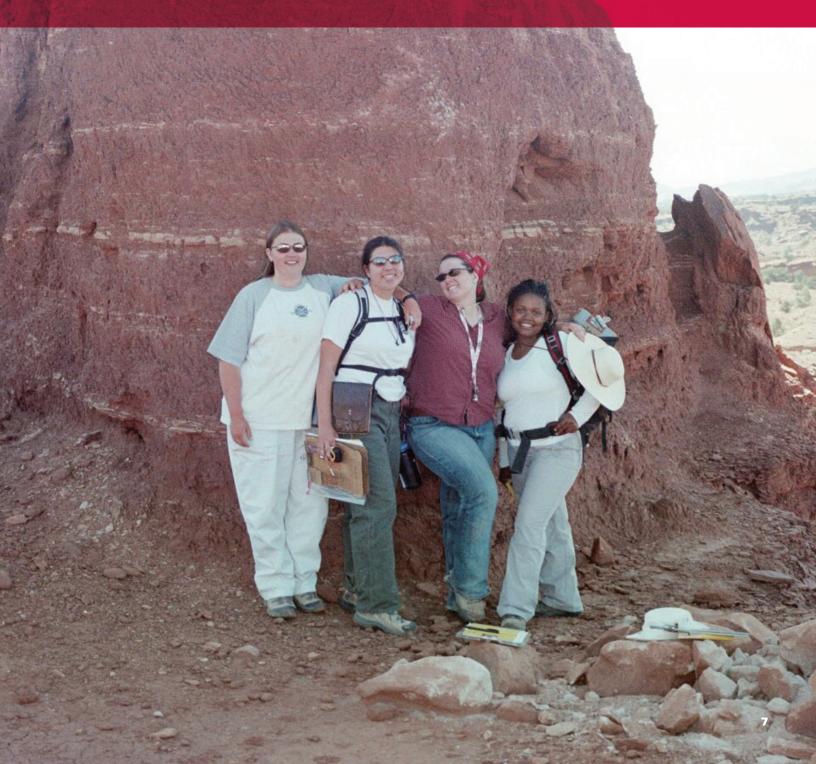
In Utah, students are exposed to the rock record of geological events ranging from Proterozoic to Holocene, and particularly to the spectacular record of synorogenic sedimentation and tectonism associated with the Sevier thrust belt.

Central Utah is ideal for this effort because geological problems range from those that are simple and wellsuited to our beginning students, to those that are more complex and involve students in controversial interpretations that form ongoing points of debate in the published literature.

Field Camp emphasizes both individual problem solving and team work. Through exercises of increasing complexity, students develop skills of observation, visualization and synthesis. This skill set, hard-earned through the Field Camp experience, builds the analytical foundation for students to succeed in whatever career they choose to pursue.

"The opportunity to head west to Utah for most of a summer was thrilling. I will never forget the knowledge or the friendships I gained."

- JEFF FOX '10, BS EARTH SCIENCES



"Some students may never pick up a rock hammer or write a lithologic description after field camp, but the big-picture problem solving skills learned are important for every branch of geology and beyond."

- CLAIRE MONDRO '10, BS EARTH SCIENCES

## STUDENT IMPACTS

"I went to Field Camp as an undergraduate and got so much out of it — an undergraduate research project, amazing friends, and a focus for my geology education — that I wanted to return as a teaching assistant before beginning my graduate studies. I wanted to help ensure that another class left with the same rewarding experience and amazing memories I did.

Geology is the study of the Earth around us and its history, but much of geology is taught in a classroom, inside and away from many of the direct applications we learn about. Classroom and lab work is good and necessary, but there is no substitute for seeing geology out in the field — seeing the mountains, faults and structure, and discovering the relationship between everything. This is truly the most rewarding part of field camp.

The entire structure of education in the field is based around big picture problem solving. It deals with looking at a completely new problem and working with a group to solve it; applying immediate observations, past knowledge, and logical problem solving to come up with a workable solution, and then amending this solution as new data is acquired.

Many of my friends have described Field Camp as the best experience of their undergraduate education, having returned with friends and connections that will last long past undergrad into careers in geology or other fields. Whatever the actual size of the geologic community in the USA and around the world, it will always feel small and close-knit. The connections made through Field Camp help with everything from research collaboration, to graduate school, to careers."

- CLAIRE MONDRO '10, BS EARTH SCIENCES

"Ohio State's undergraduate Earth Sciences program is second to none. After meeting fellow geoscientists from all sorts of backgrounds in graduate school and in the professional world, I am convinced that you cannot have a better place to begin your geology career than at Ohio State. First, our Field Camp is excellent. The mapping skills you develop, the ability to place your observations in a larger geologic context, and the experience of being in one of the most geologically diverse places in the world will benefit you for life. My graduate school advisor sent me on a mapping assignment along the coast near Stanford's campus to make sure I was prepared for field work in South Africa. After I returned his only comments were about my lack of artistic abilities (something that plagued me during field camp, too). I told him all credit goes to Ohio State's Field Camp."

#### - JAKE HARRINGTON '15, BS EARTH SCIENCES

81% of Earth Sciences graduates who attended field camp and are currently working in a geosciencerelated field\*<sup>+</sup> **46%** Earth Sciences graduates who did not attend field camp and are currently working in a geosciencerelated field\*

BASED ON A SURVEY OF 205 OHIO STATE EARTH SCIENCES ALUMNI CONDUCTED FALL 2018. 5 RESPONDENTS DID NOT ANSWER THE QUESTION.

SEVERAL RESPONDENTS WHO SAID THEY ARE NOT CURRENTLY WORKING IN A GEOSCIENCE FIELD BUT DID ATTEND FIELD CAMP QUALIFIED THAT THEY ARE CURRENTLY RETIRED.

## OUR PLAN FOR SUSTAINABILITY

The School of Earth Sciences as The Ohio State University is committed to ensuring that Field Camp will continue to impact generations of students well into the future. As logistic costs for six weeks in Utah continue to rise, the camp's traditional equipment ages, and new technologies become available for purchase, it is imperative that a sustainable funding model be in place to enable the camp to meet these challenges.

To that end, the School of Earth Sciences seeks private funding from alumni and friends to create an endowment that will provide a steady, reliable source of income for the camp in perpetuity.

This funding will help the school purchase and maintain vans for transportation; it will provide support for students to help offset the costs of camp, and support for those faculty members who spend six weeks each summer at Field Camp. Funding will also help to cover instructional fees.

Perhaps most importantly, the endowed funding will ensure that Ohio State's Field Camp remains one of the best geological field survey courses in the nation by enabling the integration of new technologies into the curriculum to improve student competitiveness and to improve Field Camp's accessibility to students who traditionally may not have been able to participate due to disabilities or other unique circumstances. As new equipment increases the ability for remote sensing and the gathering of subsurface data, students will grow their skill base while helping to facilitate an understanding of newly discovered petroleum resources in central Utah. In addition, the incorporation of remote sensing and other technologies will provide new opportunities to broaden the base of our students who are able to participate in the Field Camp experience without fundamentally altering the core of what has made the Ohio State Field Camp so effective for over 70 years.

With enhanced student support and robust programmatic offerings, Field Camp will help draw additional students to the School of Earth Sciences. It is anticipated that the program will grow from serving 15-20 students each summer to 30 or more. That is a substantial increase in the number of students served by this program — and the number of students who may pursue careers in geology-related careers such as those in the petroleum industry.

And, as opportunities arise, Ohio State's Field Camp may eventually generate revenue as it serves students from other universities in Ohio and across the nation with its intensive, hands-on geological education.



"My most memorable experience as an undergraduate at Ohio State was Field Camp in Utah. It made me stretch myself in ways I had not encountered before."

-SHEILA (CLUGGLISH) BARNETTE '68, BS GEOLOGY

#### INVITATION FOR PRIVATE SUPPORT

In order to ensure that generations of future students are able to table advantage of the real-life laboratory experience that Field Camp affords, The Ohio State University respectfully requests a gift of your support.

Your gift, along with other generous donations from alumni and friends, will support the **FIELD CAMP ENDOWMENT FUND**.

With Ohio State's current payout rate of 4.25%, your gift will provide a steady, reliable source of income for Field Camp in perpetuity.

This is a tremendous opportunity to make a huge impact on the School of Earth Sciences and the thousands of students who will be served by Field Camp. Your gift will ensure a sustainable funding source, now and in the future, while helping prepare the next generations of students for careers in geology.

Thank you for your consideration of this special opportunity to support field camp.

To donate to fund 641882 visit go.osu.edu/fieldcamp

A LIST OF GIFT LEVELS THAT RECOGNIZE DIFFERENT CONTRIBUTION AMOUNTS (FUNDING LEVEL IS INCLUSIVE OF MATCHING CORPORATE GRANTS) Temple Hill Level \$50 – \$99

#### Salina Canyon Level \$1 - \$49

Edmund Spieker Level \$50,000 +

Mt. Nebo Level \$10,000 - \$49,999

Alta Level **\$1,000 – \$9,999** 

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Wasatch Level \$500 – \$999

Radio Tower Level **\$100 – \$499** 

### WHAT YOUR GIFT WILL PROVIDE

Light Board – **\$25** 

Tank of Gas – **\$80** 

One Night's Dinner at Field Camp – \$300

Brunton Compass – \$500

Field iPad - \$600

Drone - \$2,000

Van Rental – **\$2,500** 

Cost of Attending for One Student - \$3,500

Cost of a Teaching Assistant – \$10,000

Purchase a Van - \$40,000

All Expenses for One Year – \$200,000

### HOW MUCH WE'VE RAISED SO FAR



*about 17% of our goal* Provided by 3 generous donors Mt. Nebo and Edmund Spieker Level Donors: Mike and Cindy Morgan Jim and Pam Griffith Joe and Marcia Newhart "[Recall] the fable of Antaeus, the famous giant of antiquity, who was invincible, as long as he had his feet on the ground. But let him be lifted ever so little off the ground, as he was later by Hercules, and his strength vanished, and he was helpless. We geologists, my friends, are exactly in the position of Antaeus. The only thing that has not changed one iota, not only in the sixty years of my own observation, but in the whole nearly 200 years of geology itself, is the vital necessity for field work ... As we push forward, let us ever keep it in mind, like Antaeus, we must forever keep our feet firmly planted on the ground!"

- EDMUND M. SPIEKER, MARCH 20, 1972



#### SCHOOL OF EARTH SCIENCES GEOLOGY FIELD CAMP

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