The U.S. Geological Survey (USGS) Cooperative Summer Fellowship Program is the longest continuously running internship program in the Earth sciences. Over the past 58 years, over 2,600 students have participated in this program, with many participants continuing on to distinguished careers with USGS, academia, and industry.

The cooperative program was launched at the Geological Society of America meeting in Kansas City, MO in early fall of 1965 when William “Bill” Pecora, then the newly appointed Director of the USGS, held a meeting with a small group of distinguished professors and officers of the National Association of Geoscience Teachers (NAGT). Pecora suggested that the USGS would provide support through internships for outstanding newly graduated geoscience majors, while NAGT would solicit outstanding student nominations from the directors of the nation’s geoscience field camps. In this way, students with excellent training in skills needed at USGS could take their next professional step with an internship putting those skills into practice.

In recent years the USGS has expanded our partnerships in this program to include the Ecological Society of America (ESA) and the GIS Certification Institute (GISCI) to support our scientists in geography and biological sciences.

Although some modifications have been made over time, the USGS Cooperative Summer Fellowship Program operates today much as it did in the beginning. With active participation and support from the highest levels of all organizations (including the Director of the USGS), a joint committee oversees the program. The program year begins in September when NAGT, ESA, and GISCI are provided nomination information. NAGT and ESA solicit nominations of exceptionally qualified students for their affiliated training programs. GISCI submits a list of students with appropriate GIS certifications for consideration. Nominated students apply by sending a resume, letter of interest, and transcripts to the USGS. At the same time, USGS scientists interested in working with an intern submit a proposal about their research projects. A science panel then reviews and matches candidates by their coursework, skills, and interests with up to five projects. Interviews and selections proceed from there. The program endeavors to place as many of the nominated students as possible. In the last several years, between 68 and 95 percent of the nominated students who applied and stayed connected through the interviews have been placed in internships.

Interdisciplinary science training is a cornerstone of the USGS mission, and as such, all science disciplines are encouraged to take advantage of the intern program. Former student interns continually receive outstanding reviews from both scientists and supervisors.

The Program continues Pecora’s vision of greater educational involvement, providing a first-rate professional experience to students early in their careers. The program today is a multidisciplinary collaboration that influences the career paths of future scientists in positive and exciting ways.

Geology and ecology field course directors can participate through our partnerships with the NAGT or ESA. Please visit the appropriate websites for additional information on how to nominate students. Nominations are due in early fall.
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<th>Intern</th>
<th>Field Camp</th>
<th>Mentor</th>
<th>Location</th>
<th>Project</th>
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<tr>
<td>Catherine Allen</td>
<td>University of California, Santa Cruz</td>
<td>Walter Mooney</td>
<td>Menlo Park, California</td>
<td>Earthquake, Volcano and Tsunami Hazards: Field and Office Studies</td>
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<tr>
<td>Mira Anderberg</td>
<td>Whitman College</td>
<td>Sara Ernst</td>
<td>Woods Hole, Massachusetts</td>
<td>Enhancing Access and Engagement with USGS Coastal Change Tools</td>
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<td>Brett Boyer</td>
<td>South Dakota School of Mines and Technology</td>
<td>Kevin Ryan</td>
<td>Troy, New York</td>
<td>Assessing Organic Matter Character and Burial in Adirondack Lake Sediments</td>
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<td>Brittany Brelle</td>
<td>California State Polytechnic University, Humboldt</td>
<td>Elizabeth Haddon</td>
<td>Moffett Field, California</td>
<td>Geologic Mapping and Climate-driven Landscape Development in the Sierra Nevada and Walker Lane, California</td>
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<tr>
<td>Noah Cadwell</td>
<td>University of Missouri, Columbia</td>
<td>Matthew Conlon</td>
<td>Central Pennsylvania</td>
<td>Assessment of Pesticides and Characterization of Groundwaters in Pennsylvania's Appalachian Mountain Siliciclastic and Northeastern Glaciated Surficial Hydrogeologic Settings</td>
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<tr>
<td>Jordan Craft</td>
<td>Western Washington University</td>
<td>Karen Lund</td>
<td>Lakewood, Colorado</td>
<td>Past Perspectives of Water in the West</td>
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<tr>
<td>Gabrielle Davy</td>
<td>South Dakota School of Mines and Technology</td>
<td>Elizabeth Montgomery-Brown</td>
<td>Vancouver, Washington</td>
<td>Geodetic Monitoring of Volcanoes in the Western United States</td>
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<tr>
<td>Sonia Eckstein</td>
<td>Dartmouth College</td>
<td>Jessica Rodysill</td>
<td>Reston, Virginia</td>
<td>Reconstructing Tropical Caribbean Hydroclimate using Mineralogy of Evaporites in Lago Enriquillo, Dominican Republic Sediments</td>
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<tr>
<td>Zachary Ellia</td>
<td>Miami University</td>
<td>Celeste Mercer</td>
<td>Lakewood, Colorado</td>
<td>Melt/Fluid Inclusion and Experimental Petrology Applications to Mineral Resource Investigations</td>
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<tr>
<td>Coralis Friedman Alvarez</td>
<td>University of Puerto Rico, Mayaguez</td>
<td>William Stephenson</td>
<td>Golden, Colorado</td>
<td>High-Resolution Geophysical Investigations of Hazardous Faults and Seismic Ground Motions—Data for Earthquake Hazard Assessments</td>
</tr>
<tr>
<td>Sara Gonzalez</td>
<td>Ohio State University</td>
<td>Karen Lund</td>
<td>Lakewood, Colorado</td>
<td>Compilation of Thermal Water Chemistry Data from Yellowstone</td>
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<tr>
<td>Rowan Gregoire</td>
<td>Dartmouth College</td>
<td>Shaul Hurwitz</td>
<td>Boulder, Colorado</td>
<td>Understanding the Frequency and Intensity of Prehistoric Storm Events in the Great Lakes Region</td>
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<tr>
<td>Saige Howard</td>
<td>South Dakota School of Mines and Technology</td>
<td>Lesleigh Anderson</td>
<td>Denver, Colorado</td>
<td>Quaternary Sea-Level Reconstructions</td>
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<tr>
<td>Audrey Kettelberger</td>
<td>University of Nevada, Reno</td>
<td>Michael Toomey</td>
<td>Reston, Virginia</td>
<td>Understanding the Frequency and Intensity of Prehistoric Storm Events in the Great Lakes Region</td>
</tr>
<tr>
<td>Taylor Kuligowski</td>
<td>University of Mami</td>
<td>Thomas Cronin and Robert Poirier</td>
<td>Reston, Virginia</td>
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<tr>
<td>Benjamin Morbeck</td>
<td>University of Rochester</td>
<td>Victoria Langenheim</td>
<td>Moffett Field, California</td>
<td>Geophysical Investiations of the Western United States</td>
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<tr>
<td>Zachary Morro</td>
<td>Montana State University</td>
<td>Theresa Schwartz</td>
<td>Denver, Colorado</td>
<td>Sedimentary Process and Enrichment of Heavy Minerals in Upper Cretaceous Strata of the Western Interior</td>
</tr>
</tbody>
</table>
**Intern:** Leyla Namazie  
**Field Camp:** South Dakota School of Mines and Technology  
**Mentor:** Walter Mooney  
**Location:** Menlo Park, California  
**Project:** Earthquake, Volcano and Tsunami Hazards: Field and Office Studies

**Intern:** Adam Parol  
**Field Camp:** Colorado State University  
**Mentor:** Graham Lederer  
**Location:** Reston, Virginia  
**Project:** Deposit Models for Critical Mineral Resource Assessment

**Intern:** Margery Price  
**Field Camp:** University of Oregon  
**Mentor:** Blaine McCleskey  
**Location:** Boulder, Colorado  
**Project:** Compilation of Thermal Water Chemistry Data from Yellowstone

**Intern:** Michael Snook  
**Field Camp:** University of Texas, Austin  
**Mentor:** Stephanie James  
**Location:** Denver, Colorado  
**Project:** Exploring Hydrogeologic and Cryospheric Processes using Near-Surface Geophysical Methods

**Intern:** Madeleine Tan  
**Field Camp:** University of Michigan  
**Mentor:** Rich Briggs  
**Location:** Golden, Colorado  
**Project:** Active Fault Characterization in Colorado and Beyond

**Intern:** Benjamin Thomas  
**Field Camp:** Franklin and Marshall College  
**Mentor:** Greg Noe  
**Location:** Reston, Virginia  
**Project:** Wetland Influences on Stream and Watershed Ecosystem Health

**Intern:** Eli VanDyke  
**Field Camp:** South Dakota School of Mines and Technology  
**Mentor:** Walter Mooney  
**Location:** Menlo Park, California  
**Project:** Earthquake, Volcano and Tsunami Hazards: Field and Office Studies

**Intern:** Donovan Vitale  
**Field Camp:** Western Michigan University  
**Mentor:** Carole Johnson  
**Location:** Storrs, Connecticut  
**Project:** Hydrogeophysics

**Intern:** Grace Walker  
**Field Camp:** South Dakota School of Mines and Technology  
**Mentor:** Victoria Langenheim  
**Location:** Moffett Field, California  
**Project:** Geophysical Investigations of the Western United States

**Intern:** Trevor Williams  
**Field Camp:** University of Texas, Arlington  
**Mentor:** Belle Philibosian  
**Location:** Moffett Field, California  
**Project:** Northern California Earthquake Geology

**Intern:** Lauren Wratichford  
**Field Camp:** Saint Louis University  
**Mentor:** James Vallance  
**Location:** Cascades Volcano Observatory  
**Project:** Postglacial Volcanism in the Cascade Range -- Explosive eruptions at Glacier Peak, Washington and Three Sisters, Oregon

**Intern:** Sophia Zipparo  
**Field Camp:** South Dakota School of Mines and Technology  
**Mentor:** Karen Lund  
**Location:** Lakewood, Colorado  
**Project:** Northern Rocky Mountains Transect (NRMT)

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**ESA/USGS 2023 Cooperative Summer Fellowship Program Placements**

**Intern:** Krimson Anderson  
**College:** Weber State University  
**Mentor:** Anna Baker  
**Location:** St. Paul, Minnesota  
**Project:** Exploring Sediment-Bound Phosphorus as a Driver of Algal Blooms in Rainy-Lake of the Woods Basin

**Intern:** Ariana Brisco Schofield  
**College:** University of California, San Diego  
**Mentor:** Anya Metcalfe  
**Location:** Flagstaff, Arizona  
**Project:** Food Web Research in a Grand Canyon Tributary

**Intern:** Isaac Eastland  
**College:** University of North Texas  
**Mentor:** Sheel Bansal  
**Location:** Jamestown, North Dakota  
**Project:** Mitigating Climate Change Through Wetland Restoration in the Great Plains

**Intern:** Alexi Ebersole  
**College:** University of Puget Sound  
**Mentor:** Paula Henry  
**Location:** Laurel, Maryland  
**Project:** Assessing Aluminum and Selenium Toxicity to Crayfish
Intern: Sofia Galvan  
College: Montana State University  
Mentor: Andy Royle  
Location: Laurel, Maryland  
Project: Capture-Recapture Study of Eastern Box Turtles on the Patuxent Refuge

Intern: Tyler Goldstein  
College: University of California, Berkeley  
Mentor: Cara Applestein  
Location: Boise, Idaho  
Project: How Do Post Fire Recovery Trajectories Vary Across Different Treatment Types, Landscape Gradients, and Climate Regimes?

Intern: Landry Grant  
College: University of North Texas  
Mentor: Kyle McLean  
Location: Jamestown, North Dakota  
Project: Assessment of Biological Communities and Ecosystem Functions in Novel Wetland Habitats and Potential Implications for Wetland Conservation

Intern: Joseph Gravino  
College: University of North Carolina, Wilmington  
Mentor: Muruleedhara Byappanahalli  
Location: Chesterton, Indiana  
Project: Understanding Factors Contributing to the Excessive Growth of Nuisance Alga Cladophora in Great Lakes

Intern: Leo Ivey  
College: University of North Carolina, Greensboro  
Mentor: Althea Archer  
Location: Remote  
Project: Communicating Integrated Water Science through Data Visualization

Intern: Ally Jones  
College: University of North Carolina, Wilmington  
Mentor: Michelle Staudinger  
Location: Boston and Amherst, Massachusetts  
Project: Monitoring Intertidal Biodiversity at the Boston Harbor Islands National and State Park

Intern: Gavin Kerr  
College: University of Colorado, Boulder  
Mentor: Brynne Lazarus  
Location: Boise, Idaho  
Project: Evaluating Whole Ecosystem Effects of Tools for Exotic Annual Grass Control and Restoration in Sagebrush Steppe

Intern: Darius Liles  
College: California State University, Monterey Bay  
Mentor: Matthew Germino  
Location: Boise, Idaho  
Project: Monitoring and Research to Support Adaptive Wildfire Management in Western Rangelands

Intern: Katie Marx  
College: University of Cincinnati  
Mentor: Rich Sheibley  
Location: Tacoma, Washington  
Project: Water Quality and Ecological Sampling to Support Status and Trends Monitoring of Small Streams in Puget Sound

Intern: Terra McCoy  
College: Auburn University  
Mentor: Michael Dunsiwy and Erika Geiger  
Location: Moab, Utah  
Project: Assessing Impacts of Climate Change and Land-use on Drylands of the Colorado Plateau

Intern: Valeria Rodriguez  
College: California State University, Monterey Bay  
Mentor: Kurt Kowalski  
Location: Ann Arbor, Michigan  
Project: Developing New, Sustainable Control Strategies for an Invasive Wetland Grass (Phragmites australis)

Intern: Anthony Rondon  
College: California State Polytechnic University, Pomona  
Mentor: Wesley Bickford  
Location: Ann Arbor, Michigan  
Project: Taking Advantage of High Water Levels in the Great Lakes to Improve Management of a Persistent Invasive Wetland Grass

Intern: Matthew Simmons  
College: Oregon State University  
Mentor: Noel Pavlovic  
Location: Chesterton, Indiana  
Project: Refining Visitor Impact Metrics for Great Lakes Coastal Dune Landscapes

Intern: Aimee Chi Soe  
College: University of California, Irvine  
Mentor: Miriam Jones and Deb Willard  
Location: Reston, Virginia  
Project: Drivers of Wetland Change; and Human and Climate Impacts to Hawaiian Wetlands in the Late Holocene

Intern: Emily Tacke  
College: Seattle University  
Mentor: Meagan Eagle  
Location: Woods Hole, Massachusetts  
Project: Coastal Wetland Resilience and Soil Carbon Consequences of Coastal Wetland Management

Intern: Hannah Thomas  
College: Chatham University  
Mentor: Clint Otto  
Location: Jamestown, North Dakota  
Project: Improving Pollinator Habitat in the Great Plains

Intern: Kaysa Vaarre-Lamoreux  
College: University of North Carolina, Greensboro  
Mentor: Julie Padilla  
Location: Remote  
Project: Building Integrated Water Science with Reproducible Data Practices
### GISCI/USGS 2023 Cooperative Summer Fellowship Program Placements

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<tr>
<td>Lauren Holzman</td>
<td>University of British Columbia</td>
<td>Courtney Creamer</td>
<td>Menlo Park, California</td>
<td>Lithologic Controls on Coupled Changes in Soil Organics and Minerals after Wildfire Communications</td>
</tr>
<tr>
<td>Intern</td>
<td>Addie Marie Jenkinson</td>
<td>James Shanley</td>
<td>Montpelier, Vermont</td>
<td>Tracking Sources and Stream Transport of Organic Carbon</td>
</tr>
<tr>
<td>John Kelly</td>
<td>University of Massachusetts</td>
<td>Susan Kemp</td>
<td>Corvalis, Oregon</td>
<td>Conservation Efforts Database – Web Tool Development, Data Management, and Science</td>
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</table>