The U.S. Geological Survey (USGS) Cooperative Summer Fellowship Program is the longest continuously running internship program in the Earth sciences. Over the past 56 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 field camp directors (now numbering over 120), ESA, and GISCI are provided nomination information. NAGT and ESA solicit nominations of exceptionally qualified students for their affiliated field 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 course work, 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 few 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.
<table>
<thead>
<tr>
<th>Intern</th>
<th>Jennifer Battista</th>
<th>Intern</th>
<th>Haley Lind</th>
</tr>
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<tbody>
<tr>
<td>Field Camp</td>
<td>Southern Illinois University</td>
<td>Field Camp</td>
<td>University of Utah</td>
</tr>
<tr>
<td>Mentor</td>
<td>Walter Mooney</td>
<td>Mentor</td>
<td>Denis LeBlanc and Timothy McCobb</td>
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<tr>
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<td>Menlo Park, California</td>
<td>Location</td>
<td>Northborough, Massachusetts</td>
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<tr>
<td>Project</td>
<td>Studies of earthquakes, volcanoes, landslides, and tsunamis</td>
<td>Project</td>
<td>Hydrology and water quality of Cape Cod's groundwater/surface-water system</td>
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<tr>
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<td>Amy Gilmer</td>
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<td>Project</td>
<td>Geodetic monitoring of volcanoes in the western United States</td>
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<td>National Geochronological Database compilation project</td>
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<th>Hunter Martin</th>
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<td>Michael Toomey</td>
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<tr>
<td>Project</td>
<td>Reconstruction of pre-historic storm events on Lake Michigan</td>
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<td>Studies of earthquakes, volcanoes, landslides, and tsunamis</td>
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<th>Craig Gabrielson</th>
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<td>Mentor</td>
<td>Benjamin Pau</td>
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<td>Jessica Rodysill</td>
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<td>Project</td>
<td>Mt. Rainier lahar detection system and monitoring support of Cascade Range volcanoes</td>
<td>Project</td>
<td>Natural flood and drought variability in lacustrine archives</td>
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<tr>
<th>Intern</th>
<th>Rachel Jackson</th>
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<td>Mentor</td>
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<td>Lisa Stilings</td>
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<tr>
<td>Project</td>
<td>Mapping the Missoula floods</td>
<td>Project</td>
<td>Chemical and isotopic characterization of geothermal waters in the USGS/DOE GeoDawn study area, Nevada</td>
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<tr>
<th>Intern</th>
<th>Charles Kershaw</th>
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<td>Richard Nunn and Lindsay Powars</td>
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<td>Jaime Azain</td>
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<td>Implementation of International Geo Sample number (ISGN) unique identifiers in the NSF Ice Core Facility (NSF-ICF) collection</td>
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<td>Analytical chemistry</td>
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<td>Scott Bennett</td>
<td>Mentor</td>
<td>Kimberly Perkins</td>
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<td>GIS bedrock geologic map compilation along the lower Colorado river</td>
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<td>Effects of unsaturated-zone preferential flow on water resources</td>
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<th>Intern</th>
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<th>Jessica Wilder</th>
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<td>Graham Lederer</td>
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<td>Project</td>
<td>Volcano-hydrothermal systems: data compilation, water and gas sampling and temperature measurements</td>
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<td>Deposit models for critical mineral resource assessment</td>
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<td>Intern:</td>
<td>Gavin Belfry</td>
<td>Intern:</td>
<td>Bethany Lee</td>
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<td>University of Louisville</td>
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<td>Mike Duniway and Erika Geiger</td>
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<td>Noel Pavlovic</td>
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<td>Project:</td>
<td>Landscape perspective in conserving the threatened Great Lakes sand dune endemic, Pitcher's Thistle</td>
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<tr>
<th>Intern:</th>
<th>Emily Cook</th>
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<th>Jackie Luu</th>
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<td>Mentor:</td>
<td>Joan Hagar</td>
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<td>Andy Royle</td>
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<td>Project:</td>
<td>Purple Martin use of BLM regeneration harvests and national forest restoration sites</td>
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<td>Quantitative turtle analysis project</td>
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<th>Intern:</th>
<th>Denise Del Rosario</th>
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<th>Kayleigh Marazigos</th>
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<td>Project:</td>
<td>assessment of pesticides and characterization of groundwaters in Pennsylvania’s Triassic lowland hydrogeologic setting</td>
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<th>Intern:</th>
<th>Hallie Dickerson</th>
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<th>Kyler Plouffe</th>
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<td>Mentor:</td>
<td>Andrew Waite</td>
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<td>Kristen Hart</td>
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<td>Project:</td>
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<td>Sea turtle movements and habitat-use, and American crocodile nest monitoring</td>
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<tr>
<th>Intern:</th>
<th>Kinsey Funk</th>
<th>Intern:</th>
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<td>Mentor:</td>
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<tr>
<td>Project:</td>
<td>Near real-time water-quality monitoring and modeling in York County, Pennsylvania</td>
<td>Project:</td>
<td>Examining the demographic and community response and recovery of northern Great Plains grasslands to droughts in the context of grazing and climate change</td>
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<tr>
<th>Intern:</th>
<th>Simone Gibson</th>
<th>Intern:</th>
<th>Andrew Shapiro</th>
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<td>Mentor:</td>
<td>Meagan Eagle</td>
<td>Mentor:</td>
<td>Nicholas Johnson</td>
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<td>Project:</td>
<td>Greenhouse gas cycling in managed coastal wetlands</td>
<td>Project:</td>
<td>Deploy and evaluate supplemental sea lamprey control tools</td>
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<tr>
<th>Intern:</th>
<th>Grady Jakobsberg</th>
<th>Intern:</th>
<th>Lucca Sterrer</th>
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<td>Mentor:</td>
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<td>Project:</td>
<td>Studies of earthquakes, volcanoes, landslides, and tsunamis</td>
<td>Project:</td>
<td>Surface water and ground water data collection</td>
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<th>Emily Xie</th>
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<td>College:</td>
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<td>Mentor:</td>
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<td>Mentor:</td>
<td>Ralph Grundel</td>
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<tr>
<td>Location:</td>
<td>Hot Springs, South Dakota</td>
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<td>Project:</td>
<td>Examining the demographic and community response and recovery of northern Great Plains grasslands to droughts in the context of grazing and climate change</td>
<td>Project:</td>
<td>Landscape connectivity and native bee conservation in the Great Lakes Basin</td>
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## GISCI/USGS 2021 Cooperative Summer Fellowship Program Placements

| Intern:    | Melissa Paulsen                              |
| College:  | University of Utah                           |
| Mentor:   | Nicole Herman-Mercer                         |
| Location: | Denver, Colorado                             |
| Project:  | The sensitivity of Alaskan and Yukon rivers, fish, & communities to climate |

| Intern:    | Connor Firat                                 |
| College:  | University of Tennessee                      |
| Mentor:   | John Lane and Frederick Day-Lewis            |
| Location: | Storrs, Connecticut                         |
| Project:  | Hydrogeophysics                              |

| Intern:    | Jack Holbrook                                |
| College:  | University of California, Santa Barbara      |
| Mentor:   | Samantha Oliver                              |
| Location: | Madison, Wisconsin                           |
| Project:  | Process-guided machine learning for modeling water temperature in lakes and streams |

| Intern:    | Jonathan Lessane                             |
| College:  | North Carolina State University              |
| Mentor:   | Jaime Azain                                  |
| Location: | Lakewood, Colorado                           |
| Project:  | Analytical chemistry                         |

| Intern:    | Brandi Rethelford                            |
| College:  | Oregon State University                      |
| Mentor:   | Gregory Walsh                                |
| Location: | Montpelier, Vermont                          |
| Project:  | Northeast bedrock mapping project            |

| Intern:    | Ashley Suarez                                |
| Field Camp:| Lane Community College                       |
| Mentor:   | Kimberlie Perkins                            |
| Location: | Menlo Park, California                       |
| Project:  | Effects of unsaturated-zone preferential flow on water resources |

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.