

USGS 2019 Cooperative Summer Field Training Program



The National Association of Geoscience Teachers (NAGT)/U.S. Geological Survey (USGS) Cooperative Summer Field Training Program is the longest continuously running internship program in the Earth sciences. Over the past 50 years, over 2,500 students have participated in this program, with many participants continuing on to distinguished careers with the USGS, with academia, or with industry.

The cooperative program was launched at the Geological Society of America meeting in Kansas City 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 NAGT. Pecora wanted to get the professors’ reactions to an initiative that would provide a stronger link to academia while providing better summer research assistants for the USGS. He 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. (Field camp, a tradition in the education of a geoscientist, is an intensive course that applies classroom and laboratory training to solving field-based geoscience problems. As employers value the skills and applications developed in the field camp experience, enrollments have shown a remarkable three-fold increase in the past decade.) Needless to say, ‘Pecora’s Plan,’ as it became known, met with instant approval.

Although some modifications have been made over the years, the NAGT/USGS Cooperative Summer Field Training Program operates today much as it did from the beginning. With active participation and support from the highest levels of both organizations (including the Director of the USGS), a joint committee oversees the program. The program year begins in September with the field camp directors (now numbering over 120) being provided information about the program. Each director has the opportunity to nominate up to three students, based on their camp enrollment. 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 field and laboratory projects. A science review and placement panel then matches candidates by their course work, skills and interests with up to five projects. The list of candidates and accompanying academic information are sent to USGS scientists for their review, followed by candidate interviews and ranking for preferred selection. While the interviews provide useful opportunities for candidates and scientists for determining a good fit, the USGS scientist makes the final intern selection.

As interdisciplinary science is a cornerstone of USGS science, all science disciplines are encouraged to take advantage of this program. Students hired through this program have continually received outstanding reviews from scientists and supervisors alike. In 2017, the USGS extended this program by forming a new partnership with the GIS Certification Institute, and in 2018 another partnership with the Ecological Society of America. Both organizations have nominated outstanding students, and this has allowed our Cooperative Summer Field Training Program to provide top-flight students to many new enthusiastic supervising mentors from all science disciplines.

The Program continues Pecora’s vision of greater educational involvement and provides a first-rate professional experience to students early in their careers. It is a wonderful partnership that influences the career paths of future scientists in positive and exciting ways.

NAGT/USGS 2019 Cooperative Summer Field Training Program Internship Placements

Intern: Gui Askit	Intern: Daniel Colwell	Intern: Amanda Jayo
Field Camp: University of Washington	Field Camp: University of St. Andrews	Field Camp: University of Utah
Mentor: James Vallance, Alexa Eaton, and Cynthia Gardner	Mentor: Jared Peacock	Mentor: Jill Baron
Location: Vancouver, Washington	Location: Menlo Park, California	Location: Fort Collins, Colorado
Project: Volcanic hazards in the Pacific Northwest	Project: Geophysical investigations related to geothermal, mineral, water resources, and natural hazards in the western U.S.	Project: Field validation of remotely sensed alpine lake productivity
Intern: James Atterholt	Intern: Brandon Dean	Intern: Wes Johns
Field Camp: Indiana University	Field Camp: Colorado State University	Field Camp: Western Washington University
Mentor: William Stephenson and Alena Leeds	Mentor: Jared Peacock	Mentor: Stephen DeLong
Location: Golden, Colorado	Location: Menlo Park, California	Location: Menlo Park, California
Project: High resolution geophysical investigations of hazardous faults and seismic ground motions	Project: Geophysical investigations related to geothermal, mineral, water resources, and natural hazards in the Western U.S.	Project: Natural hazards research
Intern: Arty Bateman	Intern: Sarah Dunn	Intern: Ellen Justis
Field Camp: University of Oregon	Field Camp: Indiana University	Field Camp: Iowa State/University of Nebraska
Mentor: John Nimmo and Kim Perkins	Mentor: Sue Kahle and Andy Long	Mentor: Josh Koch and Mike Carey
Location: Menlo Park, California	Location: Tacoma, Washington	Location: Anchorage, Alaska
Project: Quantifying fluxes and resources in the water cycle	Project: Aquifer recharge area study/water-budget components of Guemes Island	Project: Hydro-ecology of arctic thaw
Intern: Deisree Bayouth Garcia	Intern: Olivia Enriquez	Intern: Sean Kacur
Field Camp: University of Puerto Rico	Field Camp: Sul Ross State University	Field Camp: University of Texas Austin
Mentor: Angie Diefenbach	Mentor: Jeffrey Ziegeweid	Mentor: Mary-Catherine Leewis and Courtney Creamer
Location: Vancouver, Washington	Location: Mounds View, Minnesota	Location: Menlo Park, California
Project: Quantifying past and present topographic change in the crater of Mount St. Helens	Project: Fluvial geomorphology of the Chippewa and Upper Mississippi River basins	Project: Phytostabilization in action: optimizing plant-microbial communities for enhanced colonization of acidic tailings
Intern: Jonathan Bell	Intern: Clayton Forbush	Intern: Regina Khoury
Field Camp: Ohio State University	Field Camp: Brigham Young University Idaho	Field Camp: Humboldt State University
Mentor: Chris Curran, Kristen Jaeger, and Rick Dinicola	Mentor: Carma San Juan	Mentor: Albert Hofstra
Location: Tacoma, Washington	Location: Denver, Colorado	Location: Denver, Colorado
Project: Vance Creek groundwater/surface water interactions	Project: USGS Mineral deposit database	Project: Melt and fluid inclusion analysis in resource investigations
Intern: Jackson Bodtker	Intern: John Grab	Intern: Liam Knudsen
Field Camp: University of Utah	Field Camp: Montana State University	Field Camp: Western Michigan University
Mentor: Ben Melosh	Mentor: Daniel Dzurisin	Mentor: Carma San Juan
Location: Menlo Park, California	Location: Vancouver, Washington	Location: Denver, Colorado
Project: Structural evolution and uplift of the northern California coast ranges	Project: Geodetic monitoring of volcanoes in the western U.S.	Project: USGS Mineral deposit database
Intern: Connor Broaddus	Intern: Michael Greenfield	Intern: Adrian Landstedt
Field Camp: Fort Lewis College	Field Camp: Indiana University	Field Camp: University of New Mexico
Mentor: Isa Woo and Susan De La Cruz	Mentor: Jeffrey Chaplin	Mentor: Kristin Jaeger and Chris Curran
Location: Olympia, Washington	Location: New Cumberland, Pennsylvania	Location: Tacoma, Washington
Project: Evaluating the Nisqually River Delta: 10 years after restoration	Project: Characterization of hydrologic resources in Pennsylvania with emphasis on pesticides in vulnerable aquifers and variation of groundwater quality with time	Project: Quillayute Basin sediment production
Intern: Max Burnham	Intern: Jiyun Hatami	Intern: Ashley Lynn
Field Camp: New Zealand Frontiers Abroad	Field Camp: Wasatch Uinta Field Camp	Field Camp: University of North Carolina
Mentor: Heather Wright	Mentor: Greg Noe	Mentor: Marci Robinson
Location: Vancouver, Washington	Location: Reston, Virginia	Location: Reston, Virginia
Project: Global volcanic hazard and risk database for the Volcano Disaster Assistance Program	Project: The influence of floodplain geomorphology on nutrient biogeochemistry, water quality, and watershed processes	Project: Shallow marine foraminifera during past warm intervals
Intern: Derek Caro	Intern: Jaime Hirtz	Intern: Andrew Madsen
Field Camp: University of California, Davis	Field Camp: University of Texas Austin	Field Camp: Wheaton College
Mentor: Brent Topping	Mentor: Mark Hudson	Mentor: Walter Mooney
Location: Menlo Park, California	Location: Denver, Colorado	Location: Menlo Park, California
Project: Arsenic sources in Klamath Basin, Oregon	Project: Ozark Dome-Arkoma Basin-Ouachita belt transect	Project: Earthquake and tectonic studies of the central and eastern U.S.

Intern: Brandon Maples
Field Camp: University of Oklahoma
Mentor: John Lane
Location: Storrs, Connecticut
Project: Applied hydrogeophysics research

Intern: Gary McGaughey
Field Camp: University of Nevada Reno
Mentor: Kristina Hopkins
Location: Raleigh, North Carolina
Project: Understanding the impacts of green stormwater infrastructure on water quality

Intern: Maurice Mitchell
Field Camp: George Mason University
Mentor: Andrew Waite
Location: Ithica, New York
Project: New York surface water and ground water data collection

Intern: Daniel Mongovin
Field Camp: Central Washington University
Mentor: Belle Philibosian, Carol Prentice and Suzanne Hecker
Location: Menlo Park, California
Project: Northern California active fault mapping and paleoseismic studies

Intern: Marissa Murr
Field Camp: University of Wyoming
Mentor: Cheryl Miller and Jason Alexander
Location: Cheyenne, Wyoming
Project: Using remote sensing data to analyze hydrogeomorphic changes in a small high-desert stream

Intern: Grant Palmer
Field Camp: North Carolina State
Mentor: Katie Skalak and Adam Bentham
Location: Reston, Virginia
Project: Quantifying sediment transport and lag times

Intern: Emily Perman
Field Camp: University of Oregon
Mentor: Cal Ruleman and Shannon Mahan
Location: Denver, Colorado
Project: Field mapping and luminescence geochronology

Intern: Rachel Phillips
Field Camp: University of Texas Arlington
Mentor: Rich Briggs
Location: Golden, Colorado
Project: Earthquake geology in the western U.S.

Intern: Karlee Prince
Field Camp: Northland College
Mentor: Jessica Rodysill
Location: Reston, Virginia
Project: Holocene drought history inferred from lake lowstands in the southeastern U.S.

Intern: Pablo Saunders-Shultz
Field Camp: New Zealand Frontiers Abroad
Mentor: Ben Pauk and James Vallance
Location: Vancouver, Washington
Project: Volcanic hazards in the Pacific Northwest

Intern: Max Saylor
Field Camp: Dartmouth College
Mentor: Lesleigh Anderson
Location: Denver, Colorado
Project: Hydroclimatic change in Alaska from Holocene proxy records

Intern: Daniel Schmidt
Field Camp: University of Missouri Columbia
Mentor: Albert Hofstra
Location: Denver, Colorado
Project: Melt and fluid inclusion analysis in resource investigations

Intern: Max Schwid
Field Camp: University of Wisconsin Oshkosh
Mentor: Ralph Haugerud and James O'Connor
Location: Portland, Oregon
Project: Missoula flood mapping project

Intern: Mackenzie Shepherd
Field Camp: Bowling Green State University
Mentor: Geoff Cromwell and Don Sweetkind
Location: Santa Maria, California
Project: Three-dimensional digital hydrogeologic mapping of the Santa Maria Valley and the California Coast Ranges

Intern: Joseph Syzdek
Field Camp: Illinois State University
Mentor: Alicia Gearwar
Location: Troy, New York
Project: Surface water and ground water networks

Intern: Jeffrey Wade
Field Camp: Wasatch Uinta Field Camp
Mentor: Denis LeBlanc and Timothy McCobb
Location: Northborough, Massachusetts
Project: Cape Cod aquifer hydrologic studies

Intern: Jordan Wang
Field Camp: University of Washington
Mentor: Shane Detweiler and Walter Mooney
Location: Menlo Park, California
Project: Geological and geophysical studies of the San Andreas Fault system, California

Intern: Katherine Worms
Field Camp: University of Utah
Mentor: Michael Toomey
Location: Reston, Virginia
Project: Late Holocene Colorado River discharge to the Gulf of California

Intern: Lara Yagodzinski
Field Camp: Southern Illinois Carbondale
Mentor: Jean Self-Trail
Location: Reston, Virginia
Project: Gulf Coast project

ESA/USGS 2019 Cooperative Summer Field Training Program Internship Placements

Intern: Morgan Andrews
College: Michigan State University
Mentor: Jill Hardiman and Ian Jezorek
Location: Cook, Washington
Project: Cooperative fish population and restoration assessment

Intern: Theresa Benton
College: University of Michigan
Mentor: Theodore Kennedy
Location: Flagstaff, Arizona
Project: Aquatic invertebrate monitoring and research in the Colorado River and Grand Canyon National Park

Intern: Eric Branch
College: Western Michigan University
Mentor: Joan Hagar
Location: Corvallis, Oregon
Project: Purple Martin use of BLM regeneration harvests and national forests restoration sites

Intern: Schyler Brown
College: University of North Texas
Mentor: Craig Snyder
Location: Kearneysville, West Virginia
Project: Brook trout vulnerability to drought: eastern component of USGS national integrated ecohydrological research and monitoring plan

Intern: Marci Caballero-Reynolds
College: University of Arizona
Mentor: Seth Munson
Location: Flagstaff, Arizona
Project: RestoreNet: Developing suitable ecological restoration practices across environmental gradients

Intern: Liza Chang
College: Rutgers University
Mentor: Any Royle
Location: Laurel, Maryland
Project: Population study of box turtles on the Patuxent Refuge

Intern:	Cora Davies	Intern:	Chad Kluender	Intern:	Mari Rodriguez
College:	Occidental College	College:	University of Wisconsin Madison	College:	The College of New Jersey
Mentor:	Amy Symstad	Mentor:	Matt Germino	Mentor:	Madeline Rubenstein
Location:	Hot Springs, South Dakota	Location:	Boise, Idaho	Location:	Reston, Virginia
Project:	Annual brome adaptive management	Project:	Monitoring and research of plant recovery on the 2015 Soda Wildfire	Project:	National synthesis of species responses to climate change
Intern:	Casey Gill	Intern:	Kim Koval	Intern:	Ariana Sanchez
College:	University of Mississippi	College:	California State University Fullerton	College:	California State University Fullerton
Mentor:	Rob Massatti	Mentor:	Kurt Kowalski	Mentor:	Mary Ann Evans
Location:	Flagstaff, Arizona	Location:	Ann Arbor, Michigan	Location:	Ann Arbor, Michigan
Project:	Biological data collection in support of restoration across the Colorado Plateau	Project:	Developing sustainable control strategies for invasive Phragmites australis	Project:	Great Lakes cladophora growth study
Intern:	Kenan Goodwin	Intern:	Penny McCowen	Intern:	Jeni Sidwell
College:	Utah State University	College:	Baker University	College:	Utah State University
Mentor:	Michael Adams	Mentor:	Amanda Demopoulos	Mentor:	Tabitha Graves
Location:	Corvallis, Oregon	Location:	Gainesville, Florida	Location:	West Glacier, Montana
Project:	Occurrence and status of sensitive amphibian species in Oregon	Project:	Deep SEARCH: Deep sea exploration to advance research on coral, canyon, and cold-seep habitats	Project:	Evaluation of huckleberry phenology response to drought
Intern:	Kyle Haley	Intern:	Shane McLaughlin	Intern:	Savannah Wilson
College:	Ferrum College	College:	Trinity College	College:	Luther College
Mentor:	Vincent D'Angelo and Clint Muhlfeld	Mentor:	Kathleen Conn	Mentor:	Mike Duniway and Jayne Belnap
Location:	West Glacier, Montana	Location:	Tacoma, Washington	Location:	Moab, Utah
Project:	Experimental suppression of invasive lake trout in Glacier National Park, and measuring streamflow as part of the USGS Integrated Drought Science Plan	Project:	Coastal habitats in Puget Sound	Project:	Drought experiments on the Colorado Plateau
Intern:	Allison Hendryx	Intern:	Sarah Midolo	Intern:	Veronica Winter
College:	University of Montana	College:	Elon University	College:	Purchase College SUNY
Mentor:	Diann Prosser	Mentor:	Mitchell Eaton	Mentor:	Kristen Hart
Location:	Laurel, Maryland	Location:	Raleigh, North Carolina	Location:	Davies Florida
Project:	Waterbird research on a restoration island in the Chesapeake Bay	Project:	Understanding the impacts of climate and global change on habitat dynamics and linking with species responses from a management perspective	Project:	Sea turtle movements and habitat use, and American crocodile nest monitoring
Intern:	Holli Holmes	Intern:	Logan Neu	Intern:	Alexa Youre-Moses
College:	Ohio State University	College:	University of Minnesota	College:	Purchase College SUNY
Mentor:	Vincent D'Angelo and Clint Muhlfeld	Mentor:	Abigail Lynch	Mentor:	Vincent D'Angelo and Clint Muhlfeld
Location:	West Glacier, Montana	Location:	Reston, Virginia	Location:	West Glacier, Montana
Project:	Experimental suppression of invasive lake trout in Glacier National Park, and measuring streamflow as part of the USGS Integrated Drought Science Plan	Project:	Estimating global river fisheries harvest potential	Project:	Experimental suppression of invasive lake trout in Glacier National Park, and measuring streamflow as part of the USGS Integrated Drought Science Plan
Intern:	Darren Kirkendall	Intern:	Mary Powley		
College:	George Mason University	College:	Rutgers University		
Mentor:	David Bunnell	Mentor:	Clint Otto		
Location:	Ann Arbor, Michigan	Location:	Jamestown, North Dakota		
Project:	Variation in zooplankton productivity in Lake Huron	Project:	Pollinator health and habitat		
Intern:		Intern:	Ethan Ready		
		College:	Duke University		
		Mentor:	Nicholas Johnson		
		Location:	Millersburg, Michigan		
		Project:	A test of sterile male release to control invasive sea lamprey in the Great Lakes		

GISCI/USGS 2019 Cooperative Summer Field Training Program Internship Placements

Intern:	Brittany Bufford	Intern:	Michelle Field
College:	Texas A&M University	College:	University of Memphis
Mentor:	Nancy Simon and Terence Slonecker	Mentor:	Melanie Vanderhoof
Location:	Reston, Virginia	Location:	Denver, Colorado
Project:	Identification of Genera of Cyanobacteria using hyperspectral imaging	Project:	Post-fire state transitions across the western U.S.