Exploring GeoScience Career Paths through Published Materials

Presented by Emily C. Wild, Librarian (Physical Scientist)
November 9, 2016

U.S. Department of the Interior
U.S. Geological Survey

http://www.usgs.gov
http://Library.usgs.gov
http://www.doi.gov/library
USGS Denver Library: Reference, Outreach, Bibliographic Instruction, & Map Instruction

- Online tutorial module sessions: 30 minutes to 1.5 hours each session
- On-Site, Off-Site Sessions: 30 minutes; 1 hour; 1.5 hours; 2 hours

Session Topics Include:
- Print Books and Maps
- Library Catalogs
- Publication & Citation Databases
- Full-Text Options: Open-Access
- Digital Maps
- Raw Databases
- Real-Time Databases and Alerts

In FY-2016, 48% USGS, other 52% Non-USGS (mostly Federal Agencies).
In FY-2015, 39% USGS, other 61% Non-USGS (mostly Federal Agencies).
Library Instruction Audiences

- General Public: interested citizen, Earth events
- Teachers: K-12
- College, University Professors
- City, County, State Natural Resource Managers
- Undergraduate & Graduate Students
- New Employees to Geosciences or Post-Docs
- Federal Science Agencies, Scientists & Attorneys
- Private Sector: Scientists & Attorneys
- International Governments & Institutions
- Experienced Library Users that need a refresher
Session Outline

• Department of the Interior and U.S Geological Survey

• Job series classification and Author identities and indexes

• USGS partnerships and USGS data
Introduction to U.S. Geological Survey: Mission Areas

Climate and Land Use Change

Energy and Minerals

Core Science Systems

Environmental Health

Natural Hazards

Ecosystems

Water
Part 2: Job series classification, Author identities and indexes
Who are the U.S. Geological Survey geoscientists?

- Biologists
- Biogeochemists
- Cartographers
- Chemists
- Engineers
- Geologists
- Hydrologists
- IT Specialists
- Librarians
- Mathematicians
- Physicists
- Physical Scientists
- Seismologists
- Volcanologists

Left: Biologist (Diagnostic Pathologist); Chemist (Highly Cited Researcher); Geologist; Geologist
Right: UAS Falcon Fixed Wing (Me); Seismic Station Veniaminof Volcano (Alaska); Geologist
U.S. Office of Personnel Management (OPM)
https://www.opm.gov/

Free Class from Virtual Training sessions from OPM:

Sessions will be offered monthly. To find out more or to register, click on the event:
• Finding and Applying for Jobs in the Federal Government (Navigating USAJOBS)
• Writing Your Federal Resume
• Interviewing Techniques
• Pathways Programs - Recruiting and Hiring Students and Recent Graduates into Federal Careers
• Employment Opportunities for Individuals with Disabilities

USAJOBS
https://www.usajobs.gov/
Pathways Programs - Recruiting and Hiring Students and Recent Graduates into Federal Careers

Description: A focused presentation that introduces the audience to the Pathways Programs (Internships, Recent Graduates and Presidential Management Fellows (PMF)). Information presented covers what each program offers to the job seeker, the basic requirements and employment potential after each program is complete.

Cost: No Charge

Target Audience: Federal Applicants

Length: 1 hour

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Registration Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wednesday, November 9, 2016</td>
<td>11:00 a.m. (ET)</td>
<td>Click Here To Register</td>
</tr>
<tr>
<td>Wednesday, November 9, 2016</td>
<td>5:00 p.m. (ET)</td>
<td>Click Here To Register</td>
</tr>
<tr>
<td>Thursday, December 15, 2016</td>
<td>11:00 a.m. (ET)</td>
<td>Registration will open on December 1, 2016</td>
</tr>
<tr>
<td>Thursday, December 15, 2016</td>
<td>5:00 p.m. (ET)</td>
<td>Registration will open on December 1, 2016</td>
</tr>
<tr>
<td>Thursday, January 19, 2017</td>
<td>11:00 a.m. (ET)</td>
<td>Registration will open on January 5, 2017</td>
</tr>
<tr>
<td>Thursday, January 19, 2017</td>
<td>5:00 p.m. (ET)</td>
<td>Registration will open on January 5, 2017</td>
</tr>
</tbody>
</table>

If you have questions about these sessions, please email pathways@opm.gov!
## Writing Your Federal Resume

**Length:** 1.5 hours

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Registration Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, November 21, 2016</td>
<td>11:00 a.m. (ET)</td>
<td>Click Here To Register</td>
</tr>
<tr>
<td>Monday, November 21, 2016</td>
<td>6:00 p.m. (ET)</td>
<td>Click Here To Register</td>
</tr>
<tr>
<td>Tuesday, November 22, 2016</td>
<td>10:00 a.m. (ET)</td>
<td>Click Here To Register</td>
</tr>
<tr>
<td>Tuesday, November 22, 2016</td>
<td>3:00 p.m. (ET)</td>
<td>Click Here To Register</td>
</tr>
<tr>
<td>Tuesday, December 13, 2016</td>
<td>10:00 a.m. (ET)</td>
<td>Registration will open on November 28, 2016</td>
</tr>
<tr>
<td>Tuesday, December 13, 2016</td>
<td>5:00 p.m. (ET)</td>
<td>Registration will open on November 28, 2016</td>
</tr>
<tr>
<td>Wednesday, December 14, 2016</td>
<td>10:00 a.m. (ET)</td>
<td>Registration will open on November 28, 2016</td>
</tr>
<tr>
<td>Wednesday, December 14, 2016</td>
<td>3:00 p.m. (ET)</td>
<td>Registration will open on November 28, 2016</td>
</tr>
<tr>
<td>Wednesday, January 11, 2017</td>
<td>10:00 a.m. (ET)</td>
<td>Registration will open on December 22, 2016</td>
</tr>
<tr>
<td>Wednesday, January 11, 2017</td>
<td>5:00 p.m. (ET)</td>
<td>Registration will open on December 22, 2016</td>
</tr>
<tr>
<td>Friday, January 13, 2017</td>
<td>10:00 a.m. (ET)</td>
<td>Registration will open on December 22, 2016</td>
</tr>
<tr>
<td>Friday, January 13, 2017</td>
<td>2:00 p.m. (ET)</td>
<td>Registration will open on December 22, 2016</td>
</tr>
</tbody>
</table>

If you have questions about these sessions, please email outreach@opm.gov!
OPM Positions in USAJOBS

Handbooks


Example = me: Librarian (Physical Scientist), 2008 – present and Hydrologist, 1996-2008


Groups:

1300’s : [Physical Science Group](#)

1400’s : [Library and Archives Group](#)

Series:

1301 - Physical Scientist: GIS; Physical science degree (Geology)

1315 – Hydrologist: Science degree; 2 of each calculus, chemistry, and physics; field work; geology (geochemistry and structural geology)

1410 – Librarian: MLIS, reference, bibliographic instruction, map instruction, science outreach
Tools for finding co-authors:


Worldcat Identities Network:
Wild, Emily C.
Uranium deposits in the Eureka Gulch area, Central City district, Gilpin County, Colorado

Precambrian basement structure map of the continental United States: an interpretation of geologic and aeromagnetic data

Geology of uranium deposits in the Front Range, Colorado

Geology of the Copper King uranium mine, Larimer County, Colorado
Past away June 25, 2015

Geologic Map of North America (GMNA)

USGS GMNA Resources
(National Geologic Map Database)

OCLC WorldCat Record

GSA Press Release

(DNAG) =
Decade of North American Geology

GeoScienceWorld Records

- About the Geologic Map in the National Atlas of the United States of America
- The National Atlas, 1997-2014, 260 Datasets
“ORCID provides a persistent digital identifier that distinguishes you from every other researcher and, through integration in key research workflows such as manuscript and grant submission, supports automated linkages between you and your professional activities ensuring that your work is recognized.”
ResearcherID: https://www.researcherid.com/
U.S. Geological Survey Scientist Recognized as Highly Cited Researcher

U.S. Geological Survey (USGS) scientist Dr. Edward T. Furlong has been designated a Thomson Reuters Highly Cited Researcher, ranking among the top 1 percent of researchers from 2003 to 2013 for most cited documents in their specific field (Environment/Ecology). He was listed in Thomson Reuters’ "The World’s Most Influential Scientific Minds 2015" report.

Dr. Furlong is an environmental analytical chemist in the Methods Research and Development Program at the USGS National Water Quality Laboratory in Lakewood, Colorado. Dr. Furlong develops and applies new techniques and methods for the highly sensitive analysis of complex mixtures of organic contaminants (such as pesticides and pharmaceuticals) in water, sediment, biota, and other substances. He has published more than 85 journal articles and more than 25 USGS reports.

Dr. Furlong works collaboratively with scientists from across the USGS and with university colleagues. His efforts with a team of USGS scientists provided the first published documentation on the national occurrence of a wide variety of hormones, pharmaceuticals, personal care products, and other wastewater contaminants present in surface waters throughout the United States in 2002. One of the many projects that Dr. Furlong is involved with is the USGS Toxic Substances Hydrology Program’s Emerging Contaminants in the Environment Investigation.

Other USGS Highly Cited Researchers

USGS scientist Dr. Michael T. Meyer has been listed as a Highly Cited Researcher for 2014 and 2015 (Environment/Ecology). Dr. Meyer develops innovative analytical methods to measure contaminants of emerging concern, such as herbicides and their degradation products, pharmaceuticals, personal care products, and hormones. Dr. Meyer is also a member of the Emerging Contaminants in the Environment research team.

Another Highly Cited Researcher for 2015 in the Environment/Ecology category is USGS scientist Dr. Kevin D. Lafferty. Dr. Lafferty researches how parasites affect ecosystems and, in turn, how ecosystems affect parasites. He is stationed at the USGS’s Channel Islands Field Station in Ventura, California, which is a branch office of the USGS Western Ecological Research Center in Sacramento.
USGS Staff Profiles

https://www.usgs.gov/connect/staff-profiles
Emily Wild

Biography

Work Experience

Librarian (Physical Scientist), U.S. Geological Survey Denver Library, Denver, Colorado; science and legislative reference/dataset materials, outreach, bibliographic instruction, map instruction, develops/presents online and in-person training sessions: 2008-present

Hydrologist, U.S. Geological Survey Water Resources, New England; project chief for water-quantity studies, groundwater database administrator, field work (surface water, groundwater, and water quality), technical assistance to water-resources managers, outreach coordinator for Massachusetts and Rhode Island, bibliographic instruction, geospatial instruction, real-time/historical data access instruction: 1996-2008

Environmental Law Intern, New York State Department of Environmental Conservation (NYSDEC), Regional Attorney's Office; environmental law research: New York, Vermont, Québec (Canada) and Federal laws, and searches in LexisNexis, law books, case files, and court documents related to patents, chemicals, water, air, soil, and other legal tools: 1995

Education

Bachelor's degree, Geology (Geochemistry and Mathematics), Hartwick College

Master's degree, Library and Information Studies (Science, Government, and Legal Research), University of Rhode Island

Paralegal Certificate, University of Colorado - Denver, through The Center for Legal Studies

USGS Library (Denver) Outreach Presentations

Ongoing - "Finding and Using Scientific Literature and Data from the USGS Library," USGS training course for all USGS Library users (employees and the public); course description and registration information are available at: http://www.usgs.gov/human-capital/ecd/findingscientificlit.html


October 2015 - Geoscience Information Society, Geoscience Librarianship workshop, "Introduction to Geoscience Librarianship" and "Geoscience Bibliographic Instruction", Baltimore, Maryland http://www.geoinfo.org/

# Physical Sciences


## 1300 – Physical Sciences Group

<table>
<thead>
<tr>
<th>Series</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1300</td>
<td>Job Family Standard for Professional Work in the Physical Science Group [208 KB]</td>
</tr>
</tbody>
</table>

Series Covered:
- 1301, General Physical Science
- 1306, Health Physics
- 1310, Physics
- 1313, Geophysics
- 1315, Hydrology
- 1320, Chemistry
- 1321, Metallurgy
- 1330, Astronomy and Space Science
- 1340, Meteorology
- 1350, Geology
- 1360, Oceanography
- 1370, Cartography
- 1372, Geodesy
- 1373, Land Surveying
- 1380, Forest Products Technology
- 1382, Food Technology
- 1384, Textile Technology
- 1386, Photographic Technology

## 1300

Job Family Standard for Technical Work in the Physical Sciences Group

Series Covered:
- 1311, Physical Science Technician
- 1316, Hydrologic Technician
- 1341, Meteorological Technician
- 1371, Cartographic Technician
- 1374, Geodetic Technician

## 1361

Navigational Information Series [74 KB]
USAJOBS search = Department of the Interior, Geological Survey

Examples:

- Pathways, Part-Time
- Term, Full-Time
- Permanent, Full-Time

<table>
<thead>
<tr>
<th>Geological Survey</th>
</tr>
</thead>
</table>

**Student Trainee (Hydrology) GS-1399-03/04 (CI-AG)**

What General Information Do I Need To Know About This Position? During the school year part-time hours may apply; however, during school breaks and the summer, full-time hours may apply. This position is year round. Salary: GS-03: $25,731 (Step 01) to $33,450 (Step 10); GS-04: $28,886 (Step 01) to $40,103 (Step 01)

| Salary: | $12.34 - $18.01 / Per Hour |
| Series & Grade: | GS-1399-03/04 |
| Location(s): | Lawrence, Kansas |
| Open Period: | 10/31/2016 to 11/10/2016 |
| Announcement Number: | PATH-2016-0107 |
| Who May Apply: | All qualified U.S. citizens who meet the eligibility requirements for the Pathwa... |
| Department: | Department Of The Interior |
| Agency: | Geological Survey |
| Position Info: | Pathways Internship Appointment - Part-Time (16-32 hours per week); May work Full... |

**Hydrologic Technician, GS-1316-05 (DEU - MW)**

Are you a Hydrologic Technician professional looking for a position in the Federal workforce? Do you have a passion for collecting and analyzing water samples and determining water level and discharge measurements? Do you want to be part of an important aspect of the Federal Government, helping with

| Salary: | $32,357.00 - $42,064.00 / Year |
| Series & Grade: | GS-1316-05/05 |
| Location(s): | Troy, New York |
| Announcement Number: | RES-2017-0016 |
| Who May Apply: | United States Citizens |
| Department: | Department Of The Interior |
| Agency: | Geological Survey |
| Position Info: | Term - Full-Time |

**Hydrologic Technician, GS-1316-07/08 (DEU-Perm-YMJ)**

Are you a Hydrologic Technician looking for a position in the Federal workforce? Do you want to be part of an innovative research science organization? Would you like to work with a team of professionals committed to preserving our natural resources and environment? If you answered "yes" to these qu

| Salary: | $40,103.00 - $57,732.00 / Year |
| Series & Grade: | GS-1316-07/08 |
| Location(s): | Henderson, Nevada |
| Announcement Number: | RES-2017-0018 |
| Who May Apply: | United States Citizens |
| Department: | Department Of The Interior |
| Agency: | Geological Survey |
| Position Info: | Permanent – Full-Time |

---

USGS
What is GS-1399?

Classification & Qualifications

GENERAL SCHEDULE QUALIFICATION STANDARDS

Physical Science Student Trainee Series, 1399

Individual Occupational Requirements

There are no Individual Occupational Requirements for this series.
What part of the USGS?

**Student Trainee (Hydrology) GS-1399-03/04 (CI-AG)**

**Hydrologic Technician, GS-1316-07/08 (DEU-Perm-YMJ)**

**Duties**

As a Hydrologic Technician within the Nevada Water Science Center, some of your specific duties will include:

- Perform a wide variety of stage and discharge measurements.
- Use a computer to analyze field data.
- Compute, check and review surface water records.
- Install, maintain, service, and assist in the configuration of a variety of sensing, recording, and communications equipment and instrumentation.
- Use scientific instrumentation to collect, compute and analyze scientific data of Surface Water, Ground Water and Water Quality.
- Schedule and/or obtain appropriate vehicles, equipment, and supplies. Perform safety inspection of equipment and work area.

**Work Environment:**

- Work outside for extended periods of time under challenging field conditions including rain, heat, cold, and humidity.
- Will be required to work in areas where footing is treacherous such as on slippery river banks, in steep or rocky terrain, and in fast-moving water.
- Must lift/carry objects weighing 50 pounds or more.

The U.S. Geological Survey has determined that the duties of this position are suitable for telework only during an emergency or natural disaster.

For additional information on our internal telework policy, please reference the Department of the Interior Telework Handbook at: [http://www.usgs.gov/humancapital/pb/telework.html](http://www.usgs.gov/humancapital/pb/telework.html)


[USGS](http://ks.water.usgs.gov)
What should I look out for?

Make sure you qualify

Hydrologist, GS-1315-09 (MP - MW)

GEOLOGICAL SURVEY

Agency Contact Information

1 vacancy in the following location:

Ithaca, NY

Work Schedule is Permanent - Full-Time

Opened Friday 11/4/2016
(4 day(s) ago)

Closes Thursday 11/10/2016
(2 day(s) away)

Salary Range
$48,968.00 to $63,654.00 / Per Year

Series & Grade
GS-1315-09/09

Promotion Potential
12

Supervisory Status
No

Who May Apply
Current USGS employees serving on permanent competitive service appointments, OR current USGS employees, regardless of their current status, who are eligible for consideration under a noncompetitive authority such as those specific to 30% disabled veterans, Veterans Recruitment Appointment, appointment based on physical or intellectual disability, reinstatement eligibility, Pathways Interns and Recent Graduates who are eligible for noncompetitive conversion, etc.
What should I look out for?

(1) Closing Date, (2) Application Limit

Physical Scientist, GS-1301-11 (PR-DEU)

GEOLOGICAL SURVEY
Agency Contact Information
FEW vacancies in the following location:

- Menlo Park, CA

Work Schedule is Term - Part-Time, Up to 30 hours per week

Opened Friday 11/4/2016
(4 day(s) ago)

Closes Monday 11/14/2016
(6 day(s) away)

Salary Range
$70,333.00 to $91,433.00 / Per Year

Series & Grade
GS-1301-11/11

Promotion Potential
11

Who May Apply
United States Citizens

Control Number
455616700

Job Announcement Number
SAC-2017-0040

What General Information Do I Need To Know About This Position?

This vacancy is limited to the first 25 applications received and will close at midnight Eastern Time on the day this application limit is reached regardless of the closing date specified in this vacancy announcement. Any application received prior to midnight Eastern Time of the day the application limit is reached will be accepted and considered. You are strongly encouraged to submit all required supporting documents at the time of application should the vacancy close earlier than stated in this announcement due to the applicant limit being reached. Supporting documents will not be accepted once the vacancy announcement closes.

This is a term appointment for which all qualified applicants with or without Federal status may apply and be considered. Appointment to this position, however, will not convey permanent status in the Federal service and will be for a period not to exceed 13 months with possible extensions up to a total of 4 years without further competition.
# Biological Sciences


## 0400 – Natural Resources Management and Biological Sciences Group

<table>
<thead>
<tr>
<th>Series</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0400</td>
<td>Job Family Standard for Professional Work in the Natural Resources Management and Biological Sciences Group [138 KB]</td>
</tr>
</tbody>
</table>

Series Covered:

- 0401, General Natural Resources Management and Biological Sciences
- 0403, Microbiology
- 0405, Pharmacology
- 0408, Ecology
- 0410, Zoology
- 0413, Physiology
- 0414, Entomology
- 0415, Toxicology
- 0430, Botany
- 0434, Plant Pathology
- 0435, Plant Physiology
- 0437, Horticulture
- 0440, Genetics
- 0454, Rangeland Management
- 0457, Soil Conservation
- 0460, Forestry
- 0470, Soil Science

- 0471, Agronomy
- 0480, Fish and Wildlife Administration
- 0482, Fish Biology
- 0485, Wildlife Refuge Management
- 0486, Wildlife Biology
- 0487, Animal Science

<table>
<thead>
<tr>
<th>Series</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>0400</td>
<td>Grade Level Guide for Aid and Technical Work in the Biological Sciences [136 KB]</td>
</tr>
<tr>
<td>0404</td>
<td>Biological Science Technician Series [57 KB]</td>
</tr>
<tr>
<td>0421</td>
<td>Plant Protection Technician Series [32 KB]</td>
</tr>
<tr>
<td>0455</td>
<td>Range Technician Series [41 KB]</td>
</tr>
<tr>
<td>0458</td>
<td>Soil Conservation Technician Series [36 KB]</td>
</tr>
<tr>
<td>0459</td>
<td>Irrigation System Operation Series [76 KB]</td>
</tr>
<tr>
<td>0462</td>
<td>Forestry Technician Series [34 KB]</td>
</tr>
</tbody>
</table>
USAJOBS search = Department of the Interior, Geological Survey

Example: - Term, Full-Time

Biological Science Technician GS-0404-07 (DEU - TERM - KS)

Why Is It Great To Work For The USGS? Embark on an exciting future! From the peaks of the highest mountains to the depths of the deepest seas, the U.S. Geological Survey has career opportunities that make a difference in both the lives of others and in the environment. Would you like to join the mor

Salary: $42,378.00 - $55,092.00 / Per Year
Series & Grade: GS-0404-07/07
Location(s): Homestead, Florida
Open Period: 11/7/2016 to 11/14/2016
Announcement Number: DEN-2017-0032

Department: Department Of The Interior
Agency: Geological Survey
Position Info: Term - Full-Time
Who May Apply: United States Citizens

Save Job  |  More Like This
What part of the USGS and where?

Duties

As a Biological Science Technician within the Fort Collins Science Center some of your specific duties will include:

- Collect data from both live and dead specimens of Burmese pythons, tegus, and other invasive reptiles.
- Reptile identification, preservation of field specimens, radiotelemetry, collection of field data, and assisting the lead biologist and Project Leader with duties in extreme southern Florida.
- Construct, deploy, and troubleshoot traps to include trap checking and handling of captured animals.
- Assist with management of student workers, volunteers, and other cooperators in fieldwork and data reporting.
- Use a variety of software (e.g., MS-Excel, MS-Word, etc.) to track and manage project information.
- Assist with compiling data and preparing reports for funding agencies and cooperators.

USGS has determined that some of the duties of this position are suitable for telework and the selectee may be allowed to telework with supervisor approval. The official worksite for the selectee is the duty location identified in this vacancy announcement. The selectee will typically report to this location on a regular and recurring basis. For additional information on our internal telework policy, please reference the Department of the Interior Telework Handbook at:


Fort Collins Science Center, Colorado
https://www.fort.usgs.gov/
Duty location = Homestead, Florida
Duty Station and Study Location Not Always in the Same State

• Me: Duty Station New Hampshire, Field Work in Vermont: https://pubs.er.usgs.gov/search?q=&title=&contributingOffice=&contributor=ecwild&orcid=&year=&startYear=&endYear=&typeName=&subtypeName=&seriesName=&reportNumber=&g=&advanced=True

• Robert Eppinger: Duty Station Colorado, Field Work in Alaska, and Databases about Afghanistan: https://pubs.er.usgs.gov/search?q=&title=&contributingOffice=&contributor=Robert+Eppinger&orcid=&year=&startYear=&endYear=&typeName=&subtypeName=&seriesName=&reportNumber=&g=&advanced=True
USGS Internship Opportunities for NSF Supported PhD Students

https://powellcenter.usgs.gov/national-science-foundation-graduate-research-internship-program-grip

USGS Internship Opportunities for NSF Supported PhD Students

Intern with the U.S. Geological Survey!

2-12 month internship opportunities at USGS Science Centers, in partnership with the National Science Foundation (NSF)

Are you a current NSF Graduate Research Fellow?

NSF Graduate Research Internship Program (GRIP) is for you!

- Review the USGS Opportunities posted below
- Contact the USGS Researcher to discuss the Opportunity
- Review the NSF Guidelines for an NSF GRIP proposal and apply by the December 4, 2016 deadline

Are you an NSF-funded PhD candidate currently supported on an active NSF research grants?

NSF Graduate Student Preparedness (GSP) is for you!

- Review the USGS Opportunities posted below
- Contact the USGS Researcher to discuss the Opportunity
- Review the NSF Dear Colleague Letter: Improving Graduate Student Preparedness for Entering the Workforce, Opportunities for Supplemental Support submit a request to supplement your existing research award based on the guidelines from the participating NSF Directorate

USGS Graduate Internship Opportunities

Current as of September 2016. GSP application deadlines vary by NSF Directorate, refer to the DCL. For FY17, they are open, subject to availability of funds.

Internship Opportunities: 1-15 | 16-30 | 31-45 | 46-59
# USGS Internship Opportunities for NSF Supported PhD Students

https://powellcenter.usgs.gov/national-science-foundation-graduate-research-internship-program-grip

<table>
<thead>
<tr>
<th>Program</th>
<th>Project Title</th>
<th>Point of Contact</th>
<th>Location</th>
<th>Duration</th>
<th>Primary Field of Study</th>
<th>Secondary Field of Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>California Water Science Center</td>
<td>A Critical Assessment of Recent Soil Dating Methods in Coastal Wetlands</td>
<td>Judith Drexler</td>
<td>Sacramento, CA</td>
<td>Up to 12 months</td>
<td>EAR Earth Sciences</td>
<td>Geochimistry (soils), Coastal Wetlands</td>
</tr>
<tr>
<td></td>
<td>Are you interested in coastal wetlands and how they form in the landscape? In this internship you will learn about wetland formation and how carbon accumulates in wetland soils over time. In addition, you will learn how to critically evaluate soil dating methods that are currently being used to report carbon accumulation to the US EPA and the Intergovernmental Panel on Climate Change. Read More</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Research Program</td>
<td>A National-scale River Corridor Model</td>
<td>Jud Harvey</td>
<td>Reston, VA</td>
<td>Up to 12 months</td>
<td>EAR Earth Sciences</td>
<td>Geomorphology (fluvial), Computer Modeling</td>
</tr>
<tr>
<td></td>
<td>The need for better models and more effective use of data to characterize river corridor transport processes is keenly felt, from evaluating the effectiveness of river and watershed management practices all the way to clarifying regulatory authority under the Clean Water Act. Read More</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Ecological Research Center, Patuxent Wildlife Research Center</td>
<td>A Tale of Two Coasts: Tidal Marsh Persistence with Changing Climate and Sea-Level Rise</td>
<td>Karen Thorne</td>
<td>San Francisco</td>
<td>12 months</td>
<td>DBB Environmental Biology</td>
<td>Ecology (wetlands), Climate Change</td>
</tr>
<tr>
<td></td>
<td>Tidal wetlands are an important management concern because of their ability to attenuate storm surges, sequester carbon, improve water quality, and provide habitat for tidal marsh-dependent species. The overall goal of this project is to improve our understanding of the combined effects of inundation, due to sea-level rise and storm surges, and other climate factors on tidal marsh physical and biological processes to provide guidance to natural resource managers to reduce these threats and increase resilience. Read More</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustal Geophysics and Geochemistry Science Center</td>
<td>Airborne geophysical imaging of weak zones on Mt. Iliamna, Alaska toward understanding volcanic landslide hazards</td>
<td>Carol Finn</td>
<td>Denver, CO</td>
<td>9 – 12 months</td>
<td>EAR Earth Sciences</td>
<td>Volcanology, Remote Sensing</td>
</tr>
<tr>
<td></td>
<td>Flank collapses of volcanoes pose significant potential hazards, including triggering lahars, eruptions, and tsunamis. Controls on the stability of volcanoes include the distribution of hydrothermal alteration and the location of groundwater. Groundwater position, abundance, and flow rates within a volcano affect the transmission of fluid pressure and the transport of mass and heat. Read More</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Careers, Federal Agencies:

Central Intelligence Agency (CIA):
https://www.cia.gov/careers/opportunities
- Analytic Positions
- Business, IT & Security Positions
- Directorate of Operations (Clandestine Service) Positions
- Language Positions
- Science, Engineering and Technology Positions
- Student Opportunities

National Geospatial-Intelligence Agency (NGA):
https://www.nga.mil/Careers/Pages/default.aspx
- Openings:
  https://erecruit.nga.mil/psp/EXPROD/EMPLOYEE/HRMS/h/?tab=NI_EXTERNAL_APPLICANT_HP
- Example: R & D Scientist, Buckley Air Force Base, Colorado
Part 3: USGS partnerships and USGS data (GIS & Information Nuggets in Print Publications)
Introduction to U.S. Geological Survey: Mission Areas

Climate and Land Use Change

Energy and Minerals

Core Science Systems

Environmental Health

Natural Hazards

Ecosystems

Water
U.S. Geological Survey Partnerships:

- Partnerships with organizations from all levels of government and industry.
- MOU’s with Federal Agencies that do not expire.
- Scientific and technical assistance being provided in more than 100 countries.
- Example Federal Agencies that fund the USGS projects/programs:

http://www.usgs.gov/budget/fiscal_year.asp
What geoscience does the USGS do?

Trick = use the USGS budget information

USGS Budgets: FY-1997 to Present

Department of the Interior Budget, FY-2017

Fiscal Years (and Water Years) are October-September.
<table>
<thead>
<tr>
<th>Ecosystems</th>
<th>Climate and Land Use Change</th>
<th>Water Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriated</td>
<td>Appropriated</td>
<td>Appropriated</td>
</tr>
<tr>
<td>Multi-Year appropriation</td>
<td>Multi-Year appropriation</td>
<td>Multi-Year appropriation</td>
</tr>
<tr>
<td>No-Year appropriation</td>
<td>No-Year appropriation</td>
<td>No-Year appropriation</td>
</tr>
<tr>
<td>Total (appropriated)</td>
<td>Total (appropriated)</td>
<td>Total (appropriated)</td>
</tr>
<tr>
<td>Reimbursements</td>
<td>Reimbursements</td>
<td>Reimbursements</td>
</tr>
<tr>
<td>Non-Federal (Domestic) sources</td>
<td>Non-Federal (Domestic) sources</td>
<td>Non-Federal (Domestic) sources</td>
</tr>
<tr>
<td>Technology Transfer</td>
<td>Technology Transfer</td>
<td>Penalties &amp; licensees- Fed Energy Regulatory Commission</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Miscellaneous</td>
<td>Technology Transfer</td>
</tr>
<tr>
<td>Subtotal (non-Federal domestic sources)</td>
<td>Subtotal (non-Federal domestic sources)</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Non-Federal (Foreign) sources</td>
<td>Non-Federal (Foreign) sources</td>
<td>Subtotal (non-Federal sources)</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Corporation Andina de Fomento</td>
<td>The Environment Agency - Abu Dhabi</td>
</tr>
<tr>
<td>Subtotal (non-Federal Foreign sources)</td>
<td>Saudi Geological Survey</td>
<td>The World Bank Group</td>
</tr>
<tr>
<td>State and local sources</td>
<td>The World Bank Group</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>States-Coop (unmatched)</td>
<td>Miscellaneous</td>
<td>Subtotal (non-Federal Foreign sources)</td>
</tr>
<tr>
<td>Subtotal (state and local sources)</td>
<td>Subtotal (unmatched)</td>
<td>State and local sources</td>
</tr>
<tr>
<td>Federal sources</td>
<td>Federal sources</td>
<td>Federal sources</td>
</tr>
<tr>
<td>Department of Agriculture</td>
<td>Agency for International Development</td>
<td>Department of Agriculture</td>
</tr>
<tr>
<td>Department of Commerce</td>
<td>Department of Agriculture</td>
<td>Department of Commerce</td>
</tr>
<tr>
<td>Department of Defense</td>
<td>Department of Commerce</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>Corps of Engineers</td>
<td>Department of Defense</td>
<td>Corps of Engineers</td>
</tr>
<tr>
<td>National Geospatial Intelligence Agency</td>
<td>Department of Energy</td>
<td>National Geospatial Intelligence Agency</td>
</tr>
<tr>
<td>Other</td>
<td>Department of Energy</td>
<td>Other</td>
</tr>
<tr>
<td>Department of Energy</td>
<td>Department of Energy</td>
<td>Department of Energy</td>
</tr>
<tr>
<td>Bonneville Power Administration</td>
<td>Department of Energy</td>
<td>Bonneville Power Administration</td>
</tr>
<tr>
<td>Other</td>
<td>Department of Energy</td>
<td>Other</td>
</tr>
<tr>
<td>Department of Homeland Security</td>
<td>Department of Energy</td>
<td>Department of Homeland Security</td>
</tr>
<tr>
<td>Department of Interior</td>
<td>Department of Energy</td>
<td>Federal Emergency Management Agency</td>
</tr>
<tr>
<td>Bureau of Land Management</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Bureau of Ocean Energy Management</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Bureau of Reclamation</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Fish and Wildlife Service</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Office of Secretary</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Interior Business Center</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Other</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Environmental Protection Agency</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Health and Human Services</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>National Aeronautics &amp; Space Admin</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Sale of maps, photos, reproductions, &amp; digital products</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
<tr>
<td>Subtotal (Federal sources)</td>
<td>Federal Emergency Management Agency</td>
<td>Other</td>
</tr>
</tbody>
</table>

USGS FY-2017 Budget
### Natural Hazards

**Appropriated**
- Multi-Year appropriation
- **Total (appropriated)**

**Reimbursements**
- Non-Federal (Domestic) sources
  - Technology Transfer
  - Miscellaneous
  - **Subtotal (non-Federal domestic sources)**

- Non-Federal (Foreign) sources
  - Saudi Geological Survey
  - Miscellaneous
  - **Subtotal (non-Federal Foreign sources)**

- State and local sources
  - States-Coop (unmatched)
  - **Subtotal (state and local sources)**

### Energy and Mineral Resources, and Environmental Health

**Appropriated**
- Multi-Year appropriation
- No-Year appropriation
- **Total (appropriated)**

**Reimbursements**
- Non-Federal (Domestic) sources
  - Technology Transfer
  - Miscellaneous
  - **Subtotal (non-Federal domestic sources)**

- Non-Federal (Foreign) sources
  - Miscellaneous
  - **Subtotal (non-Federal Foreign sources)**

- State and local sources
  - States-Coop (unmatched)
  - **Subtotal (state and local sources)**

**Federal sources**
- Agency for International Development
- Department of Agriculture
- Department of Commerce
- Department of Defense
  - Corps of Engineers
  - National Geospatial-Intelligence Agency
  - Other
- Department of Energy
- Department of Homeland Security
- Federal Emergency Management Agency
- Department of Interior
  - Bureau of Ocean Energy Management
  - Bureau of Reclamation
  - Bureau of Safety and Environmental Enforcement
  - Fish and Wildlife Service
  - Office of Secretary
- Department of State
- Department of Veterans Affairs
- Environmental Protection Agency
- Health and Human Services
- National Aeronautics & Space Admin
- National Science Foundation
- Nuclear Regulatory Commission
- Office of Surface Mining
- Department of Justice
- Environmental Protection Agency
- Health and Human Services
- Housing and Urban Development
USGS Core Science Systems:
http://www.usgs.gov/core_science_systems/

National Programs
- Core Science Analytics, Synthesis, & Libraries
- Geological & Geophysical Data Preservation
- Geospatial
- Geologic Mapping

USGS FY-2017 Budget
Mission Areas

Advanced Research Computing

Provides high-performance computing (HPC) capabilities & expertise to USGS scientists for the acceleration and expansion of scientific discovery.

Core Science Analytics, Synthesis, and Libraries (CSAS&L)

The CSAS&L research and activities cover four key science themes – Biodiversity Science, Applied Research Computing, Library and Information Science, and Human Dimensions – and one holistic, comprehensive theme – Data Science – from the confluence and fusion of these fully realized science themes.

Filter Total items: 10

Select Location  Select Year  Select Order

APRIL 10, 2008
USGS Science Data Catalog

The USGS Science Data Catalog serves as a single access point for public USGS scientific datasets and as a conduit to external catalogs in response to Federal Open Data requirements. The SID allows the public to access USGS datasets through text and GIS-based search, topical browse, and keyword, mission area, data source, and scientist faceting.

Attribution: Core Science Systems; Core Science Analytics, Synthesis, and Libraries (CSAS&L)

- USGS Access to E-content
- USGS Publication Indexes
- USGS Publications Warehouse
- USGS National Geologic Map Database Catalog
- USGS National Geologic Map Database Lexicon (Geologic Units)
- USGS Library Catalog
- OCLC WorldCat
- GeoScienceWorld
- Lyell Collection
- AAPG/Datapages
- *Open Access: AGI List of E-journals*
About the GeoRef Database

The GeoRef database, established by the American Geosciences Institute in 1966, provides access to the geoscience literature of the world. GeoRef is the most comprehensive database in the geosciences and continues to grow by more than 100,000 references a year. The database contains over 3.8 million references to geoscience journal articles, books, maps, conference papers, reports and theses. You can gain access to this vast amount of information through searching on the worldwide web, online, or on GeoRef CDs.

A database search produces a customized bibliography. Within seconds, the computer reports the number of references found on a given topic. You can then specify which references you want to see and how much information you want about each.

The GeoRef database covers the geology of North America from 1666 to the present and the geology of the rest of the world from 1933 to the present. The database includes references to all publications of the U.S. Geological Survey, Masters' theses and doctoral dissertations from U.S. and Canadian universities are also covered.

To maintain the database, GeoRef editor/indexers regularly scan more than 3,500 journals in 40 languages as well as new books, maps, and reports. They record the bibliographic data for each document and assign index terms to describe it. Each month between 6,000 and 9,000 new references are added to the database.
USGS Library: Finding & Using Materials

- Materials: Journals, Field Guides, Guidebooks, CDs, Historical Photos (10% online) & Field Records, Restricted/OUO, Declassified

USGS staff publish in USGS series & Non-USGS series (Journals & Books)

Percentages of USGS authored publications published as USGS series:
How & why do people use the library?
De Re Metallica, 1552, by Georgius Agricola
De Re Metallica (On the Nature of Metals), 1912, Translated by Hoover

Principles of Geology, 1830+, by Charles Lyell

USGS Mineral Resources of U.S., 1880's to present
Thank You!

For more information: ASK USGS! 1-888-ASK-USGS or http://answers.usgs.gov/

Emily C. Wild, Librarian (Physical Scientist), U.S. Geological Survey Library, Denver, Colorado
303-236-1003 or ecwild@usgs.gov ; Emily's Staff Page

Additional Tools for Reference Inquiries:

USGS Online Lectures

U.S. Army Corps of Engineers, Geological Investigation of the Alluvial Valley of the Lower Mississippi River, Fisk, 1944

U.S. Chemical Safety Board (CSB) Investigations & Safety Videos

U.S. Government Publishing Office (GPO) Recorded webinars

Atlas of the Historical Geography of the United States

AfricaMap (Harvard)