EES NEWSLETTER

Week of November 15, 2022

TAKE A PEEK INSIDE:

IMAGE: FALL HARVEST PUMPKINS, ROBERT TURNER PHOTOGRAPHY (GETTY IMAGES)

ANNOUNCEMENTS

EES 5010 SEMINAR
HEAVY MINERALS WORKSHOP:
UNDERGRAD/ENTRY-LEVEL PROFESSIONAL/POST-GRAD

THIS WEEK...

L. CARACCIOLO
HEAVY MINERALS WORKSHOP FRIDAY BROWN BAG SEMINAR: S. ANDÒ

FEATURED EES PUBLICATIONS/RESEARCH

JOB OPPORTUNITIES
UNDERGRAD/ENTRY-LEVEL PROFESSIONAL/POST-GRAD

INTERNSHIPS, SCHOLARSHIPS, FELLOWSHIPS, & GRANTS (UNDERGRAD & GRAD)

REMINDEERS:
EARLY REGISTRATION FOR WINTER 2022 / SPRING 2023 COURSES: 11/7 - 12/2/22
FALL BREAK: 11/21 - 11/25
EES OFFICES WILL BE CLOSED NO NEWSLETTER OR SEMINAR
FINAL EXAM REPORTS DUE: GRADUATE COLLEGE: 11/28 FALL THESIS DEPOSIT DEADLINE: 12/5 @ 5PM

EES 5010 Geoscience Seminar - 11/18/2022
125 TROWBRIDGE HALL - 3:30pm - IN PERSON ONLY

PRESENTER: DR. LUCA CARACCIOLO, GEOZENTRUM NORDBAYERN, FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN-NÜRNBERG, SCHLOSSGARTEN 5, 91054 ERLangen, GERMANY

PRESENTATION TITLE: WHAT DO WE MEASURE IN QUANTITATIVE PROVENANCE ANALYSIS (QPA)? THE ROLLERCOASTER OF COMPOSITIONAL DATA AND THE COMPELLING NEED FOR SEDIMENT GENERATION MODELS (SGM)

Quantitative Provenance Analysis (QPA) is arguably the most effective tool for reconstructing sediment generation and dispersal at different timescales, and calculate sediment budgets. The latter is a particularly relevant approach which is becoming critical in, for instance, climate change/anthropic impact research. Analytical development has increased the variety of grains that can be analysed and reduced measurement time. As a result, large volumes of compositional data are produced and processed to potentially reconstruct sedimentary provenance to an unprecedented level of precision. Therefore, it should be possible to carry out studies in which (i) inputs from drainage lithologies of ancient sedimentary systems are quantified by inverse modelling, (ii) identify tectonic and climatic perturbations, (iii) landscape modifications, and (iv) reliable calculations of sediment budgets. However, when natural (e.g. mineral fertility, grain-size) and analytical biases (grains number, grain types) are considered, using detrital modes, mineral assemblages, grain chemistry and U-Pb ages, to (e.g.) to solve one or more the of the applications mentioned above, might be considerably harder than expected.

New linear log-ratio models developed for actualistic sedimentary environments indicate that under- and over-representation of provenance signals as a function of lithology and morphological features are much more common than expected. As compositional signatures often fail to provide clear provenance indications, calculating sediment budgets to identify erosion patterns with current models can potentially lead to erroneous estimates.

Examples from deep-time SRS show how critical limiting factors in Sediment Routing Systems research as (a) the buffering and shredding of environmental signals, (b) the reworking of material in continental and transitional environments, and (c) the incompleteness of the stratigraphic record, are largely overlooked by the QPA community. Not accounting for SGM strongly limits the accuracy to which ancient SRS can be reconstructed.

SGM and QPA necessarily need to be merged to improve reconstructions of paleogeography, basin architecture, depositional environments, and the distribution of sedimentary facies in deep-time stratigraphy.
In the last 10 years many works using Raman spectroscopy have been successfully applied to the study of the mineralogical composition of modern sediments in different depositional environments and geodynamic settings [1]. This technique expands the possibilities offered by the polarizing microscope and the classical study of mineralogical optical properties, adding a greater ability to semi-quantitatively recognize the composition of the investigated species and allowing to recognize the mineralogical composition of very small particles, down to a few microns. This tool has in fact opened a new frontier in the exploration of sediment archives preserved both in the continental and marine environment, allowing for the first time to investigate the composition of sediments from 5 to 500 micron [2]. On the continents, aeolian deposits accumulated in the form of loess deposits or sediments trapped in caves and dust deposited on glaciers can be analyzed and characterized with great precision, to infer their source rocks and provenance. Mineralogy of soils can be assessed, and this is fundamental for paleoclimate reconstruction. In a fluvial environment it is possible to analyze the suspended load carried by large rivers and the lake deposits preserved as seasonal layers. In the shallow sea it is possible to study the mineralogy of the deposits piled on the shelf, along the continental slope it is possible to explore the mineralogical changes of contouritic deposits and the composition of detritus that has travelled thousands of kilometers from the source, in the high mountains, to the deep ocean and deposited as distal turbidites. The technique applied to the study of sediments is in full expansion and every year new groups of minerals are considered and analyzed [3], and new ideas are devised with applications for oil and gas exploration and for the exploitation of sediment resources to produce high quality glass and ceramics. The potential is enormous and points towards automation in the recognition of species commonly encountered in sediments, with strategic applications in the industrial sector, searching for precious minerals (diamonds) or for the characterization and research of strategic minerals concentrated by hydraulic sorting in placer deposits. A global database of the mineralogical composition of sediments has been started thanks to the introduction of Raman spectroscopy. We finally apply this technique deciphering the climate of the past, where the sediments are used as a natural archive of climate change comparing the modern with the historical and ancient sedimentary record.

Acknowledgements: The Provenance Group in Milan with Marta Barbarano, Laura Borromeo, Eduardo Garzanti, Mara Limonta, Guido Pastore, Alberto Resentini and Danilo Bersani from Parma, Italy.

References

FEATURED EES PUBLICATIONS/RESEARCH

Dr. Valerie Payré's NASA-funded research on Mars and the planet's crust development is featured in the latest issue of *Iowa Now*.


100 years ago, Chester Wentworth received his MS & PhD degrees from the University of Iowa. While here, he created what is now known as the Wentworth grain size scale, used globally as the standard for describing the sizes of sediment. His foundational paper *A Scale of Grade and Class Terms for Clastic Sediments* was originally published in *The Journal of Geology*, Vol. 30, No. 5 (Jul - Aug, 1922), and can be found here.

JOB OPPORTUNITIES

UNDERGRAD/ENTRY-LEVEL

University of Kansas Museum Studies Applications Due February 1st

The University of Kansas Museum Studies Program offers a flexible master's degree and graduate certificate, with a focus on interdisciplinary and student advising. Our program builds students' technical foundational knowledge in the field while providing hands-on professional skills in museum collections, which deepens their knowledge in their chosen academic discipline. Each student focuses their coursework on the subjects and skillsets that interest them professionally, including the natural sciences. Students work with renowned KU faculty and museum professionals throughout the program, including those in KU's Biodiversity Institute/Natural History Museum collections.

Applications are due February 1 for fall admission. Get to know the program during our Q&A session on Wednesday, December 7, at 6:30 p.m. ET/3:30 p.m. PT. The Zoom link is https://kansas.zoom.us/j/4579691776. Or, contact Program Coordinator Brandy Ernzen at bernzen@ku.edu or 785-864-6408. We welcome in-person campus visits and Zoom meetings!

MSc/PhD Graduate Assistantships in Geoscience Education Research, University of British Columbia (UBC)
University of British Columbia - Vancouver, Canada

The Department of Earth, Ocean and Atmospheric Sciences at the University of British Columbia seeks students interested in graduate study in geoscience education research. Both PhD and MSc positions are available and will be funded by teaching, research, and/or academic assistantships. PhD program also includes Faculty of Science Tuition Award (covers tuition for 4 years). Application deadline is January 15, 2023 and applications will be considered until positions are filled. For more information or to discuss project opportunities, please contact Dr. Laura Lukes at laura.lukes@ubc.ca (please include a resume/cv and writing sample) or visit https://www.eoas.ubc.ca . UBC is a research-intensive university, consistently ranked among the top 20 public universities in the world. The Point Grey campus is located in Vancouver, Canada on the traditional, ancestral, and unceded territory of the xʷməθkʷəy̓əm (Musqueam) and is surrounded by extensive outdoor recreational opportunities year-round. The Geoscience Education Research lab group at UBC values creating an inclusive learning environment and applications from all qualified individuals is encouraged and welcomed.
**PhD and MS Opportunities, University of Nevada Las Vegas**

**University of Nevada Las Vegas - Las Vegas, Nevada**

The Geoscience Department at UNLV is seeking PhD and MS students for Fall 2023 admission. We are seeking qualified students in the fields of Economic Geology, Petrology, Geochemistry, Hydrology, and in other disciplines represented by Departmental strengths. The Department has 20 full time faculty with wide geoscientific research interests, and contains state-of-the-art laboratory facilities including geochronology, stable isotope, SEM, electron microprobe, ICP-MS, and LA-ICP-MS. The Western United States and Nevada present ideal field-based research and recreational opportunities, with close access to several National Parks. Assistantships include salary, tuition remission, and health insurance. The Department also awards the Faye and Jack Ross Family Doctoral Fellowship to highly qualified PhD students, which covers a generous salary, tuition remission, health insurance, and a research and travel stipend. For more information, and to apply online, visit geoscience.unlv.edu. Application deadline is Feb. 1, 2023.

**M.S. and Ph.D. Positions in the Graduate Program of Hydrologic Sciences, University of Nevada, Reno**

**University of Nevada, Reno - Reno, Nevada**

The Graduate Program of Hydrologic Sciences (GPHS) is a multi-disciplinary program based at the University of Nevada, Reno and the Desert Research Institute (https://www.unr.edu/hydrologic-sciences). Faculty are committed to hiring diverse students and developing additional resources to support students. Interested students should contact faculty advisor directly.

- Monica Arienzo is recruiting a MSc student for Mountain Rain or Snow, a NASA funded project. (See https://bit.ly/3Ckueafa)
- Joanna Blaszczak is recruiting a Ph.D. student to investigate hydrologic and biogeochemical controls on cyanotoxin production in rivers. (https://www.unr.edu/nres/people/blaszczak-joanna)
- Michael Gardner is recruiting a Ph.D. student to work on flood hazard assessment focusing on quantifying the erosive and destructive capacity of floods using remote sensing and numerical analysis. (https://www.unr.edu/geology/people/michael-gardner)
- Erin Hanan is recruiting 2 Ph.D. students to work on NASA and Forest Service funded projects to understand wildfire risk and its effects on water security (https://erinhanan.com/wp-content/uploads/StudentRecruitment_PNW-1.pdf)
- Adrian Harpold (https://www.unr.edu/nres/people/harpold-adrian) will be recruiting a Ph.D. student to study water storage in source regions to improve understanding of hydrologic processes in the Intermountain West. (https://www.unr.edu/nres/people/harpold-adrian)
- Kaitlin Keegan is recruiting a Ph.D. student for an NSF-funded project investigating firn densification and microstructure at Taylor Dome, Antarctica (https://www.unr.edu/geology/people/kaitlin-keegan).
- Elizabeth Koebele is recruiting a Ph.D. student to study water governance and policy in the Colorado River Basin. (www.tinyurl.com/CORiverGov)

**PROFESSIONAL / POST-GRAD**

**Assistant/Associate/Full Professor, Chair in Mineral Resources Geology, Oregon State University**

**Oregon State University - Corvallis, Oregon**

The College of Earth, Ocean, and Atmospheric Sciences (CEOAS) invites applications for a tenure-track (Assistant/Associate/Full Professor) faculty position to fill the newly created Barrow Family Endowed Chair in Mineral Resource Geology. The Barrow Endowed Chair generates funds on an annual basis to be used at the discretion of the appointee. We are particularly interested in individuals that conduct field and laboratory-based investigations of ore genesis, evolution, and exploration. Specific areas of interest include, but are not limited to, the role of fluids in crustal processes, structural and tectonic controls on magmA and fluid flow, magmatic, hydrothermal and other processes that determine the concentration and dispersion of mineralized materials, geothermal or active magmatic or metamorphic systems, or related fields. Research strategies should integrate some combination of field investigation, petrology, structural geology, remote-sensing, high-temperature and isotopic geochemistry, and/or other lab-based or modeling approaches.

The successful candidate will have demonstrated capabilities and/or high potential for research and teaching excellence that will inspire the next generation of geology students and early career researchers. The candidate will contribute to teaching undergraduate courses such as mineralogy, petrology, petrography-optical mineralogy, and field geology, as well as graduate courses in their specialty. We are particularly interested in applications from early career individuals. The ideal candidate will demonstrate a capacity for (1) creative research and teaching in geology, geophysics or cognate fields; (2) building an externally-funded research program; (3) developing an international reputation in Mineral Resources Geology; (4) establishing connections with industry partners and (5) contributing to on-going college- and university-wide efforts to improve diversity, equity and inclusion (https://ceoas.oregonstate.edu/del).

For academic-track positions, it is CEOAS policy to hire as a 12-month, 0.75 FTE (equivalent to the traditional 9-month, 1.0 FTE where additional salary can be supported by external grants). Consideration for indefinite tenure is coincident with evaluation for promotion to Associate Professor.

Oregon State University (OSU) and the College of Earth, Ocean, and Atmospheric Sciences are committed to maintaining and enhancing its collaborative and inclusive community that strives for equity, and equal opportunity. All OSU faculty members are responsible for helping to ensure that these goals are achieved. CEOAS faculty are expected to demonstrate a commitment to diversity and inclusion, in promoting efforts promoting equitable outcomes among learners of diverse and underrepresented identity groups (https://diversity.oregonstate.edu/strategic-plan; https://leadership.oregonstate.edu/president/initiatives/moving-forward-together). OSU and CEOAS strive to build and sustain a welcoming, collegial and inclusive campus environment.

The College of Earth, Ocean, and Atmospheric Sciences is an internationally recognized leader in the study of the Earth as an integrated system. It operates numerous state-of-the-art laboratories, two oceanographic research vessels and several national facilities and centers. The College has an annual research expenditure budget of more than $80 million, with support coming from the National Science Foundation, National Oceanic and Atmospheric Administration, National Aeronautics and Space Administration, the Department of Energy, and other federal agencies. It has approximately 100 faculty, 200 graduate students and 800 undergraduate students.

Graduate programs include M.S. and Ph.D. degrees in Ocean, Earth and Atmospheric Sciences; Geology; and Geography and an M.S. degree in Marine Resource Management.

The college offers undergraduate degrees in Geology, Oceanography, Climate Science, Geography and Geospatial Sciences, and Environmental Sciences as well as several minors and certificate programs.

Application URL: https://jobs.oregonstate.edu/postings/128093

For full consideration apply 1/08/2023, applications close 4/08/2023.
Faculty Positions at the Department of Geosciences, National Taiwan University
National Taiwan University - Taipei, Taiwan

The Department of Geosciences at the National Taiwan University (NTU) is seeking active scientists to fill several faculty positions starting from August 1st, 2023. The positions are open to candidates from all fields in geosciences, but more favorable consideration will be given to those who have strong background in the following fields:

- Geo-materials/geo-resources
- Geochemistry
- Hydrogeology
- Mineralogy/petrology
- Sedimentology/stratigraphy
- Structural geology

NTU ranks in the top 100 universities worldwide (QS 2023), and Taipei was recently named one of the World’s Friendliest and Safest Cities for Expats (InterNations 2022). Within Taipei there is easy access, through a world class transit system, to a vibrant city life and to numerous outdoor activities. The Department of Geosciences offers a dynamic and supportive working environment with a wide range of state-of-the-art research facilities. Generous start-up funding is available for new faculty members. Outstanding candidates may also apply for special programs of the National Science and Technology Council with extra stipend and grants.

Applicants are requested to send the following documents: CV, list of publications, statements of teaching and research interests, names and contact information of three referees, and three to five articles published within the recent seven years (one of which need to be designated as representative paper and must be published after August 1st, 2018). Application materials should be sent by email the Searching Committee, at geology@ntu.edu.tw

Deadline for application: January 6th, 2023. For more information, please refer to the website: http://web.gl.ntu.edu.tw/

The University of Iowa College of Engineering intends to hire for one position at either the Research Specialist or Research Associate classification based on the qualifications of the successful candidate. Please indicate in your cover letter the position you wish to be considered for or indicate both.

The Research Specialist or Research Associate will contribute to the research mission of IIHR—Hydroscience & Engineering (IIHR) and the Iowa Geological Survey (IGS) by completing research and service projects related to hydrogeology, water resources and water quality of Iowa. Additional project responsibility will be determined by funding sources and areas of expertise. The successful candidate will assist other IGS staff geologists as needed. This role is eligible for a three year specified term. This position is not eligible for University sponsorship for employment authorization.

Specific Job Duties and Tasks Research Specialist
- Perform research and service-related activities in hydrogeology, water resources and water quality of Iowa.
- Develop new projects and proposals to investigate hydrogeologic, water resources and water quality in Iowa.
- Perform basic and complex procedures and techniques as outlined in research protocol, assure fidelity to protocols, propose modifications to protocols and/or assist in the design of research protocols if needed. Apply new methods/theories.
- Arrange and plan daily activities to prepare for investigation protocols. Develop and implement procedures for monitoring data integrity.
- Perform statistical analysis of data and qualitative analysis of hydrologic data.
- Make recommendations regarding the validity of research and data.
- Coordinate and manage field equipment and facilities.
- Provide training on basic lab techniques and protocols.

Specific Job Duties and Tasks Research Associate
- Assist in research and service-related activities in hydrogeology, water resources and water quality of Iowa.
- Help develop new projects and proposals to investigate hydrogeologic, water resources and water quality in Iowa.
- Assist in field investigation plans. Monitor, test and evaluate current procedures.
- Help perform statistical analysis of data and qualitative analysis of hydrologic data.
- Coordinate and manage field equipment and facilities.
- Provide training on basic lab techniques and protocols.

For a complete job description, please contact Alex Schutman at Alex-Schutman@uiowa.edu.

The University of Iowa College of Law is seeking applicants for a Hubbell Environmental Law Research Fellow. This appointment is part of a newly created initiative at the University of Iowa College of Law and will be a full-time, 12-month position.

The Research Fellow's work will primarily involve research and writing on environmental law and policy issues related to the work of the newly established initiative, resulting in white papers, blog posts, and other similar work products. The Research Fellow will also assist the initiative's Program Director with projects such as conferences and workshops and help create content for podcasts and other social media outlets.

The candidate will be appointed at the rank of Research Associate. The Research Fellow will be expected to be in full-time residence at Iowa Law during the academic year.

In addition to a J.D., candidates should have a strong academic record, excellent legal research and writing skills, and a demonstrated interest in environmental law and policy. Previous work experience in law practice or environmental law is helpful but not necessary.

Please note: This is a 1 year specified term position.

To apply for the Environmental Law Faculty Fellowship program, an applicant should submit the following through:
- cover letter
- resume or CV
- writing sample
- three letters of reference providing support specific to the fellowship

To obtain the full job description including key areas of responsibility, technical competencies, and desirable qualifications, please contact joshua-gulick@uiowa.edu.
The University of Iowa Materials Analysis, Testing, and Fabrication (MATFab) Facility is an Office of the Vice President for Research core resource, offering a wide array of instrumentation to research investigators.

The MATFab Facility is seeking a Core Facility Research Professional to: support medium- to ultra-high vacuum, electron emission and detection, deposition, and etching instrumentation for materials fabrication and characterization including e-beam lithography, scanning electron microscopy (SEM), reactive-ion etching, atomic-layer deposition, photolithography, and chemical vapor deposition.

For additional information and a detailed job description, please visit the departmental website.

Education or Equivalency Required
A Bachelor's degree in a scientific field or related field or an equivalent combination of education and experience is required.

Required Qualifications
- Typically 2-3 years of experience with e-beam UHV systems and electronics.
- Prior experience with maintenance and repair of research instrumentation for physical sciences and engineering applications.
- Strong analytical and problem-solving skills.
- Excellent written and verbal communication skills.
- Ability to work independently in a position of increasing responsibility.

Highly Desirable Qualifications
- A MS in a scientific field or related field or an equivalent combination of education and experience is preferred.
- Experience working in and maintaining a clean room laboratory.

Desirable Qualifications
- Familiarity with electron-beam lithography, reactive-ion etching, atomic layer deposition, chemical vapor deposition methods for micro and nanofabrication applications.
- Familiarity with Scanning Electron Microscopy (SEM), analytical techniques and data analysis.

Position and Application Details and Instructions:
Upload the following required documents and mark them as a “Relevant File” to the submission:
- Cover Letter
- Resume

Job openings are posted for a minimum of 14 calendar days and may be removed from posting and filled any time after the original posting period has ended. Successful candidates will be subject to a criminal background check and verification of academic credentials. Up to 5 professional references will be requested at a later step in the recruitment process.

Contact: Sarah Tillman (sarah-tillman@uiowa.edu)

Director of the Center for the Management, Utilization and Protection of Water Resources (Water Center), Tennessee Tech University - Cookville, Tennessee

Position Description: The Center for the Management, Utilization and Protection of Water Resources (known as the Water Center) at Tennessee Tech University is conducting a search for its Director position. The candidate sought will provide long-term vision and leadership for the Center’s research mission, oversee scholarly, educational and outreach activities, direct Center laboratory services, and manage the Center staff and budget. The Director will also be responsible for establishing a sustained research plan and associated roadmap for the Water Center. This is a 12-month salaried position (not dependent on external funds) with no instructional/teaching expectations. The selected candidate will be expected to work in close collaboration with the Center research area leads, associated faculty, and staff to expand existing collaborations, create new industry/federal/state/academic partnerships and grow the sponsored research program portfolio. They will establish collaborations among the faculty to pursue sponsored and scholarly research opportunities and develop and implement strategies to sustain and grow future Center research.

The Water Center (https://www.tntech.edu/watercenter) was established in 1984 as a response to regional and national concern about environmental and water-resource related issues. Faculty and students throughout campus work with the Water Center to address issues associated with increasing public demands on water resources, watershed management, hydrology, water quality, aquatic ecology, fisheries, biodiversity, and water and wastewater treatment. The Center also houses a state certified environmental water quality lab.

The selected individual will report to the University's Vice President of Research and Economic Development.

Essential Functions
- Provide leadership to maintain and strengthen the Center's research program and laboratory services, and to guide its strategic planning and direction.
- Perform administrative duties related to the Center's research and development projects, manage the budget, and supervise and evaluate the performance of Center staff.
- Assist or work in collaboration with faculty members, students, other Centers, University Departments and University Office of Research in developing externally-funded projects.
- Develop, implement, and sustain the Center's strategic alliances and partnerships with relevant research organizations, universities and governmental agencies.
- Lead a productive externally funded research program within their research expertise.
- Represent the Center and Tennessee Tech University to the public, key stakeholders, academic and industry partners, and state and federal entities.

Minimum Qualifications
The Center Director will have an earned doctorate from an accredited institution in civil and environmental or chemical engineering, environmental sciences, biology or a related area. Five years of experience managing or leading a research program in academia or industry in aquatic biology/ecology, hydrology, water quality, water/wastewater treatment and sustainability or other water-related field is required. Recognized scholarly achievements as measured by high-impact peer reviewed journal publications, and a proven track record of externally-funded research is also required.

Prefered Qualifications
- Proven ability to assemble successful research teams and commitment to working collaboratively with people from different disciplines, including biology, engineering, chemistry and earth sciences, and can advance the current Center research focus areas. Ability to direct and grow a multifaceted water laboratory that serves the local and regional community, as well as University faculty and students. Strong communication and interpersonal skills to work effectively with students, faculty, staff, administrators of the University and external constituents. Participation and leadership in professional societies.

Instructions to Applicants
Interested individuals will be required to apply online at https://jobs.tntech.edu and send a cover letter, detailed curriculum vitae, statement of interest that describes the applicant's vision for the Water Center and addresses the required and preferred qualifications, statement of research, up to three representative journal articles (co-)authored by the applicant, and names, addresses, and e-mail addresses of five references. Any email inquiries and further questions about the position should be sent to Dr. Tania Datta, Search Committee Chair at tdatta@tntech.edu.

Tennessee Tech University is an AA/EEO employer and does not discriminate on the basis of race, color, religion, ethnic or national origin, sex, disability, age (40 and over), status as a protected veteran, genetic information or any other category protected by federal or state law. Inquiries regarding the nondiscrimination policies should be directed to equity@tntech.edu.
INTERNSHIP, SCHOLARSHIP, FELLOWSHIP, & GRANT OPPORTUNITIES

INTERNSHIP

**Summer 2023 Community College Internships (CCI)**
Department of Energy (DOE) / Office of Science's Workforce Development for Teachers and Scientists - Various locations

Are you a community college student in science, technology, engineering, or math looking to develop your technical skills? Then the CCI program is for you. Gain hands-on experience in a technical project under the guidance of a mentor and build your professional network at a national lab. Present your work to scientists and peers, join in social activities, and engage in a variety of professional development activities to enhance your career skills.

The CCI program is sponsored and managed by the Department of Energy (DOE) / Office of Science's Workforce Development for Teachers and Scientists (WDTS) program in collaboration with 16 DOE national laboratories and facilities across the U.S.

**Benefits**
- $650/week stipend
- Housing accommodations or housing allowance
- Round-trip travel reimbursement

Learn how to apply at [https://science.osti.gov/wdts/cci/How-to-Apply](https://science.osti.gov/wdts/cci/How-to-Apply).

Applications are due January 10, 2023 at 5:00 PM ET.

For full eligibility requirements, please visit [https://science.osti.gov/wdts/cci/eligibility](https://science.osti.gov/wdts/cci/eligibility)

**Summer 2023 Science Undergraduate Laboratory Internships (SULI)**
Department of Energy (DOE) / Office of Science's Workforce Development for Teachers and Scientists - Various locations

Are you an undergraduate student or recent graduate in science, technology, engineering, or math looking to develop your research skills?

Then the SULI program is for you. Gain hands-on research experience on an exciting project under the guidance of a mentor and build your professional network at a national lab. Present your research to scientists and peers, join in social activities, and engage in a variety of professional development activities to enhance your career skills.

The SULI program is sponsored and managed by the Department of Energy (DOE) / Office of Science's Workforce Development for Teachers and Scientists (WDTS) program in collaboration with 17 DOE national laboratories and facilities across the U.S.

**Benefits**
- $650/week stipend
- Housing accommodations or housing allowance
- Round-trip travel reimbursement

Learn how to apply at [https://science.osti.gov/wdts/suli/How-to-Apply](https://science.osti.gov/wdts/suli/How-to-Apply).

Applications are due January 10, 2023 at 5:00 PM ET.

For full eligibility requirements, please visit [https://science.osti.gov/wdts/suli/eligibility](https://science.osti.gov/wdts/suli/eligibility)

**GSA Scientists in Parks Summer Internship**

Season is approaching! Applications open in early December 2022 and close on January 22, 2023 at 11:59 EDT. Summer season projects start between May and September 2023. Start preparing your application materials now, and seek out your mentor or faculty advisor for more assistance.

Do you know a college student who loves being outdoors? The Iowa Natural Heritage Foundation is accepting applications now for our 2023 Summer Land stewardship interns! We have four intern crews spread across the state in the Loess Hills, northeastern Blufflands, and central and eastern Iowa.

Land stewardship interns work hard to maintain and restore native Iowa landscapes while also learning about ecology, land management and wildlife. These interns conduct land management and restoration on some of the most exceptional prairies, wetlands, woodlands and savannas across Iowa.

Applications are due **Monday, January 16, 2023**. Learn more at our website: [https://www.inhf.org/about-us/internships/](https://www.inhf.org/about-us/internships/)

**WANT TO SHARE SOMETHING IN THE WEEKLY EES NEWSLETTER?**

The EES Department newsletter is published every Tuesday during the academic year, apart from semester breaks.

If you would like to add an event, club meeting, or other item of interest, please submit an email to geology@uiowa.edu, with the subject heading “Newsletter item,” on Fridays by noon, and your submission will be added to the following Tuesday's newsletter.

Thank You & Have a Great Week!