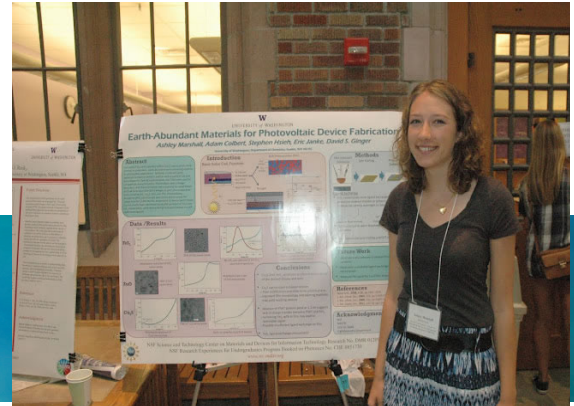




A summer research experience for undergraduates exploring emerging science of energy generation, storage and distribution.



PROGRAM DETAILS

- Four week exploratory session (June 19 - July 19) with a stipend of \$2000
- Full nine week research session (June 19- Aug 19th) with a stipend of \$4500, on campus housing, \$500 food and \$500 travel allowances.
- Four week research experience for teachers (June 19 - July 19) with a stipend of \$4000
- Orientation June 14th
- Mentorship from UW's world-class faculty and grad students
- Focuses on students who have completed their first year of college and wish to transfer to the University of Washington.

GOALS

- Encourage students to pursue STEM careers.
- Provide exposure to research at a hands-on level.
- Improve student knowledge about the nature of research including ambiguity, evolving understanding, and the open ended nature of research.
- Develop student inquiry skills including formulating research questions, experimental design, analysis, scientific communication, and envisioning future steps.
- Impart relevant, state of the art content in photovoltaics, energy storage and smart grids in the domains of physics, chemistry, materials science and electrical engineering.

The Clean Energy Bridge to Research (CEBR) is a new REU (Research Experience for Undergraduates) program sponsored by the Clean Energy Institute. It supports a select group of undergraduates to participate in authentic research in solar, energy storage and grid technologies.

CEBR is recruiting for three cohorts

1) Exploratory session- four week early research experience focused on rising sophomores at community colleges. Students will receive initial training and then complete a mini research project under the tutelage of a graduate student and create an educational product related to their work. Exploratory fellows may apply for the full research bridge summer the following year. June 19 – July 19.

2) Full research session- nine week immersive research project in a single lab leading to an abstract and poster. June 19- August 19.

3) Research Experience for community college teachers working along with students with the goal of integrating clean energy research into their curriculum. June 19 – July 19

Join us as we accelerate the adoption of a clean energy future.

Apply online by February 17th. www.cei.washington.edu/cebr



Clean Energy Bridge to Research REU Program

The UW Clean Energy Institute invites undergraduate students to apply for a research experience at the University of Washington in Seattle

Participating students will have the opportunity to explore research that has the potential to revolutionize the field of clean energy. Because CEBR is multidisciplinary, it offers research experiences in a variety of scientific disciplines including chemistry, physics, materials science and engineering, and electrical engineering.

Participating students may select research projects across a broad range of topics and research areas. Students can choose to work on the theory that drives the development of new molecules for trapping solar energy, new electrode materials and chemistry for batteries, or models for grid management of renewable energy. Other labs work on integrating these new materials into devices at both the nano- and macro-scale.

REU students and community college teachers will also participate in CEBR, seminars, social activities and field trips that provide them with networking and learning opportunities (not to mention fun) and may join other enrichment and outreach activities sponsored by the Clean Energy Institute. These activities are designed to acculturate the student and contextualize the CEBR experience specifically within the field of clean energy and more broadly within those of science and engineering. These activities may include technical content and career seminars, as well as tutorials and workshops designed to teach students how to effectively present scientific research. Some students may be eligible to receive academic credit and be provided with the opportunity to attend professional conferences to share their work and learn about that of others.

By the end of the summer students will be familiar with both the technical lab research skills, and the social and cultural skills necessary to succeed in industry and academia. Students research activities may include literature search, experimental design, bench work and lab notebook management, mathematical modeling, instrumental characterization, computer/software control and analysis, lab safety, as well as communication, organizational and interpersonal skills. Although each student's experience will differ across research groups, some general expectations are outlined below.

1. Students accepted into the full program are expected to work in their designated laboratory for 9 weeks, 40 hours per week to complete an academically appropriate research project designed in conjunction with their advisor. By the end of the nine-week session, students are expected to complete an abstract or summary of their work, a poster and a presentation. Other assignments may be required.

2. Exploratory students will conduct a focused research task in a lab for 4 weeks, 40 hours per week, and produce an educational product that helps translate the research to others. Students have the opportunity to visit several lab and research settings as they establish relationships build awareness. Students who excel in the exploration rotation may be invited to continue their research during their sophomore year and the following summer.

3. Community college teachers will participate in the exploratory experience with the goal of creating curricula that they can use to prepare students for clean energy content and research.

