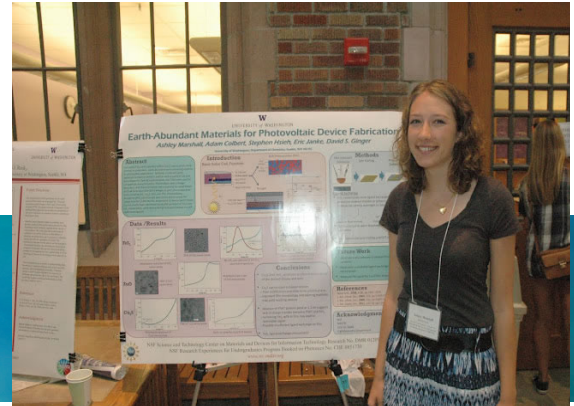




A summer research experience for undergraduates exploring emerging science of energy generation, storage and distribution.



### PROGRAM DETAILS

- Four week exploratory rotation (June 20 - July 8) with a stipend of \$2400 or
- Full nine week research session (June 20- Aug 19th) with a stipend of \$5000
- 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.

### APPLICATION

Personal statement, transcript, and two references are required. Apply online application by April 1, 2016.

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 two cohorts

1) Exploratory rotation- four week training and lab rotation focused on rising sophomores at community colleges. Students will receive initial training and then complete a series of 2-3 job shadows in different labs under the tutelage of a graduate student. This will provide early experience in a variety of lab and research settings and allow students to establish relationships and skills which will give preference in selection for the full research bridge summer the following year. June 20 – July 8.

2) Full research session- nine week immersive research project in a single lab. June 20- August 19.

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

[www.cei.washington.edu/reu](http://www.cei.washington.edu/reu)



# 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 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. 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. All students that are accepted into the program are supported financially with competitive stipends. Capped grants are available to reimburse students for room, board and travel costs. Students who excel in the exploration rotation may be invited to continue their research during their sophomore year and the following summer.

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 40 hours per week to complete an academically appropriate research project designed in conjunction with their advisor. These projects are designed according to both the student's interests and abilities as well as the real needs of the research group. By the end of the ten-week session, students are expected to complete an abstract or summary of their work, a poster and a presentation. Other assignments may be required. See examples of previous student projects [pdf].

2. In an effort to provide a richer experience and understanding of the work performed within the lab, students will also be required to participate in a variety of activities outside the lab. 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.

