



PHASE

A Newsletter of Skaggs Center

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The Practical Hands-on Application to Science Education (PHASE) Newsletter is back! My intention is to publish this newsletter on a quarterly basis as a method of keeping you apprised of student programs and activities at the U.S. Department of Commerce Boulder Laboratories.

I am pleased to welcome Bobby Hart, a Communications Design student, to the Earth System Research Laboratory. Bobby spent his summer working with our Outreach team designing beautiful calendars and will continue with an internship this fall designing newsletters such as this one, visual aides, and documents we can use to promote our research. You can see Bobby's work in this newsletter.

Although many students have returned to their universities, this newsletter will give you an idea of what they spent their summer doing. In addition, I've taken this opportunity to remind you of the many student programs we have at NOAA.

As always, if you have any questions regarding student programs please contact me at Ann.Thorne@noaa.gov.

Student Programs

Hollings

The Hollings scholarship program is designed by the National Oceanic and Atmospheric Administration (NOAA) to increase undergraduate training in oceanic and atmospheric science, research, technology, and education and foster multi-disciplinary training opportunities. The program also strives to recruit and prepare students for careers at NOAA or other related institutions. Another major goal of the Hollings scholarship program is to recruit and prepare students to be oceanic and atmospheric science educators. Students who are accepted into the Hollings scholarship program are awarded with academic assistance of up to \$8000 per year and a 10-week, full time, paid internship (\$650/week) in the summer at a NOAA facility.

http://www.oesd.noaa.gov/Hollings_info.html

NOAA EPP

The Undergraduate Scholarship Program provides an opportunity for rising juniors in college to study disciplines related to NOAA's mission. Students attending minority-serving institutions receive appointments to approved NOAA offices and sites upon acceptance to the program. The goal of this program is to increase the number of students who graduate with degrees in targeted academic fields related to NOAA's mission. This program targets students who have completed their sophomore year, are attending minority serving institutions (MSIs), and have recently declared, or are about to declare a major in atmospheric, oceanic, or environmental disciplines.

http://www.epp.noaa.gov/usp_aboutusp_page.html

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Practical Hands-on Application to Science Education

Student Programs

ISET

The Interdisciplinary Scientific Environmental Technology (ISET) program provides an opportunity for a diverse group of students to participate in NOAA research. Established in 2006, the ISET program allows students from North Carolina A&T University to spend one month at NOAA's Earth System Research Laboratory studying and researching with NOAA scientists. This program targets both undergraduate and graduate students who are interested in a variety of climate-related topics. The main themes of the program are atmospheric science, sensor science, and sensor technology; numerical and physical research and analysis of hurricanes; and information technology tools for data fusion, data mining, and geospatial modeling and analysis. Students accepted to the program are assigned to a mentor who will guide them as they learn about NOAA research.

<http://noaaiset.org/welcome.php>

CIRES

The Cooperative Institute for Research in Environmental Sciences (CIRES) is a joint institute of the National Oceanic and Atmospheric Administration (NOAA) and the University of Colorado at Boulder. They are engaged in earth system research that spans six major divisions. CIRES researchers explore all aspects of the earth system and search for ways to better understand how natural and human-made disturbances impact our dynamic planet. Their focus on innovation and collaboration has made them a world leader in interdisciplinary research and teaching. CIRES is committed to communicating their research in ways that help inform decision-makers and the public about how they can ensure a sustainable future for the environment. This institute has hosted more than 250 visiting research scientists since 1967.

CIRA

The Cooperative Institute for Research in the Atmosphere (CIRA) focuses on gathering data from many different topics related to the atmosphere. These topics include Climate Studies, Forecasting & Evaluation, Cloud Physics, Satellite Observations, Air Quality & Visibility, Societal Impacts, Numerical Modeling, Education, Training, and Outreach. They operate under a five-year renewable Cooperative Agreement with NOAA and their staff includes 146 scientists and students. CIRA has research partnerships with organizations such as Colorado State University, NASA, and NOAA.

REU

The National Science Foundation (NSF) funds a large number of research opportunities for undergraduate students through its REU Sites program. An REU Site consists of a group of ten or so undergraduates who work in the research programs of the host institution. Each student is associated with a specific research project, where he/she works closely with the faculty and other researchers. Students are granted stipends and, in many cases, assistance with housing and travel. Undergraduate students supported with NSF funds must be citizens or permanent residents of the United States or its possessions. An REU Site may be located at either a US or foreign location.

<http://www.nsf.gov/crssprgm/reu/>

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Student Programs

STEP/SCEP

The Student Temporary Employment Program (STEP) and the Student Career Experience Program (SCEP) provide students with another opportunity to get involved with NOAA. The federal STEP program gives students the opportunity to work at NOAA, even if the work is not related to their field of study. To be eligible for this program, students must be in high school, college, vocational school, or graduate school. SCEP is another federal program which allows students to get involved with NOAA. Unlike STEP, SCEP positions are only available to undergraduate and graduate students. In addition, SCEP positions must be related to the student's field of study. If a SCEP participant completes 640 hours of work for NOAA, he/she will be eligible for a non-competitive conversion into a full-time job. The goal of these programs is to recruit and develop talented employees so that NOAA can meet its "professional, technical, and administrative needs, and achieve a quality and diverse workforce."

<http://www.opm.gov/employ/students/intro.asp>
<http://www.makingthedifference.org/federalinternships/employmentprograms.shtml>

NCAR HIRO

The National Center for Atmospheric Research (NCAR) began the HIRO program in 2010. This program is an internship opportunity for high school students interested in exploring careers in the atmospheric and related sciences. NCAR chooses 10 high school students each year for this five-week paid internship. The interns work with NCAR scientists and engineers on state-of-the-art research projects. At the end of their internships, the students must present a poster that summarizes their work. To meet the requirements of this internship, students must be either a junior or senior in high school, submit an essay, an official high school transcript, and a letter of recommendation from a teacher. The Earth System Research Laboratory is a beneficiary of this program as NCAR looks to us for mentors for some of their students each year.

http://www.cbp.ucar.edu/activities/high_school_internship/



Student reception

Practical Hands-on Application to Science Education



"Students gather at a welcome reception at the Earth System Research Laboratory"

"NOAA Corps. CDR. Adam Dunbar greets our scholars"



"Bobby Hart meets other interns at the reception."



"Stacey Hitchcock networking with her peers."



"Matthew Hairston and Stephany Taylor chatting about math."



"Mike Smith listens to CDR Adam Dunbar talk about ESRL."



"Megan Lytle discussing the Hollings Program."



"Josh Aikins talking about meteorology."

The earth is what we all have in common.
-- Wendell Berry



Objective/Mission

Practical Hands-on Application to Science Education



Mission

The mission of the Practical Hands on Application to Science-Education (PHASE) program is to have students benefit from a science intern program at a Federal facility.

The objectives of the program are (1) for laboratories to identify student projects that provide a learning environment and focus on practical hands-on activities; (2) to provide laboratories with profiles of students who have an interest in considering NOAA and science in general as a positive career choice; and (3) to inform students of career opportunities in NOAA.

Objective

A. To seek a broad development and expansion of internship opportunities for high school, college and graduate students and high school teachers.

B. To assist and encourage NOAA organizations in establishing goals and identifying the best possible sources for the recruitment, employment, training and advancement of student Interns.

C. To encourage and actively support the promotion and advancement of Interns already employed.

D. To analyze and determine the educational and professional needs of students seeking entry and advancement in employment; and, whenever possible, provide appropriate training and counseling services to meet these needs.

E. To establish and continually upgrade a broad range of contact with supervisors and Interns across the country via personal visits, telephone calls, e-mails, and periodic newsletters.

F. To respond to the reasonable requests from non-NOAA groups for student referrals when their objectives are supportable and similar to the ESRL PHASE program.

G. To enhance the promotion of student excellence, pride, and camaraderie through organized and regular social gatherings which will serve to bind students together.

H. To provide a forum for major research issues of local and national significance so that students may be better informed and may express their views through seminar presentations before their peers and supervisors.



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