Camp Scholarship Recipients

Consideration to receive this scholarship requires submission of:

- A Completed Application
- Signed Parental Permission Form All applications DUE by:

For Teachers - October 15, 2013 For Students - February 1, 2014

University of Houston-Downtown

July 7 - July 11, 2014 Or July 14 - July 18, 2014

10th, 11th, 12th and Pre-College 12th Interests in Environmental Science, Geosciences, Biology, Chemistry, Microbiology, Mathematics

Problem-based Learning Laboratory/Field Research Experiences Field Trips Expert Brown Bag Lunch Seminars





Scholars Academy Contact Information
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Publications, Videos, and Acknowledgment of Sponsorship

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Watershed Wonder: Environmental Summer Research Camp 2013

NOAA B-WET Grant Program





The Watershed Project



This research project provides the foundation for student/teacher/PhD scientist teams to investigate through research in environmental sciences. The project will also encourage environmental stewardship central to sustainability

of urban and suburban environs.

Watershed Wonders brings together participants with environmental datasets, which can be used by schools studying watershed mitigation of wetlands that surround major urban areas in the southern gulf coast areas of the U.S. Watershed Wonders provides an opportunity for students entering careers in atmospheric sciences, geosciences, applied chemistry, biology/microbiology, and environmental sciences through exposure to watershed stewardship. Field research will take place within the San Jacinto River, Harris County watersheds, and the Houston bayou systems.

What Will You Do At Watershed Wonders Camp?

Students: You will get to assist PhD Professors in their areas of research targeted by this project including environmental science, microbiology, and environmental/sensor chemistry with urban watershed health impacting ocean health as targets. You will learn to collect field data and translate that in a lab setting, thereby better understanding how important watershed health is to urban and suburban communities. You will learn to use NOAA and USGS datasets as controls to real-time field data collections. You will also learn how to collect real-time data. You will meet new people, learn to work in research teams, research skill, and presentation skills.

Teachers: You will be trained and assisted in development of curriculum lessons targeting wetlands near your community, using Vernier probeware for real-time data collection, and using NOAA and USGS datasets as instruc-



tional tools to deep learning and student understanding of

environmental knowledge, skills, attitudes, and actions leading to stewardship of the environment. <u>All:</u> Both teachers and students will hear from watershed research and industry experts in the Houston area through seminar presenta-

tions and field trips! Some examples of research areas include: diatom diversity between mitigation and natural wetlands, succession trajectory of wetland microbial communities, and wetland soil and water chemistry.

NOAA Watershed Wonder: Environmental Camp

Project's Purpose

The overarching question is to measure the effect of the Watershed Wonder program (offer meaningful watershed educational hands-on experiences for students, related professional development for teachers) in impacting attitudes and actions of participants.

Project Goals

1) change in attitudes built from first-hand experience, especially in one's community and culture, is critical to achieving environmental stewardship;
2) science, technology, engineering, and mathematics can be offered as multiple focal points through first hand, carefully selected environmental learning experiences; and 3) environmental experiences centered around questions, problems, and issues investigated through pre-post attitude surveys, field data

collection, observation, and hands-on activities stimulate critical thinking, problemsolving skill development, and support student achievement, efficacy in teacher pedagogy,



and motivation to enter STEM college programs.

Post-Camp Tuition Scholarship Opportunities

Summer Watershed Wonder Environmental Camp completers that are May/June 2014 high school graduates may be eligible for a Watershed Wonder tuition scholarship if entering UHD and the Scholars Academy.





About UHD



UHD is Houston's Downtown University. UHD is a public university serving 14,000 students and offering a variety of over 44 bachelor's and master's degrees. With dedicated faculty, small classes and innovative course

options, UHD offers excellent educational and career opportunities. UHD prepares individuals to thrive in the multicultural workplace of the 21st century through interaction with its richly diverse student population.

About Scholars Academy

The UHD Scholars Academy (SA) is an academically competitive program in the College of Science and Technology (CST) that promotes scholarship and student success for UHD undergraduate students majoring in Science, Technology, Engineering and Mathematics (STEM). A major part of our mission is to increase the number of academically capable students graduating with degrees in the STEM fields, and to increase the number of those choosing to further pursue graduate and professional degrees. This competitive program is made possible by The Brown Foundation, Inc., National Institutes of Health, National Science Foundation, U.S. Army Research Office, U.S. Department of Education, Welch Foundation, U.S. Nuclear Regulatory Commission, NOAA, and UHD Donors.

Scholars Academy Post-High School

In order to be accepted into the Scholars Academy, the student should meet the following requirements:

- Minimum unweighted overall 3.0 GPA (on a 4.0 scale)
- Minimum score of 450 on SAT math and verbal exam sections
- At least Pre-Calculus in high school preferred
- Be accepted and enrolled at UHD as a full-time student and a member of the Scholars Academy
- Declare a STEM major
- Be a U.S. citizen or permanent resident if you are seeking scholarship support (a limited number of scholarships are available for non-U.S. citizens/residents)
- Complete the FAFSA and UHD Financial Aid forms (visit www.uhd.edu/financial aid)