

Graduate Student Involvement with REHS Program at the VCR LTER Summer 2007 RFP

Background: For the past 6 years the University of Virginia, Department of Environmental Sciences through its Virginia Coast Reserve Long Term Ecological Research Program (VCR-LTER) and with support from the National Science Foundation has been heavily invested in educational outreach activities in the Northampton County Public Schools. With the opening of the new Anheuser-Busch Coastal Research Center in Oyster VA, we hope to expand our educational activities by developing new outreach programs. The Research Experience for High School Students (REHS) program is the first of these new outreach activities to be developed, and is being funded by a grant from the National Science Foundation with the expectation that it will further the goals of the existing School Yard LTER program at the Virginia Coast Reserve.

The *Virginia Coast Reserve Schoolyard LTER Mission* is to:

Enhance environmental science literacy/awareness in Northampton county, and surrounding counties, at all grade levels. To better prepare students through classroom activities and field experiences. To support the teachers by providing teacher training and curriculum resources. Our vision is that these goals will enhance the scientific mission of the VRC LTER.

The main objectives of the REHS Program are to:

1. *Provide an opportunity for highly motivated High School students to gain first hand experience in Environmental Sciences, and conduct field research under the direct supervision of a trained scientist.*
2. *Provide graduate students conducting research activities at the VCR-LTER program with enthusiastic and highly capable field assistance.*
3. *Further the research goals of the VCR-LTER program.*

Participation in the REHS program will be limited to the available funding through competitive awards to both the high school students and graduate students applying to the program. It is anticipated that 4 REHS teams (1 high school student/1 graduate student/1 faculty member) can be funded during the summer of 2007. *This announcement/RFP describes this program and explains the benefits (both financial and otherwise) for participating graduate student/faculty mentors as well as their obligations to the Program.*

REHS Program Description: The REHS program will partner highly motivated and qualified Northampton High School students wishing to gain first hand experience in Environmental Sciences with graduate students/faculty mentors from the University of Virginia, Department of Environmental Sciences who are currently conducting research at the VCR-LTER. REHS summer interns will work one-on-one with their graduate

student mentor to assist in the graduate student's summer field research and to develop an independent research project to be conducted by the intern. All program participants will meet on a regular basis to discuss the current status of their research projects with ABCRC scientific staff and UVA faculty. REHS summer interns will be expected to make a public presentation of their research results at the end of the project. High School students selected as REHS summer interns will be paid a stipend of \$2500.00 for the 8-week program. ***Graduate students selected to participate will receive a \$1,000.00 augmentation to their summer RA stipend.*** Each REHS team will be provided with a modest field supply budget (\$750.00) to be used for the purchase of supplies needed by the REHS intern to complete their research project. Each intern will also receive a \$250.00 travel budget to be used for travel to a science conference (perhaps the VCR Annual All-Scientists Meeting) where they can present the results of their research project.

Graduate Student/Faculty Interest and Call for Proposals: This RFP is designed to help identify potential REHS research projects and determine graduate student interest. Specifically, we are soliciting research ideas from graduate students that high school students could pursue as part of a mentored team that also addresses the research needs of the overall LTER Program. Since each graduate student working at the LTER site is conducting relevant research, it is anticipated that the high school student research would directly impact and benefit the graduate student's research as well. Simultaneously to this RFP process, we are identifying a cohort of highly motivated high school students from Northampton High School, and eventually these REHS research teams involving the high school student, a graduate students and a UVA faculty member will be selected.

Graduate students wishing to participate in the REHS program must meet the following eligibility standards:

1. Be currently enrolled in the Department of Environmental Sciences at UVA
2. Be conducting field research at the VCR-LTER
3. Be willing to attend an information meeting at the ABCRC (currently scheduled for April 22nd) and present an overview of their research project and summer field activity plan
4. Be willing to spend a significant portion of the summer at the ABCRC working with and supervising an REHS Summer Intern.

Application Materials Required Include:

1. A letter of support from their faculty advisor
2. A 2 page proposal outlining their summer research objectives and clearly describing the role and project that may be conducted by an REHS Summer Intern.

The role of the high school student is not envisioned as a primary "gopher" for the graduate student or faculty member, but instead the high school student's role is to conduct a stand alone project, under the careful supervision of the graduate student and

faculty mentor. In this context, both the faculty advisor letter and proposal outline are very important. A Review Committee¹ will evaluate the applications and select several projects that will then be presented to the high school students at the April 22nd meeting at the ABCRC. The graduate students whose projects are selected will be asked to attend this meeting and briefly introduce themselves and their project. Eligible high school applicants, that are prescreened, will then be asked to prioritize their interests among the possible projects and the Review Committee will then match the REHS teams together given mutual interests, and the strength of the high school student's application.

Once the successful REHS teams have been identified, there will be a required orientation meeting involving all graduate students and high school students. Day-to-day supervision of the high school student's progress is the responsibility of the graduate student in conjunction with the mentoring faculty member. The experience is culminated with the preparation of a presentation summarizing the high school student's work and results. This, too, will involve oversight and guidance by the graduate student. As mentioned above, limited travel funding is available to attend a scientific conference to present the results of their work.

Timeline/Important Due Dates:

- March 21: Official Program announcement and call for Research Proposals from Graduate Students.
- April 11: Graduate Student Research proposals due.
- April 13: Announcement of Graduate Proposals Accepted
- April 22: Presentation to High School Candidates
- April 27: High School Candidate Applications due
- May 1: Notification of High School Candidates Accepted
- June 21: Participant Introductions and Program Orientation, including visit to the ABCRC and plane flight over the VCR.
- June 25: Start of REHS Field Activities
- August 17: End of REHS Field Activities followed by Presentation Development

Questions: Any questions regarding this program can be addressed to either Dave Smith or Art Schwarzschild. Thanks for your interest.

¹ The Review Committee will consist of Dave Smith, Art Schwarzschild, Karen McGlathery, and John Porter from UVA, and Tom Bonniwell from the Northampton High School science faculty.