



DREAMS

Diversity in Research in Environmental and Marine Sciences

Introduction

DREAMS is a partnership program between Hampton University's Department of Marine & Environmental Science and the Virginia Institute of Marine Science (VIMS). This program will provide students with comprehensive research training, career preparation and leadership training. Our goals are to enhance students' academic performance in environmental and marine sciences, increase ethnic diversity in science higher education and workforce, and establish Hampton U. students as role models in the science and local communities.

This program is sponsored by the Undergraduate Mentoring in Environmental Biology program (UMEB) within the Division of Biological Infrastructure (DBI) of the National Science Foundation (NSF).

Program Content

To guide students step-by-step toward success, DREAMS will be implemented in four phases:

Preparation Phase (Year One): An entry-level course **Humans and the Aquatic Environments** will introduce students to basic knowledge of environmental and marine sciences. A **research seminar series** will keep students abreast of new advances in aquatic sciences, and provide opportunities for face-to-face interactions with top scientists in the field. A **research summer camp** will prepare students with common research technique and methods. Special activities on **Ethics & Science** will teach students proper conducts in sciences and ways to handle controversial subjects.

Exploration Phase (Year Two): Year-long **lab rotation** at VIMS will give students full exposure to diverse aquatic environmental research, and allow them to develop research ideas for the subsequent year. In **career seminar series** students will learn about alternative careers in aquatic sciences.

Experience Phase (Year Three): Students will gain in-depth research training through a year-long **research internship** under the guidance of VIMS mentors. A **communication skill workshop** will sharpen students' writing and presentation skills.

The students' research achievements will be celebrated in a **student symposium**. Sharing and Out-Reach Phase (Year Four): Students will attend national and regional **professional meetings** and share their research results with the broader community. They will also share their knowledge and experience with the general public through **outreach programs** in Hampton University. **Graduate school preparation seminars** will aid senior students who wish to pursue advanced degrees in sciences.

Student Benefits

DREAMS participants will be selected on a competitive basis. In addition to a **great learning experience**, students will receive **stipend** for the summer workshop, VIMS internship and outreach activities. Students who complete the program satisfactorily can earn **up to 14 credits** toward their graduation, and will be honored as **DREAMS Scholars** by the Dean of School of Science.

Contacts

To learn more about the program, please contact **Dr. Deidre Gibson** (757-727-5883; e-mail: deidre.gibson@hamptonu.edu).

***The following information will be used for the links indicated in bold print. The yellow tabs are just reminders and should be deleted once the links are established.**

Insert the HU logo from the website to the left of the NSF logo

VIMS homepage <http://www.vims.edu>

Humans and the Aquatic Environments

It's more than just science! This new lecture series by Dr. Deidre Gibson will introduce you to the many aspects of the aquatic world. From mysterious deep-sea creatures to stories of human adventure in the ocean. You will never think of the ocean the same way again!

<i>Lectures are open to all</i>	
	Place:
	Time:
<i>Date</i>	<i>Topic</i>
9- 2 -2003	Bridging the gap: Minorities in Marine Science
10- -2003	Science of the Deep: Mid-water Mysteries
11- -2003	Hampton University MAST Program

DREAMS Research Seminar Series

Outstanding scientists are invited to talk about their exciting research! Come find out what are the hot issues in environmental and marine sciences. Enjoy the opportunity to interact with the speakers in a relaxing atmosphere.

<i>Seminars are open to all</i>		
Place:		
Time: 4:00–5:00 p.m., followed by refreshment		
<i>Date</i>	<i>Speaker</i>	<i>Title</i>
9-17-2003	Roy Pemberton (Virginia Institute of Marine Science)	
10-1-2003	Eric Wooden (Virginia Institute of Marine Science)	
10-15-2003	Dionne Hoskins (Savannah State Univ.)	
10-29-2003		
11-12-2003		
11-24-2003		

Research Skill Summer Camp

Get your feet wet at the VIMS Eastern Shore Lab! In this five-day summer camp, you will take boat trips to the Chesapeake Bay, conduct environmental measurements with oceanographic instruments, collect and analyze samples with state-of-art equipment, and use various computer programs to analyze and present your data.

<i>Free for selected participants</i>		
<i>Summer stipend provided</i>		
<i>Space limited, contact Dr. Deidre Gibson for details</i>		
<i>Date</i>	<i>Location</i>	<i>Activity content</i>
Summer 2004	VIMS Eastern Shore Lab	Boat trips, environmental measurements, sample collection and analysis, field and laboratory instruments, data processing with computer programs, on-site professional mentors, BBQ, games and social hours

Ethics and Science

“Mad scientists” in movies may bring us some comic relief, but maintaining proper conducts in science is no laughing matter! What are the standard for acceptable behaviors in science? How should you respond to controversial situations in your career? Ethic education is an indispensable part of the scientific training, and is essential to preserve the integrity of the profession. In a special series of “Ethics & Science” activities, we will explore some of the ethical issues through seminars, study groups and workshops. Activities will begin in Spring 2004. (Please check back for details.)

VIMS Lab Rotation

Get involved in a wide range of research activities in this top-class institution! From microbes to sea turtle, from sediment chemistry to organic pollutants, from basic research to coastal management. Discover the many facets of environmental and marine sciences. Selected DREAMS students will visit and work with different research units at VIMS throughout the year. Lab rotation will run through Fall 2004 – Spring 2005. Stipend and transportation are provided. Contact Dr. Deidre Gibson for details.

Career Seminar Series

Think graduate school is your only option? Think again! There are a lot more career choices in environmental and marine sciences. Speakers from government agencies, industries, education sector and environmental groups will share their personal experience and insights, and how to find the jobs you like! Seminars will begin in Fall 2004 and are open to all. (Schedule to be announced).

VIMS Research Internship

DREAMS students will work with a VIMS research group of your choice and get year-long in-depth training in cutting edge science! Conduct research projects under the guidance of VIMS mentors. Get the best hands-on experience in a professional environment. This is an internship opportunity you don't want to miss! Internship will run through Fall 2005 – Spring 2006. Stipend and transportation are provided. Contact Dr. Deidre Gibson for details.

Communication Skill Workshop

How to talk the talk? Learn how to do effective poster and platform presentations in professional meetings and prepare manuscripts for publication in professional journals. In this workshop you will have the opportunity to practice and improve your communication skills.

<i>Workshop is free and open to all students</i> <i>Space is limited, registration deadline is _____</i> Place: Time:	
<i>Date</i>	<i>Topic</i>
May 2004	How to do effective poster presentations
	How to do effective platform presentations
	How to write scientific publications

DREAMS Student Symposium

At the conclusion of the VIMS internship, you will showcase your research achievements and share your internship experience with the university community at this special Student Symposium! (Please check back for details.)

Professional Meetings

The world is waiting to hear about your research! Present your research results in conferences organized by American Society of Limnology and Oceanography (ASLO), Estuarine Research Federation (ERF) and other professional organizations. Financial support is available for meeting registrations and travel. (Please check back for details.)

Outreach Programs

Remember the excitement on your first trip to a science fair? Or the fun in your first discovery camp? Now you also have the chance to help others to discover the wonder of science! By assisting the Interdisciplinary Science Center in their outreach programs, you will share the joy and excitement of scientific adventures with the public. Stipend is provided. (Please check back for details.)

<i>Date</i>	<i>Program</i>	<i>Target group</i>
TBA	Geoscience Summer Day Camp	Rising 6 th graders
TBA	Geoscience Highschool Mentorship Program	Rising juniors and seniors
TBA	Geoscience Teacher Workshop	High school teachers

Graduate School Preparation Seminar

How to choose the right graduate program? How to find the right advisor? How to get ready for GRE? How to write a good application letter? No need to scratch your head! Come listen to the folks who are in charge of graduate school admission and get an inside look at the selection process. (Please check back for details.)

Academic Credits

<i>Activity</i>	<i>Number of Credits</i>
VIMS Lab Rotation	6
VIMS Research Internship	6
Outreach Programs	1