Bermuda Institute of Ocean Sciences
St. George, Bermuda

❶ Please describe your organization briefly, including mission statement, activities, size, etc.

The Bermuda Institute of Ocean Sciences (BIOS) was founded in 1903 as the Bermuda Biological Station. BIOS is an independent nonprofit institution that conducts world-class marine research and education from its unique mid-Atlantic location. We seek to improve society's understanding of marine ecosystems, ocean/atmospheric interactions and ocean health, and their influence on man's habitat and health. BIOS is a U.S. non-profit research organization and a Bermuda Registered Charity, and provides well-equipped facilities for scientists and students from Bermuda and around the world.
www.bios.edu

The Education Department at BIOS has established the Bermuda Ocean Outreach Program to provide educational outreach to local students. This umbrella program involves a series of coordinated outreach initiatives targeting Bermuda's youth with an aim to provide motivation and practical experience. Two of the initiatives under this umbrella are the Waterstart Program and BIOS Explorer.

Waterstart is a summer program for teenagers aged 12 and older involving ecological studies, marine science field work and practical skill development. Students learn to scuba dive and gain PADI dive certifications, interact with faculty and graduate students at BIOS and assist with ongoing research projects. The Waterstart Program is in its 7th year and has catered to over 300 local students, several of whom are now pursuing marine science at university. More details about the Waterstart program can be found at
www.bios.edu/Education/waterstart/waterstart.html.

The BIOS "Explorer" Program is entering its third year of production. This program was launched in 2006 and was based on Dr. Robert Ballard's JASON project. The purpose of the Explorer program is to reach a broad cross section of local students and motivate them in their studies of science and mathematics. Piggy-backing on the Waterstart program, Explorer takes the summer science program into the classroom to reach thousands of students each year. Components of the program include:

- a summer science expedition for high school aged students led by BIOS faculty; this is an advanced component within the Waterstart program which is filmed by a local media company
- professional development workshops for local middle and high school teachers; these workshops run over 2 days in the fall
- winter broadcast of footage captured from the summer expedition with hands on learning opportunities; several thousand students attend 2 weeks of broadcasts.

More details about the Explorer program can be found at
www.bios.edu/Education/BIOS_Explorer2006/index.htm.

❷ Describe **in detail** the work or project an intern will do, **please be as specific as possible**.

The intern will be involved in both the Waterstart and Explorer programs and will be tasked with the design, creation and implementation of curriculum, under the direction of the BIOS Education Officer. This will be a dynamic role requiring some creativity, and will incorporate both daily interaction with students and the planning and preparation of lessons. With direction from the Education Officer, the intern will:

Prepare (for two weeks prior to the summer program start)

- Research lesson ideas and field activities on the current Explorer topic. This topic is still to be determined but will possibly be, "Ocean Health, Human Health.
- Liaise with faculty (our "Host Researchers") to design hands-on research projects for the summer students.
- Draft lesson plans for local teachers. These lessons will be based on the expedition theme and will serve as supplements to the standard science curricula. Efforts will be made to align these lessons to both Bermudian and U.S. standards.

Teach (during the six weeks of programming planned for summer '08)

- Assist with daily programming for teens enrolled in the summer program, including teaching elements of the curriculum, assisting with fieldwork and aquatic skill lessons.
- Provide supervision of students both during labs and while involved in aquatic activities; responsible for student safety while on the program.
- Help maintain a positive atmosphere during the program; require student adherence to discipline policy.
- Refine lesson plans as the expedition theme develops; revise or add new components if necessary.

Publish (during the program or at its conclusion)

- Edit and produce curriculum in a format accessible to local teachers (web page(s), CD-ROM etc

This position will challenge the intern to be creative, to synthesize a range of ideas and topics and create a curriculum packet that will serve as a real resource for teachers in Bermuda and possibly overseas. While the project will require some autonomy and allow room for creative development of ideas, there will be plenty of direction and assistance from the educational staff and faculty at BIOS. The position will provide excellent experience teaching and supervising students, and many opportunities to experience current research initiatives at BIOS.

❸ Describe any particular skills, background, or qualities you are seeking in an intern

The ideal intern will be a "natural" outdoor educator who is able to relate with students in a positive, encouraging manner. They will be able to maintain discipline and will be very comfortable working on boats and in the water. Specific skills and qualities that we are seeking include:

- Experience teaching and interacting with teenagers (understanding of curriculum design would be an advantage).
- Boat and water safety skills; First Aid and CPR certifications are required (BIOS can assist with this if necessary).
- Snorkel and dive skills (scuba certification is not required but would be an advantage; the intern may be able to advance their certification level during the internship)
- Marine science content knowledge and interest in ecology and environmental science.
- Ability with word processing and spreadsheet programs (experience with webpage design would be an advantage)

- There are required dates for this internship. Internship must start on _____ and end on _____ or most include the period _____.
- **Start and end dates for the internship are flexible. (Please see note below.)**

In 2008, our summer programs run from July 7th until August29th. Ideally the intern will arrive at BIOS to assist with preparation and to draft curriculum 2 weeks prior to the first program. This would mean an internship term from *June 23rd until August 29th or a full 10 weeks.* These actual dates are flexible however and could be moved in either direction if necessary.

The expected working schedule for this internship:

Begin **8:30 a.m.** End **5:00 p.m.**

Lunch break: Length **1 hour** specific time **N/A**

The daily schedule is flexible in that staff rotate responsibilities for supervision. Everyone has "downtime" including lunch breaks but it is not possible to specify an exact time for these. For our residential programs, staff takes turns with evening and overnight supervision, but any time spent supervising at night earns an equal time off on a consecutive day. ie The week works out to be approximately 40 hours long.

Intern will receive full room and board plus a weekly stipend of $150.