

# BIOS



Bermuda Institute of  
Ocean Sciences

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**Bermuda Institute of Ocean Sciences**

BIOS, founded in 1903 as the Bermuda Biological Station, is an independent U.S. not-for-profit marine research and education organisation. Gifts are U.S. tax-deductible.



## Balance Sheet (12/31/17)

• Total assets:	\$43.1M
• Net assets:	\$34.5M
• Endowment included in net assets:	\$15.1M
• External debt:	\$6.9M

## Operating Budget 16.5M (2017)

• US federal & other research grants:	\$4.9M
• Marine operations (NSF):	\$6.2M
• Tuition, guest, residential services:	\$1.9M
• Endowment annual distribution:	\$0.7M
• Funding from foundation grants and donations:	\$4.0M

## Personnel

• Research scientists (PI level):	12
• Other research staff, admin, & ship's crew:	74

## Campus

- 16-acres in St. George's, Bermuda
- 11,000 ft<sup>2</sup> of lab space, plus residential & guest facilities

## Research Vessel *Atlantic Explorer*

- Owned and operated by BIOS in compliance with UNOLS
- 170 feet; Ocean/Intermediate class; 120-200 days at sea
- Crew of 12, max science party of 22

## Student Enrollments

• Three summer short courses:	42 students
• Fall semester program:	24 students
• NSF REU interns + other research interns:	7 + 32 students

## Visiting Groups

• Number of groups:	27
• Number of students/faculty:	480
• Number of overnight stays:	3089
• Average length of stay:	6.4 days

## BIOS Proposal:

Lehigh acquires all assets and liabilities of BIOS

Lots of asterisks:

- Maintain the BIOS name and logo—though it can be altered to include something like “at Lehigh University”
- For now, keep it as a NY 501c3; Bermuda Charity, maintain BIOS Board subject to Lehigh BoT...
- Honor existing contracts, agreements, promises...
- Minimize disruption for BIOS staff and employees
- Offer faculty positions to 6 or so staff scientists
- Continue to be active in Bermuda education, expert advice for government, community engagement...

## **What do I think BIOS is looking for?**

- Additional intellectual breadth—to help with current and future research on oceans, atmosphere-ocean interactions, ...
- Partnership with an established university that allows scientist/faculty careers to improve retention of talent (COL, schools, opportunity to teach, advise students, stability...)
- Access to students (undergrad and grad) and colleagues
- Possible broader range of non-ocean science activities in Bermuda (K-12, possible collaboration with Reinsurance and fin-tech, support for Gov't environmental work...)
- Possible efficiencies by working with larger well-established organization (i.e. facilities, HR, library resources...)
- Opportunity to retain BIOS identity

## **What might Lehigh be looking for?**

- New research opportunities we currently do not have access to (infrastructure, experience, geography, partners...)
- New educational opportunities for Lehigh students (e.g. semester in Bermuda with immersive courses on reef ecology, ocean impacts on climate, and history and culture of Bermuda...)
- Minimal operating budget impact—not a source or sink of funds
- Create an example of externally funded, large scale research institute

## How might this work?

Create an Institute (BIOS) that reports to Provost or VP of Research

- Incorporate current BIOS staff into this Institute, managed by Institute Director
- Funded by grants and contracts, program revenue, endowment, gifts (as is currently the case)
- Principal PI's in this institute are Lehigh faculty so they are engaged with the rest of the university, can recruit and advise graduate students, can teach for-credit Lehigh courses...
  - Faculty do not need to exclusively do research in this institute—some may, some may not.
  - Some current BIOS research staff who have credentials suitable for consideration as Lehigh faculty, would be invited to join Lehigh faculty—think of this as a cluster where departmental 'home' is determined by what seems to be a disciplinary 'best fit'.
  - Possibly deliver some courses from Bethlehem to Bermuda, or from Bermuda to Bethlehem

Institute is responsible for its own budget

- Scale and scope of external funding may change over time, so staffing and budget in the institute will have to adapt to changing revenue
- Some shared services for efficiency, effective compliance...

## **Brief BIOS-Lehigh timeline-**

November 2017: BIOS visits Lehigh to introduce partnership possibility

February 2018: Farrell visits BIOS

February 2018: Farrell starts to invite possibly interested Lehigh faculty to help assess the opportunity

May 2018: Simon visits BIOS

Summer 2018: one Lehigh faculty member visits BIOS (all in group invited)

Summer 2018: Farrell meets with EES and Biological Sciences faculty in advance of BIOS scientist visit to brief departments

September 2018: Four BIOS research staff (prospective Lehigh faculty) visit Lehigh, talk to EES and Biological Sciences faculty, give a collective seminar...

Fall 2018: Farrell asks EES and Biological Sciences to consider whether they would be willing to 'host' 3 BIOS scientists each as new Lehigh faculty (cluster model)

January 2019: two faculty from EES and two from BioSci visit BIOS

January 2019: EES and BioSci respond via summary from chairs

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