

Program for Interdisciplinary Environmental Research  
A Graduate Specialization  
PIER OVERVIEW FOR STUDENTS

**CMBC Vision for PIER**

Solutions to environmental issues will require not only understanding natural systems but also the human institutions and behavior geared toward marine conservation. Definitive answers require approaches in the biological, social and biomedical sciences, as well as aspects of the arts and humanities, with important technological input from the physical, chemical, and computing sciences. PIER seeks to prepare tomorrow's leaders to analyze, manage, and remedy global environmental impacts.

**Academic Requirements**

The PIER program creates a layer of structure on top of the requirements of the primary department. Thus, the student must complete the PIER requirements in addition to all of the requirements of his/her home department to receive the Specialization Degree.

- 1) 16 Unit Summer Course SIO295S/SIO295LS
- 2) 6 units IFER SIOB269 (2 units 3 x) – Interdisciplinary Forum
- 3) 8 units – Secondary field

**1) 295S/295LS (16 units – Summer only) Global Change, Marine Ecosystems and Society.**

The course demonstrates the linkages among various disciplines and the need for interdisciplinary approaches to address environmental challenges.

Goals of the summer course

1. To provide students with an introduction to several fields of study in order to help students with diverse educational backgrounds establish a fundamental skill set;
2. To ensure that all students have a basic understanding of marine biodiversity, conservation and global change through the lenses of natural sciences, economics, business, governance, ethics and communication; and
3. To provide an integrated course to demonstrate the linkages among various disciplines and the need for interdisciplinary approaches to address global change, marine biodiversity and conservation

**2) SIO 269B (2 units) Interdisciplinary Forum on Environmental Research (IFER).**

IFER is a student led lecture and discussion series intended, above all, to foster a sense of community and help develop interdisciplinary collaboration and communication between students in different fields and provide feedback to PIER faculty.

The course is offered every quarter. The course must be taken by PIER students three times for credit. However, we expect all PIER students to participate when they are not otherwise conflicted by departmental coursework or thesis research. PIER students have roles to play years 1, 2, and 3. These roles are detailed in the PIER Handbook. Each PIER cohort is responsible for a period of one academic year, for organizing all aspects of IFER: including topic selection, room reservations, promotion of forum events with a summary of activities at the end of each quarter.

**3) Coursework in a Secondary Field.**

Each student is required to complete two or more courses (a total of 8 units) in a single discipline or department other than those in the student's primary department—called the *secondary field*—the field is chosen by the student and approved by the student's

"secondary thesis advisor" (see below). This requirement is satisfied by enrolling, and obtaining a grade of at least "B-" or PASS, in the selected secondary field courses. We suggest a secondary field advisor be selected to discuss potential courses. Students may select the courses before the secondary field advisor has been identified, but the advisor must ultimately certify that the course satisfies the PIER requirement.

Suggested Course list is provided in the PIER Handbook.

#### **4) Thesis Requirement**

It is expected that at least one chapter of the dissertation will be broadly related to environmental research and will be interdisciplinary in nature.

#### **5) Doctoral Committee**

Constitution of the Doctoral Committee will be enforced in accordance with University and home department regulations. At least one member of the Committee will be the "Secondary Thesis Advisor" representing a PIER-affiliated department in the students' "secondary" field of study. The other committee members are selected by the student and the primary advisor to represent the intellectual breadth of the student's thesis work and will normally draw heavily from the students' home department.

#### **6) Reporting for program academic review**

Students are required to complete the annual self-assessment at the end of the academic year.

Please submit via email to the PIER committee co-chairs (Geoff Brasswell and Stuart Sandin) a single .doc file addressing each of the following categories (use each as a subheading for the report). For first year students, a response of nothing to report under any or all subheadings is anticipated and is acceptable.

- (a) Publications - list full citation (include all authors)
- (b) Conference Publications (Name of the conference and dates, title of publication or poster)
- (c) Conference Presentations (Name of the conference, date of presentation, title of presentation)
- (d) Outreach (includes Op-Eds, TV, Radio, Newspaper) & public (or school) presentations. Include title of presentation or article, media, and date of activity (photos are welcome)
- (e) Research and/or Educational achievement or finding and why it is important

NOTE: Many of these items are the same as those solicited by the graduate counselors and/or graduate administration of a student's home department.