



## **Marine Ecology and Blue Carbon Field Project**

ENVI 3060 (3 Credits / 45 hours)

SIT Study Abroad Program:  
Panama: Marine Ecology and Blue Carbon Conservation  
in the Pacific and Caribbean

**PLEASE NOTE: This syllabus is representative of a typical term. Because courses develop and change over time to take advantage of unique learning opportunities, actual course content varies from semester to semester.**

This course offers students the opportunity to work on field research projects at one of the sites studied on the program: Bocas de Toro, Coiba Island, Contadora Island, or the Guna Yala Comarca, on research topics related to blue carbon, marine biodiversity, or topics pertinent to marine science.

### **Learning Outcomes**

Upon completion of this course, students will have had the opportunity to:

- Conduct important field research on the biology, ecology, or conservation of marine ecosystems, coastal ecology, or blue carbon,
- Apply appropriate field research methodologies and collect data for their field work.
- Effectively analyze their field data and generated research results and conclusions.
- Write and present a professional field report with their findings.

### **Course components and topics**

#### Research Preparation

In coordination with the program director and through discussions with program professors and participants at the sites visited during the first three weeks of the program, students will choose a project topic. Each student will meet with the director twice during the first three weeks of the program to discuss their progress on topic selection, relevant existing research, and potential research options. It is incumbent upon the student to investigate and explore potential research avenues if the student prefers not to research the suggested topics. It is also the responsibility of the student to follow through with the recommendations made by the director and the research advisors during the meetings. Students should begin to research and collect research

articles related to their topic as early as possible. **The final project topic and research outline is due on June 15 at 12 pm via email to the director.**

### Research Proposal

Students will develop their research proposals during the period designated for field project proposal preparation. Final research proposals should include the following sections: introduction (including a one-page, single-spaced literature review), research objective, research question, hypothesis, methods, ethical considerations, logistical information, research calendar, budget, and works cited. **Final research proposals are due by email in Word format on June 19th at 7 pm to the research advisor and the director.** Students are not permitted to initiate their research until the final proposal has been approved by the LRB. Proposals will be returned to students with feedback by the RA and the director by June 20<sup>th</sup>.

### Research Advisors (RA)

#### Research Advisor's Role

The role of the RA is to guide and direct the student through the research preparation process. The RA will guide the student in defining their specific research topic, establishing realistic and achievable research objectives, and developing their research proposal.

#### Student's Role

It is incumbent upon the student to fulfill their obligations in submitting their assignments on time, arriving punctually to meetings, in seeking out the resources recommended by the RA, reading the material recommended by the RA, in maintaining communication with the RA, and following the RA's advice.

### Meetings with the Director and with Research Advisors

Students will be assigned an RA as soon as they have made a final decision on their topics. For this reason, it is helpful for the student to decide on their topic early. Students will meet and communicate periodically with their RA regarding their field projects. The student and the RA will agree upon the time and the location of the meeting. It is imperative that the students arrive prepared to the meeting. Students are required to communicate with the RA once per week while conducting their field research. The following are the dates and available time periods for the meetings.

<b>Meeting</b>	<b>Date</b>	<b>Time and location</b>
Director	During the first two weeks of the program while traveling	At a convenient time to be decided on by the student and the director
RA	June 13	To be decided by student and RA
RA	June 18	To be decided by student and RA
Director	June 19	At a convenient time to be decided on by the student and the director

### Field Research

Students will spend a total of 85 hours engaged in research proposal preparation, field work, research paper development, and final oral presentation preparation. Field environments can vary widely from laboratory settings to local communities to national parks. Student should spend a minimum of five days collecting their field data. While in the field, it is imperative that students demonstrate the utmost respect for local norms and cultures as well as continuously reflect on and be mindful of the ethical consequences of their actions. Likewise, it is vital that students make appropriate decisions regarding their personal safety while conducting their fieldwork.

### Communication

Students are required to communicate with program staff twice per week while in the field. Additional information will be provided prior to the research period. In addition, students are required to communicate once per week with their RA during the field projects.

### Research Paper and Oral Presentation

The final paper should contain the following sections: Acknowledgments, Introduction (with a two-page, single-spaced literature review, minimum 10 sources), Research Question, Methods, Results, Discussion, Conclusion, and Works Cited. The final paper is due on **July 2 before 9 pm**. The final paper should be sent electronically to the director and to the Research Advisor.

The oral presentation should be approximately 15 minutes in length and discuss the research in which the student engaged. Generally, students prepare power point presentations for the oral presentation. Students should consult the document “Oral Presentation Requirements” provided at the beginning of the semester. The oral presentations will take place on **July 4** in Casco Viejo.

### Realization of the field work

Students will travel to their respective sites in order to undertake this work. A housing and food stipend will be provided. Students are responsible for keeping up with their work, adapting to change, reporting any academic problems or changes to the research, and proactively taking care of their own health and safety.

### Review of relevant due dates

Research topic and outline June 15 at 12 pm  
Research proposal June 19 at 2 pm  
Final paper July 2 at 9 pm  
Oral presentations July 4 at 10:30 am

## **Evaluation and Grading Criteria**

### Description of Assignments and Grading Criteria

Assignments will be graded for attention to detail, the following of instructions and methodological steps, and depth of analysis.

### Assessment:

Proposal	20%
Final Report	50%
Presentation	20%
Participation*	10%

\*Participation includes punctual check-ins with program director, punctual check-ins with research advisor, culturally appropriate behavior, and strict adherence to the safety guidelines and program regulations.

### Grading Scale

94-100%	A
90-93%	A-
87-89%	B+
84-86%	B
80-83%	B-
77-79%	C+
74-76%	C
70-73%	C-
67-69%	D+
64-66%	D
below 64	F

### **Expectations and Policies**

- Show up prepared. Be on time, have your readings completed and points in mind for discussion or clarification. Complying with these elements raises the level of discussion and the quality of the activity for everyone.
- Put safety first, your own and others. Being in the water is fun but demands responsibility.
- Comply with academic integrity policies.
- Respect differences of opinion (classmates', lecturers, local constituents engaged with on the visits). Conservation policies can provoke passionate responses. You are not expected to agree with everything you hear, but you are expected to listen across difference and consider other perspectives with respect.

**Please refer to the SIT Study Abroad Student Handbook** for policies on academic integrity, ethics, warning and probation, diversity and disability, sexual harassment and the academic appeals process.

**Disability Services:** Students with disabilities are encouraged to contact Disability Services at [disabilityservices@sit.edu](mailto:disabilityservices@sit.edu) for information and support in facilitating an accessible educational experience. Additional information regarding SIT Disability Services, including a link to the online request form, can be found on the Disability Services website at <http://studyabroad.sit.edu/disabilityservices>.