

BIOL 5505: The Biology of Corals

2012 - Bocas del Toro, Panama

Instructor: Steve Vollmer TA: Sarah Gignoux-Wolfsohn

The goal of this course is to provide you with a strong foundation in coral biology. We will cover a variety of topics in coral biology including their basic biology, evolution and speciation, the coral/algal symbioses, mechanisms of coral bleaching, coral microbiology and diseases, and coral calcification and ocean acidification. Each day will be a mix of lectures, labs, and of course, lots of time in the field. We expect you to participate fully in all of these activities.

Course Text: There isn't a good textbook for coral biology, so we will rely on essential readings. I have provided you with a Coral Reader, which consists of reviews and key papers. I will upload additional readings for each topic on Blackboard – this will augment the lecture material. These readings should get you started, but I encourage you to read additional primary literature.

Grading: Your grade will be determined as follows:

Field ID exam	20%
Lab notebook/report	25%
Exam	30%
Web Project	15%
Participation	10%

Laboratories

1. Caribbean Coral Identification
2. Corals by Night – Autotrophy
3. **“Corals on Heat” Lab – this is our big, multi-day lab for your lab report!**
4. White Band Disease surveys and microbe plating and typing

Coral Web Projects - As a group, you will be required to create a WordPress webpage on a coral topic of your choosing (pending our approval). You should have rough draft of your webpage up by Jan 20st. Your final draft is due after the Coiba trip [exact date TBA]. We will discuss the projects more in class.

Daily Schedule

We will start promptly at 8am every day, will break for a 45 minute lunch and then will finish up at around 6pm for dinner. One some evenings, we may have activities scheduled after dinner as well and you will often have lab work to do at night. A typical day will include a dive(s), some lecture and lab time. The order of these activities will be determined by the day's activities and the weather.