

ECL 0322 TECHNIQUES OF MARINE RESEARCH II

COURSE REQUIREMENTS

Students are required to have open water diving certification and DAN diving insurance. These documents must be submitted with your application.

COURSE DESCRIPTION AND OBJECTIVES

The overall goal of this class is to provide students with the opportunity to actively participate in scientific marine research while they improve their diving skills or snorkeling skills. There will be three general themes to the course: tracking studies, sub-tidal biodiversity monitoring, and fisheries monitoring.

Part of the class includes monitoring several sites by SCUBA diving. We will learn how to estimate marine biodiversity, focusing on calculating the relative abundance of fish, mobile macro invertebrates and sessile organisms as well as a characterization of habitat complexity and environmental factors that affect the abundance, distribution and dynamics of marine communities (temperature, water flow, wave action).

For part of the course we will join with the GIS group and learn about marine animal movements and how to track them and map their movements.

We will touch briefly on fisheries monitoring, how this occurs in Galapagos, and work up some real datasets to evaluate the state of invertebrate fisheries in the marine reserve.