

Woodsworth College and the School of the Environment, U of T

Summer Abroad 2024 Program in Ecuador

May 6 – June 1, 2024

Preliminary Course Outline and Assessment Scheme

ENV 395Y0 Special Topics Field Course: The “Enchanted Isles”: Ecology, Geography and History on the Galápagos Islands

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Based in the “enchanted isles”, Ecuador’s Galápagos archipelago, we will examine fundamental concepts in ecology, evolution, biodiversity, geology, and conservation biology through lectures, excursions, and fieldwork. Our studies in this unique place will highlight the intricate links between the marine and terrestrial realms. We will also explore how these biomes have both impacted humans and been impacted by humans. Suitable for all School of the Environment programs.

Prerequisites: none

Recommended preparation: ENV100Y5/ENV200H1 or equivalent, BIO153H5/BIO120H or equivalent
BR=3+4

Students who have previously taken ENV395Y0 Special Topics Field Course: Ecology and Conservation in the Amazon, Andes, and Cloud Forest, CAN take this course, as the course subtitle and content are different. Those students should contact the School of Environment regarding their intention to take the course at: ug.office.env@utoronto.ca.

Galápagos Archipelago:

The Galápagos Islands lie astride the equator, nearly 1000 km west of mainland Ecuador. Of the sixty or so islands, only four have permanent settlements. All of the islands are volcanic and, like most island chains in the Pacific, they sit over a tectonic hotspot. The eastern islands are quiet but the western ones, particularly Isabela and Fernandina, are still very active.

Isolation has made the Galápagos a living laboratory for evolutionary biologists and for those interested in island biota and their vulnerability. We will see famous endemic and native species, including giant tortoises, Darwin’s finches, blue-footed boobies, and marine iguanas, and examine the deleterious effects of introduced species and the various efforts at control and elimination of invasives. The pattern of life here is largely determined by the frequency and intensity of El Niño events. This phenomenon has global consequences, but in the Galápagos Islands it brings both life and death.

We will spend seven days based at USFQ’s Galápagos Academic Institute for the Arts and Sciences (GAIAS) campus on San Cristóbal, with day trips to several other islands. One highlight is a trip to Española, an uninhabited island that is the only breeding site in the world for the waved albatross. Another will be a snorkeling expedition to Kicker Rock, a partially eroded volcanic tuff cone, where we will have the opportunity to swim with sea lions, sea turtles, and sharks.

Course Goals:

Through our course activities, it is our intention to:

- establish a learning community that promotes individual creativity, productive interactions, and mutual support, to facilitate both student learning and personal growth;
- provide opportunities for students to challenge themselves while experiencing the extraordinary and unique environment of the Galápagos islands;
- expand students' awareness of the relationships among social, political, economic, and environmental issues in fragile and contested situations;
- encourage students to learn about, consider, and engage with diverse cultural values and perspectives on environmental, economic, and social issues in the developing world;
- provide opportunities for students to apply classroom-based learning in the real world.

Learning Outcomes:

After having completed this course, you should be able to:

- summarize the unique ecological, geological, and climatological characteristics of the Galápagos Islands;
- summarize the impacts of human activities on this unique environment, including issues related to tourism; waste management; energy use; and resource extraction;
- discuss some of the many challenges facing Ecuador today with regard to conservation; habitat threats; species at risk; invasive species; climate change; and sustainable economic development;
- relate current human impacts on the environment to the historical roots and development of activities such as fishing; mining; tourism; and oil extraction in Ecuador;
- introduce other class members to a native species of the Galápagos, with which you have become familiar through course work;
- set up and maintain a notebook to record your field experiences and responses;
- synthesize and interpret field observations;
- produce a term paper, in scholarly style, on a topic of your choosing that is relevant to environmental issues in Ecuador; and
- use, without aids, scholarly terminology appropriate to the course content.

Evaluation:

Pre-departure assignment and on-site species presentation	15%
Field notes	10%
Test #1	20%
Galápagos research project and presentation	20%
Term Paper (due after return)	35%

Required reading:

Links to reading materials will be available on our course site. There is no reading package or textbook to buy. Please be sure to explore our course Quercus site thoroughly.