**Course Title:** Biology of Neotropical Habitats: Ecuador & Galapagos Islands  
**Credits:** 3  
**Dates:** Winter 2018, Jan. 1-12 with 3 meetings in the fall 2017 semester

**COURSE DESCRIPTION**

This course is an introduction to tropical biology and evolution held in Ecuador's Andean highlands, Amazon basin rain forest, and in the Galápagos Islands. The course highlights the extraordinary flora and fauna of these unique habitats. Further, we will investigate the history (from pre-Incan civilizations to the present), politics, and culture of Ecuador, with a broader goal of understanding how these issues influence the interactions between people and the natural world within the Republic of Ecuador.

**What to Expect**

During our travels in Ecuador, our primary educational activity will be guided hikes on trails and walks in cities. Students should expect to walk for distances of up 8 km in a day (5 miles) on uneven terrain in habitats that range from hot (35°C/95°F), wet lowland rainforest to cooler (10°C/50°F) highland habitats (2900masl/9500fasl). There will be optional opportunities to swim and snorkel (equipment provided) in the Galápagos Islands. In addition to nature hikes, we will tour the Spanish Colonial sector of Quito and the historic town of Otavalo. Accommodations will be in hotels while in the highlands, lodges/research stations in the rainforests, and a cruise ship while in the Galápagos Islands. All meals and transportation in Ecuador are provided throughout the course.

**Course Syllabus**

A) **Assignments and Grading**

1) Graded journal / notebook (30%)

   Students are required to keep a journal with thoughts and observations from each day of the course. The content of the journal entries are at the discretion of the student. Journals will be reviewed twice during the course and the final grades assigned from a final review after the course is over. Grades will be assigned based on the detail and personal insights in the journal.
2) 10-15 page written paper, due three weeks after return from Ecuador (40%)

The paper can be on any topic that is approved by the instructors. The work must be based on both 1) experiences during the course and 2) academic research on the topic conducted after the conclusion of the course. The paper must include a minimum of 5 academic sources, properly referenced.

3) Class participation (30%)

All aspects of student conduct will be assessed by the instructors. Students must follow course instructions, be on time, use appropriate behavior and language, and be active engaged in the program and lectures.

B) Learning Outcomes

1) Experience in three of the world’s most fascinating habitats.
2) Improved skills in observation of the natural world.
3) Integration of personal experiences with scientific observations/studies.
4) Improved writing skills

C) Course lectures

Lectures will be presented in two full class days prior to departure, and once a day on most days during travel in Ecuador. Lectures will be presented either by the course faculty or by our Ecuadorian colleagues. In addition, students will receive instruction and information from professional guides. Finally, there will be a general discussion and a questions session each evening after dinner during the course.

Proposed Lecture topics

1) Evolution I: Life on Earth
2) Evolution II: Evolutionary processes
3) Biomes: Amazon basin, Andean cloud forests, Galápagos Islands
4) Soil Ecology
5) Biogeography of South America
6) Biogeography and evolution in the Galápagos
7) Pre-Incan history and art
8) Inca and Spanish conquest of Ecuador
9) History and politics of modern Ecuador
10) Cultures and ethnogeography in Ecuador
11) Extinction
12) Human impacts in the Amazon rainforest
13) Conservation issues/efforts in Galápagos
14) Conservation of mainland habitats in Ecuador

15) Research lecture: Behavioral ecology
16) Research lecture: Evolution of cooperation
17) Research lecture: Ecology of bird migration

D) Course materials

Students will be provided with a booklet PDF for the course with relevant academic materials. No textbook or travel guide are necessary.

Instructor

Dr Eric Fortune is a biologist who has traveled with over 250 undergraduate students in Ecuador and the Galápagos Islands for education and research since 2002. Dr. Fortune received his PhD in Organismal Biology at the University of Chicago in 1995 and has a long-standing interest in the evolution of brains and behavior. Dr. Fortune has extensive research and travel experience in Ecuador, having awards from the National Science Foundation to study weakly electric fishes in the Amazon basin and the mechanisms of duet singing in wrens in Andean cloud forests. Further, Dr. Fortune and his family spent a year-long sabbatical in 2009-2010 based in Quito, and an additional 6 months in Ecuador in 2012.

Questions?

For details about travel in Ecuador and course content, please contact Dr. Fortune at eric.fortune@rutgers.edu or eric.fortune@njit.edu.

For questions about the administration of the course and the application process, please contact RU_Abroad@global.rutgers.edu.