

Ecuador and Galápagos Islands, January 2019
Rutgers University and New Jersey Institute of Technology

Itinerary at a glance

Course title: Neotropical habitats in Ecuador and Galápagos Islands
Course number: BIOL 250, 3 credits
Travel dates: January 5-17, 2019

Two additional mandatory course dates in Fall 2018 to be announced.

Day 1:	Sat, Jan 5	Arrival in Quito
Day 2:	Sun, Jan 6	Quito tour, Equator Line
Day 3:	Mon, Jan 7	Crossing the Andes, Sumaco volcano
Day 4:	Tues, Jan 8	Sumaco volcano cloudforest
Day 5:	Wed, Jan 9	Descent into the Amazon basin rainforest
Day 6:	Thurs, Jan 10	Amazon rainforest
Day 7:	Fri, Jan 11	Andean pyramids and Rose plantation
Day 8:	Sat, Jan 12	Otavalo
Day 9:	Sun, Jan 13	Quito - Galápagos Islands
Day 10:	Mon, Jan 14	Galápagos Islands
Day 11:	Tues, Jan 15	Galápagos Islands
Day 12:	Wed, Jan 16	Galápagos Islands - Quito
Day 13:	Wed, Jan 17	Departure from Quito

Grades: 30% Participation
30% Journal
40% 10-15 page paper due 3 weeks after end of course

The cost of the course for undergraduate NJ students is \$4380. See page 3 for more details.

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What to expect

This course is designed for all majors, and is appropriate for undergraduate students at all levels. Although the focus of the course is biology, we nevertheless cover topics that include the history, culture, art, and politics of Ecuador. The lectures assume no specific background knowledge. The course features travel to four of the world's most interesting habitats: Andean paramo, tropical cloud forests, Amazon basin rainforests, and the Galápagos islands.

Most days involve guided walks or hikes on uneven terrain. These walks do not require any special footwear or gear and cover distances of much less than 10km (6 miles). These hikes should not be challenging for most able-bodied people. If you are concerned about your ability to participate due to physical issues, please contact the course director (eric.fortune@njit.edu). Temperatures can range from highs of 35°C (95°F) to lows of 15°C (60°F). Students more often report being cold on the trip than being hot! There will be opportunities to swim both in the rainforest and in the Galápagos islands.

Accommodations are modern and comfortable throughout the trip, with the exception of Sumaco Lodge. Sumaco is a working research station, and as such has basic rooms, few amenities, and shared bathrooms/showers. At the other venues, students will share rooms with private bathrooms and will have Internet access. Roommates will be chosen by the faculty and changed at each venue.

No specific vaccinations or medications are required for the course. However, we strongly recommend visiting an International Travel Clinic at least one month before departure. They may recommend vaccines for Typhoid and Yellow Fever, and may provide malaria prophylaxis and/or antibiotics such as Ciproflaxin. We cannot guarantee accommodations for dietary concerns, although most venues will provide vegetarian options. If you are concerned about dietary issues, please contact the course director (eric.fortune@njit.edu).

We will provide a detailed packing list that includes recommended clothing, footwear, baggage, and personal items. Ecuador uses the same voltage and outlets as we have in North America, and their currency is the US Dollar. Most US cellphones work in Ecuador, and we expect to have internet most of the time during our travels.

Grading is based on three factors. The first is participation. We expect students to be engaged in the experiences and lectures, and to be compliant with instructions from guides and faculty. Second, we require that students keep a written journal that will be graded. Finally, we require a 10-15 page paper that is due three weeks after the end of the course. The paper topic must be approved by the faculty, must be based on some experience or feature experienced on the trip, and finally must include cited research-based information.

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Safety is our primary concern throughout the course. It is critical that students appreciate that Ecuador is a developing country with different expectations and laws for personal safety. Students that do not comply with instructions of guides and faculty may be sent home early to ensure their safety and the safety of the group.

To be sure, this course is an exciting and potentially life-changing experience. Dr. Fortune was the director of this course for over 10 years at the Johns Hopkins University before moving to Rutgers/New Jersey Institute of Technology. Through this course and other academic activities, he has traveled with well over 300 undergraduates, graduate students, and alumni to Ecuador. If you have any questions about the course, please contact Dr. Fortune at eric.fortune@njit.edu.



Cost

The cost of the course for undergraduate NJ students is \$4380. This includes all accommodations, meals listed above, travel within Ecuador, and tips. Our expectation is that once students arrive in Ecuador, they need not spend any additional money. Most students purchase additional beverages and snacks during the course, and shop for souvenirs and gifts. Some students also choose to give their guides additional tips. ATMs can be used to obtain cash, and credit cards are widely accepted. Cash is used at the Otavalo market.

Students must make their own flight arrangements. We will provide a list of recommended flights and suggested travel agencies. Flights typically cost between \$600 and \$900. Each traveller is required to provide their flight information to the course directors.

Additional costs may include passports fees (all travelers must have a passport that is valid until at least July 2019), and vaccines and medicines.

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Full Itinerary

Day 1: Saturday, January 5th

Arrival in Quito

Arrival in Quito and transfer to hotel. Flight arrangements to be made by students and confirmed with staff. Most flights arrive from the USA late night - between 10pm and 12:30am.

Overnight: Hotel Sierra Madre

Meals: No meals

Day 2: Sunday, January 6th

Tour of Quito and the equator line

Guided tour of the *UNESCO Cultural Heritage of Humanity* regions of old Quito. Visit to the Middle of the World complex and the Equatorial Monument. Afternoon lectures at the hotel.

Overnight: Hotel Sierra Madre

Meals: Breakfast, Lunch, Dinner

Day 3: Monday, January 7th

Crossing the Andes

We will drive by bus out of Quito to cross the Eastern range of the Andes mountains along the slopes of Antisana volcano. We will ascend to an altitude of 3900 meters above sea level (12500 fasl) before we descend into the Quijos river valley, and finally ascend Sumaco volcano where we will stay at the Wild Sumaco Natural reserve, 1400 meters above sea level (4600 fasl).

Overnight: Sumaco Lodge

Meals: Breakfast, Lunch, Dinner



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Day 4: Tuesday, January 8th

Sumaco Natural Reserve

We will explore the habitats of the unique cloud forest habitat at Sumaco Natural reserve. Over 400 species of birds, 100 species of bats, the world's highest diversity of amphibians, and many species of large mammals, including pumas and spectacled bears, are found in and around the station.

Overnight: Sumaco Lodge

Meals: Breakfast, Lunch, Dinner



Day 5: Wednesday, January 9th Rainforest

Descent to Amazon Basin

After morning activities at Sumaco station, we will drive by bus down the slopes of the Andes to the headwaters of the Amazon River at Cotococha Lodge (about 400 meters above sea level, 1300 fasl). We will have an evening lecture, night hike, and activities in the rainforest at Cotococha.

Overnight: Cotococha Lodge

Meals: Breakfast, Lunch, Dinner

Day 6: Thursday, January 10th

Amazon Rainforest

After breakfast, we depart by canoe upstream for ten minutes for a forest hike to La Cascada de Latas. After lunch we will have a second rainforest hike with a native guide who will describe traditional medicinal plants and local culture. Students will be able to observe the habitat with the greatest measured biodiversity on Earth, including many species of insects, groups of monkeys, myriad plants, and many species of colorful birds.

Overnight: Cotococha

Meals: Breakfast, Lunch, Dinner

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Day 7: Friday, January 11th

Highlands history and culture

This day starts with a long drive from the rainforest up to Cochasqui Archeological Park. The site is a relic of the Quitu-Cara culture (500-1500 AD). Once a religious and astronomic observatory, Cochasqui has 15 covered pyramids and 21 funeral mounds known as “tolas”. We will then visit a private Hacienda dating back from Republican times in Ecuador where we will enjoy lunch. This is an active rose plantation, and here we will learn about Ecuadorian flowers and roses known worldwide their beauty and quality. After lunch we will continue to the Imbabura.

Overnight: Las Palmeras Inn

Meals: Breakfast, Lunch, Dinner



Day 8: Saturday, January 12th

Otavallo - Quito

The morning will begin with a visit to Otavallo, an ancient town with the longest continuously running market in the Americas (more than 600 years). The Otavalos are a trader community known worldwide. We will also visit the village of Peguche, an ancient community known for their textiles and tapestries production. We also plan to visit Ilumán, a town known for traditional healers called Yachacs.

We may visit Cotacachi, famous for its leather products and handcrafts. After lunch in the town of Cayambe, named for the nearby glacier-covered active volcano, we will drive south over the equator and back down to Quito.

Overnight: Sierra Madre Hotel

Meals: Breakfast, Lunch, Dinner

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Day 9: Sunday, January 13th

Quito - Galápagos Islands

We will fly from Quito to the Galápagos. We will visit the Charles Darwin Station in Puerto Ayora to see Giant tortoises and receive a lecture by station personnel about their work and challenges in the Galápagos Islands.

Overnight: Hotel Red Booby

Meals: Breakfast, Lunch, Dinner



Day 9: Monday, January 14th

North Seymour and Las Bachas

North Seymour Island was lifted from the ocean floor by a seismic event, explaining its low, flat profile. Swallow-tailed gulls sit perched in ledges of the cliffs only a few meters high from the shoreline. A forest of Palo Santo trees stand just above the landing site, usually without leaves, waiting for the rain to bring them into bloom. Amongst the emblematic fauna of the island you will be able to see sea lions, land iguanas and blue footed boobies. The trail turns inland where you will find active and dynamic colonies of both species of “magnificent” and “great” frigate birds.

Las Bachas is a beautiful coralline beach located on the north shore of Santa Cruz Island, is the perfect place for snorkeling and swimming. Several brackish lagoons only a few steps away from the sea are the feeding grounds of various wading birds including stilts to flamingos.

Overnight: Hotel Red Booby

Meals: Breakfast, Lunch, Dinner

Day 10: Tuesday, January 15th

South Plazas and Punta Carrion

The Plaza Islands were formed by lava streaming up from the bottom of the ocean. Despite their small size, the islands are home to a large number of species and is famous for its extraordinary flora. It's full of both land life and birds: cactus,

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large colony of iguanas, frigates, bifurcated tailed gulls and the beautiful red-billed tropicbird.

Punta Carrión is a fabulous location to snorkel where you will see a variety of fish, rays, and (if lucky) white tip sharks. From Punta Carrion we navigate a short distance through the beautiful Itabaca Channel with its turquoise waters, return to Puerto Ayora.

Overnight: Hotel Red Booby

Meals: Breakfast, Lunch, Dinner

Day 11: Thursday, January 16th

Galápagos Islands - Quito

Departure from the hotel to take the flight back to Quito. Once in Quito, transfer to your hotel, for Dinner and overnight.

Overnight: Sierra Madre Hotel

Meals: Breakfast, Dinner (light snack during flight)

Day 12: Friday, January 12th

Departure

Transfer from the hotel to Quito airport for your flights.

Meals: Breakfast

