

the **epic** ADVANTAGE

Student/Faculty Collaborative Research Experience

Tropical Ecology and Conservation in Peruvian Amazon

Dates: 3rd - 30th June 2020

Credits: Choice of 0 or 3

Leaders: Wendy P Tori and John Iverson

Application Deadline: November 1, 2019

Apply in Handshake



Description of Experience and Research:

The Tropical Ecology 2020 EPIC term will be an in-depth, hands-on field course exposing students to the rich and varied ecosystems of the tropics including the Amazon Rainforest. The course will take place in Peru where we will spend four weeks traveling along the eastern slope of the Peruvian Andes. Our travels will take us through many tropical ecosystems and expose us to some of the most remote and unspoiled areas left on the planet. During this experience, we will have a combination of lectures about natural history, ecology, the processes generating / maintaining tropical biodiversity, conservation and we will have the opportunity to conduct short field research projects on a variety of plants and animals.

Career Focus:

This program is best for students who are interested in Field Biology, Wild Life Ecology, Conservation and Environmental Sustainability. Participants should have a love for the outdoors and need to be flexible and ready to live in humid, hot, buggy & rustic conditions.

Location and Living Arrangements:

In this EPIC Advantage Program, we will visit many sites along the eastern slope of the Peruvian Andes. After arriving in Lima, we will fly over the Andes to Cusco the imperial city of the Inca Empire. There we will travel to Machu Picchu, giving us a chance to get introduced to the Peruvian history and culture of the region. From Cusco we will travel by bus up and over the east range of the Andes and begin our descent into the Amazon basin. We will spend approximately a week making our way down the mountain through the different ecosystems and having the opportunity to see the astounding turnover of species along the altitudinal transect. On our way down the mountain we will camp one night in Tres Cruces (elevation 11,500 feet), we will hike "Trocha Union" down the mountain, we will stay in Wayqecha Cloud Forest Research Center, Posada San Pedro and Yine Lodge (Atalaya). In Atalaya, our trip will change from bus to boat, and we will continue our trip to Cocha Cashu Biological Station (elevation 1,115 feet) within Manu National Park a World-renowned Biosphere reserve and hotspot for tropical scientific research. There we will spend 9 days exploring one of the most diverse ecosystems in the world. We will use a variety of accommodations from hostels to small rustic cabins to tents.



Expectations for Students:

Students are required to participate in a one credit preparation course in spring 2020 prior to the program. The learning goals for this program are:

- Acquire skills on species identification and field techniques used in ecological research
- Understand processes affecting biodiversity along an altitudinal gradient
- Understand the conservation issues affecting biodiversity and potential solutions to those problems
- Apply the scientific process to address ecological questions.
- Critically evaluate, and communicate information on biological questions.
- Experience the Peruvian culture

Faculty:

Wendy Tori, Associate Professor of Biology and Martha Sykes Hansen Endowed Chair in Biology for Ornithology. She is native to Peru and she is passionate about Field Biology (especially birds!), Animal Behavior and Conservation. She has led off-campus study programs to Bahamas, Borneo, Italy, New Zealand, Peru and Tanzania; and has conducted research with students in Ecuador, Papua New Guinea, Peru as well as Indiana.

John Iverson, Professor Emeritus of Biology; Biology Research Professor. John is not from Peru, but has traveled extensively in Latin America. He is primarily a herpetologist who has undertaken student-faculty research with Earlham students in Nebraska and The Bahamas over the last 40 years.

Preparation:

Students will be required to take a 1 credit EPIC Advantage Orientation seminar during the Spring 2019 academic semester. This seminar will provide the necessary background and travel logistics for students to maximize the experience. Class meeting dates/times will be determined in the future.

Prerequisites:

Ecological Biology (BIOL111). Preference given to rising juniors and seniors. Rising sophomores and May graduates are eligible to apply.

Cost to Student:

This experience is funded as an Epic Advantage opportunity. Funding includes travel, room and board and additional expenses as required by the program. This funding does not include the cost of passports and immunizations or other personal expenses.

Program plans subject to change.

Program Policies: <https://earlham.edu/academics/off-campus-study/program-policies/>