UNIVERSITY OF TORONTO Ontario Universities Program in Field Biology

Course Title:	Tropical Field Biology
Instructor(s):	Prof. John Stinchcombe, john.stinchcombe@utoronto.ca Prof. Megan Frederickson, m.frederickson@utoronto.ca
Dates:	April 30-May 13, 2018
Location:	Peru (Wayqecha Cloud Forest Research Center, near Cuzco; and Los Amigos Research Center, near Puerto Maldonado)
Cost:	Approximately \$1,850 includes food, accommodation, field station fees, and incountry transportation (flights within Peru, and ground/boat transportation to and from field sites). Not included: International airfare (approx. \$1,200 for a return flight from Toronto to Lima by Air Canada), travel insurance (mandatory), travel visa (if required), beverages, laundry, etc. If you wish to be on the same flight(s) as the instructors, information will be provided after you have made your course deposit. Students must purchase their own airfare tickets and must either travel with the professors, or meet the class in Lima by the time the professors arrive in Lima. IMPORTANT: A \$350 deposit is due to your home university with your OUPFB application. The remaining deposit must be received by the host university in two instalments: A \$650 deposit is due March 26, and the remaining \$850 is due no later than April 16, 2018. Students must have a passport valid until at least
	November 2018. In June 2018, students must provide the EEB Undergraduate Office with photocopies of two documents: (1) Valid passport, and (2) Certificate of proof of travel insurance (that covers the dates of the field course).
Prerequisites:	First year biology course; <i>Recommended</i> : Upper year courses in ecology, evolution, behaviour, or organismal biology.
Enrolment:	20 (18 reserved for University of Toronto)
Description:	This field course will examine the ecology and evolutionary history of the Andes-to-Amazon region through a combination of lectures, discussions, and field research projects. There will be mandatory pre-trip lectures and meetings (dates and times TBA) during which we will discuss in detail the logistics of the trip and also introduce the ecosystems of the Neotropics. During our two weeks in Peru we will visit two main field sites, one in cloud forest and one in lowland rain forest. Visiting these two sites will allow us to explore how plant and animal communities change as we travel from the Andes Mountains to the jungles of the Amazon Basin.
	We will spend several days at the Wayqecha Research Center, which is located almost 3,000 m above sea level on the eastern slope of the Andes. We will then travel to the Los Amigos Research Center, before travelling back to Lima via the jungle city of Puerto Maldonado. The Los Amigos Research Center is situated in the Amazon Basin at only 250m above sea level and surrounded by lowland tropical rain forest. Both the Wayqecha and Los Amigos field stations are operated by the Amazon Conservation Association and more information can be found online at: Wayqecha: www.amazonconservation.org/ourwork/research_html Los Amigos: www.amazonconservation.org/ourwork/research.html
	During the first week of the field course, we will conduct several group exercises designed to familiarize you with common techniques and approaches in field ecology and evolution. We will explore the forests around Wayqecha and Los Amigos during these exercises, with the goal of introducing the tremendously diverse natural history of the Andean and Amazonian regions. We will also have a series of lectures to provide background and context to what you see in the field. On the second week of the course, students will perform an independent research project, designed to test an ecological or evolutionary hypothesis. Students will gain exposure to all components of the scientific process including natural history observations, hypothesis generation, experimental

^{***\$350} Deposit is due at time of registration.

Tuition at your home institution is *in addition* to any field module costs.

Students who drop a field course should not expect a refund of any field course costs.

Students are encouraged to purchase cancellation insurance if airline tickets are required.

Students are responsible for all fees incurred by the home or host university due to any bounced cheque.

design and data collection, data analysis, and an oral and written presentation of the results.

Physical Demands/Risks
We will spend a great deal of time in the field in all weather conditions. Students should be comfortable spending long hours outdoors, and physically and mentally prepared to spend two weeks in remote locations. Students should be prepared for strenuous physical activity, long hours, and rustic accommodations. Risks are similar to those for any eco-tourist visiting Peru (diarrhea, parasitic infections, snake and insect bites and stings, and crime). Students should be aware that while at Wayqecha and Los Amigos there is limited access to medical assistance; therefore, travel insurance is mandatory.

**Evaluation:*

Marks will be based on performance in group and individual projects, and participation. Each student will give oral presentations to the class and hand in a report on an independent project at the end of the course.