



Organization for Tropical Studies

GRADUATE COURSES 2013

The *Organization for Tropical Studies* (OTS) is a nonprofit consortium of over 50 universities and research institutions in the United States, Costa Rica, Peru, Mexico, South Africa, and Australia. OTS graduate courses are designed for students in graduate degree programs, with preference given to students enrolled at OTS member institutions. To be eligible for a course, an applicant must be fluent in the language of instruction. Courses will be taught in Costa Rica; dates are subject to changes. The most up-to-date course information and application forms can be found online on the OTS website. Partial scholarships may be available for some courses.

Course Name and Number	Coordinators	Semester Credits*	Course Duration and Dates	Application Deadlines **
Traditional Courses, 2013-2014				
Ecología Tropical y Conservación OTS-2 (en Español) (2013)	Alejandro Farji Federico Chinchilla	7 créditos UCR	6 semanas 11 enero – 20 febrero 2013	13 julio 2012
Tropical Biology OTS-3 (2013)	Erin Kuprewicz	8 credits UCR	8 weeks June 7 – July 29, 2013	November 1, 2012 February 1, 2013
Sistemática de Plantas Tropicales OTS-18 (en Español) (2013)	Mario Blanco	6 créditos UCR	5 semanas, años impares 28 junio – 31 julio, 2013	9 noviembre 2012
Ecología Tropical y Conservación OTS-2 (en Español) (2014)	Alejandro Farji Federico Chinchilla	7 créditos UCR	6 semanas January 15 – Feb. 24, 2014	14 junio 2013
Tropical Biology OTS-1 (2014)	To be announced	4 credits UCR	4 weeks December 28, 2013 – January 24, 2014	September 16, 2013
Tropical Biology OTS-3 (2014)	To be announced	6 credits UCR	6 weeks June 10 – July 21, 2014	November 1, 2013 February 3, 2014
Tropical Plant Systematics OTS-9 (2014)	Robbin Moran	6 credits UCR	5 weeks, even years June 11 – July 14, 2014	November 8, 2013 February 10, 2014
Specialty Courses, 2013				
Tropical Ferns and Lycophytes	Robbin Moran	2 credits*	2 weeks January 9 – 23, 2013	October 1, 2012
Ecology and Conservation of Neotropical Rivers	Elizabeth Anderson Catherine Pringle	2 credits*	2 weeks May 5 – 19, 2013	February 1, 2013
Amphibian Decline and Global Changes in the Neotropics***	Jacob Kerby Steven Whitfield	2 credits*	2 or 3 weeks, dates tentative May 19 – June 9, 2013	February 6, 2013
Aquatic Entomology	David Baumgardner Monika Springer David Bowles	2 credits*	2 weeks May 20 – June 4, 2013	February 11, 2013
Inquiry in Rainforests: an in-service Program for Teachers	Barbara Bentley Joe Levine	2 credits*	2 weeks July 10 – 23, 2013	March 1, 2013
Biodiversity Conservation through the Lens of Indigenous Peoples	Claudine Sierra Emilio Vargas	2 credits*	2 weeks August 5 – 18, 2013	February 15, 2013

* University credits from Universidad de Costa Rica (UCR) for traditional courses in Costa Rica. For shorter specialty courses, credits must be prearranged through participant's home institution.

** Where there are two deadlines, the November date is for early admission to help applicants apply with early funding deadlines. Notification date is within 30-45 days after the application deadline for traditional courses and within 15-20 days for specialty courses. Enrollment may be possible past the stated deadlines, if the course has not reached maximum capacity.

*** In collaboration with the University of South Dakota.

Graduate Course Descriptions

Tropical Biology: An Ecological Approach (OTS-1 and OTS-3) – This classic course in field research and tropical ecology is designed for students in the early stages of graduate study in biology, ecology, evolution, and related fields. The course prepares students in formulation of feasible research questions, experimental design, data collection, analysis, and oral and written presentations. Through both faculty-led and independent field research projects, students practice these skills in the readily accessible and high biodiversity tropical habitats of Costa Rica. OTS member students have first priority for admission and reduced tuition. Non-member students are also welcome to apply.

Ecología Tropical y Conservación (OTS-2) – Este curso, dictado en español, ofrece un riguroso entrenamiento en métodos de investigación de la ecología tropical e incluye una unidad de campo en biología de la conservación en los trópicos. Está dirigido principalmente a estudiantes y profesionales latinoamericanos, independientemente de su afiliación institucional, sin embargo, también se aceptan solicitudes de estudiantes con dominio del español de cualquier nacionalidad e institución. Hay becas parciales disponibles.

Tropical Plant Systematics (OTS-9) – This course emphasizes a strong conceptual foundation in phylogenetic systematics in an intensive field setting. Participants travel to diverse habitats around Costa Rica, from cloud forest and paramo to tropical dry forest and Atlantic lowland rain forest. This course is next offered in 2014 followed by another edition in 2016 as it alternates with OTS-18, the Spanish language version of the course which is offered in odd years. OTS member students have priority for admission; non-member students are welcome to apply.

Sistemática de Plantas Tropicales (OTS-18) – Este curso, dictado en español, se ofrece en años impares y enfatiza una sólida base conceptual en la sistemática filogenética de plantas vasculares tropicales. El curso cubre el amplio espectro de los ambientes neotropicales alrededor de Costa Rica, desde el bosque nuboso, páramo y bosque seco hasta el bosque lluvioso del Atlántico. Está dirigido primordialmente a estudiantes de posgrado latinoamericanos. Se invita a participar a estudiantes de las universidades miembro que hablen español, independientemente de su nacionalidad. Hay becas parciales disponibles. Este curso se ofrece el próximo año 2013 y luego en 2015.

Tropical Ferns and Lycophytes – This course is designed to build the diverse skills needed for floristic, taxonomic, phylogenetic and ecological research on tropical ferns. It is an intensive, 15 - day field introduction to the identification, classification, phylogenetics, ecology and reproductive biology of tropical ferns and lycophytes.

Ecology and Conservation of Neotropical Rivers – This two-week course is oriented towards graduate students and early career conservation scientists from both U.S. and Latin American institutions with interest in applied research on Neotropical rivers. The course will be held at the La Selva and Las Cruces Biological Stations. Participants will observe diverse river types and aquatic biota along elevational and longitudinal riverine gradients. The rivers visited are representative of tropical rivers being altered as a consequence of human activities.

Amphibian Decline and Global Changes in the Neotropics – This course will present to students a variety of topics relevant for amphibian decline and amphibian conservation. Each topic will be covered in lectures and techniques through practical hands-on training modules, and discussions sessions will facilitate interchange of ideas from students with diverse backgrounds. Field components of the course will be taught during a 10-day stay at La Selva Biological Station. Laboratory components of the course will be carried out at the Universidad de Costa Rica and Universidad Nacional during an 8 day stay in San Jose.

Aquatic Entomology – This two week course is oriented towards advanced undergraduate and graduate students interested in intense training in the collection, identification and inquiry-based research on the aquatic insects. The study of aquatic insects is not only fascinating, but ecologically and economically important because many individuals play important roles in the flow of energy and the cycling of nutrients through ecosystems. Other aquatic insects (such as mosquitos) are important vectors of many different diseases such as malaria and dengue. Emphasis of the field component of the course will be Neotropical species diversity, as revealed by a wide array of sampling methods. Students will gain experience in light trapping and in the use of a various aquatic nets and other collection techniques. Participants will come away with a better understanding of morphological characters necessary for identification and phylogenetic reconstruction, and new ideas for designing their own diversity research projects. This fieldwork, lab identification, and hands-on research experience will be complemented by a lecture series that will cover systematics of all major groups of aquatic insects in Central America. The organization of the lecture series will emphasize distribution of taxa among habitats in order to more directly link lecture content with the field component. The course will take place in the exceptionally diverse wet forest habitats at the La Selva Biological Station, and Las Cruces Biological Station, a pre-montane tropical forest field station.

Inquiry in Rainforests: an in-service program for teachers - This 14-day program provides teachers with both detailed information about tropical natural history as well as the pedagogy of teaching students to do research under field conditions. Held at the world famous La Selva Biological Station in a lowland tropical rainforest and the Soltis Education Center in the Tilarán Mountains near Arenal Volcano, the course includes discussions of tropical ecosystems and their conservation, research projects focused on ecological concepts and organisms, and the development of teaching plans and evaluation techniques appropriate for use in the teachers' home institutions. The program is open to all secondary and college teachers, with preference given to those early in their careers. CE or graduate credit is available.

Biodiversity Conservation through the Lens of Indigenous Peoples – This two week course, directed toward graduate students and early career conservation scientists interested in Biological Conservation Projects that overlap with Indigenous Territories, focuses on the issues faced by conservation leaders developing projects within indigenous lands. The course will adopt an integrated perspective on the relation “indigenous cultures-nature”. The course analyzes the opportunities, conflicts and obstacles emerging in the above mentioned projects, both from the indigenous people perspective as well as from the conservationists' requirements in order to protect biodiversity.

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