

Term Information

Effective Term Spring 2014
[Previous Value](#) [Summer 2012](#)

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

Increase from 2 to 3 CH

What is the rationale for the proposed change(s)?

3 CH more accurately reflects the duration and content of the course

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

None

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Evol, Ecology & Organismal Bio
Fiscal Unit/Academic Org	Evolution, Ecology & Org Bio - D0390
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	4420H
Course Title	Tropical Field Studies
Transcript Abbreviation	Trop Field Studies
Course Description	Study abroad course in Costa Rica focusing on the diversity, biotic interactions, and effects of the environment in tropical communities, and humans in the tropics. Includes opportunities for research in tropical systems.
Semester Credit Hours/Units	Fixed: 3
Previous Value	Fixed: 2

Offering Information

Length Of Course	7 Week, 4 Week (May Session)
Flexibly Scheduled Course	Always
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Field Experience, Lecture
Previous Value	Field Experience
Grade Roster Component	Field Experience
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Always
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites

Prereq: Honors standing, and 3310 or 3410, or permission of instructor.

[Previous Value](#)

[Prereq: Honors standing, and 3310 or 3410.](#)

Exclusions

Not open to students with credit for 557H.

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code

26.1301

Subsidy Level

Baccalaureate Course

Intended Rank

Sophomore, Junior, Senior

Requirement/Elective Designation

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Students will understand the organism interactions and evolution in tropical ecosystems
- Students will be able to identify major groups of tropical plants and insects

[Previous Value](#)

Content Topic List

- Tropical diversity and taxonomy
- Biotic interactions in tropical communities
- Effect of the environment on ecological communities
- Humans in the tropics
- Research in tropical systems

Attachments

- 4420H - Tropical Field Ecology - syllabus.docx: Syllabus

(Syllabus. Owner: Lanno,Roman P.)

- Tropical Ecology hours.xlsx: CH justification

(Other Supporting Documentation. Owner: Lanno,Roman P.)

- Petition letter - 4420H.pdf: Petition letter

(Other Supporting Documentation. Owner: Lanno,Roman P.)

Comments

- Petition letter for late submission is attached *(by Lanno,Roman P. on 09/09/2013 12:44 PM)*

COURSE CHANGE REQUEST
4420H - Status: PENDING

Last Updated: Hadad,Christopher Martin
09/09/2013

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Lanno,Roman P.	09/09/2013 12:45 PM	Submitted for Approval
Approved	Lanno,Roman P.	09/09/2013 12:45 PM	Unit Approval
Approved	Hadad,Christopher Martin	09/09/2013 12:52 PM	College Approval
Pending Approval	Hanlin,Deborah Kay Hogle,Danielle Nicole Jenkins,Mary Ellen Bigler Nolen,Dawn Vankeerbergen,Bernadette Chantal	09/09/2013 12:52 PM	ASCCAO Approval

TROPICAL FIELD ECOLOGY
EEOB 4420H, MAY TERM 2014, 3 credit hours

Instructors:

Dr. Liza Comita, Dept. Evolution, Ecology, and Organismal Biology
Email: comita.2@osu.edu

Dr. Simon Queenborough, Dept. Evolution, Ecology, and Organismal Biology
Email: queenborough.1@osu.edu

Graduate TAs:

TBD

OIA Program Coordinator:

Ms. Jenny Bickley
Email: bickley.9@osu.edu; Phone: (614) 292-6101

Course Objectives:

This course is intended to give students a firsthand knowledge of tropical biology and the issues surrounding conservation of biodiversity in a developing nation (see Course Topics below). It does so in the context of an intensive foreign study tour in Panama. The course includes travel to different tropical habitats, independent field projects and oral presentation of results, guided natural history exploration, and interaction with local and international economic and ecotourism concerns.

Course structure:

There will be a mandatory class meeting during Spring semester (TBD), plus the Office of International Affairs (OIA) Health and Safety Orientation (TBD). We will also meet in the May term prior to departure for Panama. In addition to activities taking place in Panama, students will complete two scientific reports of field experiments following their return to Ohio. In Panama, we will touch on a number of topics (listed below) through a combination of lectures, discussions, readings, guided natural history hikes, talks by researchers, visits to different forest types, trips to the Panama Canal and a local indigenous community, and group research projects. The course will be a hands-on learning experience, with most of the time spent outside, rather than in a classroom.

Course Topics:

Tropical diversity & taxonomy

- Theories of the maintenance of diversity in the tropics: niche partitioning, density/ frequency dependence, disturbance, neutral theory
- Evolution in the tropics: mimicry, adaptations to tropical climate (e.g., drip tips, delayed greening), co-evolution (e.g., fig-fig wasps)
- Identification of major plant and insect families
- Observations of bird and mammal behavior
- Survey methods for tropical organisms

Biotic interactions in tropical communities

- Competition
- Predation & Parasitism
- Mutualism
- Trophic cascades

Effect of the environment on ecological communities

- Local scale: treefall gaps, soil moisture, nutrients; canopy vs. forest floor
- Regional scale: gradients in rainfall (dry vs. wet forest) and elevation (lowland vs. montane)
- Global scale: temperate vs. tropical comparisons

Humans in the Tropics

- Indigenous groups and their relationship with the environment
- Ecosystem services provided by tropical forests and oceans
- Agriculture in the tropics: shade-grown coffee, cacao, banana plantations
- Biodiversity loss in the tropics: deforestation, land use change, climate change, diseases
- Conservation challenges and solutions: role of protected areas and corridors, poverty
- Careers in tropical biology and conservation

Research in tropical systems

- Talks and field work with researchers working at tropical research stations
- Basic statistics overview: t-tests, correlation, regression, ANOVA, diversity indices
- Independent student projects: project design, data collection and analysis, oral and written presentation of results

Course textbook (required)

Kricher, J. 1999. *A Neotropical Companion*. Second edition. Princeton Univ. Press.
Before arriving in Panama, read chapters 1-7, 12-14 & Appendix

Suggested books (optional)

Tropical Nature: Life and Death in the Rain Forests of Central and South America, by Adrian Forsyth & Ken Miyata

Tropical Forest Ecology: a View from Barro Colorado Island, by Egbert Giles Leigh

The Path Between the Seas: The Creation of the Panama Canal, by David McCullough

The Tapir's Morning Bath: Solving the Mysteries of the Tropical Rain Forest, by Elizabeth Royte

Field guides (we will have some course copies of these with us in Panama):

Trees of Panama and Costa Rica, by Richard Condit, Rolando Pérez, Nefertaris Daguerre

The Birds of Panama: A Field Guide, by George R. Angehr and Robert Dean

A Guide to the Birds of Panama: With Costa Rica, Nicaragua, and Honduras, by Robert S. Ridgely and John A. Gwynne

Neotropical Rainforest Mammals: A Field Guide, by Louise H. Emmons and François Feer

A Field Guide to the Mammals of Central America and Southeast Mexico, by Fiona A. Reid

Internet resources

Rapid Color Guides (free downloadable photo guides to plants and animals)

http://fm2.fieldmuseum.org/plantguides/rcg_intro.asp?zone=tropical&guidetype=plant

Select *Panama* under Country/Region, and look at guides for Barro Colorado

Bird sounds from the Americas website, birds of Gamboa

<http://www.xeno-canto.org/americas/browse.php?query=loc:Gamboa,=Colon=province>

Smithsonian Tropical Research Institute website

<http://www.stri.si.edu/>

Tentative Itinerary

Date	Morning	Afternoon	Evening
MONDAY, MAY 12 (ARRIVE)	Arrive at Columbus airport	Flight to Panama	Arrive Panama City -Take bus from airport to Gamboa
TUESDAY, MAY 13 (GAMBOA)	-STRI Orientation talk -Lecture: Common plant families in the Neotropics -Gamboa walk and plant identification	-Lecture: Insect identification -Gamboa forest excursion, insect and plant identification	- Research talk
WEDNESDAY, MAY 14 (BARRO COLORADO ISLAND)	-Boat to BCI -BCI forest tour	-BCI -boat back to Gamboa	
THURSDAY, MAY 15 (PIPELINE ROAD/GAMBOA)	- Pipeline Road Discovery Center (Parque Nacional Soberania), bird watching	- Plan research projects	- Prepare for research projects
FRIDAY, MAY 16 (RESEARCH PROJECTS - GAMBOA)	- Research project fieldwork	- Continue project fieldwork	- Research talk (bats?)
SATURDAY, MAY 17 (KAYAK TOUR, PROJECTS)	-kayak tour with Ian (1/2 group in the morning, other half in the afternoon)	- Project data analysis & prepare presentations	- Project presentations (8 min talk + 2 min for questions)
SUNDAY, MAY 18 (CAMPANA FIELD TRIP)	-bus to Campana cloud forest	-Guided hike in Campana	-bus to Gamboa
MONDAY, MAY 19 (EMBERRA VILLAGE, AGUA SALUD)	- Emberra village visit	-Research talk on applied ecology/Agua Salud -Visit Agua Salud Project	
TUESDAY, MAY 20 (SUMMIT, PANAMA CANAL)	- Bus from Gamboa - Summit Zoo & Amphibian Conservation Center	- Miraflores Locks, Panama Canal - Souvenir shopping - Research talk (STRI)	- Dinner in Panama City (Mi Ranchito) -Bus to Gamboa
WEDNESDAY, MAY 21 (PARQUE METROPOLITANO)	- bus to Parque Metropolitano - Canopy crane	-Prepare for research projects	
THURSDAY, MAY 22 (BCI)	-boat to BCI	- Project fieldwork	- Dinner on BCI & Bambi
FRIDAY, MAY 23 (SAN LORENZO)	- bus to Caribbean side - Guided hike in Parque Nacional San Lorenzo	- Fort San Lorenzo - Bus to Gamboa	
SATURDAY, MAY 24 (DEPART)	- Transport from Gamboa to airport		

Tropical Field Studies - Panama (EEOB 4420)

In Class Hours

	lectures	lab/field activities	
pre-departure	1.5		
Day 1	3.5	3.5	
Day 2	0.5	6	
Day 3	0	7	
Day 4	1	7	
Day 5	0	7	
Day 6	0	8	
Day 7	1	4	
Day 8	1.5	5	
Day 9	1	5	
Day 10	1	7	
Day 11	0	7	
TOTAL	11	66.5	77.5

OSU guidelines

1 credit lecture = 12.5 hrs

1 credit lab = 25 hrs



September 9, 2013

RE: Petition for course change request for Tropical Field Ecology – EEOB 4420H

Please consider this petition for processing my course change submissions after the September 1 deadline. This is a minor course change request for our Tropical Field Ecology course (EEOB 4420H) to be offered in May 2014, with an increase from 2 to 3 CH. Please let me know if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Roman P. Lanno".

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