

Tropical Ecology and Culture in Costa Rica

BIO 398-01 (Summer Session II)

Summer 2017
July 12 – July 29, 2017

Instructor: Dr. Peter J. Auger
Office: Research Annex 109 (Phone 508.776.4102 cell)

1. Description

In conjunction with the Monteverde Institute, this course will provide students with an interdisciplinary cultural overview of tropical science, policy, and culture - and the interactions among them - in Costa Rica. PowerPoint lectures will be combined with field visits and presentations by the instructor and the staff of the Monteverde Institute. Specific areas of student concentration will also be developed through collaboration with the course instructor (Prof. Auger). The course is intended to provide students with a broad Costa Rican historical and social context in order to facilitate a better understanding of the tropical biology of the region. Since this is a course intended to accommodate both science and non-science majors, no pre-requisites or language requirements are necessary to enroll.

2. Extended Description

Students (Maximum 25) will visit and tour various internal and coastal regions of Costa Rica. Guided walks through representative, remote tropical, archaeological, geological and biological zones will be augmented with meetings and discussions with various environmental and cultural agencies and organizations. Participants will be expected to hike through sometimes rigorous outside environments and maintain a schedule that often will require early morning activities as well as day and night hikes. Students will also be afforded specific time periods for directly experiencing and enjoying local cultures and attractions.

As part of the three credit course grading requirements, students will be coached and facilitated by the instructor in selecting an individually relevant cultural, scientific or environmental issue that exerts an important effect on the study of tropical biology in Costa Rica. Individual projects will usually take the form of a final paper, but also may be produced in more unconventional formats such as edited video programs, artistic portfolios or other topic-appropriate formats.

3. Text/Readings

Participants will be expected to read or view general background information pertaining to the Costa Rican environment, culture and political organization (*see the Monteverde Institute Handbook*). Students will also be required to view and review DVD television programming provided by the instructor and sometimes produced from previous trips. ***Students will be expected to maintain their own field journals containing accounts of trip activities or data collection and submit their field journals as part of their final 3 credit course grade requirements.*** Field Journals will be provided by each student and will be returned after grading to preserve and document their unique Costa Rican educational experience.

4. Class Participation and Deportment

Students will be expected to maintain a demeanor that is cooperative, inquisitive and respectful of the Costa Rican environment and culture, the professor, and fellow colleagues. Students will be required to participate in all class activities and behave in a manner consistent with their role as representatives of LMU and ambassadors from the United States. Specific requirements and expectations of appropriate individual conduct will be clearly delineated and maintained by the instructor.

5. Final Project

Final project topic, scope and format for the 3 credit course will be determined in the field while in Costa Rica and will be developed as extensions of trip activities or data collection. Students will be provided with numerous appropriate potential topics before and during the trip, or may propose their own for consideration by the instructor. The instructor and each student will reach an agreement as to the topic, scope and format of the final project before the end of the trip.

Final projects and field notebooks will be due by July 28, before the end of the trip.

Important Dates

3 Credit Course

Begin Field Period	Wednesday, July 12, 2017
End Field Period	Saturday July 29, 2017
Final Report Topic Determination	Friday, July 21, 2017
Final Report & Field Notebooks Due	Friday July 28, 2017

Course Grade Determination

3 Credit Course

Participation	20%
Field Notebook	30%
Final Project	50%

Appendix

- I. Blog Addresses 2013, 2014 and 2015
- II. Project Concentration Topics
- III. Trip Itinerary

I. 2013, 2014 and 2015 Blog Addresses

2013: <http://lmucostaricajourney.wordpress.com/category/uncategorized/>

2014: <http://lmucostarica2014.wordpress.com/>

2015: <https://lmucostarica2015.wordpress.com/>

II. Suggested Project Concentration Topics

Suggested Project Concentration Topics

Following is a list of suggested topics for possible Project Concentrations students could complete for the **3 Credit BIOL 398 Course: Tropical Ecology & Culture in Costa Rica**.

Option for: E = Topic Could be Extended to LMU for Independent Research

* = Suggested Concentration

- Videography - Documentary of Trip (E *)
- Tropical Rainforest Ecology (Tirimbina) *
- History of Costa Rica *
- Turtle Conservation [Tortuguero (Sea Turtle Conservancy) and Ostional] (E *)
- Bananas in Costa Rica (Earth University) (E *)
- Green Iguanas (Iguana Bridge)
- Sustainable Farming (Rancho Margot) (E *)
- Caves in Costa Rica (Venado Caves)
- Hummingbirds (Hummingbird Gallery) (E *)
- Cloud Forest Ecology (San Gerardo Field Station) *
- Monteverde Cloud Forest Preserve
- Bats of Costa Rica (bat mist-netting) (E*)
- Monteverde Sustainability
- Monteverde Institute (MVI)
- Monteverde Conservation League
- Costa Rican Cooking
- Costa Rican Dance

- Three-Wattled Bellbird
- Bellbird Corridor Project
- FCC Reforestation Project *
- History of the Children's Eternal Rainforest (past, present, future) **(E *)**
- Amphibians of Costa Rica
- Nocturnal Biology in Costa Rica **(E *)**
- Mangrove System / Estuarine Ecology (Nosara Estuary) *
- Birds of the Tropical Dry Forest *
- Crocodiles in Costa Rica (Crocodile Bridge)
- Wild Cats in Costa Rica (Las Plumas Cat Sanctuary) **(E *)**
- GPS Tracking Technology **(E*)**
- IP Camera Technology **(E *)**
- Remote (GameCam) Monitoring **(E *)**
- Nature Photography **(E *)**
- Birds of Costa Rica **(E *)**
- Great Green Macaw
- Inventory of Bird Vocalizations **(E *)**
- Reptiles of Costa Rica
- Primates of Costa Rica
- Insects of Costa Rica **(E *)**
- Ecosystem Stratification **(E *)**
- Co-Evolution and Tropical Costa Rica **(E *)**
- Costa Rica 'Ring of Fire'
- Central American Land Bridge
- Religion in Costa Rica (Cartago Basílica) **(E *)**
- Fruits of Costa Rica **(E *)**
- Organic and Free Trade Coffee **(E*)**
- Cloud Forest Transcendentalism *
- Ecotourism *
- Costa Rican Economy
- Costa Rican Pottery
- Role of Women in Costa Rican Society **(E*)**
- Domestic Cats and Dogs **(E *)**

III. Trip Itinerary

Day 1. Wed, July 12: Arrival and welcome to Costa Rica.

Flight arrivals at Juan Santamaría Airport and transfers to hotel.

Course introductions.

Dinner at hotel.

Lodging: Central Valley; hotel TBD

Day 2. Thur, July 13: Travel to Tortuguero; Fruit-sampling; History of Costa Rica; Night walk.

7:00 am: Breakfast

8:00 am: Depart for Pavona dock (c. 3 hours); stop to sample tropical fruits on way.

12:00 pm: Lunch at Pavona dock restaurant.

1:00 pm: Load and depart on boat for Tortuguero.

2:00 pm: Approximate arrival at hotel.

3:30 - 5:30 pm: Presentation by Mark: "History of Costa Rica".

6:00 pm: Dinner at hotel.

After dinner: Night walk.

Lodging: Tortuguero; hotel TBD

Day 3. Fri, July 14: Canals by boat; Tortuguero village and scavenger hunt; Turtle conservation; Beach turtle walk.

7:30 am: Breakfast.

8:30 -11:30 am: Explore Tortuguero canals in boat.

12:00 pm: Lunch at hotel.

1:00 - 3:00 pm: Explore Tortuguero village and complete scavenger hunt exercise.

3:00 - 4:00 pm: Meet and discuss results.

4:30 pm: Visit Sea Turtle Conservancy education center.

5:00 pm: Presentation on turtle conservation by STC representative.

6:30 pm: Dinner at lodge.

After dinner: Turtle hikes along beach with guides (times allotted by lottery system).

Lodging: Tortuguero; hotel TBD

Day 4. Sat, July 15: Travel to Sarapiquí; Earth University and bananas.

6:45 am: Breakfast.

7:30 am: Depart for Earth University, by boat to Pavona, then bus.

10:00 am: Short film about university, then visit and learn about banana plantation with Earth specialist.

12:30 pm: Lunch on campus.

1:30 pm: Continue to Sarapiquí (refreshment stop on way).

4:30 pm: Approx. arrival at Tirimbina.

6:30 pm: Dinner at station.

Lodging: Tirimbina Field Station; tel. 2761 1579

Day 5. Sun, July 16: Rainforest by day; Chocolate tour; Rainforest by night.

7:00 am: Breakfast
8:00 -12:00 md: Introduction to tropical rainforests hike.
12:30 pm: Lunch at lodge.
1:30-3:30 pm: Chocolate tour.
4:30 - 5:30 pm: Group discussion.
6:00 pm: Dinner at station.
After dinner: Nature walk: Introduction to the rainforest by night.

Lodging: Tirimbina Field Station; tel. 2761 1579

Day 6. Mon, July 17: Travel to Rancho Margot; Venado Caves; La Fortuna.

7:00 am: Breakfast.
8:00 am: Depart for Venado caves; stop on way at Iguana Bridge to admire iguanas and sample ice cream.
10:30-12:30 pm: Explore and learn about caves (a fossilized seabed) with Mark and local specialist.
1:00 pm: Lunch at caves.
1:45 pm: Depart for La Fortuna and Rancho Margot.
2:45 - 4:15 pm: Quick stop to explore town of La Fortuna, shop, or have coffee etc.
4:15 pm: Continue to Rancho Margot.
5:15 pm: Approx. arrival at Rancho Margot.
7:00 pm: Dinner at Rancho Margot.

Lodging: Rancho Margot; tel. 8302 7318

Day 7. Tues, July 18: Rancho Margot: an experiment in sustainability.

(Pre-breakfast options of yoga or milking cows)

8:30 am: Breakfast.
9:30 - 12:00 am: Tour & learn about model farm & hotel Rancho Margot, an experiment in sustainability.
12:30 pm: Lunch at Rancho Margot.
1:30 - 3:45 pm: Participate in work projects on farm.
4:00 - 6:30 pm: Free time to relax in compost-heated pool, do yoga, play soccer etc..
6:30 pm: Dinner at Rancho Margot.

Lodging: Rancho Margot; tel. 8302 7318

Day 8. Wed, July 19: Travel to Monteverde; MVI; Dance class; Bat mist-netting.

7:30 am: Breakfast at Rancho Margot.
8:15 am: Depart for Monteverde (c. 3.5 hours); rest stop on way.
12:00 md: Approx. arrival in Monteverde.
12:30 pm: Lunch.
1:45 pm: Depart for Monteverde Institute.
2:15 - 3:30 pm: Introduction to MVI presentation.
4:00-5:00 pm: Latin dance class at MVI with Evelyn Rockwell.
5:30 pm: Dinner at MVI.
6:15-8:15 pm: Bat mist-netting (weather-permitting) with Dr. Richard Laval.

Lodging: Hotel Montaña Monteverde 2645 5046

Day 9. Thurs, July 20: Hummingbirds; Cloud forest; Cooking class.

7:00 am: Breakfast; collect bag lunch.
8:00 am: Depart for Monteverde Cloud Forest Preserve.
8:30-9:30 am: Introduction to hummingbird ecology at the Hummingbird Gallery
9:30-12:30: Hike through and learn about the magical cloud forest.
12:30 pm: Bag lunch on the continental divide.
1:30-3:30 pm: Hike back to entrance independently.
3:30 pm: Return to hotel.
7:00 pm: Dinner at hotel.
After dinner: Free evening to catch up on course work.

Lodging: Hotel Montaña Monteverde 2645 5046

Day 10. Fri, July 21: Bellbird corridor and reforestation study; Hike into San G; Children's Eternal Rainforest.

7:00 am: Breakfast.
8:00-9:15 am: Presentation on the Three-wattled Bellbird, wildlife corridor project, and the Fundación de Conservación Costarricense.
9:30-12:30 am: Participate in FCC reforestation project.
12:30 pm: Lunch.
2:00 pm: Depart for San Gerardo trailhead.
3:00 - 5:30 pm: Hike in to San Gerardo.
6:00 pm: Dinner at station.
After dinner: Presentation: "The Children's Eternal Rainforest: past, present, and future".

Lodging: San Gerardo Biological Station; tel. 2200 0313 / 8324 9649

Day 11. Sat, July 22: Intro to SG forest; independent project prep.; amphibian declines; night walk.

7:00 am: Breakfast at station.
8:00-10:30 am: Orientation walk.
10:30-12:00 md: Preparation for independent project (in field or one-on-one discussion w/ faculty).
12:00 md: Lunch at station.
1:00 - 2:30 pm: Preparation for independent project (in field or one-on-one discussion w/ faculty).
3:00 - 5:30 pm: Presentation: "Amphibian declines and partial recovery".
6:00 pm: Dinner at station.
7:15-9:15 pm: Night walk.

Lodging: San Gerardo Biological Station; tel. 2200 0313 / 8324 9649

Day 12. Sun, July 23: Independent project day.

Morning: Collect data.
Afternoon: Analyze, prepare data and presentation.
Late afternoon/evening: Student presentations.

Lodging: San Gerardo Biological Station; tel. 2200 0313 / 8324 9649

Day 13. Mon, July 24: Hike out of San Gerardo; Canopy ziplines option; Free evening.

7:00 am: Breakfast at station.
8:00 am: Hike out of San Gerardo; pick up bag lunch.
11:00-1:30 pm: Canopy ziplines at Selvatura (or other activity if preferred).
1:30 pm: Return to La Calandria.
Rest of afternoon and evening free for independent activities and dinner.
Lodging: Hotel Montaña Monteverde 2645 5046

Day 14. Tues, July 25: Travel to Nosara; Las Pumas cat sanctuary; Mangrove presentation.

7:00 am: Breakfast at station.
8:00 am: Depart for Las Pumas and Nosara.
11:30 am: Observe and learn about Costa Rica's wild cats at Las Pumas.
12:30 pm: Lunch at Rincón Corobicí.
1:30 pm: Continue to Nosara (c. 3 hours); rest stop on way.
4:30 pm: Approximate arrival in Nosara.
6:00 pm: Dinner at hotel.
After dinner: Introduction to mangroves presentation.
Lodging: Hotel Giardino Tropicale; tel. 2682-4000

Day 15. Wed, July 26: Tropical Dry Forest; Mangroves.

7:30 am: Breakfast at hotel.
8:30 am: Drive to Nosara estuary/reserve (20 mins).
9:00-11:30 am: Intro to tropical dry forest hike w/ Mark.
12:00 pm: Lunch at Restaurante Kayasol.
1:30 - 4:00 pm: Explore mangroves in kayaks w/ local guide and Mark.
7:00 pm: Dinner at Il Pepperone restaurant.
Lodging: Hotel Giardino Tropicale; tel. 2682-4000

Day 16. Thur, July 27: Snorkeling and tide pools at San Juanillo; Ostional turtles and community.

7:30 am: Breakfast at hotel.
8:30 am: Depart for San Juanillo (1 hour).
10:00 - 1:00 pm: Snorkel and explore tide pools at San Juanillo (low tide 11:38 am); picnic lunch on beach.
1:15 pm: Return to Ostional.
2:00 - 3:30 am: Presentation on Ostional turtle nesting management.
Rest of afternoon: Beach clean-up and/or independent project work.
6:30 pm: Dinner at Soda La Plaza.
After dinner: Look for nesting turtles on beach with ADIO guide, weather permitting.
Return to Nosara.
Lodging: Hotel Giardino Tropicale; tel. 2682-4000

Day 17. Fri, July 28: Return to San José.

7:30 am: Breakfast.

Morning: Open time for independent project work, shopping, other independent activities.

12:15 pm: Load bus; depart hotel

12:45 pm: Lunch at Restaurante Kayasol.

2:00 pm: Depart for Central Valley (c. 4 hours); rest stop on way.

7:00 pm: Dinner.

Lodging: Central Valley; Hotel TBD

Day 18. Sat, July 29: Flights home.

Transfers to airport c. 3 hours prior to flight departures.