EBIO 319: Tropical Field Biology

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Course Overview:
This course consists of a 2-week trip to Belize to examine first-hand the biology of the two most diverse ecosystems on earth: the coral reef and the tropical rainforest. Days will be spent in the field making observations and collecting data; lectures in the evenings will cover topics including diversity of tropical organisms and habitats, rainforest ecology, coral reef biology, cave biology, symbiosis, and conservation of tropical biodiversity. Selection of students for the course is determined through a rolling application process, which includes an interview with the instructors. While a background in biology is desirable (minimally including EBIO 202 and EBIO 213), individuals lacking this background but having a special interest in the tropics are encouraged to enroll.

Learning Objectives:
By the end of this course, students will be expected to be...
- able to recognize common species that live in the rainforest and on the reef.
- familiar with some of the methods used to conduct research in the tropics.
- able to keep a well-organized and accurate field notebook.
- comfortable living and working in basic conditions in remote locations.
- able to communicate effectively using a blog.

Location:
The class will travel together from Houston to Belize. The first part of the course will take place at Glover’s Reef Research Station on a small island in Glover’s Atoll, a UNESCO World Heritage Site (http://wcsgloversreef.org). The second part of the course will be spent at Las Cuevas Research Station (http://www.lascuevas.org), a remote rainforest camp located in Chiquibul National Forest on the mainland. Accommodations at both field stations will be rustic, with dorm-style rooms, shared bathrooms and no air-conditioning or hot water. Additional nights will be spent at a basic hotel in San Ignacio. Transportation between sites will be by private bus or boat.

Tuition and Course Fee:
Rice University tuition for this course is $2,000. An additional course fee of $2,500 covers the costs of all student transportation costs, including international airfare, local transportation, accommodations, meals, site fees, licensed marine guides, and taxes. The course fee is due February 16, 2015 and is non-refundable (the fee is used to cover the cost of students’ transportation and accommodations, which must be purchased ahead of time to ensure availability). Other expenses not included in the trip cost include personal gear (see below), vaccinations, medications, and any other personal expenses.
Course Schedule (subject to change):

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Accommodations</th>
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</thead>
<tbody>
<tr>
<td>19-May</td>
<td>Travel from Houston to Glovers Reef</td>
<td>Glovers Reef Research Station</td>
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<tr>
<td>20-May</td>
<td>Glovers Reef Day 1</td>
<td>Glovers Reef Research Station</td>
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<tr>
<td>21-May</td>
<td>Glovers Reef Day 2</td>
<td>Glovers Reef Research Station</td>
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<tr>
<td>22-May</td>
<td>Glovers Reef Day 3</td>
<td>Glovers Reef Research Station</td>
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<tr>
<td>23-May</td>
<td>Glovers Reef Day 4</td>
<td>Glovers Reef Research Station</td>
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<tr>
<td>24-May</td>
<td>Glovers Reef Day 5</td>
<td>Glovers Reef Research Station</td>
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<tr>
<td>25-May</td>
<td>Travel to San Ignacio</td>
<td>Midas Hotel</td>
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<tr>
<td>26-May</td>
<td>Travel to Las Cuevas</td>
<td>Las Cuevas Research Station</td>
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<tr>
<td>27-May</td>
<td>Rainforest Day 1</td>
<td>Las Cuevas Research Station</td>
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<tr>
<td>28-May</td>
<td>Rainforest Day 2</td>
<td>Las Cuevas Research Station</td>
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<tr>
<td>29-May</td>
<td>Rainforest Day 3</td>
<td>Las Cuevas Research Station</td>
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<tr>
<td>30-May</td>
<td>Rainforest Day 4</td>
<td>Las Cuevas Research Station</td>
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<tr>
<td>31-May</td>
<td>Rainforest Day 5</td>
<td>Las Cuevas Research Station</td>
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<tr>
<td>1-Jun</td>
<td>Travel to San Ignacio</td>
<td>Midas Hotel</td>
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<tr>
<td>2-Jun</td>
<td>Travel to Houston</td>
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General Requirements:
Students are expected to participate in all activities, including field exercises and lectures, and to follow instructions from the course instructors. Students will create a field journal that documents daily activities, observations, and species seen. Prior to the end of the course, excerpts from the field journal will be used to write blog entries that relate activities and sightings to the themes discussed during the course. Each student will also be responsible for giving a lecture to the class on a topic chosen prior to the beginning of the course.

Required Reading:


Recommended Reading:


Required Materials:
Valid passport, mask, snorkel, fins, full-body rash guard, sunblock, rubber boots, two 1-L water bottles (Nalgene® or similar), waterproof notebook (Rite in the Rain® or similar), digital watch with alarm
**Recommended Materials:**
Swimsuit, dive light, raingear (poncho or raincoat), mosquito repellent, waterproof binoculars, long pants (synthetic material is better than cotton; jeans are NOT recommended), long sleeve cotton shirts, hiking socks (synthetic or wool), hat, polarized sunglasses, jacket or fleece, sandals/flip-flops, comfortable shoes for walking in town (e.g., tennis shoes), laptop. A waterproof digital camera and headlamp will be provided for each student.

**Grading:**
Grades will be based on student’s field journals (15%), taxon identification sheets (15%), blogs (15%), oral presentations (25%), and participation (20%), and a series of six pre-class Owl-Space quizzes on the required reading (total: 10%). The course is graded on a straight scale, with the following cutoffs for final grades (98-100% = A+; 93-97 = A; 90-92 = A-; 88-89 = B+; 83-87 = B; 80-82 = B-; 78-79 = C+; 73-77 = C; 70-72 = C-; 68-69 = D+; 63-67 = D; 60-62 = D-; < 60% = F).

**Note:**
Any student with a documented disability needing academic adjustments or accommodations is requested to speak with one of the instructors prior to the beginning of the course. All discussions will remain confidential. Students with disabilities should also contact Disabled Student Services in the Ley Student Center.