I. COURSE: BIOL 4590 Special Topics: Tropical Ecology and Conservation 3 hrs (3:0), T-R 9:30-10:45, TBA

II. FACULTY: Kim Withers, NRC 3205, 825-5907; Office Hours 10-12 Monday and Wednesday, 11-1 Tuesday, email Kim.Withers@tamucc.edu

III. COURSE DESCRIPTION

This is an overview course in major ecosystems in both the New and Old World tropics, the ecological principles at work in these systems, and the current threats and conservation approaches being used. It will be a hybrid course including lectures and journal readings/discussion (seminar-style). Prerequisite: Principles of Ecology (BIOL 3428) or permission of instructor.

IV. TEXTBOOKS

No textbook is required. Readings from the primary literature will be assigned throughout the course.

V. COURSE OBJECTIVES

Students in this course will investigate the ecology, culture, and conservation of tropical ecosystems. By the end of the course, students should understand how topical ecosystems work, the roles of humans in shaping them, and current conservation challenges and opportunities. This course will also challenge students to develop research questions and methods on some aspect of tropical ecology and/or conservation.

VI. LEARNING OBJECTIVES

AT THE END OF THIS COURSE, THE SUCCESSFUL STUDENT WILL:

1. DEMONSTRATE knowledge of biotic and abiotic features that give rise to tropical ecosystems, especially tropical forests, in both New and Old World tropics
2. UNDERSTAND the plant and animal interactions necessary for tropical communities to function
3. UNDERSTAND the social, economic, and political issues affecting the exploitation of tropical resources as well as their preservation/conservation
4. DEMONSTRATE THE ABILITY to write and think critically about ecological questions
5. BE ABLE TO develop research questions and write a proposal to investigate them

VII. COURSE REQUIREMENTS & GRADING CRITERIA

The grading elements are:

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<tr>
<th>Element</th>
<th>Student Learning Outcome</th>
<th>Points</th>
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<tbody>
<tr>
<td>Quizzes (6@ 50)</td>
<td>1,2</td>
<td>300</td>
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<tr>
<td>Concept Analysis Exercise (2)</td>
<td>4</td>
<td>200</td>
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<tr>
<td>Topic Presentation/Discussion</td>
<td>1-3</td>
<td>100</td>
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<tr>
<td>Proposal/Proposal Presentation</td>
<td>5</td>
<td>200</td>
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<td>Total</td>
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<td>800</td>
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Grades will be assigned as follows:
A = 90% or greater
B = 80-89%
C = 70-79%
F =<70%

VIII. STUDENT LED DISCUSSION/PRESENTATION
Each student will give a 15 minute presentation on a tropical ecology subject then lead a discussion over a paper that has been assigned prior to the presentation. You must research a topic of your choosing and then share what you know with the class. Topics can be anything related to tropical ecology for example: land use, climate change, agriculture, plants, indigenous peoples, national parks, etc. Virtually any topic or biologic group (i.e., monkeys, snakes) or specific species can be chosen. The discussion paper that you assign should augment your presentation and provide fodder for discussion.

IX. CONCEPT ANALYSIS EXERCISE
Three brief (5-7 double spaced pages) critical thinking and analysis papers (these are sometimes referred to as “microthemes”) will be completed during the semester and will be assigned approximately every three weeks. These exercises are designed to test your ability to synthesize reading materials and bring this knowledge to bear on a variety of questions concerning tropical ecology/conservation. Exercises typically consist of 1 or 2 questions that you will answer in the form of an essay using background readings and 1 or 2 journal articles, sometimes assigned by me, sometimes that you find yourself. Assigned journal articles and other materials will be placed on reserve in the library or the appropriate URL (for journal articles available from online databases) will be provided.

X. FIELD STUDY PROPOSAL
Students will propose a research project in the style of an NSF proposal. Research project topics must be approved before the proposal is begun. Students will give a brief (20 min.) presentation their proposal to the class.

Tropical Ecology/Tropical Ecosystems
2013 SCHEDULE (Tentative)

<table>
<thead>
<tr>
<th>Weeks</th>
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<tr>
<td>1-5</td>
<td>Paradigms in Tropical Ecology</td>
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<tr>
<td>6-10</td>
<td>Survey of the Diversity and Ecology of Tropical Ecosystems</td>
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<tr>
<td>7-14</td>
<td>Conservation Issues</td>
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<tr>
<td>Last day of Class</td>
<td>Graduate Student Proposal Presentations</td>
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I RESERVE THE RIGHT TO ALTER THE SCHEDULE AT ANY TIME

Grade Appeals*
As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

Disabilities Accommodations*
The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.