Tompkins Cortland Community College

Master Course Syllabus

Course Discipline and Number: BIOL 116 **Year: 2024-2025**
Course Title: Tropical Field Natural History **Credit Hours: 4**

Attendance Policy: *To maintain good grades, regular attendance in class is necessary. Absence from class is considered a serious matter and absence never excuses a student from class work. It is the responsibility of all instructors to distribute reasonable attendance policies in writing during the first week of class. Students are required to comply with the attendance policy set by each of their instructors. Students are not penalized if they are unable to attend classes or participate in exams on particular days because of religious beliefs, in accordance with Chapter 161, Section 224-a of the Education Law of the State of New York. Students who plan to be absent from classroom activity for religious reasons should discuss the absence in advance with their instructors. See college catalog for more information.*

Services for Students with Disabilities: *It is the College's policy to provide, on an individual basis, appropriate academic adjustments for students with disabilities, which may affect their ability to fully participate in program or course activities or to meet course requirements. Students with disabilities should contact the Coordinator of Access and Equity Services, to discuss their particular need for accommodations. All course materials are available in alternate formats upon request.*

Course Description

This is a laboratory biology course for a general audience interested in learning more about the natural history of tropical ecosystems. Emphasis will be placed on identifying organisms in the field, critically observing the natural environment in its complexity, understanding basic ecological principles, and performing basic ecological research in tropical locations. Instructional modes include lectures, discussion, field experiences, and readings. This course fulfills a four-credit laboratory science requirement. BIOL 116 fulfills the SUNY General Education requirement in Natural Sciences. Significant additional costs. Prerequisites: RDNG 099 if required by placement testing; prior completion or concurrent enrollment in ENGL 100; and instructor permission. 4 Cr. (2 Lec., 6 Lab.) Spring semester.

Course Context/Audience

BIOL 116 can be used to satisfy a laboratory science, science, math/science or an unrestricted elective requirement.

Basic Skills/Entry Level Expectations

Writing: WC College level writing skills are required. See course co-requisites or pre-requisites.

Math: M0 Course requires very little or no math.

Reading: R2 Before taking this course, students must have a C or better in RDNG 099 or assessment indicating that RDNG 099 was not required.

Other: Appropriate physical, social, and emotional skills for traveling in a foreign, developing country and participating in group activities for a 10 - 15 day period. Valid passport; ability to obtain visas as needed. Ability to walk for 3 - 4 hours at a time, over somewhat challenging terrain, carrying a small pack (~ 15 pounds) in hot, humid, and buggy conditions. Ability to swim or comfort around the water. Modes of transportation may include plane, boat, and bus.

Course Goals

Students will be exposed to the natural history of the Neotropics. They will learn to identify major groups of organisms typically found in different neotropical biomes and will become familiar with the resource management issues facing these areas.

Course Objectives/Topics

Objective/Topic	% Course
The student will be able to determine what is required for travel to a specific area (passport, vaccinations, etc.).	1%

The student will demonstrate an understanding of the scientific method.	20-30%
The student will be able to describe the geography of the site to be visited.	5%
The student will be able to describe the ecosystems visited.	20-30%
The student will be able to describe typical plants and animals observed.	20-30%
The student will be able to discuss resource management problems observed, and steps being taken to resolve them.	10-20%

General Education Goals - Critical Thinking & Social/Global Awareness

CRITICAL THINKING OUTCOMES	**HOW DOES THE COURSE ADDRESS THE OUTCOMES** (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)
Students will be able to ➢ develop meaningful questions to address problems or issues. ➢ gather, interpret, and evaluate relevant sources of information. ➢ reach informed conclusions and solutions. ➢ consider analytically the viewpoints of self and others.	Consideration of conservation issues in neotropical regions, including consideration of agriculture, environmental protection, and ecotourism. A research paper or project can focus on one of these issues. Students will read an appropriate text, articles from local newspapers, and gather primary and secondary sources. Discussions in class and during our trip will foster open engagement of others. Conversations in-country with local people will support this outcome. **Students will plan and execute real ecological research projects based on their own individual interests.**
SOCIAL/GLOBAL AWARENESS OUTCOMES	**HOW DOES THE COURSE ADDRESS THE OUTCOMES** (Include required or recommended instructional resources, strategies, learning activities, assignments, etc., that must or could be used to address the goal/outcomes)
➢ Students will begin to understand how their lives are shaped by the complex world in which they live. ➢ Students will understand that their actions have social, economic and environmental consequences.	Travel to a foreign country is a wonderful way to allow students to see, first-hand, the complexity of their world. Essays and a journal can address how this trip influenced their understanding of global complexity. Interactions with the locals will allow students to better understand how they may influence, and be influenced by, other people. Discussions with the people we meet while traveling and reflections on these discussions as part of the final paper and exam will address these outcomes. Discussions of environmental sustainability include consideration of organic, industrial, and. traditional farming methods. Students will write an essay comparing the costs and benefits of varying farming methods. Discussions include the impacts of ecotourism on developing nations.. Essays and a journal can address how this trip influenced their understanding of global complexity.

Instructional Methods
The instructor should conduct preparatory lectures before the trip and use field observations and lectures on-site.

Methods of Assessment/Evaluation

Method	% Course Grade
Field journal, written on-site	~30%
Research project - on a topic of special interest to the student and pertaining to the country or biota to be visited	~30%
Reflective paper, written after the field experience	~15%
Book report or literature review - on a topic pertaining to the country or biota to be visited	~15%
Attendance and participation	~10%

Text(s)

Kricher, John. 1999. A Neotropical Companion, Princeton University.

Ospina H., Mariano. 1996. Orchids and Ecology in Colombia: To the Rescue of Paradise. Panamericana Formas e Impresos. Santafe de Bogota, Colombia.

Bibliography

A Neotropical Companion. Kricher, John, 2nd edition. © 1999: Princeton University.

Lonely Planet Series - for each site

Other Learning Resources

Audiovisual No resources specified
Electronic No resources specified
Other No resources specified