



UNIVERSIDAD SAN FRANCISCO DE QUITO
SCHOOL: CIENCIAS BIOLÓGICAS Y AMBIENT.
COURSE: REC-0315E -
Semester: 201910 - Primer Semestre 2019/2020 - NRC: 1005
Schedule: LMIJV 09:00 - 12:00 (Aula: TBD)

INSTRUCTOR/TEACHER INFORMATION:

Professor: Rebecca Zug
Email rzug@usfq.edu.ec
Office: M103A
Office hours: by appointment

COURSE INFORMATION:

Credits: 4
Pre-requisites: Verify pre-requisites in Banner academic system.
Co-requisites: none

COURSE DESCRIPTION:

The factors that control the patterns of wildlife use by humans represent one of the most complex examples of human-nature interaction and are critical in guiding the management and conservation of wildlife populations. Throughout the world, hunting of wildlife populations is still an important source of food, recreation, handicrafts, tools, and ceremonial artifacts for a wide range of human cultures. Many people in the Neotropics strongly depend on wildlife species as a source of protein and income. At the same time, these patterns of wildlife use occur in a context of growing habitat destruction and human population growth, threatening both the well-being of local human communities and the persistence of wildlife populations. In this course, students will be guided through an analysis of the patterns of wildlife use by human communities, with emphasis on the factors that control these patterns, their ecological impacts, and the wildlife management approaches that have been used in different ecological settings. Students will learn basic tools commonly used for the management of wildlife populations, review case studies, and take field trips to experience the complexity and the multidisciplinary nature of wildlife management in the tropics.

Course Objective:

The main purpose of this course is to allow students to develop a concept of how humans manage wildlife populations in different situations around the world. This will be achieved through an analysis of the main factors that control the patterns of wildlife use by human communities and their ecological impacts.

Required materials (bring to Ecuador):

- binoculars
- 3 x 5 field notebook (suggested: Rite in the Rain, No. 135 or 393)
- 5 x 8 journal (approx. size, bound or spiral)
- pens and/or pencils for field notes, colored pencils will be helpful

**COURSE LEARNING OUTCOMES:**

| # | Learning Outcomes | Level |
|---|---|-------|
| 1 | Students will learn the factors that control the patterns of wildlife use by human communities and their main ecological impacts. | 3rd |
| 2 | Students will understand the main approaches that have been used for the management of wildlife populations, and some technical tools useful in different ecological settings. | 3rd |
| 3 | Students will be able to proficiently discuss the biological, socio-economic, and cultural aspects that need to be taken into account while analyzing or planning the management of wildlife populations. | 3rd |
| 4 | Students will think critically about the main paradigms that have ruled the management of wildlife populations in different ecological settings. | 3rd |

COURSE CONTENTS:

- Basic wildlife ecology and principles of conservation biology
- Patterns of wildlife use by human communities (emphasis on tropical environments)
- Biological basis for the management of wildlife populations
- Tools for wildlife management planning and the role of sustainable business models
- Traditional approaches to wildlife management in different ecological settings
- Wildlife management in tropical ecosystems
- Wildlife management in Ecuador

METHODOLOGY FOR THE INTEGRATION OF THEORETICAL AND PRACTICAL CONTENTS:

The teaching methodology used in all courses at USFQ follows the liberal arts philosophy: encourage dialogue and enable learning through opportunities to exchange ideas among teachers and students. It is expected that all the theoretical content courses explore potential applications to professional practice and work contexts through the integration of diverse activities and simulations that foster the contextualized understanding of concepts using reality and professional practice as frames of reference.



ASSESSMENT:

| Type | General Description | % of final grade |
|--------------------------|--|------------------|
| Class Contributions | Participation in discussions about assigned readings, leadership of group discussion, participation in assigned debate topic | 25% |
| Research paper | Thorough assessment of a wildlife-related topic selected in class | 25% |
| Class presentation | In-class presentation of research paper topic | 10% |
| Field notebook / journal | Field notebook and journals based on Grinnell system and completed during field trips | 20% |
| Field projects | Research projects to be completed in the (1) cloud forest and (2) rainforest | 20% |

Description of Assessment Categories

Below is a brief description of the assignments due during this course. The course website will be the main source for detailed assignment descriptions, articles, the course schedule, and submissions.

- Class contributions:** This course requires a lot of reading, class discussions, and participation from all students. The main items in this assessment category are:
 - Readings:** Before each lecture or field trip students are expected to complete assigned readings and to be able to answer questions and lead in-class discussions. Reading will be assigned during class.
 - Group discussion:** Groups of 2-3 students will have 20 minutes to present a topic (not just summarize articles) and lead a class discussion. Discussion topics and readings will be assigned in class.
 - In-class debate:** Groups of students will be assigned a topic concerning Yasuni National Park. Together they will research that topic and participate in an in-class debate.
- Research Paper:** Throughout this course, we will be discussing the complicated factors involved in conserving wildlife in the tropics. Students will be asked to select either a tropical habitat or species as the focus of a research paper that explores these topics in context. Papers about tropical habitats must include information about the species who live there; papers about a species must include information about the habitats they use. Students should select a species or habitat not discussed thoroughly in class.
- Class Presentation:** Students will give a 5-7 minute presentation (slides) on the topic of their research paper. Presentations should follow the same format as research papers.



4. **Field notebook / journal:** Students will learn the basic methods for keeping a field notebook and a field journal using an abbreviated version of the Grinnell System. The field notebook is small, portable, and goes to the field each day. The field journal is for rewriting field notes in camp, daily reflections, summaries of observations, completion of assignments, etc. Students will also use their field journals to answer “big picture” questions about each field trip location, to define keywords, and complete assignments. At the end of the course students will hand in both to be graded and returned.
5. **Field Projects:** During field trips to both the rainforest and the cloud forest students will be assignment research projects to be completed on-site.

LIBRARY BIBLIOGRAPHY:

Selected chapters from the following textbooks will be available on the course website:

- Kricher, J. 2011. *Tropical Ecology*. 1st edition. Princeton University Press, Princeton, New Jersey.
- Molles, M. C. 2016. *Ecology: Concepts and Applications*. 7th edition. WCB/McGraw-Hill, Boston.

COURSE BIBLIOGRAPHY:

Course readings will be assigned in-class and available on the course website.

COMPLIMENTARY BIBLIOGRAPHY *Non-required readings for curious students*

- Forsyth, A., and K. Miyata. 1984. *Tropical Nature: Life and Death in the Rain Forests of Central and South America*. Simon & Schuster, New York, NY.
- Robinson, J. G., and E. L. Bennett. 2000. *Hunting for Sustainability in Tropical Forests*. Columbia University Press, New York, NY.
- Schroth, G., G. A. B. d. Fonseca, C. A. Harvey, C. Gascon, H. L. Vasconcelos, and A.-M. N. Izac, editors. 2004. *Agroforestry and Biodiversity Conservation in Tropical Landscapes*. Island Press, Washington, DC.
- Sinclair, A. R. E., J. M. Fryxell, and G. Caughley. 2006. *Wildlife Ecology, Conservation and Management*. Second edition. Blackwell Publishing, Malden, MA.

POLICIES:

All students taking courses at USFQ must follow the rules for ethics of learning, research, and behavior detailed in the [USFQ's Code of Honor and Coexistence](#). All courses should follow the policies stated in USFQ's [Manual del Estudiante](#)

Assignments: Due according to the schedule on the course website. Late assignments will not be accepted.

Attendance/Absences: Attendance is mandatory, and students must be in class on time.

Electronics: Phones and other devices must be turned off during class. Students can use a tablet or computer for taking notes or other class-related activities.



SCHEDULE OF ACTIVITIES:

| Date | Topics/Activities | Assignments |
|---------|---|--|
| 8/19 | - Introduction to the tropics, tropical ecosystems, and conservation biology | |
| 8/20 | - Conservation issues in tropical ecosystems - Hunting in the tropics, illegal wildlife trade - Tropical ecosystems (cloud forest) | |
| 8/21-23 | Field Trip: Santa Lucia - Cloud forest ecology and conservation | Cloud forest project |
| 8/26 | - Tropical ecosystems (páramo) - Conservation Case Study: Andean condors - Conservation Case Study: Cerro Blanco - Group Discussions: Groups 1 & 2 | *Readings assigned by groups 1 & 2 |
| 8/27 | Field Trip: Guayllabamba Zoo - Ex-situ conservation, illegal wildlife trade | |
| 8/28 | Field Trip: Antisana Reserve - Andean condor conservation and management - Páramo ecosystem | |
| 8/29 | - Group Discussions: Groups 3 & 4 - Tropical ecosystem (tropical rainforest) - Conservation Case Study: Oil extraction in Yasuni | *Readings assigned by groups 3 & 4 |
| 8/30 | - In-class debate - Research paper presentations | * Research papers due @ 5:00, Saturday, August 31 |
| 9/2-6 | Field trip: Tiputini Biodiversity Station (TBS) - Rainforest ecology | * Rainforest project * Journals and notebooks due at the end of this trip |

This syllabus was reviewed and approved by the coordination of the respective academic area or department. All sections of this course must follow this syllabus. Any changes or adjustments to this syllabus must be approved by the coordinator responsible for this academic area or department and must be reflected in the Curricular Design system.'