

Conservation Biology and Practice in Brazil's Atlantic Forest Global Seminar
University of Colorado Education Abroad Program
EBIO/ENVS 4340 & 5340

Syllabus – Maymester 2025

T. Kittel, Faculty Director
Gabriela Rezende, Instructor
Derek Sweeny, Director's Assistant

Course Goals –

The objective of this field course is to give you hands-on experience in principles and practice of conservation biology. The course will be held in a 'conservation crisis' setting—the Atlantic Forest of Brazil. We will explore conservation strategies in this human-dominated biome, where successful strategies can only occur when they address socioeconomic issues.

This global seminar is for upper-division undergraduates and graduate students with an interest in applied conservation biology and human dimensions of environmental change. Method of instruction emphasizes experiential learning through field exercises and research projects. Key to your training will be opportunities to undertake work related to on-going, operational programs of an in-country environmental NGO (non-governmental organization). Such work will be as group workshops and individual research projects.

Dates: 12–29 May 2025 (3 weeks)

Locations: The course will be hosted by the Instituto de Pesquisas Ecológicas (IPÊ; Institute of Ecological Research), a Brazilian environmental NGO (<https://ipe.org.br/en/>). IPÊ has implemented integrated, local community conservation programs for the past 30 years throughout Brazil. The first 4 days will be spent at their Professional Education Campus in Nazaré Paulista, a rural area about an hour from the City of São Paulo.

From there, we'll spend four days on the coast in the Serra do Mar (Sea Mountains) State Park. The Park is part of an extensive biodiversity corridor. Here, we'll hike through this prime example of Atlantic Evergreen Rain Forest and learn about conservation programs of rural communities embedded in the park from their leaders.

For the second half of the course, we will move to one of IPÊ's sites in the drier western part of the Atlantic Forest. The region is the Pontal do Paranapanema, a rural area in western São Paulo state. We will work out of Morro do Diabo State Park and IPÊ's research station in the town of Teodoro Sampaio. This location provides both the socio-ecological context and institutional infrastructure to successfully learn about on-the-ground, community-based conservation solutions – including reforestation, forest corridors, and agroforestry.

Prerequisite: 2000- or higher-level course in EBIO, ENVS, GEOG, ANTH, IAFS, or other discipline related to ecology and/or socioeconomic development (confer with instructor).

Credits: 4. Credits go towards fulfilling major requirements for ENVS Applications; EBIO 4000-series and Lab/Field course; GEOG upper-division course & Physical Geography Track elective; and IAFS Off-Campus Experience-Latin America.

Class size: 12-15 students

Program Resources –

Program overview brochure: <http://abroad.colorado.edu/?go=BrazilGS>
Program Handbook and other pre-departure information will be provided ahead of time.

Key Course Topics –

- 1) The Atlantic Forest
 - a) Biodiversity hotspots – Background
 - b) Atlantic Forest biodiversity – Species and landscapes
 - c) Human-dominated landscapes
 - d) Brazil's Forest Code and National Reserve System

- 2) Conservation biology
 - a) Ecological principles – Review
 - b) Origins and geography of biodiversity
 - c) Biology of species vulnerability
 - d) Conservation medicine
- 3) Threats to biodiversity
 - a) Drivers of habitat loss and fragmentation
 - b) Climate change
 - c) Disruption of global biogeochemical cycles
- 4) Conservation practical approaches
 - a) Linking human community sustainable development and conservation
 - b) Restoring connectivity in human-dominated landscapes
 - c) Ecosystem services – Watershed integrated assessment
 - d) Environmental education
 - e) Application of indigenous knowledge
 - f) Conflict resolution

Program Staff –

Faculty Director/Instructor: Dr. Timothy Kittel is a research ecologist and climate scientist at CU's Institute of Arctic and Alpine Research (INSTAAR). He teaches winter and summer field ecology courses at CU's Mountain Research Station and has been teaching conservation biology field courses in Brazil and the Caribbean for the past two decades. Dr. Kittel's teaching approach emphasizes experiential learning. email: kittel@colorado.edu; website: <http://instaar.colorado.edu/~kittel/>.

Instructor: Gabriela Cabral Rezende (PhD Wildlife Conservation) is a Research Scientist at IPÊ. She is Coordinator for IPÊ's conservation program for the Black Lion Tamarin, a rare and highly endangered primate found only in the Atlantic Forest of São Paulo state. She has been an Instructor for the course since 2013. email: gabriela@ipe.org.br.

Director's Assistant/Instructor: Derek Sweeney (MS Ecology & Evolutionary Biology) is a Teaching Assistant Professor in EBIO. Derek has been part of the Brazil Global Seminar instructional staff since its inception in 2011 and has traveled extensively in South America and elsewhere overseas. email: Derek.Sweeney@colorado.edu.

Textbooks – Copies of all readings will be available on-site, no charge.

1) *The Atlantic Forest of South America: Biodiversity Status, Threats, and Outlook*. Carlos Galindo-Leal & Ibsen de Gusmão (eds). 2003. Island Press. ISBN-10: 155963989X. Out of print. If you're interested in having your own copy, a reasonable used copy should be ~\$40.

2) *Conservation Biology for All*. Navjot Sodhi & Paul Ehrlich (2010): Oxford University Press. ISBN 9780199554232. Free online: http://www.conbio.org/images/content_publications/ConservationBiologyforAll_reducedsize.pdf

Evaluation and Grading –

Evaluation is based on 2 written assignments, individual research project, participation in field and in-class activities, and a field journal. Grading breakdown is:

Assignments (2 essays) 30%, Individual project 40%, Class participation 25%, Journal 5%.

Final grades are assigned as follows: A 90-100%, B 80-89%, C 70-79%, D 50-69%, F <50%.

University & Course Policies –

General Course Policy on Absences

Missing a class can be detrimental to your grade. Each day contributes directly both to your participation grade and any graded activity for the day and cannot be excused or made up unless you have a documented legitimate reason (such as those noted below). Each day works out to be enough points to change your letter grade. In addition, there is an indirect impact from missing skills or other information related to take-home assignments or individual projects covered on any given day. - 7/2018

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, marital status, political affiliation, or political philosophy. For more information, see the [classroom behavior policy](#), the [Student Code of Conduct](#), and the [Office of Institutional Equity and Compliance](#). - 9/2024

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your Instructor in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or DSinfo@colorado.edu for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website. If you have a temporary illness, injury or required medical isolation for which you require adjustment, contact the Instructor in a timely manner. - 9/2024

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name. - 9/2024

In the case that these records do not reflect your preferences, instructors will gladly honor your request to address you by an alternate name or gender pronouns. Please advise your Instructor of this preference early in the course so that we may make appropriate changes to our records. - 4/2021

Academic Integrity / Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part in adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: StudentConduct@colorado.edu. Students found responsible for violating the [Honor Code](#) will be assigned resolution outcomes from the Student Conduct & Conflict Resolution as well as be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy. - 9/2024

Students should note that their work may be evaluated with a plagiarism detection service; and that this service retains a copy of the submitted work for future comparisons. - 12/2018

Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits [protected-class](#) discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email CUreport@colorado.edu. Information about university policies, [reporting options](#), and [support resources](#) including confidential services can be found on the [OIEC website](#).

Please know that faculty and graduate instructors must inform OIEC when they are made aware of incidents related to these policies regardless of when or where something occurred. This is to ensure that individuals impacted receive outreach from OIEC about resolution options and support resources. To learn more about reporting and support for a variety of concerns, visit the [Don't Ignore It](#) page.

- 9/2024

Religious Holidays

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please communicate the need for a religious accommodation in a timely manner. See the [campus policy regarding religious observances](#) for full details. - 9/2024

In this class, it is your responsibility to make such requests to your professor at the start of the course. - 7/2018

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact [Counseling and Psychiatric Services \(CAPS\)](#) located in C4C or call (303) 492-2277, 24/7. Free and unlimited telehealth is also available through [Academic Live Care](#). The [Academic Live Care](#) site also provides information about additional wellness services on campus that are available to students. - 9/2024