

SYLLABUS

ENVM 6100-811

Conservation and Sustainable Development in Brazil's Tropical Forests Global Intensive Course



Instructor	Department	Email
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Part I: May 15-18, 2023

Location: On campus, University of Colorado Boulder; *Classes* Mon-Thur 9am – 12pm; *Room* SEEC C315

Part II: May 21-27, 2023

Location: Amazonas state, Brazil

Part III: May 28-June 3, 2023

Location: Bahia state, Brazil

COURSE INTRODUCTION

Solving complex socio-environmental sustainability challenges requires an interdisciplinary and systems-thinking approach that accounts for the perspectives of multiple stakeholders. Such challenges, and the opportunities to address them, are exemplified in Brazil's Amazon and Atlantic Forest biomes. These two tropical forests are of global significance: they sequester and store carbon, which mitigates climate change; they harbor more biodiversity than any other terrestrial ecosystem; and they support the livelihoods of millions of Indigenous and traditional forest-dependent people, many of whom live in poverty yet are also critical actors in forest conservation.

Many stakeholders are invested in the conservation and sustainable development in Brazil's forests. These stakeholders wish to avoid the continuation of some of the historic trends of deforestation, fires, large-scale infrastructure, biodiversity loss, and poverty that have characterized these regions. Instead, they hold a vision of developing a sustainable forest-based bioeconomy that conserves forests while promoting well-being and prosperity among rural populations, grounded in the commercialization of non-timber forest products, agroforestry, ecotourism, and carbon markets.

How might this vision of a forest-based bioeconomy be achieved? Is it possible to navigate a pathway that achieves both conservation and sustainable development goals? What governance mechanisms (e.g., policies, programs) are needed to do so? What is the role of different stakeholders? What can be learned across different regions, namely the Amazon and Atlantic Forests, to share lessons learned on integrated conservation and development? What opportunities are there for domestic and international collaborative partnerships to contribute to this vision? This course will address these questions through a two-week immersive field experience in the Amazon and Atlantic Forests of Brazil.

COURSE CHARACTERISTICS

Theoretical approach

The course will focus on:

1. Understanding tropical forests as ***complex socio-environmental systems***. A systems-thinking approach can help you, as students, to understand, analyze, and evaluate the challenges and proposed solutions that you encounter. Throughout the course, we will facilitate learning and discussion that ties different parts of these systems together.
2. Understanding the utility of ***interdisciplinary*** approaches that use strategies and techniques from different fields of expertise. Achieving the dual goals of conservation and sustainable development in tropical forests is an inherently interdisciplinary endeavor. The course will draw on insights from the fields of anthropology, ecology, economics, environmental science, geography, politics, and sociology, and will explore the ways in which these fields intersect to address forest conservation and sustainable development in an integrated way.
3. Understanding the opportunities and challenges of ***multi-stakeholder*** problem-solving. Success demands action by, and dialogue between, a wide range of actors: Indigenous and traditional forest-dependent communities, governmental agencies, non-profit, and civil society organizations, the private sector, and universities and researchers. The course will focus on the multi-stakeholder nature of these systems.

Case-studies

This course will be taught in Brazil's two tropical forest biomes.

The Amazon Forest. Week one of this course will take place in the State of Amazonas, in the Brazilian Amazon, where we will explore the challenge of achieving conservation and sustainable development along the *Rio Negro*, the largest tributary of the Amazon River. Much of the Amazon is threatened by a combination of cattle and soy agriculture, gold mining, large-scale infrastructure projects (e.g., hydroelectric dams), and roads. Yet the vast state of Amazonas remains remote, relatively roadless, and with most of its forest cover intact. We will visit riverine Indigenous and traditional forest-dependent communities engaged in innovative sustainable development strategies and will interact directly with state and municipal governmental, NGO, and community leaders to understand the strategies by which they are attempting to develop a sustainable forest-based bioeconomy. We will study the challenges and opportunities of a variety of conservation and development strategies, including sustainable development reserves, the commercialization of non-timber forest products, and carbon markets.

The Atlantic Forest. Week two of this course will take place in the southern part of the State of Bahia, deemed a global biodiversity hotspot. This part of the Atlantic Forest biome has a rich cultural heritage, a tradition of agroforestry-based cacao production, and is a popular tourist destination due to its stunning beaches and idyllic coastal towns. However, a new large-scale development project, the *Porto Sul*, threatens to disrupt the environmental, social, and economic dynamics of the region with the construction of a cross-state railroad and a deep-water port for resource export. In addition, local infrastructure is in many places struggling to meet demand, with environmental and social costs. The *Porto Sul* project and Southern Bahia's growing popularity for both visitors and relocating Brazilians has embroiled people here in debates over how different actors can work together to preserve Bahia's culture and construct a sustainable forest-based economy grounded in ecotourism, reforestation, and sustainable cacao production.

Topical Foci

The course presents opportunities to explore a wide range of social, economic, and environmental sustainability topics involving human-environment interactions. These include: forest conservation and restoration; sustainable food systems; environmental governance; leadership; bioeconomy; and sustainable development. You will be given the opportunity to explore and focus on topics of greatest interest and relevance to you.

Pedagogy

This course is characterized by two elements that define it as very different to most other courses:

1. This is an **immersive field course**. We will spend two of the three weeks of this course in Brazil, including in remote parts of the Amazon and Atlantic Forests. We will talk with stakeholders about their visions of a sustainable forest-based bioeconomy, and learn about the work that they are doing to advance that vision. You will meet with members of Indigenous and traditional forest-dependent communities, researchers, and representatives from governmental agencies, NGOs, and the private sector. We will visit sites, institutions, and communities where these actors are conducting this work.
2. The course promotes **international exchange**. The course is a collaboration between three universities: the University of Colorado Boulder, the State University of Amazonas (in Manaus, Amazonas), and the State University of Santa Cruz (in Ilhéus, Bahia). The course will facilitate an exchange of knowledge and ideas between students and professors that is both a) *inter-American*, between participants in Brazil and the US, and b) *intra-Brazilian*, between participants based in the Amazon and Atlantic Forests. There will be ample and rich opportunities for peer-to-peer learning and experience-sharing and for forging long-term professional partnerships and networks.

COURSE OBJECTIVES

Knowledge

1. To understand theoretical and practical dimensions of conservation and sustainable development in the context of Brazil's tropical forests.
2. To evaluate the roles of different stakeholders in achieving a sustainable forest-based bioeconomy.
3. To analyze the tradeoffs and synergies associated with alternative governance mechanisms, including different policies and programs.

Skills

4. To communicate effectively in a range of media with diverse audiences, including across language barriers.
5. To synthesize and compare information, ideas, and experiences across two forest biomes and states.
6. To analyze problems, think critically, construct arguments, and present analyses and findings based on evidence and reason.

Professional development

7. To work collaboratively with and develop a leadership network of students and professors from a diverse set of disciplinary and cultural backgrounds.
8. To engage meaningfully and professionally with stakeholders from communities, and from the public, private, non-profit, and education sectors.
9. To develop cross-cultural competencies in a new and sometimes challenging set of environmental and social circumstances.

COURSE ASSIGNMENTS AND GRADING BREAKDOWN

Summary of assignments and grading

Part	Assignment	Percentage of your grade
Amazonas	Presentation in Amazonas	10%
	'Reflection journal' entry	5%
Bahia	Presentation in Bahia	10%
	'Reflection journal' entry	5%
Post-course	Final project assignment	50%
Throughout	Participation and engagement	20%
TOTAL GRADE		100%

Presentations in Amazonas and Bahia

At the end of each week, you will present (in a group) your ideas on the theme that your group has been focusing on for the week. You will identify trends, synthesize ideas, illustrate their points with evidence and case-studies, and suggest priorities or recommendations. More detail will be provided during the course.

‘Reflection journal’ entry

You are required to keep a regular ‘reflection journal’ with at least four entries per week outlining your overall experiences of the course in Brazil, specific thoughts and findings pertaining to the course themes, and your experiences working on your project. This journal will allow you to reflect on your learning. At the end of the time in each of the regions in Brazil you will choose one entry from Amazonas and one from Bahia to share with the professors to allow for journals to be private yet to provide accountability.

Final project assignment

See the detailed description of this assignment, shared and posted to Canvas separately. This assignment will challenge you to synthesize complex information, to make a cogent argument, and to support your arguments with evidence.

Participation and engagement

Throughout the course you are expected to complete assigned readings and assignments on time, to actively engage with your peers and professors, to contribute to a positive and constructive group dynamic, and to engage meaningfully and professionally with stakeholders and guest speakers.

COURSE SCHEDULE

For the daily schedule, please see the links that will be posted on Canvas.

SYLLABUS CHANGES

As professors, we reserve the right to change aspects of the syllabus due to unforeseen circumstances and/or to increase student learning opportunities.

COURSE INSTRUCTORS

The class is co-taught by four professors: Dr. Colleen Scanlan Lyons, Dr. Peter Newton, Dr. Jair Furtunato, and Dr. Romari Martinez. All four professors will be available throughout the course to guide and mentor you, through field visits, group discussions, smaller-group meetings, and one-on-one conversations.

Dr. Colleen Scanlan Lyons is a cultural anthropologist who serves as the Project Director for the [Governors’ Climate and Forests \(GCF\) Task Force](#), as a Research Associate with the Environment and Society Program of the [Institute of Behavioral Science](#) at the University of Colorado (CU), and as an Instructor for the Masters of the Environment Program (MENV).. She holds a Ph.D. in Cultural Anthropology and a Master’s degree in Anthropology from the University of Colorado as well as a Master’s degree in International Development from the School for International Training. Dr. Scanlan Lyons has expertise in project development and management pertaining to the social aspects of climate resilience, forest conservation, network building, and community-level participation, mobilization, and local level leadership and capacity building. She collaborates with social-environmental leaders around the world and often serves as a liaison among the academic, civil society, governmental, and private sectors. She has been working in Brazil since 1993, including at the National Institute for Research in the Amazon (INPA) in Manaus, Amazonas, in the Atlantic Forest of Southern Bahia where she

completed her dissertation research, and recently across the Amazon region through her work with the GCF Task Force. She has brought students to Brazil since 2012.

Dr. Peter Newton is an Associate Professor in the Department of Environmental Studies. He holds a Ph.D. in Environmental Sciences from the University of East Anglia, an M.Sc. in Applied Ecology and Conservation from the University of East Anglia, and a B.A. in Zoology from the University of Cambridge. He is an interdisciplinary scientist, working at the intersection of natural and social sciences. His research aims to understand of how governance interventions affect synergies and trade-offs between different outcomes in socio-environmental systems. He works principally in agricultural and forest landscapes, studying the potential and actual impact of policies and programs that aim to conserve forests, enhance food system sustainability, and improve rural livelihoods. He works largely in Brazil and the US, but his research has also taken him to Indonesia, Mozambique, Uganda, and Vietnam. He teaches undergraduate and graduate classes on food systems and the environment.

Dr. Jair Furtunato (PhD in Ecology) is a professor at UEA. He coordinates the Ecology Lab within the BioNorte collaborative of Amazonian universities. He studies carbon fluxes in tropical forests.

Dr. Romari Martinez (PhD in Biological Sciences) is a professor at UESC. She coordinates the Environment and Society graduate program. She studies human-environment interactions.

CLASS POLICIES

Commitment to Viewpoint Diversity, Mutual Understanding, and Constructive Disagreement

In order to create a learning environment that supports respectful, critical inquiry through the free exchange of ideas, the following principles will guide interactions among students and professors in this class:

- Treat every member of the class with respect, even if you disagree with their opinion
- Treat every opinion as open to examination, even if it comes from someone with more experience or expertise than you
- Reasonable minds can differ on any number of perspectives, opinions, and conclusions
- Some perspectives, opinions, and conclusions are unreasonable or based on falsehoods and should be identified as such
- Constructive disagreement sharpens thinking and deepens understanding
- All viewpoints are welcome
- No ideas are immune from scrutiny and debate
- You will not be graded on whether your professor or peers agree with your opinions
- You will be graded on the evidence and reasoning that leads to those opinions

In a nutshell, quality of thought and mode and level of engagement matter!

UNIVERSITY POLICIES

Classroom Behavior

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. Those who fail 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, 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](#).

Requirements for COVID-19

As a matter of public health and safety, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements and all public health orders in place to reduce the risk of spreading infectious disease. CU Boulder currently requires COVID-19 vaccination and boosters for all faculty, staff and students. Students, faculty and staff must upload proof of vaccination and boosters or file for an exemption based on medical, ethical or moral grounds through the MyCUHealth portal.

The CU Boulder campus is currently mask-optional. However, if public health conditions change and masks are again required in classrooms, students who fail to adhere to masking requirements will be asked to leave class, and students who do not leave class when asked or who refuse to comply with these requirements will be referred to Student Conduct and Conflict Resolution. For more information, see the policy on classroom behavior and the Student Code of Conduct. If you require accommodation because a disability prevents you from fulfilling these safety measures, please follow the steps in the “Accommodation for Disabilities” statement on this syllabus.

If you feel ill and think you might have COVID-19, if you have tested positive for COVID-19, or if you are unvaccinated or partially vaccinated and have been in close contact with someone who has COVID-19, you should stay home and follow the further guidance of the Public Health Office (contacttracing@colorado.edu). If you are fully vaccinated and have been in close contact with someone who has COVID-19, you do not need to stay home; rather, you should self-monitor for symptoms and follow the further guidance of the Public Health Office (contacttracing@colorado.edu). In this class, if you are sick or quarantined, please inform one of the CU Boulder professors.

Accommodation for Disabilities

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member 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.

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.

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, 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. All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution (honor@colorado.edu); 303-492-5550). 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. Additional information regarding the Honor Code academic integrity policy can be found on the [Honor Code website](#).

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 sexual misconduct (harassment, exploitation, and assault), intimate partner violence (dating or domestic violence), stalking, protected-class discrimination and harassment, and related retaliation by or against members of our community on- and off-campus. These behaviors harm individuals and our community. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who believe they 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 can be found on the [OIEC website](#).

Please know that faculty and graduate instructors have a responsibility to inform OIEC when they are made aware of any issues related to these policies regardless of when or where they occurred to ensure that individuals impacted receive information about their rights, support resources, and resolution options. To learn more about reporting and support options for a variety of concerns, visit [Don't Ignore It](#).

Religious Observances

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, please inform one of the CU Boulder professors if you have any such conflict.

See the [campus policy regarding religious observances](#) for full details.