

# AGR 4932: Human Dimensions of Tropical Ecological Systems

## I. General Information

---

### **Class Meetings**

- Mon.-Sat. for length of program
- 100% in-person in Costa Rica
- Activity based and times vary;

### **Instructors**

- Rosalie Koenig, PhD
- G052A McCarty Hall D
- Office Hours: As needed throughout the course
- rlkoenig@ufl.edu; 352-273-3495 (Office)
  
- Bill Hammond, PhD
- McCarty Hall B
- Office Hours: As needed throughout the course
- williamhammond@ufl.edu; 352-294-3742 (GNV/UF office)

### **Course Description**

In this course we will explore the history of conservation and agriculture development in Costa Rica through examining social, political, economic, and environmental frameworks. Through analysis of how conservation initiatives evolved in Costa Rica, we will formulate ideas on how we can apply lessons learned to develop more sustainable land use approaches in other contexts.

### **General Education Credit**

- International (N)  
International courses promote the development of student's goals and intercultural awareness. Students examine the cultural, economic, geographic, historical, political, and/or social experiences and processes that characterize the contemporary world, and thereby comprehend the trends, challenges, and opportunities that affect communities around the world. Students analyze and reflect on the ways in which cultural, economic, political and/or social systems and beliefs mediate their own and other people's understanding of an increasingly connected world.

*This course accomplishes the [Quest](#) and [General Education](#) objectives of the subject areas listed above. A minimum grade of C is required for Quest and General Education credit. Courses intended to satisfy Quest and General Education requirements cannot be taken S-U.*

## Required Readings and Works

Kolbert, E. *The Sixth Extinction*. First edition. Picador, New York.

All other readings and works are listed on the weekly scheduled and are available in Canvas.

## II. Graded Work

---

### Description of Graded Work

Your grade in this course will be based on the following assessments.

**Class Workbook (60 points):** Students are expected to be prepared for activities, having reading required materials ahead of time so they can participate. The program workbook will have designated sections for each of the two courses that are part of the program in Costa Rica. You will be evaluated separately for the content associated with each course. Using the workbook rubric the instructor will evaluate student on the content of the workbook which will include in person activities (debates, discussions, participation etc.), content questions and reflections. Through the course students will write meaningful reflections in their course workbook based on prompts that reinforce some of the key topics that we will be exploring. The reflections will include some narrative on how you have changed, developed, or grown from your experience or interaction with the subject matter, ideas, or topic. The workbook sections for this course are worth 80 points.

**Book chapter discussion (20 points):** You lead a discussion (approximately 45 minutes) of one of the chapters in *The Sixth Extinction*. As the discussion leader you will have the freedom to guide a discussion using any type of format that you believe will engage your classmates. The discussion should include a short (no more than 5 minute) overview of what you think are the most important aspects of the chapter. This should provide some context for the engaging activity that you develop for the discussion session. The activity should focus on an aspect of the chapter that you found most interesting. If needed, you may want to provide students with supplemental information or reading materials ahead of time to increase their knowledge ahead of the session. You should design your engaging discussion with opportunities for students to share their ideas and respond to or create questions. The presentation is worth 20 points.

**Agriculture/Climate Policy Group Presentation (20 points):** You and your partners will be given an article to read and a group role associated with the article. Your group will give a 5–7-minute public comment about the future of sustainable pineapple production in Costa Rica based on your perspective for the role that you have been assigned. As part of the public comment, you need to provide an overview of the industry from your perspective and provide specific recommendations that can lead to more sustainable pineapple production systems. Please review the presentation rubric before you get started to better understand how you will be evaluated. I am happy to meet with you if you have any questions or want to share your ideas. Here are two references that you should review related to lightning talks that might help you develop your public comment.

[Home - Lightning Talks - Research Guides at University of Southern California \(usc.edu\)](https://www.usc.edu/research-guides/lightning-talks)

[Lightning talks: science in 5 minutes or less \(nature.com\)](https://nature.com)

## Grading Scale

For information on how UF assigns grade points, visit: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>. Percentages will be determined by adding up the total number of points earned on all graded work plus any extra credit points earned in the class and dividing by the total number of possible points (650 points) on all graded assignments.

A	94 – 100%		C	74 – 76.9%
A-	90 – 93.9%		C-	70 – 73.9%
B+	87 – 90.9%		D+	67 – 69.9%
B	84 – 86.9%		D	64 – 66.9%
B-	80 – 83.9%		D-	60 – 63.9%
C+	77 – 79.9%		E	<60

## Grading Rubric(s)

### Assessment Rubric for Book Discussions

	Excellent (5 points)	Good (4 points)	Acceptable (3 points)	Insufficient (2 points)
Overview of the chapter	Presentation demonstrates clearly that the student comprehended the full scope of the chapter and integrated the concepts into the overview. Concepts are presented in a creative way that engages the audience through active learning.	Presentation demonstrates that the student comprehended the chapter and integrated the concepts into the overview. Concepts are presented in a creative way that somewhat engages the audience through active learning.	Presentation demonstrates that the student did not fully comprehend the chapter and the overview lacks integration of the concepts. Evidence of some creativity that led to a limited level of audience engagement.	Presentation does not demonstrate that the student comprehended most aspects of the chapter and there is little to no integration them in the overview. Little to know evidence of creativity leading to poor or no audience engagement.
Organization	Ideas presented in a logical order with good flow and transitions between major ideas or themes.	Most ideas presented in a logical order with good flow and transitions between major ideas or themes.	Some of ideas presented were disjointed and flow and transitions between major ideas or themes at times were awkward.	Ideas presented were disjointed and there was a lack of flow and no clear transitions between major ideas or themes.
Delivery	Excellent volume, pace, enthusiasm, eye contact and gestures that engaged the audience. Visual aids and props	Good volume, pace, enthusiasm, eye contact and gestures that engaged the audience. Visual	Adequate volume, pace, enthusiasm, eye contact and gestures that engaged the	Poor volume, pace, enthusiasm, eye contact and gestures leading to lack of audience engagement. Visual aids and props were low quality and did

	were high quality, appropriate and enhanced learning.	aids and props were high quality, appropriate and enhanced learning.	audience. Visual aids and props were appropriate and promoted learning.	not adequately promote learning.
Discussion and Responses	High level of engagement and creative organization and style led to robust discussion. Presenter did an excellent job of addressing questions from the audience.	Good level of engagement and creative organization and style led to good discussion. Presenter did a good job of addressing questions from the audience.	Acceptable level of engagement and a fair level of organization and style led to adequate discussion. Presenter did a fair job of addressing questions from the audience.	Poor level of engagement and lack of organization and well-thought-out style led to little or no discussion. Presenter did inadequate job of addressing questions from the audience.

### Assessment Rubric for Group Presentations

	Excellent (5 points)	Acceptable (4 points)	Insufficient (2 points)
Integration and comprehension of key course concepts in a creative way	Presentation demonstrates clearly that the group comprehended the full scope of the topic and integrated the concepts learned in the course. Concepts are presented in a creative way.	Presentation demonstrates that the group did not fully comprehend the topic and lacks integration of the concepts learned in the course. Evidence of some creativity.	Presentation does not demonstrate that the group comprehended most aspects of the topic and there is little to no integration of the concepts learned in the course. Little to know evidence of creativity.
Organization and Evidence of Teamwork	Ideas presented in a logical order with good flow and transitions between major ideas or themes. Evidence that there was a good group dynamic.	Some of ideas presented were disjointed and flow and transitions between major ideas or themes at times were awkward. Group dynamic was lacking at times leading to less cohesion.	Ideas presented were disjointed and there was a lack of flow and no clear transitions between major ideas or themes. No or little evidence of a functional group dynamic.

Delivery	Excellent volume, pace, enthusiasm, eye contact and gestures that engaged the audience. Visual aids were high quality, appropriate and enhanced learning.	Adequate volume, pace, enthusiasm, eye contact and gestures that engaged the audience. Visual aids were appropriate and promoted learning.	Poor volume, pace, enthusiasm, eye contact and gestures leading to lack of audience engagement. Visual aids were low quality and did not adequately promote learning.
Discussion and Responses	High level of engagement and creative organization and style led to robust discussion. Presenters did an excellent job of addressing questions from the audience.	Acceptable level of engagement and a fair level of organization and style led to adequate discussion. Presenters did a fair job of addressing questions from the audience.	Poor level of engagement and lack of organization and well thought-out style led to little or no discussion. Presenters did inadequate job of addressing questions from the audience.

Module/Week	Topics, Homework, and Assignments
Module 1: History of Land Use and Conservation in Costa Rica	<ul style="list-style-type: none"> <li>• <b>Activity location: National Museum of Costa Rica in San Jose and the Las Cruces Research Station, San Vito</b></li> <li>• <b>Summary:</b> The objective of this module is to gain an appreciation of Costa Rica's cultural and historical heritage. Costa Rica has a rich cultural pre- and post- colonization history influenced by the indigenous groups, Spanish colonialists and foreign immigration and investment. Much of this history can be learned by visiting the National Museum of Costa Rica, where we will begin our study abroad journey! The National Museum was established in 1887 under President Bernardo Soto. Since 1950, the museum occupies the former facilities of the Bellavista Barracks. The construction of the headquarters for the military barracks began in 1917. The building includes a portion of the home of Mauro Fernandez, reformer of the Costa Rican education system who lived previously at the site. Two years after former President José Figueres Ferrer abolished the army; the building was given to the National Museum. We have designed an activity that you will complete with two partners as you tour the exhibits. On Jeopardy night, the groups will compete against each other in a game that will test your knowledge on the history of Costa Rica land use and conservation.</li> </ul> <p><b>Assignments in workbook that correspond with this module see course schedule and canvas site for dates:</b></p> <ul style="list-style-type: none"> <li>• <b>A day at the National Museum Group Assignment and workbook questions</b></li> </ul>
Module 2: The role of Herbaria and Botanical Gardens in Society	<ul style="list-style-type: none"> <li>• <b>Activity location: Wilson Botanical Gardens, Las Cruces Research Station, San Vito</b></li> <li>• <b>Summary:</b> The objective of this module is to discover the role of botanical gardens in plant research, conservation, preservation, and education. The Wilson Botanical Gardens, managed by OTS is one of approximately 2500 botanical gardens across the globe. During our time at the Las Cruces Research Station you will have the opportunity to learn all about plants from the garden while enjoying the beauty and solace that surrounds your living space.</li> <li>• <b>Required Readings/Works:</b> Primack et.al., 2021. The growing and vital role of botanical gardens in climate change research. New Phytol <a href="https://nph.onlinelibrary.wiley.com/doi/epdf/10.1111/nph.17410">https://nph.onlinelibrary.wiley.com/doi/epdf/10.1111/nph.17410</a>  <i>Listen to the podcast:</i> <a href="https://www.indefenseofplants.com/podcast/2019/2/3/ep-198-the-state-of-the-worlds-trees">https://www.indefenseofplants.com/podcast/2019/2/3/ep-198-the-state-of-the-worlds-trees</a> (Ep. 198 - The State of the World's Trees — In Defense of Plants)  <i>Watch:</i> <a href="https://youtu.be/VukyqMajAOU">https://youtu.be/VukyqMajAOU</a></li> </ul> <p><b>Assignments in workbook that correspond with this module see course schedule and canvas site for dates:</b></p> <ul style="list-style-type: none"> <li>• Group activity on the IUCN and their red list of threatened species and reflection</li> </ul>

Module/Week	Topics, Homework, and Assignments
<p>Module 3: Agriculture Production Systems in Costa Rica: Case Study of Banana</p>	<ul style="list-style-type: none"> <li>• <b>Activity location: CATIE Research and Education</b></li> <li>• <b>Summary:</b> Costa Rica is currently the world's largest producer of pineapple. As we have traveled throughout the country, you have seen production of this major export crop. Currently, there are more than 55,000 hectares dedicated to pineapple production and the industry employs many rural workers. However, there are many challenges associated with pineapple production and Costa Rican government has partnered with the UNDP's Green Commodities Programme, to launch the National Initiative for Sustainable Pineapple production in 2011 (Watch: <a href="https://www.youtube.com/watch?v=QMFt8f-pGiU">https://www.youtube.com/watch?v=QMFt8f-pGiU</a>). We will explore some of these challenges and different perspectives about this industry through this class activity. By the end of this activity, you will have an appreciation of the complex social, political and economic perspectives related to export crop production.</li> <li>• <b>Required Readings/Works:</b> <ul style="list-style-type: none"> <li>A. Group 1: Role: Conservation group leader in Costa Rica Shaver, I. et al., 2015. Coupled social and ecological outcomes of agricultural intensification in C Environmental Change 32, 74-86. <a href="http://dx.doi.org/10.1016/j.gloenvcha.2015.02.006">http://dx.doi.org/10.1016/j.gloenvcha.2015.02.006</a></li> <li>B. Group 2: Role: Organization leader that represents agricultural laborers' rights Ganseman, A. and D'Haese, M. 2020. Staying under the radar: constraints on labour agency of p <a href="https://doi.org/10.1007/s10460-019-09998-z">https://doi.org/10.1007/s10460-019-09998-z</a></li> <li>C. Group 3: Role: CEO of Pineapple Development Corporation (PINDECO) Read pages 1-29.</li> </ul> </li> </ul> <p><b>Assignments in workbook that correspond with this module see course schedule and canvas site for dates:</b></p> <ul style="list-style-type: none"> <li>• Group presentation where you will be presenting a position based on your group's role and informed by the required reading for your group. Your instructor will inform you what group you are in.</li> </ul>
<p>Module 4: Final Course Discussion on the Value of</p>	<ul style="list-style-type: none"> <li>• <b>Activity location: La Selva Biological Station and Reserve, Puerto Viejo de Sarapiquí</b></li> <li>• <b>Summary:</b> The objective of this module is to reflect on the importance of biological and agricultural research stations that we visited during our stay in Costa Rica.</li> </ul>

Module/Week	Topics, Homework, and Assignments
Biological Research Centers	<ul style="list-style-type: none"> <li>• <b>Required Readings/Works</b> Listen to the podcast: <a href="https://news.mongabay.com/2023/07/biological-field-stations-indispensable-but-invisible">https://news.mongabay.com/2023/07/biological-field-stations-indispensable-but-invisible</a></li> </ul> <p><b>Assignments in workbook that correspond with this module see course schedule and canvas site for dates:</b></p> <ul style="list-style-type: none"> <li>• Reflection question in your workbook.</li> </ul>
Field Trips, Book Chapter Discussions and Driving Activities	<p>Please review course itinerary for our scheduled field trips and complete the questions associated with the activities in the course workbook.</p> <p>Students should follow the course itinerary and read the chapters in “The Sixth Extinction” so that you are prepared for the class discussion.</p> <p>Driving activities are included in the course notebook that provides different perspectives on Costa Rica’s rich and diverse history and culture.</p>

### III. Daily Schedule

---

See the course canvas site for daily schedule. Please note that times and date may change due to weather and coordination with the Plant Ecology laboratories and field activities.

### IV. Student Learning Outcomes (SLOs)

---

At the end of this course, students will be expected to have achieved learning outcomes as follows:

**Content:** Students are able to identify key environmental and agricultural policies related to climate adaptation and resilience in Costa Rica (Assessed through course activities in course workbook).

**Critical thinking:** Students are able to analyze data from multiple perspectives and evaluate the practices and policies implemented to address environmental and climate concerns in Costa Rica

**Communication:** Students are able to communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to environmental and agricultural practices that address climate change impacts. (Assessed in class participation, reflection essays and the book discussion).

**Collaboration:** Students are able to work collaboratively with others and be an effective team member. (Assessed in the in-class group activities)

**Connection:** Students are able to assess the relevance of climate change on managed and natural systems to their personal and professional development and the greater society. (Assessed in reflection essays)

## V. Learning Experiences

---

### 1. Details of Experiential Learning Component

Students will have the opportunity to engage in experiential learning through participating in all activities. Each experience will explore an aspect of the human influence in natural and managed systems. Students will engage in observational learning, a hands-on activity, discussion and reflection exercises. The location, date and description of each activity will be provided to the students but we may need to modify them based on weather conditions on site.

### 2. Details of Self-Reflection Component

Self-reflection activities will be part of the course modules. For example, class participation will include activities that require you to work individually or in teams to incorporate the weekly readings, class lectures and activities into new ways of thinking about a particular course topic. Reflection prompts in your workbook are related to the course content and experiences and help develop your analytical skills. They provide an opportunity for you to explore what you learned about a topic and express what, how and why you think in a particular way. You will use your personal experiences, observations and content knowledge to consider new ideas and shape (or re-shape) your way of thinking.

## VI. Required Policies

---

### Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

### Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs as early as possible in the semester.

## UF Evaluations Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

## University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/scer/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

## Counseling and Wellness Center

Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

## The Writing Studio

The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at <http://writing.ufl.edu/writing-studio/> or in 2215 Turlington Hall for one-on-one consultations and workshops.

## In-Class Recordings

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.