

***Global Biodiversity and Culture:
Integrating Conservation and Human Well-being***

BOT4935/ZOO4926

INSTRUCTORS:

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CLASS MEETINGS:

Tuesday/Thursday, period 8 (3:00-3:50 PM)
Wednesday, period 2 (8:30-9:20 PM)
Health Science Center Library, room C2-41C (Communicore Building)

OFFICE HOURS:

Dr. Tennant's office hours: Friday, period 8 (3:00-3:50 pm), Health Science Center Library, C2-203D
Nina Stoyan-Rosenzweig's office hours: Thursday, period 7 (1:55- 2:45 pm), Health Science Center Library, C2-203A
Lindsay Richards' office hours: Monday, 10:00-11:00 am, Marston Science Library
Carson Young's office hours: Wednesday, 9:30-10:30 am, Health Science Center Library

COURSE OBJECTIVES AND GOALS:

The term biodiversity represents the variety of life on earth. This biodiversity can be described at a number of levels – genetic, species, community, ecosystem – but in any case, this diversity is essential for the successful functioning of the global biosphere. The relationship between biodiversity and human well-being was explicitly studied in the systematic review “Biodiversity loss and its impact on humanity” (*Nature*, 2012). This study highlighted the fact that the “suite of benefits that ecosystems provide to humanity” are weakened by loss of biodiversity. Scientific, economic, and aesthetic tolls accompany an erosion of human well-being.

As such, biodiversity conservation and sustainability efforts throughout the world are essential to humanity’s future, but face many challenges. These challenges are especially difficult in developing countries, which may have high levels of poverty and population density, and lack basic infrastructure and food security. Strategies imposed by outsiders without taking into consideration local culture, customs, and traditions, and the needs (health, food, education, social justice) of the local people are rarely effective. Recent work strives to integrate the biological with the human, developing new strategies and methods for biodiversity conservation. Such approaches to global conservation highlight the need for solutions – without unintended consequences – that respond both to human and environmental concerns.

Global Biodiversity and Culture: Integrating Conservation and Human Well-being, introduces these global concerns. Students will learn about biodiversity and conservation (and human dimensions that facilitate or impede conservation progress) in four regions of the world – Madagascar, Ecuador’s Choco and tropical Andes regions, the Himalayas, and the Coastal Plain of the US.

Students in the course will gain experience in engaging with experts at home and abroad, including Madagascar, Ecuador and India, via Skype, Zoom, or other technology to the distant locations. The course has been developed for students in majors related to and/or interest in the life sciences, conservation and sustainability, anthropology and cultural studies, human health and well-being, and the geographical areas of concern (Madagascar, Ecuador, India, the US), as well as those interested in the future of our planet.

After having completed the course and all of the requisite assignments, students will have an understanding of:

- Relationships among biodiversity/conservation and culture, social justice, healthy communities and human well-being;
- Models of conservation, sustainability, conservation education, and ecotourism;
- Finding biological, health science, and anthropological/cultural information, evaluating information, and avoiding plagiarism;
- Biodiversity and conservation challenges in four specific areas – Ecuador, India, Madagascar, the Southeastern US – and how to compare and contrast these challenges and strategies to overcome the challenges;

And students will have gained experience conversing with experts outside the United States.

Students may also reflect on how the lessons learned in from the course can inform the decisions we make on a daily basis, both at home and abroad.

SCHEDULE OF TOPICS AND ASSIGNMENTS:

Note – additional readings will be assigned as the semester progresses.

Week 1: An Introduction to Biodiversity

- Tuesday, Jan. 8 Introductions, syllabus, structure of class
****Pre-class self assessment to be completed in class**
****Readings: *Sustaining Life*, Chapters 1-3**
- Wednesday, Jan. 9 Biodiversity and its importance (Miyamoto)
****Reading: Cardinale et al, “*Biodiversity loss and its impact on humanity*”**
- Thursday, Jan. 10 Class discussion, biodiversity and biodiversity hotspots
****Reading: Myers et al, “*Biodiversity hotspots for conservation priorities*”**

Week 2: Biodiversity Hotspots, Challenges, Cultural Aspects

- Tuesday, Jan. 15 Biodiversity of Florida (Noss)
- Wednesday, Jan. 16 Biodiversity of Madagascar (Tennant)
- Thursday, Jan. 17 Biodiversity of India (Stoyan-Rosenzweig)

Week 3: Biodiversity Hotspots, Challenges, Cultural Aspects (continued)

- Tuesday, Jan. 22 Biodiversity of Ecuador (Endara)
- Wednesday, Jan. 23 Class discussion regarding Florida, Madagascar, Ecuador, India
- Thursday, Jan. 24 Class discussion, culture, biodiversity and conservation
****Reading: Sodikoff, “*Totem and taboo reconsidered*”**
****Reading: Jones, et al “*The importance of taboos and social norms to conservation in Madagascar*”**
****Reading: Zaitchik “*How conservation became colonialism*”**

Week 4: Finding, Evaluating, and Ethically Using Information – ***note each session will have a pre-session homework assignment***

- Tuesday, Jan. 29 Biology resources and how to evaluate information (Stapleton)
****Homework on evaluating resources due at beginning of class**
- Wednesday, Jan. 30 Health science resources and ethical use of information (Schaefer)
****Homework on citing resources due at beginning of class**
- Thursday, Jan. 31 Anthropology/cultural resources and EndNote (Felima and Pomputius)
****Homework - students to create EndNote Web account before class**

Week 5: Ecotourism

- Tuesday, Feb. 5 Overview of ecotourism, conservation, and culture (Almeyda Zambrano)
****Reflective essay 1 due**
- Wednesday, Feb. 6 Ecotourism panel - Madagascar (Andriamihajanirina and Rakotoarisoa)
- Thursday, Feb. 7 Ecotourism panel - US (Stein and Pittenger)
****Deadline for having class project topic and format submitted**

Week 6: Conservation Education

- Tuesday, Feb. 12 Ecotourism panel – Ecuador (Rivadeneira and TBD)
- Wednesday, Feb. 13 Malagasy conservation education strategies (Ratsimbazafy)
- Thursday, Feb. 14 Classroom and other conservation strategies (Schubel)

Week 7: Culture and Environmental Ethics

- Tuesday, Feb. 19 Conservation education in Ecuador (Segovia Salcedo????)
- Wednesday, Feb. 20 Class discussion on conservation education strategies
- Thursday, Feb. 21 Environmental ethics (Peterson)
****Reading: Leopold *The Land Ethic***

Week 8: Biodiversity and Health

- Tuesday, Feb. 26 Sustainable psychology (Chandler)
**** Reflective essay 2 due**
- Wednesday, Feb. 27 TBD
****Reading: *Sustaining Life* chapters 4, 5, and 7**
- Thursday, Feb. 28 Biodiversity and Health (DiNuovo)

MARCH 4-8 SPRING BREAK

Week 9: Biodiversity and Health (continued)

- Tuesday, March 12 TBD
- Wednesday, March 13 Class discussion of biodiversity and health
****Reading: *Sustaining Life* chapter 6**
****Reading: World Health Organization**
<https://www.who.int/globalchange/ecosystems/biodiversity/en/>
(For a more complete picture, see *Connecting Global Priorities: Biodiversity and Human Health*)
- Thursday, March 14 Indigenous people and natural environment (Stepp)

Week 10: Climate Change

- Tuesday, March 19 Impact of climate change (Kirilenko)
****Reading: *Global Warming of 1.5 C* <http://www.ipcc.ch/report/sr15/>**
- Wednesday, March 20 What you can do to preserve biodiversity/counter climate change
****Reading: *Sustaining Life* chapter 10**
- Thursday, March 21 Discuss Half Earth
****Reading: *Half Earth***

Week 11: Half Earth

- Tuesday, March 26 Discuss Half Earth
- Wednesday, March 27 Discuss Half Earth
- Thursday, March 28 Public policy and climate change (Adams)

Week 12: Models of Conservation, Sustainability, and the Integration of Local Culture

- Tuesday, Apr. 2 Models of conservation – Mashpi Lodge (Morochz)

****Reflective essay 3 due**

- Wednesday, Apr. 3 Blue Ventures (Nimmo)
- Thursday, Apr. 4 Tiger conservation (Chaudhary)

Week 13: Models of Conservation, Sustainability, and the Integration of Local Culture

- Tuesday, Apr. 9 Centre ValBio (Wright)
- Wednesday, Apr. 10 Class discussion of models of conservation
- Thursday, Apr. 11 Review and class synthesis

Week 14: Presentation of Final Projects

- Tuesday, Apr. 16 5 class projects
- **Reflective essay 4 due**
- Wednesday, Apr. 17 5 class projects
 - Thursday, Apr. 18 5 class projects

Week 15: Presentation of Final Projects

- Tuesday, Apr. 23 5 class projects
 - Wednesday, Apr. 24 Final celebration
- **Post-class self-assessment to be completed in class**
- **Reflective journal due**

GRADING:

Class participation: Students are expected to participate in discussions of readings and lectures, and to engage with guest speakers (both those on site and those Zooming in). Because we are a large class, we understand that not every student will be able to provide substantive discussion in every class session. Therefore credit will be given based on the following breakdown:

Students who discuss during at least 75% of class meetings will receive full credit (155 points);
Students who discuss during at 50-74% of class meetings will receive 90% of full credit (139 points);
Students who discuss during at 40-49% of class meetings will receive 75% of full credit (116 points);
Students who discuss during at 25-39% of class meetings will receive 50% of full credit (78 points);
Students who discuss during less than 25% of class meetings will receive 0 points for participation.

Final project: Your class project can be delivered in a variety of formats – for example, an academic paper (with presentation given in class) or poster tied to the issues covered in class and through the readings, or a personal reflection or creative endeavor related to biodiversity/conservation/sustainability and human culture/health/well-being. The class project will be worth 100 points and presented to the class the last few weeks of the semester.

Reflective journal: Your reflective journal will concentrate on concepts learned, what surprised you, what confused you, and what questions were generated through your reflections. It is expected that you will write a thoughtful reflection at least once a week in your journal. Please bring your journal with you every day that class meets, as we will on occasion ask for them to be turned in so that we may provide feedback. At the end of the

semester you will summarize in the journal the most impactful things you learned from the course. The reflective journal will be worth 100 points.

Short reflective writings: 4 times during the semester you will write short reflection papers on particular prompts, such as comparing points of view on specific strategies among the countries of interest. Reflective writings will be worth 25 points each.

Pre- and post-class self-assessment: During the first and last class meetings you will complete a self-assessment of comfort levels and areas of improvement for communicating with those of other cultures. Gaining experience in such communication is an important component of International Scholar Program classes. Completion of the pre- and post-assessment will be worth 5 pts/assessment.

Library assignments: A short assignment will be assigned for each library session. Each assignment is worth 5 points.

Your final grade will be based on the percentage of the total points earned as follows:

<u>Point Range (%)</u>	<u>Letter Grade</u>
90% and above	A
87%-89%	A-
83%-86%	B+
80%-82%	B
77%-79%	B-
73%-76%	C+
70%-72%	C
65%-69%	C-
55%-64%	D
54% and below	E

UF GRADING POLICIES:

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

ATTENDANCE:

Requirements for class attendance, 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>. Attendance at and participation in class sessions are mandatory, with point totals described above.

It is understood that valid absences may occur. If you have a valid documented excuse and notify the instructor by email in advance, you will be able to make up missed class discussions through written means.

ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

REQUIRED TEXTBOOKS:

- *Sustaining Life: How Human Health Depends on Biodiversity*, 2008, edited by Eric Chivian and Aaron Bernstein.
- *Half Earth: Our Planet's Fight for Life*, 2016, Edward O. Wilson.

COURSE WEBSITE:

Course website: E-Learning (Canvas) website, <http://lss.at.ufl.edu>

The E-Learning (Canvas) website is where the class syllabus, handouts, notes and assignments will be posted, along with any announcements. This site is also where you will find basic course-related information. Please remember that you are responsible for all announcements made in lecture and/or posted on the course website for this class.

ONLINE COURSE EVALUATION PROCESS:

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

MATERIALS AND SUPPLIES FEES:

There are no materials and supplies fees assessed for this class.

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://sccr.dso.ufl.edu/process/student-conduct-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 class instructor.

- Academic dishonesty cannot be tolerated. All persons involved in cheating or plagiarism will receive a zero on the affected assignment or quiz, and will be reported to the Dean of Students Office.

STUDENT DEMEANOR

Students are expected to arrive to class on time and to remain in class until the class has been dismissed. Students are expected to come to class prepared, having completed any required readings and performed any preparatory work that is assigned. While in class, students are expected to participate in class discussion, and to treat the other students and the instructor with respect and attention. While in class, students should not participate in texting, information seeking or viewing outside of that related to the course task at hand, talking on the phone, or other activities not related to classroom engagement and participation.

ADDITIONAL CONTACT INFORMATION:

Contact information for the Counseling and Wellness Center: 392-1575, <https://counseling.ufl.edu/>

Contact information for the University Police Department: 392-1111 or 9-1-1 for emergencies.