

Everglades Natural History, Management, and Restoration

WIS 4934 (3 credits)

Spring 2025

Instructor: Dr. Christina Romagosa (cmromagosa@ufl.edu)

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Course Website: UF Canvas

Lecture: MWF Period 7 (1:55-2:45) in person, 110 ROG (Frazier Rogers Hall)

Field Trip: Spring break (16-23 March)

Communication with instructor: When you have questions, need further instruction, or have a problem, I encourage you to come to my office hours, talk with me after class, or set up an appointment. The best way for you to arrange an appointment is via e-mail.

Course Description: This course introduces the natural history, management, and restoration process of the Greater Everglades Ecosystem. The Everglades is internationally recognized as one of the world's most unique natural and cultural resources, but how much do Floridians know about this amazing ecosystem? The Greater Everglades encompasses ~ 4 million acres and is the focus of the world's largest intergovernmental watershed restoration effort.

Course Goal: The goal of this class is to provide students with a broader understanding of the Greater Everglades Ecosystem and the complexity associated with the restoration effort. We will use a combination of lectures, readings, discussions, and a hands-on field trip to the Everglades to accomplish this goal.

Course Objectives: Specific objectives are for students to be able to:

1. Describe historical and current Everglades ecosystem processes
2. Summarize Everglades natural history and ecology
3. Explain what the restoration effort entails
4. Evaluate how fauna and flora help evaluate the restoration process
5. Describe and assess how ecological resources are monitored and managed
6. Discuss the socio-ecological complexity to restoration
7. Examine why restoration is still important in the face of climate change

Recommended, but optional, textbook: *Lodge, T.E. and S.E. Davis. 2023. The Everglades Handbook: understanding the ecosystem, 5th edition. CRC Press.* Available on Amazon and other booksellers. This book is the most comprehensive text written on the Everglades. It was first published in 1994 and is now in its 5th edition. Previous editions have very good information, but, of course, the most recent one is best. If I assign a reading from this book, I will make it available on Canvas.

Course materials webpage: All course materials (including pdfs of lectures, readings, and assignments) will be available on the Canvas E-learning website <https://elearning.ufl.edu>. Written materials require Adobe Acrobat Reader (free at <http://www.adobe.com/products/acrobat/readstep2.html>) and MS Word to access and print.

Course format: Monday and Wednesday class periods will have a lecture and will also rely heavily on student participation. The Friday period is dedicated to media pieces, readings, and discussion. Our small class size will allow us to have group discussions and active learning activities, both in class or online. We also have a field trip through the Greater Everglades Watershed during spring break (see more info below)

Grading: Grades: A ($\geq 90\%$), B (80-89%), C (70-79%), D (60-69%), & E ($\leq 59\%$).
<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

	Points
In class quizzes (6 at 10pts each)	60
Media/discussion piece	50
Media/discussion piece discussion participation (10 pts each)	160
Individual topic presentation	100
Peer review of presentations (5 pts each)	80
General participation (attendance, attitude, and discussion)	50
Take home exam	50
Total	550

Grading Policy and Makeup Policy: If there is a summation error for points on any exam, quiz, or assignment, see me immediately so I can correct your total score/points. If you believe that a quiz, exam, or other assignment was improperly graded, please bring it to me for reevaluation within 1 week of the time that the grade was returned or posted. In such cases, the entire exam, quiz, or assignment will be reevaluated, and a new grade assigned for the entire exam, quiz, or assignment. Please regularly check the grades for exams, quizzes, and other assignments on the course website, and notify me immediately if a grade is incorrectly recorded. Information on the UF grading policy for assigning grade points can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>. Requirements for class attendance & participation and make-up assignments are described below with each section, and are consistent with university policies at <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Readings: Readings will be assigned and available on canvas and should be completed prior to each class period.

Quizzes: We will have approximately 6 in-class quizzes that will cover previous material or readings selected for that day's class period.

Media/discussion piece: Each week, one student will be assigned with finding a recent (preferably within the last year) media piece, blog post, video, or discussion topic related to the Everglades and will post that information on the discussion tab in canvas. We'll discuss each piece as a group on Fridays.

Individual presentations: Each student in the course will select their own topic of interest (related to the Everglades) and give a 15-minute presentation during the last section of the semester (see schedule on last page). Students can choose the topic at any point in the first part of the course, but should have selected their topic by 26 March (Wed after the field trip). Students will also peer review (respectfully) each other's presentations.

Take-home Exam: Students will have a take-home (open book/open notes) exam at the end of the semester. For this exam, *you* write and answer your own open ended short-essay questions. You can prepare for this exam all through the semester – write down questions that occur to you during class, and that you think are designed for synthesizing the information learned during the semester. Students must work alone.

Field Trip: Each student is required to attend the spring break field trip to the Greater Everglades Ecosystem. The tentative dates for this field trip are the entirety of spring break, Sunday 16 March through Sunday 23 March. Housing will vary depending on the location, we will be staying in dorms or field housing.

This field trip will allow for an immersive experience into the Everglades, for you to see the ecosystems, meet biologists and land managers, and participate in some field methods. For this trip, you should bring proper field clothes and supplies. We will provide a full list in class. You should also be prepared to go the field in inclement weather including, but not limited to, excessive heat or cold, rain, or wind. And of course, since it is the Everglades, be ready for mosquitoes!! During the field trip, the group will be eating inexpensively and attempt to stay in inexpensive lodging. The estimated cost to individual students will be approximately \$200 for lodging and will need to bring some of their own food. If this cost is a financial hardship, we have options available so that no one misses this opportunity!

Participation and attendance: Attendance and participation in class and the field trip are an essential part of succeeding in this course. Participation points will be given for asking/answering questions, expressing opinions, and otherwise physically and verbally engaging in discussions. Attendance will be taken for each class period because participation is such an important part of the course. If you miss 3 class periods, you will receive 50% of the participation points you have accrued. In addition, if you are late for more than 3 classes, you will also lose 50% of your participation points (please come talk to me if you have a course right before that could affect your timeliness). If you are either late or miss more than 4 class periods, you will receive no participation points.

Behavior in class: Students are required to be professional in all facets of this course. Disruptive or rude behavior will not be tolerated. I reserve the right to remove anyone from class or the field trip if they do not conduct themselves in a professional manner. If you are removed from an activity, you will not receive any credit associated with it. I consider texting, talking while others are speaking, surfing the web, mocking other students, and inappropriate comments all grounds for dismissal from class.

Plagiarism: Plagiarism: As commonly defined, plagiarism consists of passing off as one's own the ideas, words, writing etc., which belong to another. As per UF Honor Code (see

Academic Honesty below): A student shall not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.
 - a. Note that quoting material is reserved for very specific occasions when the way something was originally written is essential to its meaning. In all other cases, quoting, even if a citation is provided, is inappropriate. This applies to the textbook, and concepts/definitions from the textbook should never be copied word-for-word.
2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student – even if permission from the original author was granted.
3. Copying answers word for word directly from textbook or the internet, or other resources including other classmates.

Canvas has some handy applications for faculty to determine whether plagiarism or cheating has occurred. Plagiarism is one of the worst academic sins, for the plagiarist destroys the trust among colleagues without which research cannot be safely communicated. Plagiarism will not be tolerated in this course. Offenders of this policy will be punished according to University policies. Cheating of any type will also not be tolerated in this course.

Academic Honesty: You are expected to become familiar with and follow current University Policy (see <http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) . In addition, there will be no cheating of any type tolerated in this course. 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 Conduct Code specifies a number of behaviors that are in violation of this code and the possible sanctions. Click here to read the Conduct Code. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Privacy and the online format: At some times, our class sessions may be audio-visually recorded. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

In-Class Recording: 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

Software Use: All faculty, staff and students at the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Technology issues: It is your responsibility to have the latest software on your computer and to troubleshoot any problems you have accessing and using the course website. If you are having any technology-related issues, contact UF tech support at 352-392-4357. You can bring your laptop to discussion, but it is not acceptable to be disrespectful to your instructors or your classmates. Don’t send text messages, use your phone, or use your computer for things unrelated to class. If you use an electronic device without permission, you will be asked to leave the classroom.

Services for Students with Disabilities: 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/>. The Disability Resource Center coordinates the needed accommodations of students with disabilities. This includes registering disabilities, recommending academic accommodations within the classroom, accessing special adaptive computer equipment, providing interpretation services, and mediating faculty-student disability related issues. 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.

Campus Helping Resources: We are all currently facing difficult times, and we all handle things differently. If you (or a friend) are experiencing crises or personal problems that interfere with your general well-being, *please* look into UF counseling resources. The Counseling & Wellness Center provides confidential counseling services at no cost for currently enrolled students. Resources are available on campus for students having personal problems or lacking clear career or academic goals, which interfere with their academic performance. Below I've added links that can help with a variety of topics.

Health and Wellness

U Matter, We Care (<http://www.umatter.ufl.edu/>): If you or a friend is in distress, please contact umatter@ufl.edu or 352-392-1575 so that a team member can reach out to the student.

University Counseling & Wellness Center, 3190 Radio Road, 352-392-1575,

<https://counseling.ufl.edu/>

Counseling Services

Groups and Workshops

Outreach and Consultation

Self-Help Library

Wellness Coaching

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit <https://shcc.ufl.edu/>

Sexual or Physical Assault Services: <https://umatter.ufl.edu/concern/assault/>;
<https://police.ufl.edu/services/victim-services/services-provided/>

University Police Department: 352-392-1111 or 9-1-1 for emergencies.
<http://www.police.ufl.edu/>.

COVID Resources:

You are encouraged to wear approved face coverings at all times within buildings on the UF campus. Following these policies and requirements is everyone's our responsibility.

If you are experiencing COVID-19 symptoms ([Click here for guidance from the CDC on symptoms of coronavirus](#)) or any other potentially contagious illness, please refrain from attending class. For UF Health guidance on current Covid-19 resources and information, please see <https://coronavirus.ufhealth.org/>.

Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. [Find more information in the university attendance policies.](#)

Academic Resources

E-learning technical support: 352-392-4357 or e-mail to helpdesk@ufl.edu;
<https://elearning.ufl.edu/student-help-faqs/>; <https://helpdesk.ufl.edu/>

Career Connections Center: First Floor JWRU, 352-392-1601. Career assistance and counseling. <http://www.career.ufl.edu/>

Student Success Initiative, <http://studentsuccess.ufl.edu>

Center for Undergrad Research. <https://cur.aa.ufl.edu/>

Library Support: <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to

using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352-392-6420.

General study skills and tutoring. <http://teachingcenter.ufl.edu/>.

Writing Studio: 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. <http://writing.ufl.edu/writing-studio/>.

Student complaints on campus: <https://sccr.dso.ufl.edu/>

Online student complaints: <https://distance.ufl.edu/getting-help/student-complaint-process/>

Sexual Harassment: It is the policy of The University of Florida to provide an educational and working environment for its students, faculty, and staff that is free from sex discrimination and sexual harassment. In accordance with federal and state law, the University prohibits discrimination on the basis of sex, including sexual harassment. Sex discrimination and sexual harassment will not be tolerated, and individuals who engage in such conduct will be subject to disciplinary action. The University encourages students, faculty, staff, and visitors to promptly report sex discrimination and sexual harassment. Any employee, co-worker, or student who has knowledge of sexual harassment is strongly encouraged to report it promptly:

<https://hr.ufl.edu/forms-policies/policies-managers/sexual-harassment/>

Course evaluation: 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.bluera.com/ufl/>. Summaries of course evaluation results are available to students at

<https://gatorevals.aa.ufl.edu/public-results/>.

Draft schedule as of 8 Jan 2025

Week	Date	Topic	
Section 1: Everglades history and restoration - geological and human history, origins of flora and fauna, land use change and restoration			
Wk 1	13-Jan	What is the Everglades?	
	15-Jan	Geologic origin and evolution	
	17-Jan	Media Piece Discussion	
Wk 2	20-Jan	MLK holiday no class	
	22-Jan	Flora and Faunal origins	
	24-Jan	No class	
Wk 3	27-Jan	Flora and Faunal origins	
	29-Jan	Human history in the Everglades	
	31-Jan	Media Piece Discussion	
Wk 4	3-Feb	Replumbing of the Glades	
	5-Feb	Replumbing: The C&SF Project	
	7-Feb	Media Piece Discussion	
Wk 5	10-Feb	Agriculture and its effects	

	12-Feb	Agriculture and its effects	
	14-Feb	Media Piece Discussion	
Wk 6	17-Feb	Agriculture and its effects, Hole-in-the-Donut	
	19-Feb	Saltwater intrusion and climate change	
	21-Feb	Media Piece Discussion	
Wk 7	24-Feb	Early conservation efforts	
	26-Feb	Field trip information and Everglades BioCorps Internships	
	28-Feb	Media Piece Discussion	
Wk 8	3-Mar	Everglades Restoration I: Legislation that got it started	
	5-Mar	Everglades Restoration II: Ecological indicators	
	7-Mar	Media Piece Discussion	
Wk 9	10-Mar	Everglades ecosystems	
	12-Mar	Invasive species and Field trip Media Piece Discussion	
	14-Mar	Media Piece Discussion	
Wk 10	16-23 Mar	Everglades spring break trip	
Section 2: Pulling it all together -understanding all the components of restoration			
Week	Date	Topic	
Wk 11	24-Mar	No class recap!	
	26-Mar	Field trip recap	
	28-Mar	Media Piece Discussion	
Wk 12	31-Mar	Field trip recap	
	2-Apr	Field trip recap	
	4-Apr	Media Piece Discussion	
Wk 13	7-Apr	In class presentations	
	9-Apr	In class presentations	
	11-Apr	Media Piece Discussion	
Wk 14	14-Apr	In class presentations	
	16-Apr	In class presentations	
	18-Apr	Media Piece Discussion	
Wk 15	21-Apr	In class presentations	
	23-Apr	In class presentations	
	25-Apr	No class, reading day	
Wk 16	1-May	Take-home exam due by 5pm	

Tentative field trip schedule

Sunday	16-Mar	Depart Gainesville, head to Riverwoods Field Laboratory and Archbold Biological Station
Monday	17-Mar	Kissimmee River Restoration (Riverwoods Field Laboratory)
Tuesday	18-Mar	Kissimmee Prairie Preserve State Park
Wednesday	19-Mar	Lake Okeechobee and Storm Water Treatment Areas
Thursday	20-Mar	Everglades National Park - Pine Rocklands, Invasive Herps and Plants
Friday	21-Mar	Everglades National Park - Wading birds, Slough slog
Saturday	22-Mar	Florida Bay Discussion – Everglades National Park self-tour
Sunday	23-Mar	Wrap up and travel back to Gainesville