

PCB 4353 – Florida Ecology, Natural History, and Conservation

Fall 2019, 3 credits

Instructor: Dr. Gregg Klowden (pronounced "Cloud - in")
Office: Room 202A, Biological Sciences
Office Hours: Wed 1:30 - 3:30p, Thurs 11:15a - 12:15p, or by appointment
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I receive a large volume of emails from several courses. To help me help you, please include:

- Your first and last names
- Course name (FL Natural History)

- * Please do NOT use the Webcourses mail system for correspondence.
- * I will try to respond to emails within 48 hours however, response time may be greater.
- * Please plan accordingly by not waiting to the last minute to contact me with questions or concerns.
- * Due to confidentiality, I will only reply to questions emailed from your Knights email.
- * Any questions about grades must be discussed in person and cannot be discussed via email.

Class Meeting Times: Tuesdays and Thursdays 2:00 pm -3:15 pm in BIO 209

Intended Audience: Advanced Biological Science majors & minors.

Course Prerequisite: Principals of Ecology (PCB 3044C) with a grade of C or better

Course Description:

General ecology, habitats, vegetation types, wildlife, and conservation issues of Florida. We will explore the diverse ecology that characterizes Florida and differentiates this region from any other area of the continental United States. In this course we will apply basic ecological principles to Florida's major natural habitats and communities (e.g. pine flatwoods, sandhill, scrub, freshwater and salt marsh, wet and dry prairie, cypress, mangrove, and hardwood swamps, coastal scrub and strand) and associated wildlife (emphasizing amphibians, reptiles, mammals and birds), ranging from north Florida flatwoods to south Florida Everglades. Additionally we will analyze the environmental history of the region including how people have used and impacted the different environments of Florida in the past and present and current challenges to resource management and conservation of the region. Supporting topics may include natural fire cycles, fire-mediated succession, watersheds, metapopulation ecology, invasive exotic plants and animals, effects of roads on wildlife, and conservation policies, land acquisition and management both past and present.

Course Goals:

After successfully completing this course, students will be able to:

- Define, apply, & use ecological principles to explain processes that affect the distribution & abundance of plants & animals in FL;
- Identify the main biological and physical features of Florida and some of its diverse environments;
- Explain how different environments within Florida were formed and are changing due to natural and human-driven processes;
- Explain ongoing debates of environmental issues affecting Florida;
- Determine if and how various economic and recreational human activities may be affecting the ecology and/or wildlife of Florida;
- Describe and analyze different views regarding how best to protect and/or restore the Florida environment.

Required Resources:

A. Whitney, E., D. B. Means, and A. Rudloe. 2014. Florida's Natural Ecosystems and Native Species (Vol. 1 FL Uplands, Vol. 2 FL Wetlands, Vol. 3 FL Waters). Pineapple Press. (OR the 2004 single volume "Priceless Florida: Natural Ecosystems & Native Species")

B. Webcourses: Announcements, lecture notes, grades, etc. will be made available at this site.

Student Responsibilities:

Etiquette

Students should show proper classroom etiquette. Students should show up to class on time. *Please do not be late or leave early, this disrupts the class.* If this is unavoidable then you should sit near the door to reduce disruption to the class. All cell phones, pagers, etc. should be turned OFF (not on vibrate) when entering the classroom. Students should not disrupt other students (or the instructor) in class by talking unless instructed to do so by the instructor. If you use a computer to take notes please do not use it for any other purposes.

Email and Webcourses

You will be expected to have daily access to Webcourses since I will be consistently posting assignment updates, additions, changes, clarifications, etc. All students at UCF are required to obtain a Knight's Email account and check it regularly for official university communications. If you do not own a computer, there are computers accessible to you in all UCF's computer labs, and most computer labs have computers connected to the internet. For further information on computer labs, please see the following website: http://registrar.sdes.ucf.edu/webguide/index_quickfind.aspx.

Exams

There will be three unit exams. The questions will be a mixture of multiple choice, fill in the blank and short answer essay. All questions will pertain to material covered in lectures, textbook readings and additional assignments. The final exam will not be comprehensive. Please bring a #2 pencil with you to each exam. Cell phones and PDAs must be turned off and stowed during the exam period. Grades will be posted on Webcourses. Exams can be reviewed individually in my office hours.

Late For the Exam Policy

If you arrive late for any exam you will be allowed to take the test if no one has yet turned in an exam. However, you must turn in the test paper at the regular scheduled end of the test. You will not be allowed extra time unless a documentable emergency has occurred.

Makeup Exam Policy

If you miss an exam, you will not automatically be granted a make-up: these will be given only in exceptional circumstances, with written documentation from a competent authority (physician, coach, counselor, etc.). Makeup exams, IF permitted, will be in essay format. Unexcused absence from an exam will result in a failing grade for the missed exam.

Discussions

Several times throughout the semester you will be asked to read an article and participate in an online group discussion. Discussions will be graded on the quality of your comments and replies to your peers.

Optional Book Review Assignment

This assignment is OPTIONAL. Due date is listed in course calendar. Submission via Webcourses. If you choose to do this, it will be worth 4% of your total grade, replacing 4% of your lowest exam grade (making that one exam worth 18% rather than 22%). If you choose, pick an ecology themed book (see approved book list at end of syllabus) of at least 300 pages or more to read and write a summary report demonstrating that you read the entire book and your understanding and opinions of the book. Summaries should be 500 to 750 words, no more, no less. Reviews should be for this class only and not a book used in another class. Summaries must be entirely your own work. Plagiarism will not be tolerated and will result in a failing grade for the course. I reserve the right to orally quiz you about the book if I suspect you have not read it.

Note - Optional assignments are not extra credit however like extra credit can boost your grade. As opposed to extra credit, which can be neutral or help your grade, optional assignments can benefit your grade IF you do a good job but could hurt your grade if you do a poor job. If you choose not to do the assignment it will not affect your grade. I design it this way as a way to encourage you to take the assignment seriously and to do a good job and to avoid you turning in a hastily prepared assignment in hopes of getting a point or two.

Performance Evaluation:

Proportion of grade

Exams		
Best grade of 4 exams		25%
Worst grade of 4 exams		17%
Other 2 exams	2 x 23% =	46%
Discussions (4 x 3%)		<u>12%</u>
		100%

Grading Scale:

A	93.0 - 100%	B+	87.0 - 89.9%	C+	77.0 - 79.9%	D+	67.0 - 69.9%	F	0 - 59.9%
A-	90.0 - 92.9%	B	83.0 - 86.9%	C	73.0 - 76.9%	D	63.0 - 66.9%		
		B-	80.0 - 82.9%	C-	70.0 - 72.9%	D-	60.0 - 62.9%		

Grade Rounding Policy: The overall semester grade will not be rounded. In other words, either you have the grade or you don't. In other words, a 79.99 is still a 'C'. As there are many students in this class I strive for consistency and fairness. For this reason, there will be no exceptions to this policy and no other adjustments will be made (i.e. No additional curving or extra credit will be offered).

Academic Integrity and Ethics:

UCF faculty supports the UCF Creed. Integrity - practicing and defending academic and personal honesty is the first tenet of the UCF Creed. This is in part a reflection of the second tenet, Scholarship: -I will cherish and honor learning as a fundamental purpose of membership in the UCF community. Course assignments and tests are designed to have educational value; the process of preparing for and completing these exercises will help improve your skills and knowledge. Material presented to satisfy course requirements is therefore expected to be the result of your own original scholarly efforts.

Students should familiarize themselves with [UCF's Rules of Conduct](#). According to Section 1, "Academic Misconduct," students are prohibited from engaging in:

- *Unauthorized assistance:* Using or attempting to use unauthorized materials, information or study aids in any academic exercise unless specifically authorized by the instructor of record. The unauthorized possession of examination or course-related material also constitutes cheating.
- *Communication to another through written, visual, electronic, or oral means:* The presentation of material which has not been studied or learned, but rather was obtained through someone else's efforts and used as part of an examination, course assignment, or project.
- *Commercial Use of Academic Material:* Selling of course material to another person, student, and/or uploading course material to a third-party vendor without authorization or without the express written permission of the university and the instructor. Course materials include but are not limited to class notes, Instructor's PowerPoints, course syllabi, tests, quizzes, labs, instruction sheets, homework, study guides, handouts, etc.
- *Falsifying or misrepresenting* the student's own academic work.
- *Plagiarism:* Using or appropriating another's work without any indication of the source, thereby attempting to convey the impression that such work is the student's own.
- *Multiple Submissions:* Submitting the same academic work for credit more than once without the express written permission of the instructor.
- *Helping another violate* academic behavior standards.

Students who engage in academic misconduct contradict the educational value of your courses and undermine the value of the UCF degrees earned by their more honest peers. For more information about Academic Integrity, students may consult [The Center for Academic Integrity](#). For more information about plagiarism and misuse of sources, see "[Defining and Avoiding Plagiarism: The WPA Statement on Best Practices](#)".

Responses to Academic Dishonesty, Plagiarism, or Cheating

Students should also familiarize themselves with the procedures for academic misconduct in UCF's student handbook, [The Golden Rule](#). UCF faculty members have a responsibility for students' education and the value of a UCF degree, and so seek to prevent unethical behavior and when necessary respond to academic misconduct. Penalties can include a failing grade in an assignment or in the course, suspension or expulsion from the university, and/or a "Z Designation" on a student's official transcript indicating academic dishonesty, where the final grade for this course will be preceded by the letter Z. For more information about the Z Designation, see <http://goldenrule.sdes.ucf.edu/zgrade>.

Course Accessibility Statement

The University of Central Florida is committed to providing access and inclusion for all persons with disabilities. Students with disabilities who need disability-related access in this course should contact the professor as soon as possible. Students should also connect with [Student Accessibility Services](#) (Ferrell Commons 185, sas@ucf.edu, phone (407) 823-2371). Through Student Accessibility Services, a Course Accessibility Letter may be created and sent to professors, which informs faculty of potential access and accommodations that might be reasonable. Determining reasonable access and accommodations requires consideration of the course design, course learning objectives and the individual academic and course barriers experienced by the student.

Campus Safety Statement

Emergencies on campus are rare, but if one should arise in our class, everyone needs to work together. Students should be aware of the surroundings and familiar with some basic safety and security concepts.

- In case of an emergency, dial 911 for assistance.
- Every UCF classroom contains an emergency procedure guide posted on a wall near the door. Please make a note of the guide's physical location and consider reviewing the online version at http://emergency.ucf.edu/emergency_guide.html.
- Students should know the evacuation routes from each of their classrooms and have a plan for finding safety in case of an emergency.
- If there is a medical emergency during class, we may need to access a first aid kit or AED (Automated External Defibrillator). To learn where those items are located in this building, see <http://www.ehs.ucf.edu/workplacesafety.html> (click on link from menu on left).
- To stay informed about emergency situations, sign up to receive UCF text alerts by going to my.ucf.edu and logging in. Click on "Student Self Service" located on the left side of the screen in the tool bar, scroll down to the blue "Personal Information" heading on your Student Center screen, click on "UCF Alert," fill out the information, including your e-mail address, cell phone number, and cell phone provider, click "Apply" to save the changes, and then click "OK."
- If you have special needs related to emergency situations, speak with your instructor outside of class.
- To learn about how to manage an active-shooter situation on campus or elsewhere, consider viewing this video. [You CAN Survive an Active Shooter](#)

Deployed Active Duty Military Students

If you are a deployed active duty military student and feel that you may need a special accommodation due to that unique status, please contact your instructor to discuss your circumstances.

Copyright

This course may contain copyright protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine in order to enhance the learning environment. Please do not copy, duplicate, download or distribute these items. The use of these materials is strictly reserved for this online classroom environment and your use only. All copyright materials are credited to the copyright holder.

Third-Party Software and FERPA

During this course you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these could be required assignments, you need not make any personally identifying information on a public site. Do not post or provide any private information about yourself or your classmates. If appropriate you may use a pseudonym or nickname. Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personally identity-sensitive information. If you have concerns, please contact your instructor.

Final Note:

The professor(s) reserve the right to change the syllabus and management of the class at any time during the semester. These changes will be announced in lecture.

Additional Resources:

- Myers, R. L. and J. J. Ewel. 1991. Ecosystems of Florida. University of Central Florida Press. 765 pp.
- Florida Natural Areas Inventory www.fnai.org
- Ewel, C. E. and H. T. Odum. 1984. Cypress swamps. University of Florida Press. 472 pp.
- Mitsch, J. M. and J. G. Gosselink. 2000. Wetlands, 3rd edition. John Wiley & Sons, Inc. 920 pp.
- Barnett, C. 2007. Mirage: Florida and the vanishing water of the Eastern U.S. The University of Michigan Press. 240 pp.
- Davis, S. M. and J. C. Ogden (editors). 1994. Everglades: the ecosystem and its restoration. St. Lucie Press. 826 pp.
- Kruczynski, W. L. and P. J. Fletcher. 2012. Tropical connections: South Florida's marine environment. IAN Press. 492 pp.
- Odum, H. T., E. C. Odum, and M. T. Brown. 1998. Environment and Society in Florida. St. Lucie Press. 449 pp.
- Perry, J. and J. Greverus Perry. 1998. The nature of Florida. University of Georgia Press. 238 pp.
- Simberloff, D., D.C. Schmitz, and T. C. Brown. 1997. Strangers in paradise: impact and management of nonindigenous species in Florida. Island Press. 467 pp.
- Weisskoff, R. 2005. The economics of Everglades restoration. Edward Elgar Publishing Limited. 345 pp.
- White, G. L. 2010. Conservation in Florida: its history and heroes. The Florida Historical Society Press. 287 pp.

Optional Book Review Reading List

Below is a list of approved Florida (and southeastern US) Natural history Themed Books. You may suggest a book not on this list but it cannot be one you have or are reading for another course and you must first email me for approval.

Nonfiction:

- Forgotten Grasslands of the South - Natural History and Conservation by Reed F. Noss
- Cypress Swamps by Katherine Carter Ewel and Howard T. Odum
- Twilight of the Panther: Biology, Bureaucracy and Failure in an Endangered Species Program by Ken Alvarez
- A Stillness in the Pines. The Ecology of the red-cockaded Woodpecker by Robert McFarlane
- Travels of William Bartram by William Bartram
- The Swamp. The Everglades, Florida and the Politics of Paradise by Michael Grunwald
- A Naturalist in Florida A Celebration of Eden by Archie Carr
- The Seaturtle by Archie Carr
- The Florida Scrub Jay Demography of a Cooperative- Breeding Bird by G. E. Woolfenden and John W. Fitzpatrick
- The Man Who Saved Sea Turtles Archie Carr and the Origins of Conservation Biology by Frederick Rowe Davis
- The Economics of Everglades Restoration Missing Pieces in the Future of South Florida by Richard Weisskoff
- Strangers in Paradise: Impact & Management of Nonindigenous Species in Florida by D. Simberloff et al.
- Mirage: Florida and the Vanishing Water of the Eastern U. S. by C. Barnett

Fiction:

- The Everglades River of Grass by Marjorie Stoneman Douglas
- Cross Creek by Marjorie Kinnan Rawlings
- South Moon Under by Marjorie Kinnan Rawlings

TENTATIVE Course Calendar (subject to change)

Week	Date	Lecture #	Topic / Reading (Volume – Chapter)	Important dates
1	Tu 8/27	1	Introduction Natural Ecosystems/ Topography / Climate / Soils (V1- 1)	
	Th 8/29		No Class – Football game	Discussion 1 due Fri 8/30 by 5:00p
2	Tu 9/3		NO CLASS DUE TO HURRICANE DORIAN	
	Th 9/5		NO CLASS DUE TO HURRICANE DORIAN	
3	Tu 9/10	2	Florida Historical Biogeography (V1-8)	
	Th 9/12	3	Pre-colonial Florida, and Early Human Influences on FL Ecosystems (V1-8)	
4	Tu 9/17	4	Pine Flatwoods and Dry Prairies (V1-3)	
	Th 9/19	-----	-----	Exam 1 (Lectures 1-3)
5	Tu 9/24	5	High Pine Grasslands ((V1-2)	
	Th 9/26	6	Florida Scrub ((V1-5)	
6	Tu 10/1	7	Upland Temperate Hardwood Forests (Hammocks) (V1-6)	Discussion 2: - 1 st comment – Due Tue 10/1 by 11:59p
	Th 10/3	8	Upland Glades, Dry Caves, Rocklands, and the FL Keys (V1-7)	- 2 Replies - Due Thur 10/3 by 11:59p
7	Tu 10/8	9	FL Keys (cont.) Wetlands (V2-2)(ON EXAM 3)	
	Th 10/10	-----	-----	Exam 2 (Lectures 4-9, NOT Wetlands)
8	Tu 10/15	10	Wetlands (V2-2)(cont.) Seepage wetlands (V2-3)	
	Th 10/17	11	Freshwater Marshes (V2-4) Everglades	
9	Tu 10/22	12	Everglades (continued) Freshwater Swamps (V2-5)	Discussion 3: - 1 st comment – Due Tue 10/22 by 11:59p
	Th 10/24	13	Freshwater Swamps (cont.)	- 2 Replies - Due Thur 10/24 by 11:59p
10	Tu 10/29	14	Rivers, Springs, and Aquatic Caves (V3 - 3 and 4)	
	Th 10/31	15	Rivers and Springs (cont.) Lakes and Ponds (V3-2)	
11	Tu 11/5	-----	-----	Exam 3 (Lectures 10-15)
	Th 11/7	16	Coastal Intertidal Zones, Tidal Marshes, Mangroves (V2 – 6 and 7)	
12	Tu 11/12	17	Mangroves (cont.) Estuaries and Inshore Marine Habitats (sea grass, oyster bars, etc.) (V3 – 5 and 6)	Optional book review due Sun 11/10 by 11:59pm Discussion 4: - 1 st comment – Due Tue 11/12 by 11:59p
	Th 11/14	18	Inshore Marine Habitats (cont.) Coral Reefs and Sponge Communities (V3-7)	- 2 Replies - Due Thur 11/14 by 11:59p
13	Tu 11/19	19	The Gulf and the Ocean (V3-8)	
	Th 11/21	20	The Gulf and the Ocean (cont.)	
14	Tu 11/26	21	TBA	
	Th 11/28	22	No class – Thanksgiving	
15	Tu 12/3	-----	-----	Exam 4 (Lectures 16-22)
Final Exam	Tu 12/10		No Final Exam	