EVR 3013 - ECOLOGY OF SOUTH FLORIDA
Spring 2011: TuTh 12:30-1:45 PM
ROOM: CP 151

Instructor: Jim Riach riachjim85@gmail.com
Office hours: M/F 1:30-3:30; Tues/Thurs 10-12
Office: ECS 335

Course Description: The course introduces the student to ecological principles and to the South Florida environment. Students will learn to apply the ecological principles to explain the processes that have influenced the existence of plants and animals within South Florida from ancient to present times. The main biological and physical features of South Florida as a whole and which distinguish its diverse environments will be described and explained. The course will analyze how humans have used and impacted the different environments of South Florida since the times of their earliest occupation of the region. Students will participate in discussions of current debates of environmental issues concerning the South Florida ecology.

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

CE6: This as a web-assisted course. All students will be assigned a CE6 account for online access to the course, which will contain review quizzes, online reading materials, lecture supplements, professor e-mail access, assignment submission tools, and suggested links.

Textbooks:


Recommended:

Grading:
<table>
<thead>
<tr>
<th>Grading Category</th>
<th>Points</th>
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<tbody>
<tr>
<td>Exam I</td>
<td>30</td>
</tr>
<tr>
<td>Exam II</td>
<td>30</td>
</tr>
<tr>
<td>Env Scavenger Hunt (2x)</td>
<td>20</td>
</tr>
<tr>
<td>In-Class Activities</td>
<td>20</td>
</tr>
<tr>
<td>CE 6 Review Quizzes</td>
<td>00</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100</strong></td>
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Extra Credit: 5 As much as 5 points total possible - no more (but could be less)
Grades are based on the following percentages:

- **A** = 94-100
- **A-** = 90-93
- **B+** = 87-89
- **B** = 83-86
- **B-** = 80-82
- **C+** = 77-79
- **C** = 73-76
- **C-** = 70-72
- **D+** = 67-69
- **D** = 63-66
- **D-** = 60-62
- **F** = 0-59

**Exams:**
There will be 2 on-cumulative exams during the semester. Exams will cover material from the readings and lecture. Lectures will not duplicate the material found in the readings, so **class attendance is essential for a good grade in the exams.** Several movies may be shown in class. Questions about the movies may appear on the exams. If you miss class on a day a movie is shown, it is your responsibility to get notes from a classmate and/or try to see it. **No electronic handheld devices of any kind are allowed during the exam.** If a student is caught using a handheld device during the exam the exam will be taken from the student and the student will receive a zero on that exam. If the violation is found to be severe enough, the student may receive an F for the semester and will be referred to the Office of the Provost for Academic Affairs for further action that may include suspension or expulsion from the university.

**Ecological Scavenger Hunt:** Students will be required to participate in a total of 2 scavenger hunts throughout the semester worth a total of 20% of the final grade. On the day of the scavenger hunt, all students will be required to go to the selected site and to complete the assignment on site. All assignments will be submitted to the TA's upon completing the assignment. If your writing is deemed not to be legible, a photocopy of your original submission will be made and returned to you so that you can type your answer as written on the original submission. If necessary to do so, your paper will be returned the next class day after the scavenger hunt. If you do not pick up the illegible paper and have the typed answer returned within 5 days of the scavenger hunt, you will receive a zero for the assignment.

**In-Class Activities**
Several **GRADED** activities will take place during class time. These activities will be **UNANNOUNCED on either Monday, Wednesday, or both.** Most, but not all the activities will be short quizzes. Students will be told in class on the week prior to the quizzes what they need to know for the quizzes. There are **NO MAKE-UPS** for these activities. Failure to participate in any activity will earn you a zero for that activity. **Students are expected to arrive on time to class and to remain in class until the end of the class period.** If a student misses the in-class activity as a result of arriving late or leaving early, they will receive a zero for the activity.

**CE 6 Review Quizzes:** Short **non-graded**, quizzes based on lecture, the textbook readings, and online content will be posted on CE6. Students will have up to 3 attempts to take the quizzes as review for upcoming exams. Students will have 20 minutes to complete each attempt of the quizzes.

**Extra Credit:**
Default option: FIU Environmental Preserve work days. Points will be added to the final grade for the semester according to the following guidelines. One full day = 2.5 points. Students MUST make an appointment to meet with the professor if they wish to discuss other options for extra credit. No extra credit will be given without prior approval from the professor. **No more than 5 points will be given as extra credit for the semester.**

**Policy on Laptop and Handheld Devices**
Laptops can be a powerful learning tool if used properly in the classroom. However, they can be a major source of distraction for students and the professor. For this reason, all students who intend to use laptops in class must submit at the start of the semester a written request to use a laptop in class explaining why they will be using the laptop. These students will also be required to sit in the first 3 rows of the classroom only. No other students will be allowed to use a laptop in class.
No electronic handheld device of any kind is permitted in the classroom. This includes, but is not limited to telephones, texting devices, online devices, or cameras. If you expect an important message during class, place your device on vibration mode and go outside of class to use the device. If a student is caught using a handheld device in class, he/she will be asked to leave the class for the day and will have 5 points taken away from their final grade in the semester.

Attendance and Proper Conduct in Class
I do not take attendance in class. The only exception is for athletes who are required to sign in at the start of class. All student athletes and Golden Dazzler dancers need to inform the instructor ahead of time (or as soon as possible) and in writing of any absences due to official athletic events if they want to be excused for any graded activities assigned that day. Although I do not take attendance, I do have unannounced graded in-class activities throughout the semester. **Students missing these in-class activities will receive a zero for these activities. Students missing 3 of these activities will additionally be deducted 5 points from the final grade for the semester. Students will be deducted 5 additional points for every additional activity missed.**

While students are in the classroom, they are expected to act as respectful adults. Disturbing other students with chatter or other disrespectful behavior will not be tolerated and students will be asked to leave the classroom or referred to the Office of the Provost for Academic Affairs for further action. Sleeping in class is an indication that something is wrong and students may be referred to the clinic if this occurs.

Academic Misconduct
All students are expected to honor the following pledge
Pledge – As a student of this university:
- I will be honest in my academic endeavors.
- I will not represent someone else’s work as my own.
- I will not cheat, nor will I aid in another’s cheating.

All students are deemed by the University to understand that if they are found responsible for academic misconduct, they will be subject to the Academic Misconduct procedures and sanctions, as outlined in the Student Handbook.

Procedure
All matters relating to academic misconduct are referred to the Office of the Provost for Academic Affairs. Acts of academic misconduct may be alleged by faculty, staff or students. Two actions that may be taken are:
- Expulsion: Permanent separation of the student from the University, preventing readmission to the institution. This sanction shall be recorded on the student's transcript.
- Suspension: Temporary separation of the student from the University for a specific period of time.

SCHEDULE

I. BACKGROUND
Week 1:
1/11: Introduction and Basic Ecological Concepts
   Textbook Readings: **Callenbach**: ecology, biodiversity

1/13: South Florida Geological History
   Textbook Readings: **Lodge**: Chapter 2; **Callenbach**: evolution, succession
   CE6 Readings: Prehistory, Geochart

Week 2:
1/18: Prehistoric Biogeography
   Textbook Readings: **Callenbach**: bioregion, community, ecosystem
   CE 6 Readings: Prehistoric Biota
1/20: Physiographic Regions, Ecosystem Overview, and Historical Everglades
   Textbook Readings: Lodge: Chapters 1 and 21 (p.267 and pp 270-272); Callenbach: habitat, population, species, food web, interdependence, niche, predation, symbiosis
   CE6 Readings: Ecoconcepts: Part II

Week 3:
1/25-1/27: Physiographic Regions, Ecosystem Overview, and Historical Everglades continued

II. SOUTH FLORIDA ENVIRONMENTS
Week 4:
2/1-2/3: Upland Ecosystems: Tropical and Temperate Hammocks
   Textbook Readings: Lodge: Chapter 5
   CE6 Readings: Hammock species list

Week 5:
2/8-: Upland Ecosystems: Pine Rocklands and Pine Flatwoods
   Textbook Readings: Lodge: Chapter 6; Callenbach: fire
   CE6 Readings: Pine rockland species list, Pine flatwood species list

2/10: Ecological Scavenger Hunt # 1 At the FIU Environmental Preserve

Week 6:
2/15: Freshwater Wetland Ecosystems: Marshes, Wet Prairies, Tree Islands and Aquatic Marsh Ecosystems
   Textbook Readings: Lodge: Chapters 3, 4, and 21 (pp. 267-270 and 272)
   CE6 Readings: Marshes species list

2/17: Ecological Scavenger Hunt # 2 At Hennington Lake

Week 7:
2/22: Freshwater Wetland Ecosystems: Swamps
   Textbook Readings: Lodge: Chapter 7
   CE6 Readings: Swamp species list

Quiz - swamps
2/24: EXAM I

Week 8:
3/1-3/3: Coastal Ecosystems: Mangrove Swamps and Salt Marshes (and Hurricanes)
   Textbook Readings: Lodge: Chapters 8-9 and 21 (pp. 275-276)
   CE6 Readings: Mangrove species list, Salt marsh species list

3/4: Last day to drop class with a DR

Week 9:
3/8-3/10: Intertidal and Marine Ecosystems: Estuaries and Reefs
   Textbook Readings: Lodge: Chapter 10
   CE6 Readings: Estuaries, Reefs

Week 10: SPRING BREAK NO CLASSES

III. SOUTH FLORIDA FLORA AND FAUNA
Week 11:
3/22-3/24: South Florida Fishes: Freshwater and Marine Fish
   Textbook Readings: Lodge: Chapters 15-16

Week 12:
3/29-3/31: South Florida Amphibians and Reptiles
   Textbook Readings: Lodge: Chapters 17-18

Week 13:
4/5-4/7: South Florida Mammals and Birds
   Textbook Readings: Lodge: Chapters 19-20
IV: HUMAN IMPACTS

Week 14:
4/12-4/14: Humans and the Everglades Part 1
   Textbook Readings: Lodge: Chapters 12 and 21 (pp. 279-306); Callenbach: carrying capacity, conservation, extinction, impacts, land use, pollution, water

Week 15:
4/19: Humans and the Everglades Part 2
   Textbook Readings: Lodge: Chapter 22 (pp. 306-336); Callenbach: restoration, sustainability, toxics, urban ecology, values, xeriscape, zoos

4/21: EXAM II

Week 16: Final's week - No classes - Altered schedule - Exams in other classes - Not in this class