Course Description:

This one credit laboratory course is an Ecology of South Florida lab (EVR 3013L). This course offers you an introduction to the unique ecosystems of South Florida. These ecosystems have flourished for thousands of years with a wide variety of different organisms, which have adapted to survive in each unique habitat. You will learn about the plants and animals that inhabit these habitats, as well as the ecological processes that make their existence (and ours) possible. This lab serves as a compliment to the EVR3013 lecture course. It is recommended, though not required, that you take the lecture either with or before taking this lab. We meet for an hour and fifteen minutes each week in class, along with four field trips, where you will gain practical knowledge through hands-on experience and develop a more profound understanding of the importance of these ecosystems.

Course Objectives

Students will be able to:

- Explain methods that scientists use to investigate the health of the Everglades.
- Recognize the major biological communities of the Everglades.
- Identify the biological and physical factors that shape different habitats and the characteristic species that inhabit them.
- Explain the impacts of human modification on the ecosystems of the Everglades.
Major and Curriculum Objectives Targeted

EVR 3013L Ecology of South Florida Lab, along with EVR 3013 Ecology of South Florida completes a requirement for the B.A. in Sustainability and the Environment. These courses also satisfy the Natural Sciences/Life Sciences component of the Undergraduate Core Curriculum.

Recommended Texts:

National Audubon Society Field Guide to Florida

*(Many other field guides to South Florida are acceptable)*

The Everglades Handbook: Understanding the Ecosystem by Thomas E. Lodge

*(Useful but not required)*

Course Policies

1. Absolutely NO PHONES open in class, unless otherwise directed.
2. Treat each other with respect at all time.
3. Do NOT be late – quizzes occur at start of class.
4. No food allowed in the lab.

Also, please follow all policies and rules as stated in the university handbook. Failure to do so could result in dismissal from the class and possibly the course.

Attendance: attendance is mandatory for lab classes. If you missed first two week of classes, the university may drop you from the class. Students are expected to be on time and prepared for all lectures and field trips. Attendance will be taken and tardiness will be recorded for the weekly labs. Three late arrivals will equal one absence and points will be deducted. *Attendance is mandatory for all field trips.* Let your instructor know in advance if you are unable to attend a class. **One missed field trip will result in an automatic deduction of one letter grade. Two missed field trips will result in a failing grade. One trip can be substituted with a make-up.** If a class or field trip is missed, you are responsible for obtaining information from class notes and discussion.

Disability Services:

Students with disabilities who may need accommodations for this class are required to notify the instructor and contact the Disability Resource Center (DRC) early in the semester so that reasonable accommodations may be implemented as soon as possible. We cannot make accommodations without the direct instruction of the DRC. The Disability Resource Center
offers a wide variety of legally mandated services to students with documented disabilities. After reviewing your documentation, a Disability Specialist will determine appropriate academic services and accommodations, depending on your functional limitations in the academic setting. You will then be responsible for requesting accommodations in a timely manner and for following DRC policies and procedures for accessing accommodations. The same rules apply for absences and tardiness, being a DRC student does not exempt you from bringing appropriate documentation. For example, if you were at the doctor’s office you must bring in documentation confirming this was the case.

**Academic Misconduct Statement**

Florida International University is a community dedicated to generating and imparting knowledge through excellent teaching and research, the rigorous and respectful exchange of ideas and community service. All students should respect the right of others to have an equitable opportunity to learn and honestly to demonstrate the quality of their learning. Therefore, all students are expected to adhere to a standard of academic conduct, which demonstrates respect for themselves, their fellow students, and the educational mission of the University. 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.

**Academic Misconduct includes:**

**Cheating** – The unauthorized use of books, notes, aids, electronic sources; or assistance from another person with respect to examinations, course assignments, field service reports, class recitations; or the unauthorized possession of examination papers or course materials, whether originally authorized or not.

**Plagiarism** – The use and appropriation of another’s work without any indication of the source and the representation of such work as the student’s own. Any student, who fails to give credit for ideas, expressions or materials taken from another source, including internet sources, is responsible for plagiarism. Any student helping another to plagiarize may be found guilty of academic misconduct.

**All of the Following are Considered Plagiarism:**

- Turning in someone else's work as your own.
- Copying words or ideas from someone else without giving credit.
- Failing to put a quotation in quotation marks.
- Giving incorrect information about the source of a quotation.
- Changing words, but copying the sentence structure of a source without giving credit.
- Copying so many words or ideas from a source that it makes up the majority of your work, whether you give credit or not.
- Submitting a copy of your own work to satisfy the requirement of a second class without informing your instructor.
Learn more about the academic integrity policies and procedures as well as student resources that can help you prepare for a successful semester.

Extra Credit:

A maximum of 25 points extra credit points will be awarded if you participate in an environmental service activity during the semester (beach clean-up, exotic removal, habitat restoration, etc.) and/or submit a paper (details given in class). This must be separate from any service work done for another class, including the lecture portion of EVR 3013. In order to obtain credit, you need to bring proof of your assistance, write a short essay documenting your experience (one to two pages). Some service opportunities will be announced in class.

Field Trip Guidelines:

There will be a total of Four field trips.

Transportation:

Transportation will be provided. Transportation issues discussed in class and posted in an announcement on Canvas.

Bring your Field Guide, a camera, and your field notebook to record information. Wear sturdy, closed-toed shoes that can get wet, long sleeves and pants to protect from sun and bugs. More specific clothing instructions may be given for different trips. Other helpful items: hat, sun block, insect repellent, binoculars, snacks and lots of water. Be prepared to get wet, dirty and bug-bitten.

No guests allowed on field trips!

*Field Trip Attendance policy*

Field trip attendance is mandatory in order to successfully complete the course.

- Field Trips dates may change.
- A Missed field trip will result in an automatic deduction of one letter grade per absence for the course. Two missed field trips will result in a failing grade.
- Make-up field trips are not possible.
- Exceptions to the field trip policy are “unforeseeable” circumstances, i.e. medical emergencies, death in the family, etc. Conferences, work duties, and travel plans are not “unforeseeable” circumstance and are not excuses for missing a field trip.

Lab Report Submission
Lab reports are due by the beginning of class one week after the field trip

**Lab Report Format:** All lab reports should follow the general guideline posted under Blackboard under week 1 “How to write a lab report” All lab reports should be typed in word (doc) format using Time New Roman, Font size 12, Double Spaced, and 1-inch margin on all four sides.

**Field Notebook:**

Your field notebook will be a useful compilation of knowledge that you have gained during the field trip, and in the future could even serve as your own field guide. While compiling your field notes, be sure to include the following information:

1. **Basic Information:** Location, Date, Time
2. **Weather Conditions:** Temperature, cloud cover, humidity
3. **Ecosystem Description:** Describe each ecosystem visited in detail, describe the major plant/animal communities we saw and write about what they looked, smelled, sounded, and felt like. Most trips will visit multiple ecosystems.
4. **Anthropogenic Effects on the Ecosystem:** How have humans effected this environment? Consider various aspects, including development and nutrient pollution. This can also include positive effects like habitat restoration, where applicable.
5. **Flora and Fauna Observations and Descriptions:** You will be required to sketch or take photos of at least TEN plants and/or animals, and provide common and scientific names (Ex: American alligator = *Alligator mississippiensis*) and a few sentences of information about each. You **CANNOT** use pictures from the Internet, except for the snorkeling trip. **Points will be deducted for this.**
6. **Species Profile:** Choose 1 plant or 1 animal for each field trip to write a short (1 page) species profile include the scientific name, habitat preference, feeding habits, daily patterns and any other characteristic of note. Also include a picture of the species (this does not have to be your own picture, but be sure to cite outside sources).

**Field Notebook grading system:**

You will be graded on the completeness of each section listed above, as well as neatness and organization.

*Notebooks must be submitted electronically no later than the Friday following the field trip. You will have a week to work on them. Your notebooks will be graded and returned before the next trip.*

**Grading:**
Attendance 10%
Lab-report 60%
Quizzes 10%
Class assignment Worksheet 10%
Final-exam 10%

Ecology of South Florida Lab Field trips Schedule

Fall 2018 ALL DATES SUBJECT TO CHANGE

Always check your email before leaving for a trip

Bill Baggs State Park—Dunes, Seagrass, and Mangroves: September 8th

Located on Key Biscayne, Bill Baggs Park has been used over the years by many groups of people including Native Americans, pirates, and coconut growers. Now it is recognized as a prime recreation area for locals and tourists because of its beautiful beach. However, the beach and the surrounding area are prime habitat for many non-human species as well. On this field trip we will be exploring the important coastal habitat the park protects.

Big Cypress National Preserve—The Mighty Cypress Swamp: September 22nd

Big Cypress National Preserve, created in 1974, lies adjacent to Everglades National Park.

The protection of the watershed area located within Big Cypress is important to maintaining the integrity of its neighbor park. Big Cypress preserve consists of a variety of habitats including slash pine islands, hardwood hammocks, marshes and more. While a few ancient cypress trees still exist in the park, most of this area was logged in the 1930's and 40's. On this field trip, we will be visiting a cypress dome. We will get wet! Please come prepared (details given in class)

Snorkeling trip —voted “Most fun trip” October 6, 13, and 20

*** Note that this trip is very susceptible to last minute changes if condition warrant. ***
During this exciting field trip we will be concentrating on the underwater habitat of the coral reef. Snorkeling allows us to explore the reef and its many inhabitants - fish, sea urchins, coral, crabs, shrimp, etc.

**Everglades National Park—Walking the Everglades trails November 3**

Perhaps the most famous of the parks we will visit, Everglades National Park is the largest national park east of the Rockies. The park was created in 1947 to protect the diverse habitats and biological communities within it. Visitors to this World Heritage Site bring $120 million into the local economy each year. Yet the park is considered the most threatened national park in the country. We will be exploring a few of the distinct freshwater habitats and the pine Rocklands to better understand the factors that endanger them.

**Course Calendar**

<table>
<thead>
<tr>
<th>Class Week</th>
<th>Class Activity</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Lecture/ Activity 1</td>
<td>Introductions; Syllabus review, Student waiver and safety issues associated with field trips</td>
</tr>
<tr>
<td>Aug 20-24</td>
<td>Lecture</td>
<td>History of South Florida &amp; Coastal Ecosystem</td>
</tr>
<tr>
<td>Week 2</td>
<td>Lecture</td>
<td>Coastal Ecosystem (Saltmarsh, Beach, Dunes and Maritime Forest and seagrass)</td>
</tr>
<tr>
<td>Aug 27-31</td>
<td>Lecture</td>
<td>Coastal habitat quiz</td>
</tr>
<tr>
<td>Week 3</td>
<td>Lecture</td>
<td>Freshwater swamps / wetland ecosystem</td>
</tr>
<tr>
<td>Sep 3-7</td>
<td>First Field trip</td>
<td>Bill Baggs State park  Key Biscayne</td>
</tr>
<tr>
<td>September 8</td>
<td>Lecture</td>
<td>Coastal habitat quiz</td>
</tr>
<tr>
<td>Week 4</td>
<td>Lecture</td>
<td>Freshwater swamps / wetland ecosystem</td>
</tr>
</tbody>
</table>
Week 5  
Sep 17-21  
Lecture  
Big cypress Ecosystem and field trip preparation

September 22  
**Second Field trip**  
Big Cypress National Preserves Swamp walk!

Week 6  
Sep 24-28  
Lecture  
Swamp/wetland Quiz 2  
Offshore Habitat, Sea grass ecosystem

Week 7  
Oct 1-5  
Coral Reef Ecosystem  
Snorkeling trip preparation

October 6, 13 and 20  
**Third Field trip**  
Snorkeling trip at Key Largo

Week 8  
Oct 8-12  
Class Activity  
Offshore habitat quiz 3  
Worksheet: Shoreline Florida Bay

Week 9  
Oct 15-19  
Class Activity  
Flora and Fauna under the sea *(Coral Reef Ecosystem)*

Week 10  
Oct 22-26  
Lecture  
Protected Areas; Ecosystems of the Everglades  
(Sloughs, Tropical Hardwood Hammocks)

Week 11  
Oct 20 – Nov 2  
Pine Rocklands  
Field trips guideline
Week 11 Nov 3  **Fourth Field trip**  Everglades National Park trip

Week 12  

Nov 12-16  Inland Quiz 4

Nov 12-16  Invasive Species Lecture

Week 13  Everglades Restoration and Climate Change

Nov 19-23

Week 14  Final Exam; in ECS 165

Nov 26-30