



## Course Prerequisites and expectations

The course prerequisite is admission to the graduate school. The course prerequisite is BIOL 1107 and BIOL 1108. No student will be able to work a job during the span of this course, or enroll in any additional courses, as participation in this course will require overnight and weekend trips is mandatory. This is a major, but very rewarding, commitment on the part of the student, and no additional accommodations will be made. *This course is co-offered with undergraduates as BIOL 4020. As graduate students, you will have the same workload, but the rubric for your scientific paper will be more stringent and you will be expected to produce a publication-quality manuscript. You will also lead one of the class discussions before the undergraduates do so that you can model the process for them.*

## Course Credits

BIOL 6020 is a four credit course to be taught during the May Summer session.

## Required Texts and Materials

We will utilize peer reviewed literature for this course; there is no textbook. For Florida, you should consult the Florida Natural Area Inventory guide to natural communities, which can be viewed here: [http://fnai.org/natcom\\_accounts.cfm](http://fnai.org/natcom_accounts.cfm)



**project.** The paper will be written and formatted for an appropriate scientific journal. Papers will be judged on mechanics (use of citations, grammar/syntax, length and format), accuracy, and depth of coverage/synthesis of the topic. You will turn a rough draft into me, and after addressing my comments, you will turn in a final draft for a grade.



## **Release and Waiver of Liability**

Please read and sign the following:

I acknowledge that participation in field excursions involves some risks of injury, illness, and/or loss of personal property, despite the best intentions and responsible actions of participants and leaders. I agree to release and forever discharge Valdosta State University and the Board of Regents of the University System of Georgia, its members individually, and its officers, agents and employees from any and all

### **Travel Guide for Sapelo Island (2 nights):**

Saturday, May 17: We will meet at 9am on Friday May 17 at the loading bay of Bailey Science center. We will leave by 9:30am. On the way there, we will visit a restaurant called Mud Cat Charlies near Darion (seafood). It is about a 2.5 hour drive to Mud Cat Charlies (arriving around 12pm). We will leave by 1:30pm and drive the remaining ~1.5 hrs to the Ferry to Sapelo Island, which departs at 3:30pm on the dot. We will spend the rest of the day hiking around the island and settling in at the dorms. There is a Pub on the island, you can drink on island if you are of legal age. You cannot bring alcohol with you. Let me know if you are vegetarian or not. Dr. Jones will take care of meals and we will bring coolers for drinks  
bring a lot of clothing. Check the weather before we leave, and dress to be outdoors and to get dirty. We will spend the majority of the time outdoors and in the sun and bugs, so bring appropriate clothing, sunscreen, and bug spray. We will be on a boat for a trawl, so bring sea-sickness pills if you are prone to be sea-sick.

Sunday, May 18: We will spend the night on Sapelo. Make sure that you bring linens and towels and

will leave around 1230pm and drive 30 minutes to St. Marks National Wildlife Refuge. We will observe shorebirds and observe saltwater and freshwater marshes. We will spend approximately 1.5 hrs here and will plan on leaving around 230pm. We will then drive to Bald Point State Park (40 minute drive). We will observe coastal marshes, Gulf Coast beaches, and coastal pine flatwoods. We will spend approximately 1 hour here and will leave by 430pm. We will head back to VSU, arriving around 7pm.

Checklist:

- Snacks
- Small hiking pack
- Water bottle
- Binoculars
- Field guides you might want
- Bug spray and sun screen
- Field notebook and something to write with



Cash for lunch and dinner

**Travel Guide to Sea Horse Key and the Florida Keys:**

Thursday, May 29<sup>th</sup>: We will meet at the loading bay of Bailey Science Center at 8am. We will drive 2

12:00 PM Lunch

1PM: We will leave this time relatively open for the rest of the day, depending on what the group wants to do. We will be on our own for dinner as well.

Tuesday, June 3<sup>rd</sup>

9am: We will depart and meet for breakfast somewhere. We will drive approximately 4 hours to the Barrier Island Sanctuary Management and Education Center at the Archie Carr National Wildlife Refuge in Melbourne Beach, Florida. We will briefly hike around the premises, which is where the Reece et al. (2013) paper you read was based. We will leave by 6pm and drive the remaining ~5 hours to VSU, returning around 8 or 9pm, groggy and tired, and ready to be home.

\*Sequence and content of field trips subject to change due to weather and group size considerations.

Checklist:

- Sunblock (SPF 30 or higher)

- Insect repellent

- Toiletries (shampoo, soap, toothpaste, etc)

- Motion sickness medicine

- Any medications

- Change for snacks and soda machines

- Water bottle

- Camera

- Sleeping bag or twin bed linens and a pillow

- 2 towels (one for shower and one for boat)-  
quickly enough

- Personal clothing and swimwear

- Hat

- Old t-shirts or rash guards for snorkeling (REQUIRED)

- Windbreaker or rain coat

- Plastic bag to carry wet items home

- Sweatshirts if you get chilly easily

- You do NOT need snorkeling gear, it is included in your program. If you have nice gear, bring it, but if you have a cheap set, just use their rental gear- it will be better

- You can bring a wetsuit if you want but they are also available for rent

**Rubrics: All rubrics are subject to modification until the assignment is presented to you in class, at which time the rubric will be final.**

**Rubric For Field Notebook**

Worth 10 points.

Your field notebook is your way of keeping notes in this class. In it, you should record your observations of each specific field site and of the natural communities present at that site. For each entry, you should record at least two highly interactive species, one specific example of how climate change has or will affect this community, and one specific example of how sea-level rise has or will affect this community. In addition, you should mention one key ecosystem service provided by this community.

Your Field Notebook will be graded using the following rubric:

Record of every community visited at every field site:	1 point
Brief description of each natural community:	2 points
Named two highly interactive species characteristic of each natural community:	2 points
Climate Change:	2 points
Sea-Level Rise:	2 points
Ecosystem Service:	<u>1 point</u>
Total:	<b>10 points</b>

**What to Expect for Field Practicals:**

You will have three practicals in the field, but only two will count so you can drop your lowest field practical grade. The field practicals will be short answer and vary between approximately 10 and 20 questions. We will all walk around as a group, each person carrying a notepad and something to write with. You may not use your notes or any external materials during a practical. I will ask everyone a

down the name of the plant. O

discussion before taking the field practical. You will write your answers down, and I will collect and grade them. They will be worth 10 points each, for a total of 20 points or 20% of your final grade.

**Small Group Oral Presentation Rubric:**

Students will form small groups of 3-4 members. Each group will prepare a 5-minute oral presentation on a topic related to the course. The presentation should include a clear thesis statement, supporting evidence, and a conclusion. The presentation will be graded on a scale of 1-10. The rubric for the presentation is as follows:



only group able to work on Coral Reefs, and so on until every group has a different natural community. pedia and paraphrase. I mean look into the primary scientific literature and synthesize previously published work. We will talk about this more in class. You ts, which means that you will each have input from two of your classmates on your paper. The quality of your peer review will be factored into your grade (see point totals below).

Your scientific paper will have the same structure as most of the papers we have read in class. It will be a review or synthesis paper, because you are probably not collecting original data on which to publish. So, look at the review and synthesis papers we have read. The first half of your paper should essentially be your literature review, and the second half will be your research proposal. Make them flow, and do not simply cut and paste them together. The idea here is for you to learn how reading the literature feeds into experimental design. The best ideas in science come from what has already been done! You should format your paper to be submitted to the Georgia Academy of Science (<http://www.gaacademy.org/gajsci.htm#III.%20Georgia%20Academy%20of%20Science%20Information%20for>) or to the Florida Academy of Science ([http://www.floridaacademyofsciences.org/pdf/Guide\\_for\\_Authors\\_1-22-2014.pdf](http://www.floridaacademyofsciences.org/pdf/Guide_for_Authors_1-22-2014.pdf)) journals, you should clearly follow their instructions and make it clear to me which journal you are writing for. You will include the following sections: Abstract, Introduction and Background, Rationale for Proposed Work, Methods, Potential Results, and References. Additional sections may be required by the journal but will be minor sections. You may subdivide the major sections as you see fit. If your paper fails to conform to the journal requirements, it may be rejected and you will receive



	Mangrove Swamp	Yes	Everglades and Key Largo		
	Keys Tidal Rock Barren	Yes	Key Largo		
	Pine Rockland	Yes	Everglades and Key Largo		
	Rockland Hammock	Yes	Key Largo		