



Valdosta State University, Department of Biology  
BIOL 4020: Special Topics in Conservation: Coastal and Marine Biodiversity  
Syllabus-

## **Course Prerequisites and expectations**

The course prerequisite is BIOL 3250. 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.

## **Course Credits**

BIOL 4020 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)  
natural communities can be viewed here:

Quizzes will be 10 questions in multiple choice and short-answer format and will encompass material from lecture, assigned readings, and discussions in the field.

Your field notebook will include an entry for every day in the field. For each natural community type



**Tentative Schedule, BIOL 4020, Maymester 2015.** Dates in bold text are full-day activities; otherwise each day will adhere to the formal lecture and laboratory start and end times.

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Dates	Topic:	Assignments
May 14	VSU- Intro to course, go over syllabus; How to do a literature search, read a scientific paper and take notes; discuss: Ecosystem Engineers and highly interactive species; Restoration Ecology, Ecosystem Services and Function	Discuss: Soule et al. (2003), Estes et al. (2011), Brock et al. (2009); Wortley et al. (2013); Cardinale et al. (2012); fill out liability forms for field stations, field trips, and sign up for group projects; climate change surveys
May 15	VSU- Climate Change and Sea Level Rise; how to write a scientific paper	Read: Reece et al. (2013a), Noss (2011); Bellard et al. (2012); Root et al. (2003), Parmesan and Yohe (2003), Poloczanska et al. (2013), Strauss et al. (2012).
May 18	Prep for Sapelo	Natural History Review, read pages 511-567 of Edwards et al. 2012; draft of Literature Review due by end of class
<b>May 19-21</b>	<b>3 day Field Trip to Sapelo</b>	<b>Quiz #1; Field Practical #1</b>
May 22	VSU	Quiz #2: read Pages 567-587 of Edwards et al. 2012; I will

## **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):**

Tuesday, May 19: We will meet at 9am 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. Once we get to the island (~4pm-ish), we will go to our dorm rooms and get settled. We will pack up some snacks for the evening hike, and make our own dried fruit/nut mixes. Around 5:30pm we will drive down to Nanny Goat Beach for a long hike on the beach. Around 7pm or so we will come back to the dorms for pizza dinner.

Wednesday, May 20: If you are an early riser and want to see the sunrise, we will get up around 6am for coffee and a walk down to the beach. Breakfast will be at 7am and will consist of eggs, grits, bacon, muffins, French toast, and sweet rolls. Around 8am we will leave for Cabretta Beach to view beach erosion patterns at an inlet and to see the habitats there. We will be back at the dorms by 11am for an early lunch, which will consist of sandwiches (cold cuts, cheese, PB&J) and chips. At 11:45am we will head to the Post Office dock to view high tide (which will peak at 11:53am). We will spend some time at the dock, and then go back to the dorms for some free time to work on your papers. Around 4:

Two changes of clothes (you will get dirty!)

Sandals

Light towels and a beach towel

Toiletries

Camera

Cash for meals in transit and at Mud Cat Charlies

Do NOT bring:

Bed linens

Alcohol

**Travel Guide to Sea Horse Key, Melbourne Beach, the Florida Keys**



2:00 PM Field Trip: Coral reef ecology #1  
6:30 PM Supper  
7:30 PM ACTIVITY: Diversity Indexing Lab  
8:45 PM Climate change discussion- Reece leads

Sunday, May 31<sup>st</sup>

8:00 AM Breakfast  
9:00 AM FIELD TRIP: Seagrass/Mangrove ecology  
12:30 4 Tf1 0 0 1 149.06 646BDC B~~B~~

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

Money for meals (bring some cash for smaller establishments- no more than \$100 in cash)

Do NOT bring:

a lot of food

dive gloves or dive knives, fishing equipment

weight belt

speargun

**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 5 points.



only group able to work on Coral Reefs, and so on until every group has a different natural community. Note that you will be reading scientific literature and synthesizing previously published work. We will talk about this more in class. You

Definitive List of Coastal Natural Communities for the purposes of this course. Communities on the same row are synonymous between Georgia and Florida classifications.

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