

**Marine Biology: BSC 4312C-RI-SL**  
**Spring 2020**

**Lecture:** Tuesday and Thursdays from noon to 1:20 PM in Biology Building, Room 209

**Laboratory:** Saturdays in Biology 209, 305 or off-campus

**Instructor:** Dr. Linda Walters

**Office:** Biology 401C    **Office Phone:** 407-823-2148    **E-mail:** linda.walters@ucf.edu

**Family Cell Phone:** 407-443-6943 (sometimes husband Paul answers)

**Web Site for Course:** BSC 4312 on Webcourses. Site will house syllabus, course notes, grades, announcements, etc. Facebook (Coastal and Estuarine Ecology Lab) and/or Instagram (UCF\_CEELAB) will house class photos.

**Office Hours:** Tuesdays 8 – 10 AM or by appointment. If University business requires me to miss office hours, please contact me and we can schedule to meet at another time. Please make an appointment to meet with me via email, even during office hours if at all possible, to ensure I am ready and available to answer your questions.

**Graduate Teaching Assistant:** Jessie Copertino

**Office:** Biology 410    **Email:** jessica.copertino@knights.ucf.edu

**Office Hours:** MW 10:15 – 11:15 AM and Th from 10:45 – 11:45 AM

Jessie will assist with all class-related questions, grading, projects, and laboratories.

**Research Coach for Microplastics:** Casey Craig    **Email:** craig.casey2015@knights.ucf.edu

**Course Objectives: Multitask High Impact Practices (HIP) of “Research Intensive” and “Service-Learning” to improve marine biology knowledge and career readiness/success**

- 1) Enhance comprehension of important topics in marine biology (through all methods described below)
- 2) Improve writing skills/career readiness by focused efforts on curriculum vita and grant proposal writing
- 3) Improved science presentation skills by presenting journal article to class as a “3 slides, 3 minutes” talk and class discussions
- 4) Improve knowledge of marine biodiversity in Florida while learning ARC-GIS story mapping skills by producing Florida photo-organism collection
- 5) Hands-on research experience from initiation of project idea through completion (includes poster presentation at SURE conference)
- 6) Hands-on practice of science communication skills to community audience as STEM Service-Learning. Everyone will share your class research to K-8 audiences or hospitalized children at Nemours (includes poster presentation at UCF Service-Learning Conference)

**Required Materials:**

- 1) *Let Them Eat Shrimp. The Tragic Disappearance of the Rainforests of the Sea.* Warne, K. 2011. Island Press. ISBN 978-1597266833.

- 2) *DDT Wars. Rescuing Our National Bird, Preventing Cancer and Creating the Environmental Defense Fund.* 2015. Wurster, Charles F. Oxford University Press. ISBN 978-0-19-021941-3.
- 3) *The Curious Life of Krill. A Conservation Story from the Bottom of the World.* Nicol, Stephen. Island Press. 2018. ISBN: 978-1-610918534.
- 4) Access to a digital or phone camera.

### **Recommended Materials:**

- 1) PowerPoint slides will be available on Webcourses after classes.
- 2) *Seashore Animals of the Southeast.* Ruppert, EE, and Fox, RS. 1988. University of South Carolina Press, ISBN: 0-87249-535-3
- 3) *A Field Guide to the Southeast Coast and Gulf of Mexico.* Proctor, NS and Lynch, PJ. 2011. Yale University Press, ISBN: 978-030011328-0.
- 4) *Florida's Living Beaches.* Witherington, B. and Witherington, D. 2007. Pineapple Press, Inc. ISBN: 978-1-56164-386-8.

### **Academic Honesty:**

Please understand that I expect you to completely abide by the UCF Golden Rule (<http://goldenrule.sdes.ucf.edu>). Breaking the Golden Rule in **any** way, including cheating or intent to cheat on quizzes, submitting assignments that are not entirely your own work, or using materials borrowed from students from past classes, will result in an ZF in the course and your name will be immediately submitted to the UCF Disciplinary Action Committee. No plagiarizing, no copying on reports or other written/photo assignments, no exceptions. Turnitin.com or I-authenticate may be used at any time during the semester at my discretion.

### **Classroom Conduct and Attitude:**

I expect everyone will regularly participate in this class in a positive way. Disrupting the class, arriving late to class, rude behavior to the instructor or your colleagues, sleeping in class or during labs, cell phones ringing during class or speaking on a phone/texting/working on non-class materials on any electronic device during lecture/lab, or disobeying any class rules will cause you to lose class participation points at my discretion. If the disruption is excessive, the Biology Department Chair will be brought in to assist with the situation. Offering to drive vans, help load trucks, etc. may help you to gain participation points.

### **Grading:**

There will be no traditional hour exams or final exam in this class. There are 444 points for the semester with point distributions listed below. Grades for the semester will be awarded using the following +/- scale: A+ (100% or higher), A (92-99%), A- (90-91%), B+ (88-89%), B (82-87%), B- (80-81%), C+ (78-79%), C (72-77%), C- (70-71%), D+ (68-69%), D (62-67%), D- (60-61%), < 60% = F. If your point total rounds out to 0.5 or higher, you will receive the next higher grade. For example, an 89.45 = A-. There will be extra credit opportunities, but no additional curving of grades. If you decide to drop this course, please remember to officially withdrawal from the class before 11:59 PM on Friday, March 20, 2020. There are no NC or WP grades in this class. Assignments in class can only be made up if the absence is excused by Dr. Walters (written documentation required from medical, police, university activity). Grades will be available in class, on Webcourses and/or from instructor as soon as possible after assignments submitted.

Late assignments will be graded as follows (Saturdays included, Sundays excluded): deduct 50% for up to 24 hours late from the start of the class in which the assignment was due, and deduct 75% if 24-48 hr late. There will be no credit if submitted more than 48 hr late.

### **Participation Grade:**

To promote dialogue and class engagement, approximately 8% of your final grade (36 points) is based on participation. This grade is not based on simply showing up for class/lab and being distracted by your electronic devices or sitting/sleeping passively for 75 minutes. Doing this will get you 0 participation points. If you show up to class/lab, participate each day in a meaningful way, then you will receive all these points. If you occasionally participate, you will receive partial credit for participation. The GTA will track both engagement and participation, as needed. If you have any medical/social conditions that prevent you from fully participating in class discussions, these must be discussed with Dr. Walters within the first week of the semester so accommodations can be made.

### **Extra Credit:**

Extra credit opportunities will occur both in class and outside of instruction hours. These points will be added on to your point total before calculating the final percentage grade. In lecture, interesting and unexpected extra credit opportunities may arise (point values to be determined). Helping with field research or substantial marine-oriented community events outside of class time will earn you up to 5 points each time (maximum extra points for semester = 40 points, 9% of total points available). Going to marine-oriented scheduled seminars in Biology or other related events on campus will get you 1 point on each occurrence. Incorporating extra correct organisms in your photo-organism collection is another way to receive extra credit (up to 20 organisms for 20 extra points). There will be additional unique opportunities that will be announced during class.

### **Service-Learning in BSC 4312:**

BSC 4312 is a UCF sanctioned service-learning class. Students will spend a minimum of fifteen hours on our service-learning project – discussing your group research project with public school classes in Seminole/Orange Counties and/or the teaching classroom (PedsAcademy) at Nemours Children’s Hospital. This activity will address a need in our community, support our course objectives, involve a connection between the campus and the world around it, challenge students to be civically engaged, and involve structured student reflection. We will spend time reflecting on our service-learning experience through class conversations and written summaries. If any student has a valid objection to this service-learning project, he or she must state this to prior to the drop/add deadline so we can discuss options. Everyone going to a public school needs to register with school through their Dividends/Additions programs. If you have a non-stellar police record, we need to discuss this very soon. Everyone going to Nemours needs to provide documentation of a current flu shot (available at UCF Student Health Services).

## **Point Values for All Assignments (due dates):**

Please note that all assignments are due at the start of class/lab on the date listed. Late assignments will be graded as described above.

### **In-Class Participation**

**36 points (8% of grade)**

Described above under participation grade.

### **In-Class Quizzes**

**48 points (11% of grade)**

Expect there to be short in-class quizzes associated with many of the book and paper discussions on most Thursdays of the semester.

### **Short Essay Responses to Questions**

**48 points (11% of grade)**

Expect there to be short (500 words or less) essay responses to questions due at start of class on most Tuesdays of the semester. Topics will be shared in class the previous Thursday.

### **Resume/Curriculum Vita**

**12 points (3% of grade)**

Everyone needs to have ready to share as well as continuously update your cv (scientific resume). Through peer review and instructor feedback, we will strive to improve everyone's cv to make you all more marketable.

**January 14:** Draft due for peer review.

**January 15-17 at 3 PM:** Window for optional instructor/GTA feedback (no cvs will be accepted after this time for critique).

**January 21:** Final cv due for grade.

### **3-Slide, 3-Minute Talk**

**24 points (5% of grade)**

All class members will give a short, professional presentation in class on a marine-themed, peer-reviewed journal publication that was published in 2017 or later.

**January 21:** Presentation by giving 3-minute talks by PhD candidate Jen Loch.

**January 23:** Work one-on-one with Jessie on your presentation.

**January 28:** In-class presentations.

**January 30:** In-class presentations.

### **Individual Grant Proposal**

**36 points (8% of grade)**

We will use the grant proposal format for UCF Office of Undergraduate Research to craft a marine-themed grant proposal (approximately 3 pages, including budget). Marine-themed topics can range from subject of interest to you to your class research project to your current/planned individual marine research (as long as proposal not previously submitted to OUR).

**February 11:** Draft due for review.

**February 25:** Final due for grade.

### **Individual Florida Flora/Fauna Photo Collection**

**48 points (11% of grade)**

Provide photos of 48 identified organisms on ARC-GIS story mapping platform (minimum of 12 flora, 12 vertebrates, 12 invertebrates – the remaining 12 photos can be from any of these 3 taxa). Submit up to 20 correctly identified organisms for extra credit by same deadline.

**March 17:** Submit organism collection plus any extra credit organisms by noon to Jessie via email.

**Group Research Project**

**96 points (~21.5% of grade)**

Abstract due to me and to Office of Undergraduate Research on February 10 by 11:59 PM (group grade)

Poster due to me and for showcase on March 30 (group grade)

Reflection (individual grade)

Individual Participation Evaluation from self, professor, GTA and your peers (individual grade)

**Group Service-Learning Project**

**96 points (~21.5% of grade)**

Abstract due to me and to Office of Service-Learning on March 18 by 11:59 PM (group grade)  
Engagement materials activities for school, hospital or park - multiple deadlines throughout the semester (group grade)

Poster due to me and for Showcase on April 10 (group grade)

Reflection (individual grade)

Individual Participation Evaluation from self, professor, GTA and your peers (individual grade)

**Tentative Lecture Schedule (subject to change):**

Please note that the book discussions will be ongoing throughout the semester. We will start each discussion where we left off the previous date. Class will be provided with new chapters to read for each class.

January 7: Syllabus, Introduction to course.

January 9: Discussion of how to improve your curriculum vita, How to get a great reference letter, etc. Drop deadline by 11:59 PM.

**FRIDAY, January 10: Add deadline by 11:59 PM.**

January 14: Peer review of draft cv, Begin book discussion of “*Let Them Eat Shrimp*” (Introduction through page 28)

January 16: Class discussion

January 21: Submit final cv to Dr. Walters for grade, Class discussion with Jenn Loch on giving 3 slide, 3 minute presentations

January 23: Jessie will answer presentation questions one-on-one during this class time

January 28: In-class 3 slide, 3 minute presentations

January 30: In-class 3 slide, 3 minute presentations, Class discussion

February 4: Class discussion

February 6: Class discussion

**MONDAY, February 10: Abstracts due for SURE Research Showcase by 11:59 PM**

February 11: Presentation by Annie Roddenberry, FWC Biologist on her job and career

February 13: Indian River Lagoon Conference – all day, no class meeting. Space in van for class members to attend if interested.

February 18: Class discussion: Start book: “*DDT Wars*”

February 20: Class discussion

February 25: Class discussion, Final student grant proposal due.

February 27: Class discussion

March 3: Class discussion, Start book: *“Let Them Eat Krill”*

March 5: Class discussion

March 9 – 14: Spring Break! No class!

March 17: Photo-organism collection due, Class discussion

**WEDNESDAY, March 18: Abstracts due for Service-Learning Showcase by 11:59 PM**

March 19: Begin to practice for Service-Learning public school presentations

**FRIDAY, March 20: Withdrawal deadline by 11:59 PM**

March 24: Class discussion

March 26: Class discussion, conference preparations

**MONDAY, March 30: SURE Showcase for class projects (2:30 – 4:00 PM in Student Union)**

March 31: Class discussion

April 2: Class will attend individual project showcase for SURE – Poster Session 2

April 7: Prepare for Service-Learning Showcase

April 9: Final preparations for Service-Learning Showcase

**FRIDAY, April 10: Service-Learning Showcase, set up in early AM, 10:00 AM – 2:00 PM in Student Union**

April 14: Class discussion

April 16: Last class! Paper discussion.

April 26 (Thursday of finals week): Submit final deliverables (reflection, etc.) by 10 AM

**Laboratory:** Your laboratory grade is integrated into your final course grade; it is not a separate grade. Closed-toe shoes are required for all wet labs. Please expect to get wet and muddy in the field. Additional materials needed for field labs will be discussed as appropriate.

**Tentative Laboratory Schedule (subject to change, especially based on weather):**

All dates listed are Saturdays from 9 AM – noon unless otherwise stated. All labs are required if occur within this time window. Labs that run longer than this are optional, but must be discussed with Dr. Walters.

**January 11:** No lab

**January 18:** Boat tour of Mosquito Lagoon (depart UCF at 7:30 AM, return to campus by 1 PM)

**January 25:** Campus meeting with all project groups to get projects started

**February 1:** Tour and orientation at PedsAcademy, Nemours Children’s Hospital at Lake Nona (flu shot documentation required, send to Bethany.Fralish@ucf.edu)

**February 8:** Making oyster gabions for restoration and marsh tour at Marine Discovery Center in New Smyrna Beach (depart UCF at 7:30 AM, return to campus by noon)

**February 15:** Research cruise on R/V Hogarth out of St. Petersburg (depart UCF at 6:30 AM, return to campus by 5 PM)

**February 22:** Group project time

**February 29:** Group project time

**March 7:** Group project time

**March 14:** Spring Break

**March 21:** Help lead Living Shoreline Stabilization Event in Canaveral National Seashore (depart UCF at 7:00 AM, return to campus by 1 PM)

**March 28:** Poster prep. and practice for SURE Conference on Monday, March 30

**April 4:** Poster prep. for Service-Learning Showcase on April 10

**April 11:** No lab, work on finishing assignments

**April 18:** No lab, work on finishing assignments