

Wetland Ecology and Biogeochemistry
Spring 2022
PCB 4301C – 4 credit hours

Monday 10:30-11:20, HS1 272; Wednesday 10:30-2:20, BSFS 201

Instructor: Dr. Lisa Chambers

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Undergraduate Teaching Assistant: Katherine Johnsen

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Office Hours: Friday 11:00am-12:00pm or by appointment

Prerequisite: B or better in PCB 3044, or permission of instructor

Course Website: There may be multiple Webcourse pages created for this course. I will be posting all material on **PCB4301C-22Spring 0001** only.

Course description: This course will offer an in-depth examination of wetland habitats, ranging from freshwater to marine, with a focus on the intersection of the biotic and abiotic attributes that make these ecosystems unique. The role of wetlands in the broader context of global biogeochemical cycles, current research in wetland ecology and biogeochemistry, and hands-on field and laboratory research techniques will be introduced.

PCB 4301C is designated as a **Research-Intensive (RI) course**. This designation will be noted on your transcripts. Your active engagement in the research and/or creative scholarship process will be the core of your learning experience in this course. A significant portion of your grade for PCB 4301C will be derived from both your active participation in the research process and the tangible course-related project(s) that comes out of said project. If you have any questions about this designation, please ask your course instructor.

Course goals:

- Understand the physical, biological, and chemical processes that define a wetland ecosystem.
- Understand the ecological function of wetlands within the landscape and in relation to global biogeochemical cycles.
- Discuss human valuation of wetlands, ecosystem services, and current laws and policies affecting wetland protection.

- Evaluate the application of wetland ecology and biogeochemical principles for water quality improvement and global climate change mitigation.

Required Text: Mitsch, W.J. and J.G. Gosselink. 2007. *Wetlands*, 5th ed. John Wiley & Son, Inc., NY. *Recommended supplementary text:* Reddy, K.R. and R.D. DeLaune. 2008. *Biogeochemistry of Wetlands: Science and Applications*. CRC Press, Boca Raton.

All other reading materials will be provided for you on Webcourses.

Performance Evaluation:

Midterm Exam	20%
Final Exam	10%
Campus Wetland Research Project	50%
<i>(5% meeting group milestones, 20% group final product, 25% personal contribution)</i>	
Lab Assignments	20%
Total = 100%	

Exams: One mid-term exam and a final exam will be given. Both exams will be take-home and done outside of class. The final exam will include both new material and a comprehensive assessment of your knowledge from the course. Exams may include multiple choice, true/false, fill-in, short answer, and essay questions.

Lab Activities & Assignments: The scheduled laboratory meeting time will be used for a combination of class discussions, presentations, in-lab activities, field activities, and field trips. Each activity and field trip will include a written assignment **due the following Tuesday by 11:59pm**. **Attendance at labs is mandatory and there are no make-up labs.** If you must miss a lab, review the missed exam/assignment policy outlined below and discuss the circumstance with the instructor to evaluate if the absence will be excused. Excused lab absences will be dealt with on a case-by-case basis using replacement assignments or adjusting point distributions. Unexcused lab absences will result in a zero for the missed assignment. **Late lab assignments will be deducted 20% every day past the due date.**

Campus Wetland Research Project: The class will be divided into small groups (4-5 students) based on individual research interests. Each group will formulate a research question that can be investigated over the course of the semester utilizing wetlands located on UCF's main campus. General group topics will focus on: **water, soil, plants, animals, or ecosystem interactions**, but groups will have freedom to formulate their own ideas and hypotheses. Groups will be given limited time in-class to work on their research projects; the research project will also require considerable out-of-class time to complete. Each group will prepare and **present a poster at the Student Scholar Symposium on March 31st from 9:30-11:00am in the Student Union**. Although all group members will participate in the creation of the poster, only at least 1 member of each group is required to be present at the Symposium to present the poster publicly. At the conclusion of the semester, each group will submit 1 co-written research report on their project (including introduction, methods, results, and conclusions) and present their final data to the class as a 15-min research presentation.

Research groups are encouraged to meet and communicate regularly outside of class, as well as meet with the instructor, GTA, and/or UTA regularly about their questions and progress. **Group research projects will be facilitated by a series of 7 on-line videos detailing the various phases of the research process.** Students are encouraged to watch (and re-watch) these videos to help them progress and seek guidance as needed.

The grade for the group research projects will be unique to each student, as it will comprise a 50/50 combination of the quality of the products produced by the group as a whole (5% the group meeting of 5 milestones; 20% the quality of the final research poster, presentation, and report) and the contribution of each individual (25%, assessed with final self- and peer-evaluations of each individual's effort and quality of contribution).

Missed Exam/Assignment Policy: A make-up exam will be made available to students who are unable to complete the mid-term exam on-time due to an **excused absence** (see below for examples of excused absences). Due to logistical constraints, there are no make-up labs. If you must miss a lab and have a valid excuse, communicate directly with the instructor to determine the appropriate course of action (which may include, but not limited to, completing a modified lab assignment, or dropping that assignment from your final score calculation). The approach to missed labs will be determined on a case-by-case basis at the discretion of the instructor.

Valid reasons for excused absences include:

Pre-planned absences: Students who must miss an exam or assignment due to **official University business** at which your presence was required (e.g., a university-sponsored team event) or are absent in relation to a recognized **religious holiday or active duty military and/or National Guard deployment** will be considered excused. Additionally, students participating in pre-planned career development opportunities may also receive an excused absence, at the discretion of the instructor. The student is expected to inform the instructor of the scheduling conflict at the beginning of the semester, and absolutely no later than 1 week prior to the missed exam or assignment. Additionally, the student is required to provide documentation of the reason for the excused absence prior to it taking place. Appropriate forms of documentation can be determined through conversations with the instructor.

Unplanned absences: Students who must miss an exam or assignment due to **an emergency or major illness** are also eligible for an excused absence. A valid emergency, as defined by UCF and/or the instructor, may include, but are not limited to: major illness, serious family emergency, positive COVID test, mandatory quarantine, etc. The student is asked to contact the instructor promptly (within 24 hours or less, to the extent possible) after missing the scheduled exam or assignment and provide documentation (e.g., a signed document from a doctor, police officer, judge, positive COVID test, etc.) within one week of the scheduled exam for the student to be eligible for an excused absence.

COVID procedures: Students who believe they may have been exposed to COVID-19 or who test positive must contact UCF Student Health Services (407-823-2509) so proper contact tracing

procedures can take place. **Students should not come to class if they are ill, are experiencing any symptoms of COVID-19, or have tested positive for COVID-19.** Students should contact the instructor as soon as possible if they miss class for any illness to discuss reasonable adjustments that might need to be made. When possible, students should contact the instructor before missing class.

No make-up exams will be given for the final exam. Missing an exam or assignment for any reason that the instructor deems as **unexcused will result in a grade of zero** for that exam/assignment. Failure to meet the deadlines outline above for informing the instructor of your absence or providing appropriate documentation will result in a grade of zero.

Late Assignments: All deadlines are final. Late assignments will be deducted 20% for every day past the due date. Assignments will not be accepted on weekends or holidays. Once graded assignments have been returned or an answer key provided, any outstanding assignments will result in a grade of zero.

Grading Scale:

A	94-100%	B-	80-83%	D+	67-69%
A-	90-93%	C+	77-79%	D	64-66%
B+	87-89%	C	74-76%	D-	60-63%
B	84-86%	C-	70-73%	F	<60%

Grading and Evaluation: Students will be graded and evaluated based on the performance evaluation criteria outlined above. Students can access their current scores at any time using the **Grade Book function of Webcourses**. Final grades will be rounded to the nearest whole number. No adjustments will be made to final grades.

Classroom Conduct and Expectations:

- Class attendance and participation is expected. Lecture and lab will rely heavily on in-class discussion.
- When attending lectures, in-person office hours, or any other situation indoors where being in close proximity cannot be avoided, students are expected to wear a mask, regardless of vaccination status.
- During field outings, students are responsible for dressing appropriately and bringing along water, food, and any protective gear (hats, sunscreen, bug spray, etc.) they require.
- Students should keep up with assigned readings by completing them prior to the class in which they will be discussed. All students should be prepared to discuss and ask questions during class.
- You will be responsible for both materials presented in class and those materials assigned as readings (including textbook chapters, journal articles, etc.).
- **Cheating or plagiarism of ANY kind will not be tolerated.** The instructor will pursue disciplinary actions to the fullest extent possible, including (but not limited to) an automatic zero on any assignment in which cheating occurred.
- Students must be respectful and courteous to each other and the instructor at all times. Demeaning, abusive or otherwise foul language is prohibited.

- Talking on the cell phone (and cell phone ringing) is disruptive. All cell phones must be silenced before class begins. Do not make or receive calls during class under any circumstances. If you must use your phone, leave the classroom.
- Laptops are allowed in class for taking notes. Surfing the net, checking social media websites, or doing non-related work on a laptop during class is viewed as disrespectful and you will be asked to turn-off your computer or leave the class.

More on Academic Conduct:

Students are expected to follow UCF's standards for personal and academic conduct as defined and outlined in the Golden Rule (see: <http://goldenrule.sdes.ucf.edu>). Academic dishonesty in any form will not be tolerated. If you are uncertain as to what constitutes academic dishonesty, please consult The Golden Rule, the University of Central Florida's Student Handbook (<http://www.goldenrule.sdes.ucf.edu/>) for further details. As in all University courses, The Golden Rule Rules of Conduct will be applied. Violations of these rules will result in a record of the infraction being placed in your file and receiving a zero on the work in question AT A MINIMUM. At the instructor's discretion, you may also receive a failing grade for the course. Confirmation of such incidents can also result in expulsion from the University.

The current UCF policy concerning **incomplete grades** will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the "I" will automatically be recorded as an "F" on your transcript.

As of Fall 2014, all faculty members are required to document students' academic activity at the beginning of each course. In order to document that you began this course, we will document attendance during at least the first couple weeks of class. Failure to attend class will result in a delay in the disbursement of your financial aid and incur the wrath of the administrative bean counters.

Disability Access:

The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students who need accommodations must be registered with Student Disability Services, Ferrell Commons Room 185, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.