

WIS 4443C
Wetland Wildlife Ecology
4 Credits
Spring 2026
Hybrid, In-person/Online

Course Description:

The course is designed to provide students with a basic understanding of the terminology, history, and ecological concepts associated with wetland ecology and the wildlife species that are dependent on wetlands. To this end we will focus on answering the questions:

- What are wetlands?
- What make wetlands unique and important?
- What are the ecological processes that make them unique?
- How do we classify wetland types?
- What are the wildlife species most commonly associated with and dependent upon wetlands?
- How do we identify these wetland wildlife species?

Fieldtrips will be used to view different types of wetlands and the wildlife associated with them. Through in persons lectures, recorded lectures, fieldtrips, and discussions students will explore the integration of ecological principles with political and economic realities which are necessary for the management, restoration, and conservation of wetlands and the wildlife they support.

Student Learning Outcomes Lecture and Laboratory:

Following this course, a student should understand:

- The structure, function, and importance of major wetland types
- The types of animals that use wetlands; their abundance and distribution within and among wetlands; and their ecological roles and relationships
- Various management practices used in wetlands and challenges facing the future of wetlands

Following this course, a student should be able to identify and classify representatives of wetland wildlife groups (birds, amphibians, mammals).

Course Prerequisites: Ecology course or permission of instructor

Credit Hours:

This is a 4 credit “C” course, which means there is a lab associated with this course. Three credits of lecture equate up to three hours (150 min. + breaks) of contact time per week, and one credit of lab equates up to three hours of contact time per week. This totals 93 hours of contact time throughout the entire semester. We will have 3 hours of lectures per week, and lab hours will be distributed across Tuesday class periods (wildlife identification) and full day Saturday field labs (double lab periods). One or two of your lectures each week will be recorded with a required quiz. Additionally, for each

hour of contact time in class, the student is expected to spend at least 2-3 hours per week out of class for assignments, study time, and class/lab preparation, viewing videos.

Instructor:

Debbie Miller, Ph.D.
Office: 4906, Milton Campus
Office Phone: 850-983-7128
Cell phone: 850-240-2135
Email: dlmi@ufl.edu

Teaching Assistant:

Emile Sow
Office: 4803, Milton Campus
Telephone Office: (850) 983-7141
Cellphone: (352) 214-4205
E-mail: emile.sow@ufl.edu
Office hours: By appointment

Instructor Office Hours and Communication:

Anytime by cell phone and email. Or, in person or zoom Monday's 2-4 Or, by appointment.

I will available Monday's 9-11 unless I am traveling. I have an open-door policy but to make sure I'm available call or make an appointment. When I'm not available in the office cell phone calls are welcomed. Don't hesitate to call and leave a message if you get my voicemail – I will get back to you as soon as possible.

The preferred method of communication is by Canvas email. Gina or I will respond within 48 hours. For technical issues and questions regarding the navigation and use of Canvas: Contact the UF Help Desk online at helpdesk@ufl.edu or by phone (352) 392-HELP – select option 2. On occasion, we will send an email via Canvas regarding updates to the syllabus, clarifications of assignments, or changes in due dates. You should be checking your email on a regular basis.

Textbooks: No text required but several resources recommended

Highly Recommended: Priceless Florida (Natural Ecosystems and Native Species)
Ellie Whitney, D. Bruce Means, and Anne Rudloe

Highly Recommended: A field guide for bird identification.

Field guide recommendations:

National Geographic Society, 1987. Field Guide to the Birds of North America.
Robbins et al., 1983. Birds of North America: A Guide to Field Identification.

Highly Recommended: WETLANDS, 5th Edition

William J. Mitsch and James G. Gosselink

Lecture and Lab:

Tuesday. 5 – 8 pm Central, Building 4800, Room 4822

Lecture and Lab are integrated in this class, and you receive a single grade which reflects both lab and lecture material. Most weeks (unless otherwise notified) you will spend the first 30 minutes to 1 hour of class time in “lab” learning to identify wetland wildlife including waterfowl, water birds and amphibians. An in-person laboratory quiz will be given at the beginning of each class. The laboratory quiz will cover identification of wildlife species and characteristics used in classification and identification.

As much as one hour of lecture material will be recorded and available through canvas. Lecture recordings (where applicable) will be posted for each week in the respective Module in Canvas. A weekly quiz covering material in lecture recordings will be given in class each week. Mandatory class meetings will occur on Tuesdays at 5:00 – 8:00 pm (Central) to discuss additional lecture material and/or conduct outdoor mini labs and to complete weekly lecture material quizzes.

Students are expected to actively participate during the class meetings. Be prepared to answer questions, and work on group activities. Where applicable, students must watch the recorded lectures before class on Tuesdays at 5 PM (Central) and be prepared for in class quiz.

Mandatory field labs will occur off-campus on Saturdays throughout the semester (see Schedule below for dates) to reinforce and strengthen the concepts learned in class through hands-on activities. The field labs will be conducted at several locations off-campus. Whenever field (outdoor) labs are scheduled, wear appropriate clothing (long pants and sturdy shoes) and bring water, sunscreen, and insect spray. Also, be prepared to take notes (clipboard, pen, and paper, or audio recorder) and pictures (if you have a camera). Outdoor lab work is conducted as scheduled regardless of weather conditions. Never assume lab is canceled. **FIELDTRIP ATTENDANCE IS MANDATORY. Make-up lab assignments will only be allowed for preapproved, excused absences (i.e. sickness, family tragedy etc.). Make up assignment will be a 10 page paper appropriate to the missed lab and assigned by the instructor.**

Friday and Saturday Fieldtrips:

- 3 - 4 full day field trips
- Short fieldtrips may also occur during Tuesday night class hours.

Class Notes:

Available on e-learning - Canvas

Laboratory slides and Power Point slides for wildlife identification also available on E-learning; Print outs will not be provided. You must print your own set of lecture notes and Power Point slides.

Evaluation:

To be able to access how well we achieve our goals and objectives; several evaluation methods will be used. Because students vary in the evaluation tools that best demonstrate their knowledge and understanding my assessment will be based on test scores (test will include both multiple choice, short answer and long answer questions),

participation in discussions and field experiences, and written synthesis of field exercises.

Grades and Grade Points

Letter grades will be assigned as follows:

<i>Letter Grade</i>	<i>Numeric Value</i>
A	93.00-100.00
A-	90.00-92.99
B+	86.00-89.99
B	83.00-85.99
B-	80.00-82.99
C+	76.00-79.99
C	73.00-75.99
C-	70.00-72.99
D+	66.00-69.99
D	63.00-65.99
D-	60.00-62.99
E	<59.99

For information on current UF policies for assigning grade points, see <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Points:

Lecture Exams: 200

(2 @ 100 pts each)

Final exam: 100

(Not comprehensive)

In-Class Participation: 25

Not just attendance but participation

Class Exercise and Presentation: 75

Management plan and presentation.

See class exercise attached for details.

Laboratory Quizzes: 100

(11 @ 10 pts each. Lowest quiz score dropped)

Online Quizzes lectures: 50

(10-11 @ 5 pts each)

Field Trips: 150

- **10 points** for each field trip for attendance and participation
- **110 points** total for field trip write-ups; details will be provided at the time of each fieldtrip.

Total Points: 700 points

Late Work Policy

Most assignments and quizzes are turned in electronically via Canvas. Refer to the syllabus schedule or Canvas assignments tab for due dates and times. Without an excused absence, students will not have the option to complete a quiz after the established close date/time. Late work will be penalized 10% for the first day and 5% per day thereafter (weekend days count too!).

Make-up exams will be given only when circumstances beyond a student's control (e.g., illness) are reported and when possible documented (e.g., doctors note). I should be notified of your circumstance before the exam or immediately after the exam. Arrangements for a make-up exam should be made at that time. The make-up exam should be taken **no later than 1 week** after the initial exam unless valid scheduling conflicts make this impossible.

Fieldtrips are **REQUIRED**. If a circumstance beyond your control occurs, you must let me know immediately (before the trip is preferred). The optional assignment (generally an 8-10-page paper on a subject that I feel best substitutes for the field trip) can be used as a makeup for a missed fieldtrip only with my permission (contingent on legitimate excuse for missing required fieldtrip). Write-ups from fieldtrips will be due 1.5 weeks after the trip (the second-class period) unless otherwise indicated.

Attendance and Make-Up Work

Requirements for class attendance and make-up exams, assignments and other work are consistent with university policies that can be found at:
<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>.

Academic Policies and Resources

Academic policies for this course are consistent with university policies. See <https://syllabus.ufl.edu/syllabus-policy/uf-syllabus-policy-links/>

Campus Health and Wellness Resources

Visit <https://one.uf.edu/whole-gator/topics> for resources that are designed to help you thrive physically, mentally, and emotionally at UF.

Please contact [UMatterWeCare](#) for additional and immediate support.

Software Use:

All faculty, staff and students of the university are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against university policies and rules, disciplinary action will be taken as appropriate.

Student Life, Wellness, and Counseling Help

Students experiencing crises or personal problems that interfere with their general wellbeing are encouraged to utilize the university's counseling resources. UF CALS

offers direct mental health counseling FREE OF CHARGE for students at distance locations (REC's) through an embedded counselor – Dr. Philip Daniels. He has a welcome video which can be viewed here: [Dr. Daniels Welcome Video](#). If you are a student at a UF/IFAS Research and Education Center, you will be directed to Dr. Daniels for consultation and referral services. Email communication has limited confidentiality and is reserved for scheduling, pdaniels@ufl.edu if you are in need of an appointment, please email or call Dr. Daniels directly (352) 392-1575.

Student Complaints:

- Residential Course: <https://sccr.dso.ufl.edu/policies/student-honor-code-studentconduct-code/>.
- Online Course: <http://www.distance.ufl.edu/student-complaint-process>

In-Class Recording:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

Laboratory Schedule

Week 1	Introduction, Waterfowl Identification
Week 2	QUIZ 1 Waterfowl Identification, in person
Week 3	QUIZ 2 Waterfowl Identification, in person
Week 4	QUIZ 3 Waterfowl Identification, in person
TBA – last weekend in January or first weekend in February	FIELD TRIP – St. Marks and Wakulla Read: Priceless Florida, Ch. 11, 13, 14, 16-19 before the trip.

Week 5	QUIZ 4 Waterfowl Identification, in person
Week 6	QUIZ 5 Waterfowl Identification, in person
Week 7	No Lab – Exam 1 Write-up St. Mark's and Wakulla due Feb. 24 at 5 PM
Week 8	QUIZ 6 Waterfowl & Waterbird Identification, in person
TBA Saturday	FIELD TRIP – Wetland Delineation
Week 9	QUIZ 7 Waterbird Identification, in person
Week 10	SPRING BREAK
Week 11	QUIZ 8 Waterbird & Amphibian Identification, in person Write-up Wetland Delineation due March 24 at 5 PM
TBA Saturday	FIELD TRIP – Area Wetlands
Week 12	QUIZ 9 Amphibian Identification, in person
Week 13	No Lab – Exam 2
Week 14	QUIZ 10 Amphibian Identification, in person Write-up Area Wetlands due April 14 at 5 PM
TBA Saturday	FIELD TRIP - Mobile Bay
Week 15	QUIZ 11 Amphibian & Reptile Identification, in person Write up for Mobile Bay due April 23 at 5 PM

General Lecture Overview

Date	Topic	Readings Wetlands	Readings Priceless Florida
Week 1	Syllabus and Waterfowl		
Week 2	Wetland Introduction and History; Review of Ecological Terms	Ch. 1	
Week 3	Wetland Definition; Wetland Types and Classification - Tidal Wetlands	Ch. 2, 3 (p. 48-67), 8,13 (p. 455-464)	Ch. 8,16,18
	<i>Recorded lecture</i> Lecture Quiz 1 In class		
Week 4	Wetland Status and Human Impacts; Wetland Types and Classification – Inland Wetlands	Ch. 14,15,16	Ch. 9,11, 12,13,14
	<i>Recorded lecture</i> Lecture Quiz 2 In class		
Week 5	Coastal Wetland Development and Loss; Wetland Birds - General	Ch. 14,15,16	
	<i>Recorded lecture</i> Lecture Quiz 3 In class		
Week 6	Ecosystem Services and Wetland Values; Delineation Concepts; Waterfowl Review	Ch. 16	
	<i>Recorded lecture</i> Lecture Quiz 4 in class Subject for class exercise due Feb. 17 at 5 PM		
Week 7	Exam 1 St. Marks & Wakulla Write-up due Feb. 23 at 5 PM		
Week 8	Wading Birds; Wetland Soils	Ch. 5	
	<i>Recorded lecture</i> Online lecture Quiz 5 in class		
Week 9	Shorebirds; Hydrology Parts 1 & 2	Ch. 4	
	<i>Recorded lecture</i> Lecture Quiz 6 Lecture Quiz 7 Literature review for class exercise due March 10 at 5 PM		

Date	Topic	Readings Wetlands	Readings Priceless Florida
Week 10	SPRING BREAK		
Week 11	Wetland Presentations Wetland Delineation Write-up due March 24 at 5 PM		
Week 12	Wetland Biogeochemistry	Ch. 6	
	<i>Recorded lecture</i> Lecture Quiz 8 in class		
Week 13	Exam 2 – April 2		
Week 14	Wetland Development Succession		
	<i>Recorded lecture</i> Lecture Quiz 9 in class Write-up Area Wetlands due April 14 at 5 PM		
Week 15	Plant Adaptations; Amphibians Mammals	Ch. 7	Ch. 9,10,11
	<i>Recorded lecture</i> Quiz Class exercise/written management plan due April 14 at 5 PM Write up for Mobile Bay due April 22 at 5 PM		
Week 16			
	FINAL EXAM – April 28 on material since Exam 2		

Wetland Wildlife Ecology
Class Exercise
Spring 2026

Work in groups of two. Choose a wetland or a complex of wetlands, a famous wetland in the world or this country... **(local wetlands excluded and the everglades are excluded)**. Prepare a written **management plan** for that wetland. **Your plan should not exceed 10 pages double spaced.**

- Describe and classify the wetlands and the main species of both plant and animals present. Describe the general ecology of the wetland (i.e., hydrology, geomorphology, disturbances, etc.)
- Provide objectives for the management of this wetland.
- Provide justification for the type of management you have chosen. Include any negative impacts that might occur as results of your management strategy.

Make sure to include any special management that is already being utilized or suggested to increase or decrease numbers of species of special interest. **Remember maintaining or restoration of ecosystem function may also be one of the management objectives. Also include why you want to increase, decrease or maintain the population size of these species for your area of this plan.**

- You **MUST have at least two references.**
- **You MUST** use at least one article from a refereed Journal such as the Journal of Wildlife Management, Ecology etc. as a reference **or** Gray literature such as a Master thesis, Dissertation or report made to various organizations. Journals are available online or in the Milton library and the library at the University of West Florida.
- See the Teaching Assistant about performing an online search of databases and interlibrary loan.
- **Provide a literature cited section** with all references correctly formatted. Use the format of a published article's literature cited section from a wildlife or ecology journal as a template for your literature cited.
- **MAKE YOUR LIBRARY LOANS EARLY OR DON' T EXPECT TO RECEIVE YOUR LITERATURE IN TIME**
- Your choice should be cleared with me by **February 13, 2024** (the sooner the better). You must have a preliminary literature cited before **March 1, 2024.**
- **You will give a 10-15 minute presentation (one per group. Consider using PowerPoint, provide handouts) about your report to the class the week after spring break (Week 11; March 24).**
- Written reports will be due **April 14, 2024.**