

WFS 340
Wetlands Ecology and Management
Fall 2018

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Required Readings: Handed out in class or emailed.

Recommended Text: Wetlands, 2007, 4th edition (ISBN 978-0-471-69967-5) *or*
Wetlands, 2000, 3rd edition (ISBN 0-471-29232-X)

Authors: William J. Mitsch and James G. Gosselink

Course Goal: To expose students to the basic principles of wetland ecology and management via class lectures, labs, and field experiences.

Course Topics:

- Waterbird and Anuran ID
- Federal Definition of a Wetland
- Wetland Classification (USFWS Protocol)
- Annual Cycle Needs of Waterfowl
- Wetland Management (agriculture, moist-soil, and green-tree reservoirs)
- Waterfowl Carrying Capacity (duck-energy days, DED) Estimation
- Waterfowl Surveys and Regulations
- Wetland Restoration and Conservation Programs
- Wetland Values and Human Impacts (time permitting; possible MP4)

Required Materials: Field Clothes, Hiking Boots, Knee boots or Waders (one person per group), Raingear, Camping Gear, Calculator (for lecture exam and DED lab), Laptop

Weights of Academic Assessments and Grading Scale:

The lecture exam, lab practicum, DED lab exercise, and participation (field trip attendance) will be weighted as follows:

- Lecture Exam: 25% (**Monday, 3 December 2018** at 9:00 am)
- Lab Practicum: 25% (**Monday, 19 November 2018** at 9:00 am)
- DED Lab Exercise: 5% (**Tuesday, 20 November 2018**)
- Management Plan: 35% (due **Thursday, 6 December 2018** by 5:00 pm)
- Participation: 10% (see page 2)

Your course grade will be determined using the following straight¹ scale:

Grade	Final Weighted Percent		Grade	Final Weighted Percent
A	90–100%		C	70–76%
B+	87–89%		D	60–69%
B	80–86%		F	<60%
C+	77–79%			

¹Exams and assignments will not be curved.

Attendance:

Attendance is required during the TAMP Workshop (1%), Wetland Surveying Lab (1%), and the field trip to Lick Creek Bottoms WMA (2% of final grade). The field trip to Mississippi is 6% (1.5% for each ½ day; 28-29 Nov) for a total of 10% of your final grade. If you do not go to Mississippi, you will be required to: (1) complete an individual (not group) management plan on a fictitious site (25%), (2) complete an additional DED assignment (10%), and (3) volunteer at Lick Creek WMA (waterfowl check station) one day (6% participation; 24 Nov, 1 Dec, or 8 Dec). Attendance at other lectures is not mandatory but strongly recommended.

Tentative Schedule:

12 Nov – 3 Dec (lecture, labs, and tests)*

27 – 30 Nov (field trip to Mississippi)**

*Meeting time is 8:00–12:00 and 1:00–5:00 daily (unless indicated otherwise) in **260 Brehm Animal Science** on 13, 19, and 20 Nov and 3 Dec, and in **156/157 PBB** on 12 and 21 Nov and for the lab practicum (19 Nov). The DED lab (20 Nov) will be in **114 Ellington**.

12 – 16 November:

	Monday	Tuesday	Wed	Thursday	Friday
Morning	What is a wetland? USFWS Wetland Classification (Gray; 8:15 am to noon) (156/157 PBB)	Waterbird ID and Wing Characteristics (Graves; 8 – 11 am, 260 Brehm)	FWF 415: Upland Habitat Management		
Afternoon	Annual cycle of wetland wildlife Wetland Management (moist-soil management; Gray, 1 – 4 pm)	TAMP Workshop (12 – 5:00 pm, <i>B. English</i>) Waterbird ID – continued if needed (Chris)			

19 – 23 November:

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	LAB PRACTICUM (9:00–10:30) (156/157 PBB) – Waterbird and Anuran ID	Capacity Estimation (Gray; 8–10 am; 260 Brehm) DED Lab and Exercise (10:30 am –12:30 pm; 114 Ellington)	Waterfowl Surveys and Regulations (Graves; 8:00 am) (156/157 PBB)	Thanksgiving Holiday – NO CLASS	
Afternoon	Surveying Wetlands – Lab (<i>A. Ludwig</i> ; 11:30 am – 2:00, 260 Brehm and UT Gardens) Wetland Management (agriculture, GTRs; 2:30–5 pm, 260 Brehm) – Gray	Wetland Management Plan Discussion (2 – 5 pm; Gray; 260 Brehm) Wetland Values and Threats (time permitting)	Wetland Restoration & Conservation Programs (Graves; finish by 4:00 pm)		

26 – 30 November:

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	Lick Creek Bottoms WMA	Leave for Noxubee NWR (8:00 am)	Noxubee NWR (wetland management: waterfowl capture; moist-soil, GTRs, field reconnaissance for management plans, hunting)	Noxubee NWR (non-game management: RCWs, bats, squirrels)	Leave Noxubee NWR at 9:00 a.m. and return to Knoxville by 5:00 p.m.
Afternoon	Field Trip (8:00 am) – return before 5 pm	Set-up Camp, Visit Briefly with Refuge Staff		**Mist netting at night for owls**	

3 –7 December:

	Monday	Tuesday	Wednesday	Thursday	Friday
Morning	LECTURE EXAM (9:00–11:00) (260 Brehm)	Work on Management Plans		MANAGEMENT PLANS DUE BY 5:00 PM	Fall Camp is Over – you can volunteer through Sunday, 9 Dec for WFS 340 extra credit.
Afternoon	MANAGEMENT PLAN MEETINGS (1:00–5:00) (260 Brehm)				

Extra Credit:

Volunteer: You can positively influence your grade as much as **4.5%** by volunteering for extra credit. Your volunteer work must be related to wildlife ecology. For every **8 hours** of volunteer work, your final grade will be increased by **1.5%** up to 4.5% (24 hours total). All volunteering must be completed before **Monday, 10 December 2018**. A volunteer form (see website) must be filled out by the supervising individual and submitted to Dr. Gray.

Video Competition: You can positively influence your grade up to 4% by creating a ≤ 5 -min video that highlights experiences in WFS 340 (class, lab, and field). Videos must be in MP4 format and submitted to mgray11@utk.edu and cgraves2@utk.edu using UTK Vault (<https://vault.utk.edu>) no later than **Monday, 10 December 2018**. You must agree that your video can be posted via social media if selected. Some examples of videos are on the WFS 340 website. Up to three students can work on and submit a video together. Dr. Gray, Chris and some graduate students will evaluate the videos, and the final grade of the students submitting 1st and 2nd place videos will be increased by **4%** and **2%**, respectively. Video submissions not receiving 1st or 2nd place will receive **1%**.

Course Evaluation: Submit a course evaluation via TNVoice and email a screenshot to Dr. Gray showing completion of the WFS 340 evaluation before **midnight, Wednesday, 5 December**. Please label the screenshot file as “CourseEvaluation_LASTNAME”. The screenshot needs to show your name in the image. Your final grade will be increased by **0.5%**.

GENERAL POLICIES

Testing Policy:

Make-up exams and practicums will **not** be given without a *bona fide* written and signed excuse from a vouching authority (e.g., physician, funeral announcement). The telephone number of the vouching individual must be provided with the written explanation. All tests and assignments are required.

Academic Misconduct: Group learning and studying is encouraged; however, academic misconduct on tests or assignments will not be tolerated and result in immediate dismissal from and failure of the course. For the management plan, you are not allowed to share DED calculations or proposed management strategies among groups.

Learning Distractions: Please turn cell phones on silent prior to class and lab.

Accommodation:

Any student who, because of a disability, may require some special arrangements in order to meet course requirements should contact the instructor as soon as possible to make such accommodations as may be necessary.

Religious Holy Day Observance:

A student who is absent from classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence IF, not later than the FIFTEENTH day after the first day of the semester (i.e., 09/06/18), the student had notified the instructor of each scheduled class that the student would be absent for a religious holy day.