

Birds & Mammals, ZOOL 4478

Spring Semester, 2023

Lecture: Tues & Thurs from 10:30 am - 11:50 am,

Room: Undergraduate Learning Center 334

Lab: Thurs from 1:30-4:20 pm, Biology Building B206

Instructor: Dr. Philip Lavretsky

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Office hours: TBD or by appointment

Teaching Assistant: Kristi Fukunaga

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Office hours: TBD or by appointment

THERE IS NO REQUIRED TEXT

Supplemental Text:

Birds:

(a) Frank B. Gill, 2006. *Ornithology*, 3rd edition. W. H. Freeman

(b) Peterson & Peterson. 2008. *Peterson Field Guide to Birds of North America* (Peterson Field Guides), Paperback – August 28, 2008 by Roger Tory Peterson (Author), Lee Allen Peterson (Foreword)

Mammals:

(a) Feldhammer et al., 2007. *Mammalogy: Adaptation, Diversity, and Ecology*, 3rd edition. McGraw-Hill.

(b) Vaughan et al. 2000. *Mammalogy*, 4th edition. Brooks/Cole.

(c) Fiona Reid. 2006. *Peterson Field Guide to Mammals of North America*, 4th Edition. Peterson Field Guides.

Internet Resources:

Birds:

<https://www.allaboutbirds.org/guide/search/> – This is a great resource to search any bird and get all information about those birds.

<https://academy.allaboutbirds.org/features/birdanatomy/> – Great resource from the Cornell Lab that allows you to really learn avian morphology. Let's you use it as a flashcard game...good luck!

<https://www.mbr-pwrc.usgs.gov/bbs/trend/birdquiz.html> – Great game from Patuxent to test your bird ID skills!

<https://flyways.us/duck-identification-resources> – Great Patuxent resource for waterfowl ID.

<https://nationalzoo.si.edu/scbi/migratorybirds/education/learn-about-birds.cfm> – Smithsonian resources to learn about birds.

Mammals:

<http://animaldiversity.ummz.umich.edu/site/accounts/information/Mammalia.html> – This is an *amazing* source of information made available through the University of Michigan Museum of Zoology. Information available includes detailed photographs of skeletal anatomy (including rotating skulls), life history data from many species, notes on conservation of many species, etc

<http://www.bucknell.edu/msw3/> – On-line version of *Mammal Species of the World, 3rd Ed.* This is the latest (2005) checklist of all mammalian species, by Don Wilson and DeeAnn Reeder.

<http://1kai.dokkyomed.ac.jp/mammal/en/mammal.html> – This site has excellent photographs of many mammal crania.

Course Description:

Zoology 4478 is a general introduction to birds and mammals, including material on their characteristics, evolutionary history, morphology, behavior, and adaptation to varied "lifestyles." The course consists of 3 hours of lecture and 3 hours of laboratory work per week. In labs, students will learn taxonomy and key morphological aspects of the major avian and mammal clades.

There are 4 lecture exams and 2 lab practical's. Major lecture exams will be given at approximately 4-week intervals, with announcement at least 1 week in advance. Each lecture exam will cover information of the previous ~4 weeks of materials. The Lab will also have assignments, including in-class participation.

Grading:

Lecture Exam 1	100 pts (12.5%)
Lecture Exam 2	100 pts (12.5%)
Lecture Exam 3	100 pts (12.5%)
Lecture Exam 4	100 pts (12.5%)
Lab Practical (Birds) 1	100 pts (12.5%)
Lab Practical (Mammals) 2	100 pts (12.5%)
Lab Assignments	100 pts (12.5%)
<u>In-class Participation</u>	<u>100 pts (12.5%)</u>
Total for students:	800 pts

Grades will be assigned as: 90+% = A, 80-89% = B, 70-79% = C, 60-69% = D, <60% = F.

Lecture Exams (50%):

There will be 4 100-pt exams. Each exam will cover 4-5 weeks of material. **Exams will each consist of true/false, multiple choice, and short answer. You need to know the lecture material to complete this exam in the allotted time.**

Lab Practical Exams (25%):

There are two lab practical's covering information surrounding any and all aspects in either the birds or mammals lab, respectively. Labs will cover taxonomy and morphological aspects of major clades.

Practicals will each consist of true/false, multiple choice, and short answer. You need to know the lab material to complete this exam in the allotted time.

Lab Assignments (12.5%):

Each lab will have assignments with questions regarding that days information, which will be due the following lab day. There are also two project assignments where students will need to pick one bird and mammal specific to the Chihuahua desert to write a species account page (details to follow). An individual field catalog will also be assigned, in which students are expected to go outside anywhere in the Chihuahuan Desert (Tom Mays State Park is highly recommended), and keep an account of birds, mammal tracks/scat, and any mammal observations. You may go in a group to help identify animals, but the catalog must be turned in individually, with your own photographs and/or drawings.

Participation (12.5%):

You are expected to participate, especially during group discussions following student presentations. Additionally, students are expected to follow and complete computational lab protocols as we work through different programs.

Missed Due Date(s) Policy:

If you miss quizzes or assignments due to illness or death of a family member or close friend, you must (1) notify me prior to the exam (in exceptional cases, I will wave this requirement) and (2) provide an official record of a visit to the doctor or an obituary. Otherwise, you will earn zero points for the missed quizzes/assignments.

Academic Integrity:

Cheating or plagiarism will not be tolerated. The university gives students and faculty guidelines on how to deal with violations of academic integrity, which we expect you to follow and I will follow myself (you can read them at <http://sa.utep.edu/osccr/academic-integrity/>). This policy exists to level the playing field for all students and not give the few cheaters an unfair advantage over the vast majority of students, who are hard-working and honest. Copying from a peer is easy to detect and will be considered as plagiarism.

Special needs and circumstances:

If you need any special accommodations please let me know at the beginning of the class and/or register with the [Center for Accommodations and Support Services](#). Also, if you run into personal problems beyond your control, please let me know before missing a deadline etc. I will try to be accommodating and understanding. Letting me know about problems after you missed a deadline or failed an assignment usually suggests that you are making an excuse. For the official policies on academic integrity and scholastic dishonesty, please refer to [Handbook of Operating Procedures](#).

Campus Carry: Persons holding a Concealed Handgun License can lawfully carry their handgun into a UTEP classroom as long as the gun remains concealed. Open carry remains prohibited on campus. In other words, none of us should see (or be able to tell that there is) a gun at UTEP. [Call the University Police at 747-5611 or dial 911 if you see any individual on campus with a handgun or other type of weapon.](#) For more information on campus carry, see [<http://sa.utep.edu/campuscarry/>]; for more information on overall campus safety, see [<http://admin.utep.edu/emergency/>].

Important School Dates:

March 13-17 Spring Break

March 30th (last day to withdraw)

March 31st (Cesar Chavez – NO SCHOOL)

April 14th – NO CLASSES (Spring Break)

May 5th – DEAD DAY

	Date	Day	Lecture/Lab Topic
WEEK 1	17-Jan	<i>Tues</i>	NO LECTURE CLASS
	19-Jan	Thurs	Introduction & Background Information
	19-Jan	Thurs (LAB)	NO LAB
WEEK 2	24-Jan	<i>Tues</i>	Speciation & Pop Gen Background + Evolutionary History of Birds
	26-Jan	Thurs	Systematics I
	26-Jan	Thurs (LAB)	Introduction to Biological Collections & Working with the Biological Collections (with Dr. Zang); lab safety; how to study for practical exams
WEEK 3	31-Jan	<i>Tues</i>	Systematics II
	2-Feb	Thurs	Form & Function I
	2-Feb	Thurs (LAB)	Identification of Representative Taxa (Anseriformes-Gruiformes); Bird Skeletal Morphology; Putting bird skeletons together for UTEP biodiversity collections
WEEK 4	7-Feb	<i>Tues</i>	Form & Function II
	9-Feb	Thurs	Avian Life History Traits & Migration
	9-Feb	Thurs (LAB)	How to keep a field catalog; Identification of Representative Taxa (Charadriiformes-Psittaciformes), Go outside and identify birds around campus; Keep working character cards]
WEEK 5	14-Feb	<i>Tues</i>	EXAM I
	16-Feb	Thurs	Mating Systems I
	16-Feb	Thurs (LAB)	Identification of Representative Taxa (Apodiformes-Suliformes); Character Lab: making character flash cards; Building and interpreting a phylogeny
WEEK 6	21-Feb	<i>Tues</i>	Mating Systems II
	23-Feb	Thurs	Behavior and Communication
	23-Feb	Thurs (LAB)	Identification of Representative Taxa (Passeriformes) Birds Module; Bird Account due
WEEK 7	28-Feb	<i>Tues</i>	Avian Conservation
	2-March	Thurs	Introduction to Waterfowl & Review
	2-March	Thurs (LAB)	Capture and monitoring techniques used for birds in the field, review of specimens for bird practical (Bring a phone/laptop/tablet for Kahoot quizzes to review)
WEEK 8	7-March	<i>Tues</i>	EXAM II
	9-March	Thurs	Introduction to Mammals: Mammalian Origins
	9-March	Thurs (LAB)	LAB PRACTICAL I: BIRDS
WEEK 9	14-March	<i>Tues</i>	SPRING BREAK - NO CLASSES
	16-March	Thurs	SPRING BREAK - NO CLASSES
	16-March	Thurs (LAB)	SPRING BREAK - NO CLASSES
WEEK 10	21-March	<i>Tues</i>	Characteristics of Mammals
	23-March	Thurs	Mammalian Classification I
	23-March	Thurs (LAB)	Mammals: Marsupials – Eutherian Mammals [Mammalian order characteristic flashcards]
WEEK 11	28-March	<i>Tues</i>	Mammalian Classification II
	30-March	Thurs	Mammalian Classification III
	30-March	Thurs (LAB)	Mammalian Anatomy; Bone identification; Tracks and scat identification

WEEK 12	4-April	<i>Tues</i>	Mammalian Classification IV-V
	6-April	Thurs	NO LECTURE CLASS
	6-April	Thurs (LAB)	Mammalian Module
WEEK 13	11-April	<i>Tues</i>	Mammalian Form & Function I: Integument, support, Movement, & Biological Rhythms
	13-April	Thurs	EXAM III
	13-April	Thurs (LAB)	Mammal Diversity and Identification ; practice setting up a camera trap outside; Field Catalog Due
WEEK 14	18-April	<i>Tues</i>	Mammalian Form & Function II : Modes Of Feeding & Environmental Adaptions
	20-April	Thurs	Mammalian Reproduction
	20-April	Thurs (LAB)	Mammal Diversity and Identification [Mammalian order characteristic flashcards]; Mammal Account Due
WEEK 15	25-April	<i>Tues</i>	Mammalian Behavior & Ecology I
	27-April	Thurs	Mammalian Behavior & Ecology II
	27-April	Thurs (LAB)	Capture and monitoring techniques used for mammals in the field; review of specimens for mammal practical (Bring a phone/laptop/tablet for Kahoot quizzes to review)
WEEK 16	2-May	<i>Tues</i>	Domestication & Mammal Conservation & Review
	4-May	Thurs	EXAM IV
	4-May	Thurs (LAB)	LAB PRACTICAL II: Mammals