

Lecture M,W,F 8:30-9:20
 Laboratory Tu 8:00-10:45 (earlier as the sunrise dictates)
 MS 124 (back lab room)

Professor: Dr. Scott A. Kimball
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 Office: Boyd Science Center, Mulvane 229
 Office hours: M,W,F 9:30-12:30, or by appointment



Course Description:

This course covers the biology of birds, including their classification, physiology, behavior, ecology, evolution, and speciation. The field identification of local species is emphasized. This course is recommended as an elective for Biology majors, teachers, and anyone seriously interested in birds. There are three lecture sessions and one laboratory field session each week. *Prerequisites: BI 254.*

Required Texts:

- Lecture Text: *Gill and Prum. 2019. Ornithology, 4th Ed. WH Freeman and Co., New York, NY. ISBN 9781464184369.*
- Lab Manual: *Exercises available online on Moodle*
- field notebook – *Rite in the Rain*® Metric Field Notebook N^o 363 (4⁵/₈ in x 7 in)
- field guide – choose your favorite, but the following are some excellent choices:
 - “The Sibley Guide to Birds” 2nd Ed.
 - or the smaller version “The Sibley Field Guide to Birds of Eastern North America”
 - National Geographic “Field Guide to the Birds of North America”, 5th Ed.
 - “Peterson Field Guide to Birds of North America”
 - or the smaller version “Peterson Field Guide to Birds of Eastern and Central North America”, 6th Ed.

Course Objectives:

Students completing this course should be able to:

- Describe the evolutionary origins of birds.
- Describe the evolutionary relationships among extant avian taxa.
- Identify common local species of birds in their natural habitats by sight and sound.
- Identify and explain anatomical features unique to birds.
- Explain unique avian physiological adaptations.
- Describe the evolutionary and anatomical basis for avian communication.
- Describe the population dynamics and life histories of birds.
- Describe the ecological relationships among birds and their environments.
- Explain common conservation issues related to birds and their habitats.
- Utilize common field equipment and sampling protocols for avian field research.

Grading:

The final grade is calculated on a percentage basis:

Lecture = 75%

Lab = 25%

Lecture Grading:

Weekly Quizzes = 40%

A short quiz will be given weekly at the beginning of lecture and lecture will follow immediately. All questions will come from the lecture, text book, and class discussion from the preceding week's lectures. Each quiz may consist of multiple-choice questions, fill-in-the-blank, matching, true/false, and/or short answer questions. If you are absent for a quiz you will receive a zero. The lowest 2 quiz grades will be dropped. There are no make-up quizzes.

3 One-hour Exams = 30%

Each non-cumulative exam will cover approximately equal proportions of course material and will be organized around major themes in the course.

Final Exam = 15%

A cumulative exam will cover material from the lecture section of the course.

Article Critique = 10%

Each student will read and provide a written critique of an experiment published in the primary literature as selected by the professor. The critique will include a review of the experiment, an evaluation of the conclusions presented by the article's authors, and proposals for future research questions.

Attendance and Participation = 5%

Class participation is expected and only possible by attending every class. Contributions to class discussions, group activities, and asking/answering questions during lecture will ensure full credit, but more importantly, participation will provide you the best opportunity to succeed in this course.

Laboratory Grading:

2 Practical Exams (Anatomy) = 40%

Each non-cumulative practical exam will cover approximately equal proportions of course material. By their nature, practical exams are extremely difficult to administer; therefore, attendance for exams is critical and missed exams can only be made-up under extreme circumstances.

Field Study = 20%

Each student will be responsible for making detailed observations of the nesting activities of a pair of wild birds of a species of their choice. The data from the field study and a summary report will be maintained in your field notebook and graded separately from the rest of the field notebook's contents.

Bird Vocalization Quiz = 10%

Each student will be expected to recognize the songs and calls of a small set of local species. Your proficiency at recognizing these vocalizations will be assessed using audio recordings (provided to you at the beginning of the semester) midway through the term so that you will be familiar with them as the field season progresses.

Field I.D. Quiz = 10%

Field activities in the last two-thirds of the semester will culminate in a field identification quiz of resident and spring migrant species that are found locally. This event cannot be made up and an absence on this trip (barring *extreme* circumstances) will result in a zero. Your success on this quiz will depend on your level of participation in previous field trips and on your willingness to spend time *outside of scheduled class activities* to practice finding and identifying birds in the field.

Lab Notebook = 10%

Each student will submit their laboratory notebook detailing the activities and results of field activities twice during the semester. Details of field notebook expectations will be shared early in the semester preceding field activities.

Attendance and Participation = 10%

Participation is critical to understanding the laboratory material. While additional field and lab time may be required for complete comprehension of material, there is no substitute for attending and participating in weekly scheduled activities. These activities give you invaluable and irreplaceable access to the observations and experiences of your classmates and your professor. Importantly, **YOU MUST BE ON TIME** to field trips or **YOU WILL BE LEFT BEHIND**.

Grade Scale:

A	94-100%	A-	90-93%		
B+	87-89%	B	84-86%	B-	80-83%
C+	77-79%	C	74-76%	C-	70-73%
D+	67-69%	D	60-66%		
F	0-59%				

Attendance/Make-up Policy:

Attendance is mandatory and expected, but certain circumstances may require an isolated absence. It is the student's responsibility to notify the professor as soon as possible of the expected absence (absolutely no later than one day following the absence, in the case of an emergency) and to make necessary arrangements for lecture or laboratory materials. Lecture Power Point slides will not be made available to students. No make-up quizzes will be allowed.

It is a serious offense to miss a lab or lecture exam. If this happens a grade of zero will be assigned for the missed exam. It is the responsibility of the student to contact the professor *prior to* the exam to schedule a make-up. If a student fails to contact the professor prior to the absence/missed exam to make arrangements, a make-up may not be granted. Special considerations may be made, on a case by case basis, if an exam is missed due to completely unavoidable circumstances. In this case, a student may be permitted to take a make-up exam if they contact the professor prior to the day of the next scheduled class. Each student must present a valid excuse at the time of the make-up. Make-up exams, if they are granted, must be completed within 1 week of the original exam date. Make-up exams will be administered at the convenience of the professor. Only one make-up exam may be granted per semester.

Note to Athletes: Athletes who expect to miss an exam or a quiz due to sanctioned activities must notify the instructor as soon as possible and in all cases before the week of the expected absence. In these cases, quizzes and exams may be administered in alternative formats or at earlier dates, depending on specific circumstances and at the discretion of the professor.

Students with Disabilities:

Baker University is committed to providing "reasonable accommodations" in keeping with Section 504 of the Rehabilitation Act and the Americans with Disability Act of 1992. Access Services coordinates accommodations and services for all eligible students with disabilities. If you have a disability and wish to request accommodations and have not contacted Access Services, please do so as soon as possible. Access Services is located on the Baldwin City campus in the Office of Student Academic Success (in Collins Library (lower level); 785-594-8352; sas@bakeru.edu). Information about Access Services can also be found at www.bakeru.edu/sas. If accommodations have been approved by Access Services, please communicate with your professor(s) regarding your accommodations to coordinate services.

Academic Honesty:

Students are expected to take responsibility for their own work and provide appropriate credit to the authors of works used by the student to complete course work. Please review the student handbook for a full description of the University's policy on academic misconduct.

From the Student Handbook: Baker University expects students and professors to have solely completed or prepared the work or research that bears their name, and to acknowledge the materials and sources of others. Students

1. Have the responsibility to do their own academic work.
2. Must acknowledge sources of their materials and material that is the work of others.
3. Have the responsibility to inquire of the professor when they are uncertain as to what constitutes proper acknowledgment.
4. Have the responsibility to inquire of the professor as to what materials and aids are permitted in testing and research work.
5. Have an obligation to know their rights and responsibilities as delineated in the Baker University Student Handbook.
6. Have the responsibility to know the University's position with respect to academic misconduct as set forth in [the student handbook].

Honors Contracts:

Any student with a cumulative grade point average of 3.50 that is interested in taking this course for honors designation should talk to me about the details involved and fill in the necessary form, obtain the required signatures and meet with the honors program director to review the contract before turning in the form to the Records Office. The last day to submit a proposal for an Honors Contract is the last day to add a course for the semester.

Credit Hour Definition and Associated Course Expectations: Consistent with best practices in higher education, Baker University subscribes to the federal definition of the "credit hour" endorsed by the Higher Learning Commission. Driven by intended learning outcomes and verified by evidence of student achievement, the "credit hour" is an institutionally-established equivalency that reasonably approximates not less than one hour of classroom (or direct faculty) instruction and a minimum of two hours of out-of-class student work per week for the duration of the course enrollment period. A 3-credit-hour course, for example, requires approximately 45 classroom contact hours, roughly 90 out-of-class work hours and approximately 135 total instructional hours over the course of a 15-week semester. In that this course carries 4 hours of credit (3 lecture, 1 lab), approximately 60 hours of classroom instruction and 45 hours of laboratory and field instruction have been planned over the scheduled 15-week period. In addition, students are expected to spend roughly 150 hours (10 hours per week) on out-of-class assignments which include: a) assigned text readings, b) reading-related exercises and associated Moodle forum postings, c) unit evaluation and final exam preparation, d) outside lab-related assignments, e) statistical and other homework problems, and f) literature review research and manuscript preparation.

Special Note: Ornithology is an intense course with a very fast pace. It is the responsibility of the student to keep up in class. Missing lecture or lab will almost certainly result in a lower course grade. It will be critical for students to keep pace by reading ahead in the chapters and by spending significant amounts of time outside of class studying and preparing for quizzes and exams. Utilize all available resources when studying, including lecture notes, text chapter review questions, figures and tables from the text and lab manual, and online resources. The formation of study groups/partners is strongly encouraged.

Tips for Success:

- Spend at least 10 hrs. per week outside of class studying for lecture and lab.
 - This does not need to take place all at one time (and is best if it doesn't). Keep a study journal with a list of the topics covered and the time spent on each to make sure you are allowing yourself enough time each day/week.
 - Break up your study time into manageable "units". Dedicate each study session to one subunit of the lecture/lab material and become comfortable with that unit before moving on to the next.
 - Eliminate distractions during study time. This means turn off all electronics, remove yourself from noisy environments, and let your roommates/family know that you will need time alone while you are studying
 - Do not get behind studying!! There is *no* extra time in the semester to catch up.
- Pay special attention to the figures and tables in the text book. They are very good at summarizing information and are often (though not always) cited in lecture.
- Look for videos and images online. YouTube is a great resource for videos – though some videos are better than others.
- Record the lecture. This can be done with a cheap MP3 recorder or smart phone placed at the front of the room prior to lecture. I do not give out my lecture PowerPoints, but I encourage you to record lectures so that you can go back and listen more carefully to what was said while you may have been writing.
- Make a friend in class. A classmate can help you study, make sure you get missed notes, and add to a support network for you as you work through all of this new information.
- Please ask for help (sooner than later!). I am always willing to help, but I need to know that you would like some assistance. Then we can see how I can best help you succeed.

Policies on attendance during the COVID-19 pandemic

Class attendance, whether in the classroom or in a remote environment, is vital to your academic success. This is a time, however, when some situations could preclude your in-person attendance. For information on all Baker University policies on Covid-19, please read the information posted at this link: <https://www.bakeru.edu/coronavirus/>

Policy 1: In the classroom, you must wear a mask that covers your nose and mouth. If you feel that you cannot wear a face covering, please contact Mrs. Kathy Wilson (our ADA officer) in the SAS office.

Policy 2: If you are exhibiting any two of the following symptoms, **DO NOT** attend in person:

- a. chills or fever (body temperature of 100.4°F or higher)
- b. cough
- c. new loss of taste or smell
- d. shortness of breath or difficulty breathing
- e. fatigue, muscle or body aches, or headache
- f. another condition that may be symptomatic of infection with COVID-19

(<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>)

Policy 3: Notify both your instructor by email (skimball@bakeru.edu) and Dean Bailey by using this link (to <https://forms.gle/AN3U78GJnEsa52hD9>) if you are unwell and will miss class due to any symptoms above. In these circumstances, **you will not be penalized** for absence from an in-class session. You will, however, be expected to keep up with the class and submit any and all assignments on time unless your symptoms become severe. You should remain in communication with the instructor regarding ongoing concerns.

Policy 4: If you do become ill with what might be COVID-19 you must follow the protocol that is prescribed by the University. Dean Bailey will help you navigate this once you inform her.

Policy 5: If you are ordered by the KDHE, Douglas County Health, or Baker Sports Medicine to isolate or quarantine due to direct contact with someone infected with COVID-19, notify Dean Bailey (cbailey@bakeru.edu) and your instructor (skimball@bakeru.edu) that you will not be able to attend class for 10 days due to mandated isolation or quarantine. You will be expected to keep up with the class and submit any and all assignments on time. Hopefully you will not become ill yourself and will be able to rejoin the class, but you must follow any mandate in order to protect all individuals in the community. Again, in these circumstances, **you will not be penalized** for absence from an in-class session.

Policy 6: If you miss an exam due to illness then please review the attendance policy above. Most importantly, please stay in direct communication with your instructor as early and as often as possible to ensure satisfactory completion of all course content.

Abuse of any of these attendance policies, such as false claims of illness, will constitute misconduct and may subject you to sanctions by the Dean of Students or by the Dean of the College of Arts and Sciences.

Lecture Schedule (subject to change):

<u>Dates</u>	<u>Subject</u>	<u>Text Chapter</u>
Week 1 Jan 24/26/28	Avian Diversity	1
Week 2 Jan 31/Feb 2/4	Evolution of Birds	2
Week 3 Feb 7/9/11	Feathers	4
Week 4 Feb 14/16/18	Adaptations to Flight	5
Week 5 Feb 21/23/25	Exam 1 --- Feb 21 Adaptations to Flight (cont.'d)	5
Week 6 Feb 28/Mar 2/4	Avian Physiology	6.7
Week 7 Mar 7/9/11	Avian Physiology (cont.'d) Vocalizations	6,7 8
Week 8 Mar 14/16/18	<i>Spring Break (no class) --- WOOHOO!!!!</i>	
Week 9 Mar 21/23/25	Migration and Navigation	10
Week 10 Mar 28/30/Apr 1	Migration and Navigation (cont.'d) Exam 2 --- Apr 1	10
Week 11 Apr 4/6/8	Social Behavior	11
Week 12 Apr 11/13/15	Mates <i>Good Friday (no class April 15) --- YEEHAW!!!!</i>	12,13
Week 13 Apr 18/20/22	Breeding Systems <i>Dialogos Scholars Symposium (no class April 20) --- WOWZER!!!</i>	14
Week 14 Apr 25/27/29	Breeding Systems (cont.'d) Nests	14 15
Week 15 May 2/4/6	Nestlings and Parenting Exam 3 --- May 4	16
FINALS WEEK May 13	Final Exam --- Friday, 8:30-11:30 a.m.	

Laboratory Schedule (subject to change):

Date	Subject
Week 1 Jan 25	Bird Topography and Local Field Trip
Week 2 Feb 1	Making a Bird Study Skin
Week 3 Feb 8	Feathers Local Field Trip (if time permits)
Week 4 Feb 15	1st Practical Exam External Structures
Week 5 Feb 22	Avian Anatomy and Physiology Local Field Trip (if time permits)
Week 6 Mar 1	2nd Practical Exam Local Field Trip
Week 7 Mar 8	Local Field Trip: Waterfowl
Week 8 Mar 15	<i>Spring Break (no class) --- WHOOPEE!!!!</i>
Week 9 Mar 22	Local Field Trip
Week 10 Mar 29	Bird Call and Song Quiz Local Field Trip
Week 11 Apr 5	Local Field Trip
Week 12 Apr 12	Local Field Trip: Banding and Field Techniques
Week 13 Apr 19	Local Field Trip
Week 14 Apr 26	Local Field Trip
Week 15 May 3	Field Identification Quiz Local Field Trip
Week 16 FINALS WEEK	Field ID make-up date TBD