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LECTURE AND READING SCHEDULE*

<u>Date</u>	<u>Topic</u>	<u>Reading (Ch #)**</u>
2/7	Course overview and introduction to birds	1
2/12	Origin of birds	2
2/14	Systematics; readings	3
2/19	Feathers	4
2/21	Flight I	5
2/26	Flight II	5
2/28	Avian Physiology: circulation and respiration	6
3/4	Avian Physiology: thermoregulation and energy balance	6
3/6	Digestion and feeding habits	6
3/11	EXAM I	
3/13	Brain and senses	7
3/ 18	Communication; readings	8
3/20	Annual Cycles	9
3/25	SPRING	
and 3/27	BREAK	
4/1	Migration and Navigation; readings	10
4/3	Social Behavior	11
4/8	Mates and Mating systems	12, 13
4/10	Mates and Mating systems; readings	12, 13
4/15	EXAM II	
4/17	Avian reproduction: anatomy of the bird egg and clutch size	14
4/22	Avian reproduction: Nests, incubation, and hatching; readings	15
4/24	Parental care	16
4/29	Demography; readings	17
5/1	Population ecology	18
5/6	Speciation	19
5/8	Community ecology; readings	20
5/13	Conservation	21
5/15	Conservation;readings	21
5/19	FINAL EXAM 10:00 – 11:50 am	

* This **syllabus** is intended as a guide to our course this semester. If it seems useful to alter this schedule for educational reasons, we will do so in class.

****Required text:** *Ornithology* 3rd edition by Frank B. Gill. In addition, supplementary readings will be assigned.

Course prerequisites: Biol 323 or instructor's consent.

Course overview: Birds have delighted and fascinated people throughout recorded history. You will gain an appreciation of the aesthetic value of this unique group of organisms. This course is intended to provide an understanding of the diversity, evolutionary history, anatomy, physiology, ecology, and behavior of birds. You will also learn to identify most of the common birds in Washington State. Intellectual skills to be emphasized include interpretation of graphs and other data, written and verbal communication skills, and critical evaluation of the scientific literature.

Office hours: My office is located in room 150 in the Rieke Science Center. My office hours are 10:00 - 11:00 on Tuesday and 12:00 – 2:00 on Friday or by appointment. Please call or e-mail me to schedule a time.

Evaluation will be based on the three exams, a research paper and presentation, and participation during class discussions. Exams will consist of a mixture of multiple choice, definition/short answer, and essay questions.

EXAMS

In-Class Exams: There will be two in-class exams, each worth 100 points. The dates of the in-class exams are Tuesday **March 11**; Tuesday **April 15**.

Final Exam: There will be a cumulative final exam on Monday, **May 19 10:00 – 11:50**. The final exam is worth 150 points. 50 points on the final exam will cover material drawn from the entire course (i.e. they are cumulative or comprehensive). 100 points on the exam will be from lecture material covered since the last exam. The final exam is MANDATORY to complete the course.

Exam Policies

There are no make-up exams. During the first week of the semester you must notify me if you have a university-sponsored conflict with any of the scheduled exams. At this time we will discuss arrangements for you to take the exam early. A missed exam for a non-University sanctioned excuse will receive a zero.

In-Class Exams: Should you have an unanticipated emergency (*e.g.* serious illness, death in the family) that causes you to miss an in-class exam, please contact me with written documentation immediately (for example, physician documentation of serious illness). At this time we will discuss arrangements for you to make-up the exam.

Final Exam: You **MUST** take the final exam in order to complete the course. If an emergency results in you missing the final exam, you must contact me with written documentation immediately (for example physician documentation of serious illness). You must make arrangements to take a make-up final with me in order to complete the course. If you fail to contact me and provide the necessary documentation, you will receive a zero for the final exam and your final course grade will be calculated based on this score.

ASSIGNMENTS

Ornithology Field Trip: We will be going on an overnight field trip to the Washington Coast. We will leave on the afternoon of 4/18 and will return in the evening on 4/19.

Research Paper: You will write a research paper related to a topic in Ornithology of your choice. The paper should be between 6-8 double-spaced type-written pages (excluding references). The paper will give you a chance to explore in greater depth a topic in Ornithology that interests you.

The paper will be worth 50 points and will be due Thursday, **May 1**. See paper writing guidelines at end of the syllabus.

Research Paper Presentation: You will give a ten minute talk presenting the findings in your research paper. Talks will be scheduled during class on 5/1, 5/6, and 5/8. Talks will be worth 20 points.

CLASS DISCUSSIONS

On 2/14, 3/18, 4/3, 4/10, 4/22, 4/29, 5/6, 5/13 we will discuss two or three research papers chosen by the instructor from the primary literature. These papers will be chosen to compliment the lecture topics for that week.

The goals of the discussions are two fold: first, to give you a sense of Ornithology as an active field of scientific research and second, to improve your ability to think critically. Each student must carefully read the assigned paper(s) each week and should prepare at least two questions or comments (positive or negative) about the assigned paper(s) which will be handed in at the end of class. Some things to consider as you read the papers are: What is the paper's primary objective? Does it attempt to test a specific hypothesis? Does the paper address alternative hypotheses? Are the methods appropriate? If the methods are observational are they free from bias? If experimental, are they well designed? What conclusions do the authors draw from the results? Is each conclusion supported by the results presented? Where do the authors speculate if at all, and are these logical speculations? Are there any inconsistencies in the results? How do these results compare with previous work in the area? Do the results advance our understanding of this field of research? What further questions might be interesting to test in light of this work?

Your performance in discussions will be worth 30 points toward your final grade. Performance will be evaluated by attendance, weekly participation, and preparation of questions.

Assignment policies

All assignments must be typed. All assignments must be handed in on the date specified. One letter grade will be subtracted from your assignment score for each calendar day that the assignment is late. NOTE: All assignments must be submitted in person in class. I will not accept any electronic attachments.

Grading scale: A (90-100%), B (80-89%), C (70-79%), D (60-69%), E (0-59%), S ($\geq 70\%$)

Extra credit: No extra credit will be allowed.

Attendance: I will not take attendance except during discussions. Attendance is strongly encouraged as exams are based on the material covered in class.

Dropping the course: If a student wishes to drop the course, it is the student's responsibility to get the appropriate paperwork signed before the deadline to drop classes. The last day to drop without a fee is 2/20. You will not be automatically dropped if you fail to appear for exams. The last day to drop with "W" is 2/21.

Adding the course: The last day to add the course without a 50\$ fee is 2/13. The last day to add the course is 2/14. At this date there is a 50\$ fee and instructor's signature is required.

Conduct: Please see the PLU Academic Integrity Policy. This can be located on the Academics page under Policies and Guidelines. Please read the sections entitled *What is academic Integrity?* and *Penalties* carefully. Academic dishonesty on a test or assignment that constitutes 30% of the course grade results in a minimum penalty of a failing grade for the course. Academic dishonesty in course work that constitutes less than 30% of the course grade results in a minimum penalty of a zero for that work.

Special Accommodations: If you have or believe you have a disability and would benefit from any accommodations or if you have a condition which may affect your ability to exit safely from the premises in an emergency or which may cause an emergency during class please make an appointment with me immediately. Remember that it is your responsibility to notify me of any conditions that may affect your performance in this course. Information concerning services available for students with disabilities at PLU can be obtained by contacting Alene Klein in Ramstad 106, telephone 535-7206.

RESEARCH PAPER GUIDLINES

Choice of topic

Your first step will be to develop a central question around which to build your paper. Your textbook is an excellent starting place. Your book covers many exciting topics and gives numerous references that you can use to further explore the literature related to these topics. Another approach is to go to the current periodicals in the Mortvedt Library and browse through the latest issues of the *Auk*, *Condor*, *Wilson Bulletin*, *Journal of Avian Biology*, *Proceedings of the Royal Society of London B*. Quickly skim the abstracts until you find an article that sounds interesting to you. When you find an article of interest read it and some of the important references that are cited in the article. You should quickly be able to trace an idea back to its origin and also get an understanding of the questions that are of importance related to the idea. Controversial topics such as the evolution of flight, avian systematics, sperm competition make for interesting paper topics. Relatively new ideas such as UV reflectance and EPCs also make interesting paper ideas

References: You must use citations within the text whenever you mention the results or ideas of a previous study (e.g. Barnes et. al 2005). Any articles cited in the text must be fully referenced in a literature cited section at the end of your paper. You should adopt a consistent format for these references. I suggest that you pick an Ornithology journal and follow the format for that particular journal. Examples can be found by looking at the references at the end of articles or by looking at the instructions to authors. Use references from the primary literature (original research articles published in journals or books) and not the secondary literature (textbooks, newspaper, or popular magazine articles).

LAB SCHEDULE

<u>Date</u>	<u>Topic</u>
2/14	External Morphology and Topography
2/21	Avian Taxonomy and ID Techniques*
2/28	Field; Lakewood area*
3/6	Feathers and Flight
3/13	Avian skeleton
3/20	Lab practical
3/27	SPRING BREAK
4/3	Field; Lakewood area*
4/10	Field; Lakewood area*
4/17	Pack for Field Trip
4/18-4/19	Field Trip: Grays Harbor National Wildlife Refuge
4/24	Field: Nisqually National Wildlife Refuge
5/1	Field: Nisqually National Wildlife Refuge
5/8	Field: Nisqually National Wildlife Refuge
5/15	Field practical

* On 2/21, 2/28, 4/3, 4/10, 4/24, 5/1, 5/8, and 5/15 we will be going out into the field. We will meet in room 124 at 8:00 am sharp. Please be on time as we will leave campus at 8:05 am. Please dress appropriately (i.e. rain and cold weather) as we will be spending the entire lab period outside.

Grading

Lab Practical – 50 pts

Field practical – 50 pts

Lab reports – 20 pts

Field notebook – 30 pts

The above schedule is a tentative schedule. I will advise students of any changes made to the schedule as the semester progresses. I will pass out the lab handouts at the beginning of the week during lecture. Please read the lab handouts prior to coming to lab.