

## BIOLOGY 427: ORNITHOLOGY COURSE OUTLINE, Fall 2019

Instructor: **Darren Irwin**, Professor of Zoology (Office: Beaty Biodiversity Centre 209; phone: 604-822-4357; email: [irwin@zoology.ubc.ca](mailto:irwin@zoology.ubc.ca))

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Lab support: **Ildiko Szabo**, Collections Curator of Tetrapods, Beaty Biodiv. Museum)

Course web site: <http://www.zoology.ubc.ca/~irwin/BIOL427/>

**Lectures:** Mondays and Wednesdays, 9:00-9:50 a.m., Biological Sciences room 1012

**Labs:** 3:00-6:00 PM, Tuesdays **or** Thursdays (starting Sept. 10/12), mostly in Biodiversity 060 (note the first session will be birding at Jericho—details in lecture)

**Course books** (Available at the UBC bookstore):

**1) required:** *National Geographic Field Guide to the Birds of North America, Seventh Edition*, by Jon L. Dunn and Jonathan Alderfer (or another good and somewhat recent field guide to all of the birds of western North America)

**2) optional:** **The Handbook of Bird Biology**, a textbook produced by the Cornell Lab of Ornithology, edited by Irby Lovette and John Fitzpatrick, 2016. (there is an e-book)

### COURSE OBJECTIVES:

**Note that birds are now the primary focus of this course**, with amphibians and reptiles referred to only briefly. We will discuss a wide variety of topics in ornithology, including avian ecology, evolution, physiology, behavior, and conservation, focusing on species from British Columbia. Students will learn: (a) how to identify species in the field and in the laboratory using prepared specimens, (b) how to conduct field inventories of birds and to present scientific surveys, and (c) general knowledge regarding the evolutionary history, taxonomy, ecology, behavior, and conservation of birds. Field research will take place in Pacific Spirit Park or other areas chosen by students. The practical skills taught in this course will be useful for working as a naturalist, field ecologist, conservation biologist, or environmental consultant. We also hope that this course enriches the lives of students by generating enthusiasm and interest in biodiversity and natural history.

***Note: This course requires much fieldwork outside of class time. Students who are uncomfortable outdoors in challenging weather or who do not have a strong interest in field observation might not find the course suitable. We do welcome motivated students who have unusual needs (please talk to the instructor).***

### COURSE ACTIVITIES:

**Laboratory sessions** will be devoted to learning to identify birds of B.C., using museum specimens, photographs, and sound recordings. Some lab sessions will be spent outside, learning how to identify live individuals in their environment, as well as how to conduct surveys of birds in the wild. Your knowledge will be tested by a lab quiz and a final lab exam, covering material from the entire term. You are responsible for knowing all Families and Orders of the species identified on the list provided by the instructors. You are expected to learn the official English names of bird species as established by the American Ornithological Society (knowledge of scientific names of

bird species is recommended but optional). Some lab sessions may be focused on learning specimen preparation and analysis of vocalizations and plumage colours.

**Lectures** will discuss selected aspects of evolution, ecology, behavior, physiology, and conservation of birds (and a bit on amphibians and reptiles). Some lecture periods will be devoted to field techniques. A midterm and final exam will focus on lecture material.

**Field Project.** Small groups of students (2-4 in each group) will conduct field surveys of birds in two or more locations chosen by each group (for example, in Pacific Spirit Park). Students will (1) survey bird species in each area, and (2) compare species richness, composition, and similarity between locations. Evaluation will be in two forms: first, each group will briefly present their results to the class; second, each group will submit a written report in the format of a scientific paper. Introductory birding excursions will teach field methods and bird identification. Identifying birds by their calls is the most difficult skill that we teach in the course, and it requires much practice. Dress appropriately for the weather forecast on that day.

<b><u>Evaluation</u></b>		<b><u>Date</u></b>
Lab quiz	10%	October 8/10
Lecture midterm	15%	October 21
Lab exam	20%	November 12/14
Group presentations	15%	Nov 20/25/27
Group report	20%	due November 29
Lecture final exam	20%	to be set by student services within Dec. 3-18

### **Policy on missed or late assignments**

By registering for this course, students agree to accept personal responsibility for taking exams and completing assignments at scheduled times. We provide the schedule at the start of term so that students can plan accordingly. Students who have an unavoidable schedule conflict with an exam or lab session should talk to the instructor well in advance. Otherwise, students who miss exams will receive no credit for them, except in cases of sudden illness or emergency (in which case the student should talk to the instructor as soon as possible). Students who are experiencing a personal crisis are encouraged to speak with the instructors sooner rather than later, as we can help you find assistance and minimize impact of the crisis on your academic record.

### **Note on academic integrity**

Science is a social endeavor; knowledge is built up over time by scientists communicating with one another, sharing ideas and results. It is essential, however, that scientists give credit where credit is due. **You must not take credit for something that you did not produce.** This principal of academic integrity applies to exams, written assignments, and presentations; you must not present someone else's work as your own. When referring to someone else's work, you must give a citation to that work. In this class you will be working on group projects; the concept of academic integrity means that each member of the group must contribute solidly to the project in order to earn authorship on the report. Academic misconduct has serious consequences, including suspension / expulsion from UBC. For details of UBC policy see: <http://www.calendar.ubc.ca/Vancouver/index.cfm?tree=3,54,111,959>