

# Ornithology

## Biology 360

Department of Biological Sciences  
University of Windsor



### Course Outline for Fall Semester 2016

September 6, 2016

<b>Professor:</b>	Dr. Daniel Mennill
<b>Office:</b>	Biology Building Room 106
<b>Telephone:</b>	519-253-3000 ext. 4726
<b>E-mail:</b>	All course-related correspondence must be done during office hours or, in the case of emergencies, by telephone; I cannot interact with you effectively by email.
<b>Office hours:</b>	Thursdays from 1:00 to 3:00
<b>Lectures:</b>	Tuesdays and Thursdays, 10:00 to 11:20
<b>Lecture Room:</b>	Biology Building Room 113
<b>Laboratories:</b>	Mondays (section 51), Tuesdays (section 53), Wednesdays (section 52), 14:30 to 17:20, Note: Lab sections are scheduled by the registrar not by Dr. Mennill
<b>Laboratory Room:</b>	Mondays & Wednesdays (section 51 and 52): Biology Building Room 34 Tuesdays (section 53): Biology Building Room 29
<b>Saturday Field Trip:</b>	Saturday, October 1 (depart Biology Building at 6:00 AM sharp, return by 5:00 PM) Attendance on this field trip is <u>mandatory</u> for you to pass this course.
<b>Midterm Exam:</b>	Thursday October 27, in class, 10:00-11:20
<b>Final Exam:</b>	Scheduled by the registrar (currently scheduled for Tues Dec 13 at 8:30)
<b>Course webpage:</b>	<a href="http://bit.do/ornithology">http://bit.do/ornithology</a> (or google "Mennill", go to my homepage, click on "teaching")

#### Course synopsis:

This third-year course in ornithology will provide students with a thorough understanding of the biology of birds, with an emphasis on avian behaviour, ecology, and evolution. Topics include the origin and evolution of birds; avian taxonomy; avian flight and feathers; long-distance migration; avian reproductive anatomy, physiology, and reproductive strategies; avian behaviour and communication; avian cognition and neuroanatomy; and the conservation of birds. This course complements concepts learned in Ecology, Evolution, Physiology, Animal Behaviour, and Conservation. Classroom lectures are integrated with laboratory exercises which will provide students with hands-on exposure to the topics covered in lecture as well as many of the techniques used in the study of birds. Through outdoor laboratory exercises and an independent research project, students will become familiar with the common birds of southern Ontario. All students must participate in a full-day outdoor laboratory exercise at Point Pelee and Holiday Beach.

#### Prerequisites:

55-140 (Biological Diversity) and 55-210 (Ecology)

#### Required Book:

Students must have a field guide to the birds of North America or eastern North America. I recommend The Sibley Field Guide to Birds of Eastern North America, 2<sup>nd</sup> Edition (\$22 on amazon.ca and available in the campus bookstore). The course webpage offers advice about field guides. You must bring this to the first lab during the week of September 12 (or else printed proof that you ordered one the previous week).

#### Recommended Book:

Course textbook: Ornithology by Frank Gill (2007, Freeman, 3<sup>rd</sup> Edition)

NOTE: **You will need to read most of this textbook to excel in this course.** Because of the high cost, I make this book recommended instead of required. Two copies can be placed on reserve in the library; if you are interested in this, please speak to Dr. Mennill.

#### Evaluation:

Midterm exam (multiple choice and short answer):	30%
Final exam (multiple choice and short answer):	30%
Lab-based bird identification quizzes (3 in total, each worth 6.66%):	20%
Participation in indoor and outdoor laboratories:	5%
Independent project 1 (1 page abstract; details in lab):	7.5%
Independent project 2 (1 page press release; details in lab):	7.5%

**Notes about grades:**

Students who miss the mid-term exam or one of the lab-based bird identification quizzes for documented medical reasons (a doctor's note is required in *all* cases) will have their final grades pro-rated on the basis of their completed evaluations. No make-up evaluations will be conducted in this course.

The one-page independent projects are due by 10:00 AM sharp (at the beginning of class) on the due dates. You can hand assignments in any time before 10:00 AM on the due date. But reports received at 10:01 AM will be considered one day late. Late reports will receive a penalty of 10% for every 24 hours that they are late (e.g. an assignment received at 10:01 AM the day following the due date will receive a penalty of 20%).

**Note about sickness:**

If you are sick or starting to feel sick, please stay home to look after your health and avoid passing your sickness to others. When you are healthy, come to see the GAs and they will help you get caught up. If you are sick during a test or other evaluation, you must bring a doctor's note **on an official University of Windsor "Standard Medical Certificate"**: <http://www1.uwindsor.ca/academicintegrityoffice/medical-certificate-templates>

**Academic integrity:**

Students of this course are expected to follow all university guidelines with respect to academic integrity. Plagiarism, copying, and all other forms of academic dishonesty will be reported and not tolerated in any form.

**Saturday field trip:**

There will be a **mandatory** field trip to Point Pelee and Holiday Beach on **Saturday October 1. Participation in the Saturday field trip is mandatory (i.e. you must attend this field trip if you wish to pass this course).** The trip will occur **rain or shine**. We will meet on Sunset Ave next to the Biology Building Parking Lot on the University of Windsor campus at 5:50 AM and the busses will pull away at 6:00 AM. We will return to campus by 5:00 PM. Students are required to bring a lunch and their field guide and wear appropriate clothes for hiking and birdwatching. Students are strongly encouraged to find their own binoculars for the Saturday field trip, because university-owned binoculars are limited to one lab set.

**Outdoor laboratories:**

Many of the laboratories take place outdoors (see schedule, below, for dates). These labs will occur **rain or shine** and will involve walking around and studying wild birds. For outdoor labs, students are required to bring their field guide and wear appropriate attire for hiking/birdwatching. Students are strongly encouraged to bring their own binoculars to all outdoor laboratories. For students who do not own binoculars, there are university-owned binoculars available.

Checklist of items that you must bring to the lab to receive full participation marks:

- 1.) Your bird field guide (first week only: we will accept proof that you ordered a book by September 12)
- 2.) Appropriate attire
- 3.) Binoculars OR your student card to leave with the GAs to borrow binoculars

**Recommended equipment:**

Students are encouraged to have their own binoculars, but some university-owned binoculars will be available for student use. The course webpage and Dr. Mennill will offer advice about purchasing binoculars.

**University-owned binoculars:**

Students will be allowed to use university-owned binoculars but they will be required to leave their student card with the GAs each time they sign out a binocular.

**Independent projects:**

Each student is required to write up two one-page independent projects during the course of the fall term. Projects will be explained in detail in the laboratory. These projects must be written entirely independently.

**Weekly Schedule (each week follows this format):**

	Monday	Tuesday	Wednesday	Thursday	Friday
10:00 - 11:20		<b>Concepts</b> <b>Beak Break</b> <b>Concepts</b>		<b>Concepts</b> <b>Birder Break</b> <b>Birds of the World</b>	
11:30 - 3:00		G.A. Office Hours 11:30 – 1:00		Dr. Mennill's Office Hours 1:00-3:00	
2:30-5:30	<b>Lab Section 51</b>	<b>Lab Section 53</b>	<b>Lab Section 52</b>		

**Lecture Schedule:**

Week	Dates	Concepts (with chapter number in Gill textbook)	Birds of the World
1	Sept 8	The diversity of birds (Chapter 1)	<i>Tinamiformes</i> <i>Struthioniformes</i>
2	Sept 13 & Sept 15	The origin of birds (2); Systematics (3,19); Feathers (4)	<i>Galliformes</i> <i>Anseriformes</i>
3	Sept 20 & Sept 22	Flight (5); Physiology (6)	<i>Sphenisciformes</i> <i>Gaviiformes</i> <i>Procellariiformes</i> <i>Podicipediformes</i>
4	Sept 27 & Sept 29	Senses, Brains, Intelligence; Visual Communication (7)	<i>Phoenicopteriformes</i> <i>Ciconiiformes</i> <i>Pelecaniformes</i>
5	Oct 4 & Oct 6	Vocal Communication (8)	<i>Falconiformes</i> <i>Gruiformes</i> <i>Charadriiformes</i>
	Oct 11 & Oct 13	October 10-14 is Fall Reading Week	
6	Oct 18 & Oct 20	Annual Cycles (9) & Migration (10)	<i>Columbiformes</i> <i>Psittaciformes</i>
	Oct 20	<b>Independent project #1 (abstract) due in class before 10:00 am sharp</b>	
7	Oct 25	Navigation (10)	
	Oct 27	<b>In-class Mid-term Exam during class 10:00 – 11:20 am (location to be announced)</b>	
8	Nov 1 & Nov 3	Social behaviour (11), Mates (12)	<i>Opisthocomiformes</i> <i>Musophagiformes</i> <i>Cuculiformes</i> <i>Strigiformes</i>
9	Nov 8 & Nov 10	Mates, Breeding Systems (12,13)	<i>Caprimulgiformes</i> <i>Apodiformes</i> <i>Coliiformes</i>
10	Nov 15 & Nov 17	Bird Sex (14), Nests & Incubation (15)	<i>Trogoniformes</i> <i>Coraciiformes</i> <i>Piciformes</i>
	Nov 17	<b>Independent project #2 (press release) due in class before 10:00 am sharp</b>	
11	Nov 22 & Nov 24	Parents and offspring (16); Populations (18)	<i>Passeriformes</i> 1
12	Nov 29 & Dec 1	Communities (20); Conservation (21)	<i>Passeriformes</i> 2
13	Dec 6	Conservation (21)	
	Dec 13 at 8:30?	<b>Final exam (scheduled by registrar)</b>	

**Lab Schedule (All labs start in Biology Building at 2:30 sharp):**

Week	Dates	Activity
2	Sept 12-14	Part 1: Introduction: assignments, bird ID, binoculars, field guides, bird lists, birding Part 2: Birding on campus and along Detroit River – <b>Outdoors: rain or shine</b>
3	Sept 19-21	Birding at Ojibway Prairie Conservation Preserve – <b>Outdoors: rain or shine</b>
4	Sept 26-28	Part 1: <b>Bird ID quiz #1</b> Part 2: Discussion of a scientific paper; Independent project #1: Writing an abstract
	<b>Sat. Oct 1</b>	<b>Saturday field trip – meet at Biology building 5:50 AM – Outdoors: rain or shine</b>
5	Oct 3-5	No labs (to make up for trip to Pelee and Holiday Beach)
6	Oct 10-12	Reading Week
7	Oct 17-19	No labs (to make up for trip to Pelee and Holiday Beach)
8	Oct 24-26	No labs (to make up for trip to Pelee and Holiday Beach)
9	Oct 31-Nov 2	Part 1: <b>Bird ID quiz #2</b> Part 2: Discussion of a scientific paper; Independent project #2: Writing a press release
10	Nov 7-9	Bird anatomy laboratory
11	Nov 14-16	Feather forensics laboratory
12	Nov 21-23	<b>Bird ID quiz #3</b>
13	Nov 28-30	Birding in Ojibway Nature Reserve ( <b>Outdoors: rain or shine</b> )

Watch course webpage for updates: <http://bit.do/ornithology>

# Ornithology 55-360: Orders of the Birds of the World

