Ornithology (Biology 4231)

Course description:

The biology of birds, including their evolution, systematics, anatomy, ecology, and behaviour. Aspects of avian morphology, such as plumages, internal anatomy, and adaptations for feeding and locomotion, will be examined in the lab. Identification, behaviour, and natural history of Ontario birds will be emphasized.

Professor: Dr. Janice M. Hughes

Contact information: Email: janice.hughes@lakeheadu.ca

Please note: I attend to my email regularly from Monday to Friday during the academic year so I will typically respond to your messages on a same day basis during the week. However, I may not open emails that have been sent from accounts other than your university account (e.g., hotmail) so use your *lakeheadu.ca* email for all of your messages.

Office hours:

Office hours through Zoom are available by appointment. I will also be offering regular office hours on most weeks during the term through Zoom. Please see the D2L course main page for specifics and a link to these meetings.

Learner goals:

Upon satisfactory completion of this course, the student will be able to:

1. Describe the origins and evolution of birds, and identify their relationships to their closest living and nonliving relatives.
2. Articulate current views of avian systematics, conservation, and biodiversity.
3. Describe how feathers, skeletons, and physiology contribute to the form and function of birds as volant vertebrates.
4. Discuss how birds are adapted to fly, migrate, find food, attract mates, and raise their young.
5. Understand the means by which birds communicate visual and vocally, and comprehend the purpose of this communication.
6. Understand avian demographics, and describe how these measures are important in avian conservation.
7. Predict aspects of the natural history of birds from observations of their morphology.

Lectures:

1. All lectures will be delivered via Zoom at the scheduled time (see Lakehead Timetable). Attendance is highly recommended because I will not be posting recordings of the lectures. Also, lecture notes will not be provided, and the PDFs of slides only show a brief outline of the course material. The things that I say in class are important!

2. There is no textbook; however, extensive resources are available on the D2L course website, including PDF of lecture slides, glossaries, bird checklists, and on-line study aids. There are also several ornithology textbooks available in the LU library.

3. There are two online lecture tests that will occur during regular class time. They are not cumulative. There is no final exam during the December final exam period. Please remember that you must do these online tests alone (no help or collaboration!). Collaboration on tests is considered cheating. Also, cutting and pasting, copying, or downloading answers from another source (e.g., Wikipedia) is considered plagiarism. The use of any AI programs (such as ChatGPT) on exams is also considered to be cheating. The minimum penalty for plagiarism, collaboration or any other form of cheating on the tests will be a mark of zero on the test. You can find more information on the D2L course webpage.

4. If you miss a test due to illness or other valid reason, you must inform me by email within 24 hours of the scheduled test time; otherwise, you may not be able to write a make-up test.

Labs:

1. Labs will be offered in person. The lab manual is available on D2L. You are responsible for all material presented during labs, in the lab manual, and posted to the supplementary lab materials on D2L.

2. There are three online lab quizzes (one per chapter of the lab manual) that will occur during the scheduled lab time. Lab quizzes begin promptly at the start of the regular lab time. You will not be able to write the lab quizzes at other times, and any questions answered after the quizzes close will not be marked. Some material on these lab exams will be cumulative. More information regarding these quizzes will be provided in class.

Assignments:

1. Academic skill-building assignments. Detailed instructions and more information about these assignments can be found on the course webpage; make sure that you read the instructions carefully and email me with your questions or ask them in class.
    (a) Reformat the reference: Reformat a list of in-text citations and references to conform to a specific journal style.
    (b) Trivia challenge: Find the journal article reference that supports an interesting bit of original research.
    (c) Abstract writing: Write an abstract for a short research paper.

2. The avian conservation class discussion grade comprises an in-class participation and a follow-up point-of-view written paper. More information regarding the assignment of groups and times for the discussion will be provided later.

   The point-of-view paper must be handed into the Dropbox on the D2L course website (PDFs only please!). More information will be provided in class. You can also find more information about this assignment and a marking rubric on D2L. The minimum penalty for plagiarism or any use of an AI program to write the point-of-view paper will be a mark of zero on the assignment.

Additional information:

1. I am committed to providing a learning environment that will give all students the best possible chance of success in this course. Please drop into the Zoom office hours (or make an appointment) if I can be of assistance.

2. Lakehead University is committed to achieving full accessibility for persons with disabilities/ medical conditions. Part of this commitment includes arranging academic accommodations for students with disabilities/medical conditions to ensure they have an equitable opportunity to participate in all of their academic activities. If you are a student with a disability/medical condition and think you may need accommodations, you are strongly encouraged to contact Student Accessibility Services (SAS) and register as early as possible.

   For students already registered with Student Accessibility Services, I can offer many solutions for your recommended accommodations. Please feel free to make an appointment with me to discuss these options.

3. Please note that I have a zero-tolerance policy on cheating and plagiarism in this course. The minimum penalty for cheating or plagiarism will be a mark of zero on the test or assignment, and a report will be sent to the Dean and kept on file at the Office of Student Affairs. Not reading this is not an excuse for not knowing it!

   A breach of Academic Integrity is a serious offence. The principle of Academic Integrity, particularly of doing one's own work, documenting properly (including use of quotation marks, appropriate paraphrasing and referencing/citation), collaborating appropriately, and avoiding misrepresentation, is a core principle in university study. Students are strongly advised to familiarize themselves with the Student Code of Conduct (Academic Integrity) and, in particular, sections 26 and 83 through 85. Non-compliance with the Student Code of Conduct will not be tolerated in this course and the Student Code of Conduct will be adhered to in terms of disciplinary action. The Student Code of Conduct provides a full description of academic offences, procedures when Academic Integrity breaches are suspected and sanctions for breaches of Academic Integrity.

4. The use of any AI programs (such as ChatGPT) on exams and assignments in the course is considered a breach of academic integrity and, as such, the minimum penalty will be a grade of zero on the work.

Generative artificial intelligence (Generative AI or GenAI) is a category of AI systems capable of generating text, images, or other media in response to prompts. These systems include ChatGPT and its variant Bing (built by OpenAI) and Bard (built by Google) among several others. Other Generative AI models include artificial intelligence art systems such as Stable Diffusion, Midjourney, and DALL-E. Any use of GenAI systems to produce assignments or exam answers for this course is not permitted. All work submitted for evaluation in this course must be the student's original work. The submission of any work containing AI generated content will be considered a violation of academic integrity ("Use of Unauthorized Materials").

Grading scheme:

Midterm test	October 23	25%
Final test	November 27	25%
Reformat the references	September 17 (Sunday)	5%
Trivia challenge	October 15 (Sunday)	5%
Writing an abstract	November 5 (Sunday)	5%
Lab quiz 1	September 22	7%
Lab quiz 2	October 27	8%
Lab quiz 3	December 1	8%
Class discussion	November 10	2%
Point-of-view paper	December 4	10%

Lecture Topic Outline

September 6		Introduction to the course
September 11	Unit 1	Avian origins
September 13	Unit 2	Avian classification
September 18	Unit 3	Feathers: Structure, growth, molt, and plumage
September 20	Unit 4	Flight mechanics
September 25		
September 27	Unit 5	Physiology and adaptation
October 2	Unit 6	Migration and navigation
October 4	Unit 7	Feeding: Apparatus and strategies
October 9/11		**Study Week (no classes)**
October 16	Unit 8	Visual communication
October 18		
October 23		**Midterm Test (Units 1-7)**
October 25	Unit 9	Vocal communication
October 30	Unit 10	Social behaviour
November 1		
November 6	Unit 11	Breeding systems
November 8	Unit 12	Reproductive anatomy and physiology
November 13	Unit 13	Nests and parental care
November 15		
November 20	Unit 14	Growth and development
November 22	Unit 15	Demographics: Populations and communities
November 27		**Final Test (Units 8-15)**
Nov 29/ Dec 4		**No Classes**

Laboratory Topic Outline

September 8	No lab
September 15	**Lab 1: Form and function: Feathers and flight**
September 22	**Lab Quiz 1: Form and function: Feathers and flight**
September 29	No lab
October 6	No lab
October 13	**Study Week**
October 20	**Lab 2: Form and function: Feeding**
October 27	**Lab Quiz 2: Form and function: Feeding**
November 3	No lab
November 10	**Class discussion: Avian conservation**
November 17	No lab
November 24	**Lab 3: Form and function: Everything else**
December 1	**Lab Quiz 3: Form and function: Everything else**