

**ZO 214**

**Ornithology**

**3 Credits**

Instructor: Ryan Pearce  
780 853 8585

Original Developer: Chris Olsen

Current Developer: Ryan Pearce

Reviewer: Cassandra Gnyra

Created: 03/02/2005

Revised: 03/06/2020

Approval: 10/06/2020

The Implementation Date for this Outline is 01/09/2020

Copyright©LAKELAND COLLEGE. Email: [admissions@lakelandcollege.ca](mailto:admissions@lakelandcollege.ca)  
2602 - 59 Avenue, Lloydminster, Alberta, Canada T9V 3N7. Ph: 780 871 5700  
5707 College Drive, Vermilion, Alberta, Canada T9X 1K5. Ph: 780 853 8400  
Toll-free in Canada: 1 800 661 6490



## ZO 214 Version: 9



# Ornithology

## Calendar Description

This course is an introduction to the biology, behaviour, conservation and natural history of birds that breed or migrate through the prairie provinces. During lecture and laboratory sessions students learn to identify birds, predominantly adult male birds, using plumage characteristics, size, shape, behaviour and habitat associations. Students additionally learn to identify selected birds, predominantly songbirds, using songs and acoustic displays.

## Rationale

This is a required course for students in the Wildlife and Fisheries Conservation major of the Environmental Sciences diploma. Birds are a diverse vertebrate group, and there is a long and rich tradition of protecting, managing, and harvesting waterfowl and upland gamebirds. Birds are often used as biodiversity indicators and are important economic drivers of ecotourism and recreation. Government, Industry and Conservation agencies require employees with competent bird identification skills to conduct bird surveys.

## Prerequisites

None

## Co-Requisites

None

## Course Learning Outcomes

Upon successful completion of this course, students will be able to

1. deploy an ARU and use binoculars, spotting scopes and range finders.
2. describe bird topography and key feather groupings.
3. explain molt cycles and seasonal plumages as they relate to the identification of key bird groups.
4. visually identify adult male birds and selected female and immature birds from the Prairie Provinces.
5. distinguish bird songs, calls and acoustic displays.

6. identify selected birds by songs and acoustic displays.
7. outline bird survey techniques and conduct a field survey for birds.
8. describe legislation for the conservation of birds in Alberta.
9. describe harvest regulations for birds in Alberta.

## Essential Employability Skills

Essential employability skills are critical for workplace success and lifelong learning. Lakeland College prepares its graduates for the workplace and lifelong learning by integrating and promoting essential employability skills development in its curricula. Each credit course offered at Lakeland College emphasizes one or more of the following five essential employability skills:

- A. **Communication Skills** that enable individuals to listen, interpret, express, and convey knowledge and ideas so that they are received and understood.
- B. **Teamwork Skills** that enable individuals to respect the thoughts and opinions of others as they work together to plan activities, meet deadlines, complete projects, and contribute to an organization's goals.
- C. **Critical Thinking Skills** that enable individuals to conceptualize and analyze issues from various perspectives while rationally evaluating the strengths and limitations of each perspective and deciding what action to take.
- D. **Adaptability Skills** that enable individuals to respond quickly, willingly, and positively to new conditions and changing times.
- E. **Positive Attitude and Behavioural Skills** that enable individuals to be confident about themselves and to deal with people, problems, and situations with honesty, integrity, and personal ethics.

Please refer to the Knowledge/Skills Matrix of this course outline to review the essential employability skills emphasized in this course.

## Resource Materials

Students require a field guide that includes the birds in the Prairie Provinces of Canada. They choose a guide from the recommended resources available including books, apps and websites.

### ***Recommended Texts:***

Sibley, D.A. 2016. Sibley Birds West: Field Guide to Birds of Western North America. (2nd ed.). Alfred A Knopf, New York.

### ***Recommended Apps:***

eBird

iBird Pro or iBird

Canada Audubon

The Sibley eGuide to Birds

Merlin

***Recommended Websites:***

All About

Birds Audubon

Birds Canada Bird-sounds.net

***Reference Texts:***

Alderfer, Jonathon (Ed.). 2014. National Geographic, Complete Birds of North America, Second Edition, National Geographic Society, Washington, D.C.

Crossley, R. The Crossley ID Guide: Raptors. 2013. Princeton University Press. Princeton, NJ.

Crossley, R. The Crossley ID Guide: Waterfowl. 2017. Princeton University Press. Princeton, NJ.

Fisher, C., and J. Acorn. 1998. Birds of Alberta. Lone Pine Publishing, Edmonton, AB.

Hoar, T.L., K. De Smet, R.W. Campbell, and G. Kennedy. 2010. Birds of Canada. Lone Pine Publishing, Edmonton, AB.

Lovette, I.J., and J.W. Fitzpatrick. (*Editors*). 2016. The Cornell Lab of Ornithology: Handbook of Bird Biology. 3<sup>rd</sup> ed. John Wiley & Sons, Hoboken, NJ, 716 pp.

McGillivray, W. Bruce, and G.P. Semenchuk. 1998. Field guide to Alberta birds. Alberta Federation of Naturalists, Edmonton, AB.

Semenchuk, G.P. (Ed). 1992. The atlas of breeding birds of Alberta. Federation of Alberta Naturalists, Edmonton.

Sibley, D.A. 2014. The Sibley Guide to Birds. 2nd ed. Alfred A. Knopf, New York.

Sibley, D.A. 2001. The Sibley Guide to Bird Life and Behavior. Alfred A. Knopf, New York. Stokes, D.W., and L.Q. Stokes. 2004. Stokes field guide to warblers. Little, Brown and Company, Boston.

## Conduct of Course

This course consists of 3 hours of lecture each week and 4 hours of field lab or lecture/lab on alternate weeks. The instructor discusses this time allocation as it pertains to your timetable and expected hours of homework.

The lectures are primarily multimedia presentations for learning bird identification using visual characteristics and songs. The instructional format is to cover the identification features and other information pertinent to distinguishing bird species, which is then reinforced with reviews that test bird identification. The lab includes conducting a bird survey in the field for which students must be adequately competent in bird identification to complete.

Students are required to demonstrate competency identifying birds visually and by song for selected neotropical migrants. Self-study (review) of identification material is required. Quizzes and exams predominantly test bird identification skills, but the final exam also includes the nonidentification lecture material.

## Evaluation Procedures

The final grade is an aggregate of the following components:

Quizzes:

How to Identify Birds and Waterbird Identification	10%
Diurnal Raptor Identification	10%
Nocturnal Raptor Identification	10%
Songbirds I Identification	10%
Songbirds II Identification	10%
Songbirds III Identification	10%
Upland Game Birds & Remaining Birds Identification	10%

Final Exam:

Inclusive of all Course Materials	30%
Total	100%

To obtain credit for this course, all lab reports, assignments, and projects must be completed and handed in, and a minimum grade of D in the combined lecture/lab portions of the course must be achieved.

Late Assignments are not evaluated and a grade of zero is assigned..

## Knowledge/Skills Matrix

Students apply and demonstrate their knowledge and skills to use

### A. Communication Skills

<b>A1. by listening, reading, interpreting information, and communicating effectively</b>
Evaluation(s)/Goal(s): Lecture exams, quizzes, bird poster, bird pamphlet and public presentation/Goals 1-9
<b>A2. by using written, spoken, and/or visual formats and media to communicate and meet needs of each particular audience</b>
Evaluation(s)/Goal(s): Bird poster, bird pamphlet and public presentation/Goals 1, 3, 4, 6, 7, 8
<b>A3. by using libraries, Internet, technical publications, journals and other sources to find pertinent information</b>
Evaluation(s)/Goal(s): Bird poster, bird pamphlet and public presentation/Goals 1, 3, 4, 5, 6, 7, 8

### B. Teamwork Skills

<b>B1. by using interpersonal skills to create an atmosphere that maximizes the strengths of group members to accomplish tasks</b>
Evaluation(s)/Goal(s): Bird poster, bird pamphlet and public presentation/Goals 6, 7, 8
<b>B2. by using interpersonal skills to resolve conflict, relate to others, and assist others</b>
Evaluation(s)/Goal(s): Bird poster, bird pamphlet and public presentation/Goals 6, 7, 8
<b>B3. by contributing and listening to others as group determines realistic objectives, prioritizes tasks, and identifies resources and timelines</b>
Evaluation(s)/Goal(s): N/A
<b>B4. by treating other members of the group open-mindedly and fairly</b>
Evaluation(s)/Goal(s): Bird poster, bird pamphlet and public presentation/Goals 1-8
<b>B5. by developing tactics/strategies to accomplish tasks</b>
Evaluation(s)/Goal(s): Bird poster, bird pamphlet and public presentation/Goals 1, 3, 4, 6, 7, 8, 9

### C. Critical Thinking Skills

<b>C1. by seeing critical thinking as a lifelong process of self-assessment</b>
Evaluation(s)/Goal(s): N/A
<b>C2. by examining problems closely</b>
Evaluation(s)/Goal(s): Lecture exams, quizzes, bird poster, bird pamphlet and public presentation, /Goals 1-9

<b>C3. by examining beliefs, assumptions, and opinions, and weigh them against the facts</b>
<b>Evaluation(s)/Goal(s):</b> Lecture exams, quizzes, bird poster, bird pamphlet and public presentation/Goals 6-7
<b>C4. by seeking out the truth</b>
<b>Evaluation(s)/Goal(s):</b> Lecture exams, quizzes, bird poster, bird pamphlet and public presentation/Goals 1, 3, 4, 6, 7, 8
<b>C5. by finding solutions; make decisions</b>
<b>Evaluation(s)/Goal(s):</b> Lecture exams, quizzes, bird poster, bird pamphlet and public presentation, /Goals 1-9
<b>C6. by incorporating new ideas that may not necessarily agree with previous thought on the topic</b>
<b>Evaluation(s)/Goal(s):</b> Bird poster, bird pamphlet and public presentation, /Goals 6-7
<b>C7. by seeing connections between topics and use knowledge from other disciplines to enhance reading and learning experiences</b>
<b>Evaluation(s)/Goal(s):</b> Bird poster, bird pamphlet and public presentation/Goals 1, 3, 4, 6, 7, 8

#### **D. Adaptability Skills**

<b>D1. by working independently or as part of team</b>
<b>Evaluation(s)/Goal(s):</b> Lecture exams, quizzes, bird poster, bird pamphlet and public presentation/Goals 1-9
<b>D2. by carrying out multiple tasks or projects</b>
<b>Evaluation(s)/Goal(s):</b> Lecture exams, quizzes, bird poster, bird pamphlet and public presentation/Goals 1-9
<b>D3. by being innovative and resourceful: identify and suggest alternative ways to get the job done</b>
<b>Evaluation(s)/Goal(s):</b> Bird poster, bird pamphlet and public presentation/Goals 1, 3, 4, 6, 7, 8
<b>D4. by being open and respond constructively to change and uncertainty</b>
<b>Evaluation(s)/Goal(s):</b> Bird poster, bird pamphlet and public presentation/Goals 6, 7

#### **E. Positive Attitude and Behavioural Skills**

<b>E1. by dealing with people, problems, and situations with honesty, integrity, and personal ethics</b>
<b>Evaluation(s)/Goal(s):</b> Bird poster, bird pamphlet and public presentation/Goals 6, 7
<b>E2. by showing interest, initiative, and effort</b>
<b>Evaluation(s)/Goal(s):</b> Lecture exams, quizzes, bird poster, bird pamphlet and public presentation/Goals 1-9

<b>E3. by affirming the need for positive solutions and encourage positive interaction and feedback</b>
<b>Evaluation(s)/Goal(s):</b> Bird poster, bird pamphlet and public presentation/Goals 6, 7
<b>E4. by balancing personal and family activities with job-related activities</b>
<b>Evaluation(s)/Goal(s):</b> Lecture exams, quizzes, bird poster, bird pamphlet and public presentation/Goals 1-9

## Grade Equivalents and Course Pass Requirements

*A minimum grade of D (50%) (1.00) is required to pass this course.*

Letter	F	D	D+	C-	C	C+	B-	B	B+	A-	A	A+
Percent Range	0-49	50-52	53-56	57-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-100
Points	0.00	1.00	1.30	1.70	2.00	2.30	2.70	3.00	3.30	3.70	4.00	4.00

**Students must maintain a cumulative grade of C (GPA - Grade Point Average of 2.00) in order to qualify to graduate.**

## Attendance

Classroom and laboratory attendance is considered vital to the learning process and as significant to the students' evaluation as examinations and reports, therefore absenteeism is recorded.

- a. Students having a combination of excused and/or unexcused absence of 20 percent or higher for the scheduled course hours can be required to withdraw and would then automatically receive a "RW" (required withdrawal) for the course, regardless of any other evaluation results. (RW is a failing grade).
- b. An excused absence is one that is verified with your instructor. Verification should be prior to the absence or the next class day following the absence. Verification of the absence may take the form of a note from your doctor/College nurse regarding illness, or a note from another instructor regarding a field trip or other activity, or authorization by your instructor following an in-person meeting. Be sure to contact your instructor and ask what they will require from you as verification of each absence. An unexcused absence is anything NOT verified by the instructor prior to the absence or the next class day following the absence.

**NOTE:** Any exceptions to the above attendance policy (e.g. timetable conflicts, work-related issues) must be approved in writing by the Department Chair prior to the beginning of the course.



It is the students' responsibility to know their own absentee record.

Normal hours are 8:30 a.m. to 6:30 p.m., with potential for evening courses, exams or extended field trips. Students are expected to be available for classes during these times.

## **Course Units/Topics**

Lecture Content

### **1. Introduction to Birds and Bird Identification Resources**

### **2. How to Identify Birds**

- a) Groups and Orders of Birds
- b) Bird Size, Shape and Colour Pattern
- c) Topography, Moults and Variations
- d) Songs, Calls and Acoustic Displays
- e) Ranges and Habitat Associations
- f) Behaviour and Migration

### **3. Identifying and Distinguishing Birds of the Prairie Provinces**

- a) Waterbirds
- b) Diurnal Raptors
- c) Shorebirds and Gulls
- d) Nocturnal Raptors and their Hoots
- e) Songbirds and their Songs
- f) Upland Game Birds and Remaining Birds (i.e. introduced and range expansions)

### **4. Legislation and Reporting**

- a) Legislation
- b) FWMIS and CDC's

## Laboratory Content:

The following is a list of the laboratory exercises for this course. The order and number may change depending on weather conditions, migration patterns, class interest, and the availability of speakers.

1. **Field Optics and Acoustic Recording Devices:** Students go into the field to use binoculars, spotting scopes and range finders to identify birds and to deploy an ARU.
2. **Waterbird and Raptor Field Survey:** Students conduct a waterbird and raptor survey during the fall migration period.
3. **Identifying Birds by Sound:** Students use songs and other sounds to identify birds (predominantly songbirds).
4. **Bird Survey Techniques:** Students survey the recommended protocols for surveying birds and programs for monitoring birds.
5. **Distinguishing and Identifying Birds by Sight and Sounds Reviews**



Copyright©LAKELAND COLLEGE.  
2602 - 59 Avenue, Lloydminster, Alberta, Canada T9V 3N7. Ph: 780 871 5700  
5707 College Drive, Vermilion, Alberta, Canada T9X 1K5. Ph: 780 853 8400  
Toll-free in Canada: 1 800 661 6490 E-mail: [admissions@lakelandcollege.ca](mailto:admissions@lakelandcollege.ca)