



# ZOO\*4950 Lab Studies in Mammalogy

Winter 2020

Section(s): C01

Department of Integrative Biology

Credit Weight: 0.25

Version 1.00 - November 01, 2019

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## 1 Course Details

### 1.1 Calendar Description

This course provides a practical experience in the study of Mammalogy. Using University collections of prepared and preserved specimens and field observations where possible, students will develop and apply skills in identification and sampling, explore relations between species diversity and habitat, and investigate through guided study, the extent of anatomical, skeletal, reproductive and morphological variation and its functional and evolutionary causes.

**Pre-Requisites:**

15.00 credits including ZOO\*2090

**Restrictions:**

This is a Priority Access Course. Enrolment may be restricted to particular programs, specializations or semester levels during certain periods. Please see the departmental website for more information.

### 1.2 Timetable

Labs: Wednesday, Thursday (2:30pm – 5:20pm) Rm 2304 Science Complex

### 1.3 Final Exam

There is no final exam for this course.

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## 2 Instructional Support

### 2.1 Instructional Support Team

**Instructor:**

Shaylah Tuttle-Raycraft

**Email:**

stuttle@uoguelph.ca

**Telephone:**

519-824-4120 ext 58096

**Office:**

SSC 2502

**Office Hours:**

By Appointment

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## 3 Learning Resources

### 3.1 Required Resources

#### **Courselink (Website)**

There is a courselink website for this course. It should be checked regularly! Additional material will be posted there throughout the semester.

#### **Notebook (Notes)**

Although there is no required text for this class, you will be keeping a notebook for part of the semester. You will need to bring it to the first class meeting.

### 3.2 Recommended Resources

#### **Mammalogy Techniques Lab Manual (Textbook)**

Ryan, J. M. Mammalogy Techniques Lab Manual, Johns Hopkins University Press (2018)

Available through Indigo (ebook) and Amazon.ca (paperback and ebook).

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## 4 Learning Outcomes

### 4.1 Course Learning Outcomes

By the end of this course, you should be able to:

1. Identify the features of mammals and use these features to distinguish between various orders, families and species of mammals found in Ontario.
  2. Collect and analyse data from collection specimens in order to answer a research question.
  3. Use standard research techniques and equipment to collect data in the field and analyse those data.
  4. Critically compare various methods of assessing diversity and abundance of mammals.
  5. Discuss the practical challenges of assessing mammalian diversity and abundance during the winter season.
  6. Effectively communicate findings in a variety of formats.
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## 5 Teaching and Learning Activities

Note: Class schedule is subject to change

## 5.1 Lab

Jan 8, 9

**Topics:**

Introduction/Overview of Modules

Snow tracking: theory and protocols

Radio telemetry

Camera trapping

\*We will be outside for a portion of this lab - dress for the weather

Jan 15,16

**Topics:**

Module 1: Tracking mammals using radio telemetry and estimating their home range; practice snow tracking protocols

\*We will be outside for the entirety of this lab - dress for the weather

Jan 22, 23

**Topics:**

Bad weather date if Module 1 needs to be rescheduled

Jan 29, 30

**Topics:**

Wildlife Rehabilitation

(Submit assignment for module 1 in lab)

Feb 5, 6

**Topics:**

Basics of skull morphology

Tooth formulae

Aging mammals using teeth

**Feb 12, 13**

**Topics:**

Module 2: Mammalian Skull Diversity and what it can tell you  
Using skulls to test hypotheses on the evolution of body size/shape in mammals

Data collection

(submit Field Notebook in lab)

**Feb 19, 20**

**Topics:**

Winter break - no classes

**Feb 26, 27**

**Topics:**

Module 3: Estimating Abundance Mark recapture methods

Relative abundance

Working with a mark recapture data set

**Mar 4, 5**

**Topics:**

TBD

(Submit assignment for module 2 in lab)

**Mar 11, 12**

**Topics:** Module 4: Self-selected module (must be previously approved)  
Data collection for Module 4

(Submit assignment for module 3 in lab)

**Mar 18, 19**

**Topics:** Module 4: Self-selected module work period

**Mar 25, 26**

**Topics:** Module 4: Self-selected module work period

**Apr 1, 2**

**Topics:** Module 4: Self-selected module work period

(Submit assignment for module 4 by 4: 30 pm on lab day)

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## 6 Assessments

### 6.1 Assessment Details

**Module 1 (20%)**

**Date:** Jan 29/30, In lab

**Notebook (20%)**

**Date:** Feb 12/13, In Lab

**Module 2 (20%)**

**Date:** Mar 4/5, In Lab

**Module 3 (20%)**

**Date:** Mar 11/12, In Lab

**Module 4 (20%)**

Date: Apr 1/2, In lab

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## 7 Department of Integrative Biology Statements

### 7.1 Academic Advisors

If you are concerned about any aspect of your academic program:

- Make an appointment with a program counsellor in your degree program. [B.Sc. Academic Advising](#) or [Program Counsellors](#)

### 7.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. <http://www.learningcommons.uoguelph.ca/>
- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: <http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help> and <http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help>

### 7.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. <https://www.uoguelph.ca/counselling/>
- Student Health Services is located on campus and is available to provide medical attention. <https://www.uoguelph.ca/studenthealthservices/clinic>
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. <http://www.selfregulationskills.ca/>

## 8 University Statements

### 8.1 Email Communication

As per university regulations, all students are required to check their e-mail account regularly: e-mail is the official route of communication between the University and its students.

### 8.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions

<https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml>

### 8.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

Undergraduate Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

<https://www.uoguelph.ca/registrar/calendars/diploma/current/c08/c08-drop.shtml>

### 8.4 Copies of Out-of-class Assignments

Keep paper and/or other reliable back-up copies of all out-of-class assignments: you may be asked to resubmit work at any time.

## 8.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

For Guelph students, information can be found on the SAS website  
<https://www.uoguelph.ca/sas>

For Ridgetown students, information can be found on the Ridgetown SAS website  
<https://www.ridgetownc.com/services/accessibilityservices.cfm>

## 8.6 Academic Integrity

The University of Guelph is committed to upholding the highest standards of academic integrity, and it is the responsibility of all members of the University community—faculty, staff, and students—to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff, and students have the responsibility of supporting an environment that encourages academic integrity. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

Undergraduate Calendar - Academic Misconduct  
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

Graduate Calendar - Academic Misconduct  
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

## 8.7 Recording of Materials



Presentations that are made in relation to course work - including lectures - cannot be recorded or copied without the permission of the presenter, whether the instructor, a student, or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.

## **8.8 Resources**

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

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