

**University of Guelph
College of Biological Science**

Department of Integrative Biology

COURSE OUTLINE

LAB STUDIES IN MAMMALOLOGY

ZOO*4950

W18

Course description

ZOO*4950 Lab Studies in Mammalogy W (0-3) [0.25]

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.

Prerequisite(s): 15.00 credits including ZOO*2090

Restriction(s): 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.

Department(s): Department of Integrative Biology

Teaching team

Course Instructors: Dr. Leslie Rye, Rm 1446 Science Complex, ext 56129

email: lrye@uoguelph.ca

Sheri Hincks, Rm 1454 Science Complex, ext 56010

email: shincks@uoguelph.ca

Teaching Assistant: Jack Robertson

Course schedule

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

Required Course Materials: 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.

Learning goals and rationale

At the end of the course, students 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.

Course Resources

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

Course Content

Note: Class schedule is subject to change – this is a tentative outline as outdoor labs are weather dependent.

Week	Lab Topic	Readings
Jan 10, 11	Introduction/Overview of Modules Snow tracking: theory and protocols* How to take a compass bearing* Overview of radio telemetry* Camera trapping basics* How the notebook will work * We cover these topics indoors this week, so that you can apply them in the field over the next two weeks	See Courselink
Jan 17, 18	Module 1: Tracking mammals using radio-telemetry and estimating their home range; practice snow tracking protocols; set camera traps We meet at the Arboretum kiosk at 2:30pm	See Courselink
Jan 24, 25	Module 1: Tracking mammals using radio-telemetry and estimating their home range; practice snow tracking protocols; set/check camera traps We meet at the Arboretum kiosk at 2:30pm	See Courselink

Week	Lab Topic	Readings
Jan 31, Feb 1	Module 1: Tracking mammals using radio-telemetry and estimating their home range Analysis: Home range and habitat use analyses in the lab	See CourseLink
Feb 7, 8	Module 2: Mammalian Skull Diversity and what it can tell you Basics of skull morphology, the importance of tooth formulae, and aging mammals using teeth Please note: This is one of the weeks that will be marked in the notebook. (Submit assignment for module 1)	See CourseLink
Feb 14, 15	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 (e.g., Bergman's Rule, Allen's Rule, mating system and dimorphism) Data collection	See CourseLink
Feb 21, 22	Winter Break – no classes	
Feb 28, Mar 1	Work period for module 2 – bring your questions!	
March 7, 8	Module 3: Estimating Abundance Mark-recapture methods; Relative abundance Working with a mark-recapture data set (Submit assignment for module 2) (Submit notebook)	See CourseLink
March 14, 15	Work period for module 3 – bring your questions!	
March 21, 22	Module 4: Self-selected module (must be previously approved) Data collection for Module 4 (Submit assignment for module 3)	See CourseLink
March 28, 29	Analysis of data	
April 3, 4	Finish data analysis Submit assignment for module 4 (by 5pm) (Pick up notebook)	

Methods of Assessment

Form of Assessment	Weight of Assessment	Due Date of Assessment	Course Content/Activity	Learning Outcome Addressed
Module 1	20%	Feb 7, 8	Lab	3, 5, 6
Module 2	20%	March 7, 8	Lab	2, 3, 6
Notebook	20%	March 7, 8	Lab	1, 3, 4, 5, 6
Module 3	20%	March 21, 22	Lab	3, 4, 6
Module 4	20%	April 4, 5	Lab	3, 6

Note: Unless otherwise stated in writing, all submissions are to be independent work.

Important Dates

- Feb 7, 8: Module 1 due in lab
- March 7, 8: Module 2 AND notebook due in lab
- March 10: Fortieth class day
- March 21, 22: Module 3 due in lab
- April 4, 5: Module 4 due by 5pm

Course and University Policies

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, and be prepared to provide supporting documentation. See the undergraduate calendar for information on regulations and procedures for Academic Consideration: [Undergraduate Calendar - Academic Consideration](#)

Providing acceptable documentation is provided, missed lab hand-ins will be prorated based on completed hand-ins and other assessments will be rescheduled.

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment.

Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact the Student Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email: <mailto:accessibility@uoguelph.ca> or see the website: [Student Accessibility Services](#)

Academic Misconduct

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 discourages misconduct. 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.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar: [Undergraduate Calendar - Academic Misconduct](#)

E-mail Communication

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

Drop Date

The last date to drop one-semester courses, without academic penalty, is the 40th class day.

To confirm the actual date please see the schedule of dates in the Undergraduate Calendar. For regulations and procedures for Dropping Courses, see the Undergraduate Calendar: [Undergraduate Calendar - Dropping Courses](#)

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.

Recording of Materials

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

Grading

All assessment for the course takes place during the student's regularly scheduled lab period.

Campus Resources

The Academic Calendar is the source of information about the University of Guelph's procedures, policies and regulations which apply to undergraduate, graduate and diploma programs: [Academic Calendars](#)

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](#)

If you are struggling to succeed academically:

- 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. [The Learning Commons](#)

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. [Counselling Services](#)
- Student Health Services is located on campus and is available to provide medical attention. [Student Health Services](#)
- 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. [Stress Management and High Performance Clinic](#)

If you have a documented disability or think you may have a disability:

- The Student Accessibility Services (SAS) can provide services and support for students with a documented learning or physical disability. They can also provide information about how to be tested for a learning disability. For more information, including how to register with the SAS, please see: [Student Accessibility Services](#)