

University of Alberta

BIOL 495: Field Methods in Ecology of Southern Africa Southern African Field School Spring/Summer 2018

Instructors: Dr. Audrey Helen Reid, Christine Bubac

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Office Hours: Upon request

Lecture Time: MWF 6:00 pm

Course Description:

BIOL 495: Field Methods in Ecology of Southern Africa is designed to provide students with the opportunity to gain first hand experience with conducting ecology field work, along with experience designing, executing, and analyzing real ecological data. During this course, you will gain a working knowledge of a variety of field techniques, this year including (but not necessarily limited to): animal behaviour sampling, vegetation surveys, population estimation, trapping and handling of small mammals, bird call transects, and stream macroinvertebrate sampling.

Course Prerequisites: BIOL 208.

It is important to prepare yourself for this course through a review of the prerequisite material. Students who do not have the required prerequisites at the time of taking this course should not expect supplementary professorial tutoring from the instructor.

Course Objectives and Expected Learning Outcomes:

The aim of this course is to provide students with hands-on experience implementing small ecological experiments, data collection, data analysis, and interpretation of results. In addition, students will gain experience working and collaborating with staff of an international non-profit organization (All Out Africa), and of a privately-owned game reserve (Mbuluzi Game Reserve). This acquired skill set will benefit each student should they choose to pursue further education, job opportunities, or careers in ecology (ex. Academic, governmental, and private environmental agencies).

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

- Demonstrate a working knowledge of a variety of techniques related to collecting ecological data, including (but not limited to):
 - Vegetation ID and surveys
 - Animal behaviour observations
 - Stream Macroinvertebrates
 - Small mammal mark and recapture
 - Camera traps
 - Bird call transects
- Analyze ecological data, and/or how to learn how to analyze ecological data

- Write the components of a scientific report

Required Textbook and Supplies: None. Supplemental materials will be provided to students.

Additional Learning Resources and Assistance:

Although this is a field course, as University of Alberta students you have the right to access campus resources remotely.

Any and all academic or health concerns should first be brought to your instructor(s), as they will be able to address student needs in a more timely and appropriate fashion given the circumstances.

Student Success Centre:

Students who require additional help in developing strategies for better time management, study skills or examination skills should contact the [Student Success Centre](#). They are a great first-stop for any academic concerns, especially if you are unsure where to go or what to do.

Decima Robinson Support Centre:

If you need additional help with the mathematical concepts in this course please contact the [Decima Robinson Support Centre](#). They are generally open from 9:00 am until 3:00 pm (MST) on weekdays, and are available for one-on-one homework help on a drop-in basis. They can be emailed at mathhelp@ualberta.ca

Centre for Writers:

Students desiring additional assistance with writing assignments (both native and on-native English speakers) can contact the [Centre for Writers](#). One-on-one appointments can be booked online at their website, along with workshops and additional assistance.

Counselling and Clinical Services, and the University Health Centre:

Learning effectively is difficult if you feel unwell, either/both physically and mentally. For any and all mental health concerns please contact [Counselling and Clinic Services](#) (open 8:00-4:30 MST weekdays), the Canadian Mental Health Association hotline at +1-780-482-43357 (24/7), or call International SOS at +1-215-942-8478 (24/7).

For physical health concerns, please contact the [University Health Centre](#) (open 8:30-4:00 MST weekdays), HealthLink Alberta at +1-866-408-5465 (24/7), or International SOS at +1-215-942-8478 (24/7).

All are great resources, and you shouldn't hesitate to contact them if you have any health concerns.

Students Eligible For Accessibility-Related Accommodations (students registered

with Student Accessibility Services - SAS):

Eligible students have both rights and responsibilities with regard to accessibility-related accommodations. Please note adherence to procedures and deadlines is required for U of A to provide accommodations. Contact [SAS](#) for further information.

Grade Evaluation:

Evaluation in this course consists solely summative assessment, with formative assistance throughout the project. Formative evaluation allows students to identify their strengths and weakness in a subject, allowing for improvement later in the course. Summative evaluation rewards students for mastery of a subject.

Final letter grades for this course are based neither on an absolute numerical scale (e.g. >95% of total marks = A+) nor on a strict curve (e.g. the top 5% of students = A+, regardless of actual marks). Rather, a combination of the two will be used based upon historical patterns, current performance, and natural breakpoints in distributions. The absolute percentage scores to secure a particular grade will vary from year to year because it is not possible to write exams with consistently identical difficulty levels. **However, student will only receive a passing grade (D or higher) if they obtain a final mark of at least 45% in BOTH the assignment and participation components of the course.** Grades are unofficial until approved by the Department and/or Faculty offering the course.

More information concerning [University of Alberta Assessment and Grading Policies](#) are available online.

Course Breakdown:

Course Component	Weighting	Due Date
Participation	50%	Ongoing - will be assessed on June 6
Introduction	10%	Friday, May 18 @ 5:00 pm
Methods	10%	Friday, May 25 @ 5:00 pm
Results	10%	Friday, May 31 @ 5:00 pm
Discussion	20%	Wednesday, June 6 @ 9:30 am

Participation:

Students are **required** to actively participate in all data collection, analysis, and summary activities. Lack of participation or attendance in any activity will result in proportional marks deducted from their participation grade.

Late Assignments:

Assignments that are handed in late without an excused absence or accommodation request will be subject to a penalty of 10% off of the assignment value each day it is late. All assignments handed in at a later time on the same they are originally due will automatically be considered one day late. Weekends count.

Example: A student hands in an assignment in one day late. The assignment is marked out of 55 points. The assignment received a mark of 42/55 points. Because of the one day penalty (10% off the assignment value) the student will receive a 37.8/55 ($42 \text{ pts} * 0.90 = 37.8$). If the assignment were handed in two days late, it would receive a 33.6/55 ($42 \text{ pts} * 0.80 = 33.6$).

Extra Credit:

Any and all requests for extra credit will be denied.

Academic Integrity:

The University of Alberta is committed to the highest standards of academic integrity and honesty. Students are expected to be familiar with these standards regarding academic honesty and to uphold the policies of the University in this respect. Students are particularly urged to familiarize themselves with the provisions of the [Code of Student Behaviour](#) and avoid any behaviour which could potentially result in suspicions of cheating, plagiarism, misrepresentation of facts and/or participation in an offence. Academic dishonesty is a serious offence and can result in suspension or expulsion from the University.

All forms of dishonesty are unacceptable at the University. Any offence will be immediately reported to the Associate Dean of Science who will determine the disciplinary action to be taken. Cheating, plagiarism and misrepresentation of facts are serious offences. Anyone who engages in these practices will receive at minimum a grade of zero for the exam or paper in question and no opportunity will be given to replace the grade or redistribute the weights. As well, in the Faculty of Science the sanction for **cheating** on any examination will include a **disciplinary failing grade** (NO EXCEPTIONS) and senior students should expect a period of suspension or expulsion from the University of Alberta.

TL;DR: Although this is a field course, any and all forms of academic dishonesty will be brought to the Associate Dean of Science, and you will be punished heavily.

Disclaimer:

Any typographical errors in this Course Outline are subject to change and will be announced in class. The date of the final examination is set by the Registrar and takes precedence over the final examination date reported in this syllabus.

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Policy about course outlines can be found in the [University Calendar](#).

Course Schedule:

Activities are subject to change. Participation in all field activities is required.

Date	Morning Field Activity	Evening Activity (starting @ 6pm)	Assignment Due (by 5 pm)
May 9	Mbuluzi Orientation	Course Meeting	
May 10	Vegetation ID, Giraffe Behaviour	Documentary	
May 11	Vegetation ID, Giraffe Behaviour	Course Meeting	
May 12 - 13	Free Weekend		
May 14	Vegetation Survey, Giraffe Behaviour	Course Meeting	
May 15	Vegetation Survey, Giraffe Behaviour		
May 16	Vegetation Survey, Giraffe Behaviour	Course Meeting	
May 17	Stream Macroinvertebrates	Documentary	
May 18	Stream Macroinvertebrates	Course Meeting	Introduction
May 19 - 20	Free Weekend		
May 21	Stream Macroinvertebrates	Course Meeting	
May 22	Small Mammals, Camera Traps		
May 23	Small Mammals, Camera Traps	Course Meeting	
May 24	Small Mammals, Camera Traps	Documentary	
May 25	Bird Call Transects, Small Mammals, Camera Traps	Course Meeting	Methods
May 26 - 27	Free Weekend		
May 28	Bird Call Transects, Small Mammals, Camera Traps	Course Meeting	
May 29	Bird Call Transects, Small Mammals, Camera Traps		
May 30	Free Morning	Course Meeting	
May 31	Mlawula Caves Hike	Documentary	Results
June 1 - 4	Kruger National Park		
June 5	Travel to Tofo		
June 6	Discussions Due at 9:30 am		