



Biology 3230F Course Outline

Fall 2024

1. Course Information

Course Information

Biology 3230F, Field Research in Biology, Fall 2024

This course will include several field trips during the lab and lecture timeslots on Thursdays and will require students to spend time in the field conducting individual research projects.

List of Prerequisites

A minimum mark of 60% in [Biology 1001A](#) or [Biology 1201A](#), and [Biology 1002B](#) or [Biology 1202B](#) or [Integrated Science 1001X](#), and [Biology 2244A/B](#) or Statistical Science 2244A/B.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course, and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

2. Instructor Information

Instructor: Dr. Ben Rubin, brubin2@uwo.ca

Teaching Assistant: Natalie Tateishi, ntateish@uwo.ca

Students must use their Western (@uwo.ca) email addresses when contacting the instructor or TA.
Office hours by appointment

3. Course Syllabus, Schedule, Delivery Mode

Description: This experiential learning course provides a theoretical and hands-on introduction to the planning and execution of field studies in biology. Course topics include planning, common field methods, data recording, and common methods of data analysis used by field biologists. Each of these will be presented during lectures and performed by students for credit. A breadth of study organisms and systems will be covered (e.g. trees, herbaceous plants, animals, aquatic ecosystems, terrestrial ecosystems). 2 lecture hours, 3 laboratory hours, 0.5 FCE

Course Learning Outcomes

At the end of this course, successful students will be able to:

1. Describe and perform the steps of preparing for field studies in biology, including
 - a. **planning** the

Sep 24 Designing datasheets

Sep 26

Reading: [Reed et al. \(2022\)](#)
Forest structure group project: Field trip
DUE: Research

Software (free):

R version 4.4.1 (June 2024) ([j w r u <1etcp0 r tq lgev0ti l](https://www.r-project.org/))

RStudio Desktop v2022.07.01 (<https://posit.co/download/rstudio-desktop/>)

If you have an earlier version of R and RStudio on your laptop, I recommend that you uninstall R, RStudio, and all libraries, and then install the most recent versions. You may also use R Studio Cloud, which is hosted online.

iNaturalist account (free)

Students are responsible for checking the course Brightspace site (<http://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class.

5. Methods of Evaluation

The overall course grade will be calculated as listed below:

<u>Course element</u>
<u>Class attendance, participation, leadership, and Professionalism¹: 15%</u>
<u>Reading reports (Top 8 of 10)²: 5%</u>
<u>iNaturalist collection 10%</u>
Individual research projects
Potential research questions 10%
Project Proposal: 15%
Field Data Collection Plan 5%
Draft Data Analysis: 10%
Final Research Report ¹³ : 30%

compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual assault (on campus or off campus), you will find information about support services for survivors, including emergency contacts at

https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education (224(e)s/F1 12 This