

COURSE OUTLINE

Instructor: Dr. Gary Bradfield
Biol. Sci. Room 1109
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Lectures: MWF 10:00-10:50 BiolSci 2321

Course readings: A readings package is available in the UBC Bookstore. This package consists of sections from Kent & Coker (1992) "Vegetation Description and Analysis," McCune & Grace (2002) "Analysis of Ecological Communities," and Thompson (1985) "Vegetation Classification of the Endowment Lands." In addition, a selection of journal papers will be given in class for critical reading/discussion assignments.

Overview: This is a practical course dealing with the sampling, description, and analysis of plant communities and their underlying causal factors. Lecture topics deal mainly with the concepts and methods of sampling, analysis, and interpretation of different types of vegetation (e.g. forests, wetlands, grasslands). Several methods for analyzing field data that are part of the PC-ORD computer package available on the Statslab computers (Biol Sci 2434) will be outlined in lectures. The final exam will be based on material covered in lectures.

The labs are designed around research projects carried out individually or in teams of 3-5 students. The major lab project (Project 3) requires you to design and carry out a study of vegetation ecology in Pacific Spirit Park. Opportunities for testing a number of ecological hypotheses (e.g. succession, edge effects, patch dynamics, productivity-diversity) are available. Practical experience is gained in vegetation sampling, computer data analysis, and written and oral report presentation. Class presentations of field projects will be made during last week of term.

Research Labs: These consist of *three research projects* that you will work on outside of class time (there are no set lab times for this course). Projects 1 & 3 are team-based and involve field work on the UBC campus and in Pacific Spirit Park. Normally, teams consist of 3-5 students per team, but final reports are prepared and handed in separately by each student. Project 2 is done individually and involves sampling and analyzing data from a forest map that will be provided in class.

We will go on a few "class walks" during September to help generate ideas for the field projects. More information about the field projects is given on a separate page.

Grading: Project 1 (Pattern in UBC lawn weeds)	– 10%	Due date: Sept. 22
Project 2 (Forest map sampling and quantitative description)	– 10%	Due date: Oct. 20
Project 3 (Vegetation ecology in Pacific Spirit Park)	– 40%	Due date: Dec. 5
Final exam (lecture notes)	– 40%	

Biol 302 or 303 are prerequisites for this course, but may be taken concurrently. In addition, some background knowledge on the plants of Pacific Spirit Park (e.g. Biol 324), as well as a basic understanding of statistics (e.g. Biol 300) are helpful (but not required) prerequisites.