

Course Philosophy

Students' Learning Responsibilities

Attendance in class is mandatory and students are expected to be prepared to discuss the readings by having read the assigned readings and completed any other assigned work.

Why this course is useful?

This course covers current topics in weed science and focuses on a broad range of themes and current research. Weeds remain a major constraint to crop and livestock and human health and a significant effort and expense go into managing unwanted plants each year.

Who should take this course?

Graduate students interested in learning more about current research and methods in weed science and applied plant ecology.

How this course fits into the curriculum

This course is one of the applied graduate courses offered by the department.

Course Description/Objectives

Graduate Calendar Description

Weed biology and ecology in the context of weed management, covering theory, current information, investigative approaches and experimental techniques. Topics include: weed population biology, modeling, weed community ecology, herbicide efficacy and herbicide resistant weeds.

Instructional Methods

Students will review assigned and chosen readings via a 30 min oral presentation at the beginning of each class. An extensive discussion of the assigned readings led by the student who presented the topic follows.

Course Objectives

- 1) Understand the ecological principles that govern plant species, plant communities and crop-weed interactions in agricultural systems.
- 2) Critically evaluate scientific methods used in weed science and applied plant ecology.
- 3) Improve critical thinking as well as written and oral communication skills.

Learning outcomes

At the end of this course, students will gain:

- 1) Technical knowledge on plant ecology in agroecosystems.
- 2) Skills in critical evaluation of scientific and other literature.
- 3) Improved abilities to communicate.

Description of Examinations

There are no examinations in this course.

Description of Assignments

Students will write concise reviews and answer provided questions about the provided readings. Students will also complete a term assignment that will be discussed as a class.

Assignment Due Dates

Regular assignments are due at the beginning of that class.

Grade Evaluation

Regular assignments	25 %
In-class presentations	25 %
Contribution to discussion	30 %
Term assignment	20 %
	100 %

Important Dates (e.g., voluntary withdrawal date)

November 16, 2011 Final day for voluntary withdrawal

Texts, Readings, Materials

Textbook(s) – Authors, Titles, Edition

None required.

Supplementary Reading

This will be assigned as necessary.

Additional Materials

These will be provided as necessary.

Course Policies

Late Assignments

10% of assignment grade will be lost per day late.

Missed Assignments

Will receive a zero grade

Missed Exams

N/A

Academic Integrity

Plagiarism or any other form of cheating in examinations, term tests or academic work is subject to serious academic penalty. A student found guilty of contributing to cheating in examinations or term assignments is subject to serious academic penalty. Students should acquaint themselves with the University's policy on plagiarism, cheating, exam impersonation and duplicate submission (see Section 8.1 Plagiarism and Cheating in the University of Manitoba Graduate Calendar 11/12).

Additional Comments:

Use of Third Party Detection and Submission Tools

Electronic detection tools may be used to screen assignments in cases of suspected plagiarism.

Group Work Policies:

Assignments for class and laboratories are to be conducted on an individual basis unless otherwise indicated.

Course Content

The following are suggested topics to be discussed:

- 1) Weed history and evolution
- 2) The seedbank and emergence
- 3) Plant interference I
- 4) Plant interference II
- 5) Spatial dynamics of weeds
- 6) Community ecology and analysis
- 7) Herbicide resistance
- 8) IWM and novel approaches to weed management
- 9) Molecular tools in weed science
- 10) Modeling in weed science