

CR259

Weed and Insect Management

3 Credits

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Reviewer: Tracy Quinton

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CR259 Version: 6



Weed and Insect Management

Calendar Description

This course is an introduction to various crop pests and their control measures. Pest groups include weeds, insects, and diseases. Control measures include cultural practices and/or the use of pesticides. The impact on the environment of these measures is studied. Best management practices for specific pests are covered and demonstrate critical thinking skills necessary for other pest management.

Rationale

This is a required course for the crops concentration Agri-Business students. The agri-business industry depends on the efficient management of primary agricultural products. Economical crop management depends on effective pest management to a large extent. Cultural practices and pesticides are very important tools used extensively in crop pest management. Understanding the pests and the potential impact their control measures might have on the environment are important factors for the Agribusiness industry.

Prerequisites

None

Co-Requisites

None

Course Learning Outcomes

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

1. recognize the most significant disease, weed and insect pests to Western Canadian Crops.
2. explain the impact that the three major groups of pests can have on field crop production.
3. classify various pest management strategies.
4. recognize the impact that pest management practices can have on the pests, the crops, and the environment.
5. describe and explain the concept of economic threshold levels.

6. describe life cycles of diseases, weeds and insects in Western Canada including understanding most damaging stages.
7. use a crop protection guide to safely select appropriate pesticide intervention.
8. recognize key federal and provincial legislation acts and the importance of a pesticide label for applying pesticides.

Resource Materials

Reference Text(s):

Brook, H., & Cutts, M. (Ed.). *Crop protection* (blue book). Edmonton, AB: Alberta

Agriculture and Forestry. (This is an annual publication. The current version will be used.)

Lakeland College Pesticide Applicator Certificate Course, Core Lesson. Revised 2016.

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Pesticide Management Program.

Conduct of Course

The 40 hours of instruction consists of lecture, problem-solving demonstrations, projects and exams. Delivery of information may be a combination of PowerPoint presentations, videos, guest speakers, class projects and assigned reading.

Students are expected to:

- Come to class and participate.
- Read the text materials as assigned.
- Complete assigned exercises and projects.
- Write quizzes and exams as scheduled.

Evaluation Procedures

The final grade is an aggregate of the following components:

Assignments	30%
Quizzes	20%
Midterm Exam	20%
Final exam (comprehensive)	30%
Total	100%

Late assignments will be reviewed and feedback given, but assigned a mark of '0' without prior permission from instructor.

Grade Equivalents and Course Pass Requirements

A minimum grade of D (50%) (1.00) is required to pass this course.

Letter	F	D	D+	C-	C	C+	B-	B	B+	A-	A	A+
Percent Range	0-49	50-52	53-56	57-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-100
Points	0.00	1.00	1.30	1.70	2.00	2.30	2.70	3.00	3.30	3.70	4.00	4.00

Students must maintain a cumulative grade of C (GPA - Grade Point Average of 2.00) in order to qualify to graduate.

Attendance

Classroom and laboratory attendance is considered vital to the learning process and as significant to the students' evaluation as examinations and reports.

- a. Students having a combination of excused and/or unexcused absence of 20 percent or higher for the scheduled course hours will be required to withdraw and will automatically receive a "RW" (required withdrawal) for the course, regardless of any other evaluation results. (RW is a failing grade.)
- b. An excused absence is one that is verified with your Instructor. Verification should be prior to the absence or the next class day following the absence. Verification of the absence may take the form of a note from your doctor/College nurse regarding illness, or a note from another Instructor regarding a field trip or other activity, or authorization by your Instructor. An unexcused absence is anything NOT verified by the instructor prior to the absence or the next class day following the absence.

NOTE: Any exceptions to the above attendance policy (e.g. timetable conflicts, work-related issues) must be approved in writing by the Department Chair prior to the beginning of the course.

It is the students' responsibility to know their own absentee record.

Normal hours are 8:30 a.m. to 6:30 p.m., with potential for evening courses, exams or extended field trips. Students are expected to be available for classes during these times.

Course Units/Topics

Weeds of Western Canadian agriculture and their impact.

Economic impact of weeds and weed control

Identification and description of most significant weeds

Weed biology and herbicide resistance

Crop Diseases in Western Canadian Agriculture and their impact

Disease impacts, life cycles and terminology

Identification and description of most significant diseases

Insects of Western Canadian crops and their impact

The biology and life cycles of insects

Identification and description of most significant insects

Pest Management and Control

Integrated Pest Management tactics and strategies

Recommending efficient and effective pest control methods

Outlining federal and provincial pesticide application legislation and components of pesticide labels

Pesticide safety and environmental considerations.



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