



## **Course Philosophy**

### **Students' Learning Responsibilities**

Students are responsible to fill out the Required Readings manual as they follow along throughout the lectures in this course, however, much complementary and more current information will also be provided during the lectures. Students are also responsible to take notes on any additional material that is presented in class by the instructor or guest lecturers as this information will also be examined.

### **Why this course is useful?**

The course provides the basis for contemporary cereal and oilseed crop production practices. The course provides historical and global perspectives for each crop before covering, in detail, the production methods from seed to seed. The information provided in this course is paramount for completion of the Farm Management Plan that is the capstone activity of the Diploma program.

### **Who should take this course?**

The course provides the fundamentals of cereal and oilseed production methods and all students interested in careers in farming, agronomy or as crop advisors will benefit from taking this course.

### **How this course fits into the curriculum**

This course is required for all options within the diploma program. It is a continuation of the "Introductory soils and crops" course and provides additional information for the "Special crops" course that is optional in year two of the program. This course provides important information for completing the Farm Management Plan in year two of the program.

## **Course Description/Objectives**

### **Undergraduate Calendar Description**

Production practices for wheat (spring and winter), barley, oats, rye, triticale, canola, and flax will be discussed, including tillage, seeding, fertility, pest control, harvesting, rotation and utilization.

### **Instructional Methods**

Course content will be introduced through lectures with opportunities for in-class discussion. The laboratory section focuses on a more hands on approach to augment and revisit concepts introduced in the lectures.

### **Course Objectives**

- 1) Introduce students to the importance of cereal and oilseed crops produced in western Canada.
- 2) Understand effective agronomic practices to produce these crops.
- 3) Know the major pests (weeds, diseases, and insects) that can affect each of these crops and how to manage these.
- 4) Know when these crops have reached physiological maturity and when to harvest these crops.
- 5) Understand the utilization of cereal and oilseed crops and major importers of these crops.
- 6) Design a crop rotation that maximizes yield potential of cereal and oilseed crops.

## Learning outcomes

At the end of this course students will gain:

- 1) Technical knowledge on cereal and oilseed crop management.
- 2) Critically evaluate cereal and oilseed crop rotations.
- 3) Improved abilities to communicate in oral and written format.

## Description of Examinations

Students will write one mid-term and one final examination for the lecture and laboratory portions of the course. These are structured to evaluate knowledge of facts and more in depth understanding and integration of course material. The lecture mid-term will be held on **Wednesday, Feb. 16<sup>th</sup>, 2011**. All the time of all other exams will be announced in the laboratory section or are scheduled by the Registrar.

## Description of Assignments

Assignment 1 - A 5 minute oral interview with the instructor within the first two weeks of classes.

Assignment 2 - Students are expected to prepare a short, concise and well-articulated paper on one of a choice of several current topics to be provided in class in late January. Evaluated for content (50%), organization (25%), and grammar (25%).

## Assignment Due Dates

Assignment 1 - Due Wednesday January 19, 2011

Assignment 2 - Due Friday March 11, 2011

Lab reports and assignments are due as indicated in the lab manual and by the instructor.

## Grade Evaluation

Midterm Examination	20%	Wednesday, Feb. 16, 2011 (in class)
Assignment 1	2%	
Assignment 2**	18%	
Final Exam	30%	
Laboratory*	30%	

\* Includes marks for quizzes, assignments, participation and the final exam. NOTE - students **MUST** pass the laboratory to pass the course.

\*\*Assignment – major assignment topics will be assigned by January 21, 2011 and assignments will be due March 11, 2011. The assignments will be concise (Maximum 3 pages (1 sided) double spaced, excluding title page and references).

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

The last date for voluntary withdrawal is **March 18, 2011**. Students will have the results of the mid-term examination before this date.

## Texts, Readings, Materials

### **Textbook(s) – Authors, Titles, Edition**

### **Supplementary Reading**

Will be assigned as required and handed out in class as needed.

### **Additional Materials**

Students are required to purchase the “Required readings for Cereal and Oilseed production Practices” and “Cereal and Oilseed Production Practices Laboratory Manual” booklets from the University of Manitoba bookstore.

## Course Policies

### **Late Assignments**

10% of assignment grade will be lost per day late. No papers will be accepted more than 7 days after the due date without a valid medical certificate or compassionate reason (e.g., death of an immediate family member)

### **Missed Assignments**

Will receive a zero grade.

### **Missed Exams**

There is **NO** make-up examination for a missed mid-term! If missed and the student has a valid medical certificate or compassionate reason (e.g., death of an immediate family member), marks from mid-term will be added to marks for the final examination. Students who miss the examination without a valid reason will receive a grade of zero (0) for the mid-term examination.

In the case of a missed final examination, a student will be assigned an F (no paper) grade for the course unless an acceptable medical certificate or a confirmable compassionate reason is provided in which case a supplementary examination will be allowed.

### **Academic Integrity**

Plagiarism or any other form of cheating in examinations, term tests or academic work is subject to serious academic penalty. Cheating in examinations or tests may take the form of copying from another student or bringing unauthorized materials into the exam room. Exam cheating can also include exam impersonation. A student found guilty of contributing to cheating in examinations or term assignments is also 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, p. 27 in the University of Manitoba Undergraduate Calendar 10/11).

### **Additional Comments:**

There is no tolerance for disruptive behaviour in class. This includes talking, cell phones and other disruptions that do not pertain or contribute to the course material. Offending students will be asked to leave the classroom.

### **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

Topic	Lecture Date or Number of Lectures
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### Course Outline:

#### 1.0 Introduction

##### 1.1. Course Overview

##### 1.2. Feeding a Hungry World?

##### 1.3 Trends in MB Agriculture

##### 1.4 In Crop Production, Knowledge is Power

#### 2.0. Crop Adaptability

#### 3.0. Production Practices: Planning, Tillage, Seeding, Fertilizer, Pest Control, Harvest.

#### 4.0 Cereal Crops

##### 4.1 Introduction

##### 4.2. Spring wheat (note: the topics covered for spring wheat are covered for all other crops)

###### 4.2.1. Origin

###### 4.2.2. Uses

###### 4.2.3. Adaptability

###### 4.2.4. Tillage

###### 4.2.5. Seeding

###### 4.2.6. Fertilizer

###### 4.2.7. Pest control

###### 4.2.8. Harvest

##### 4.3. Growth Stages of Cereals

##### 4.4. Winter wheat

##### 4.5. Wheat types and Varieties

##### 4.6. Barley

##### 4.7. Oats

##### 4.8. Rye

##### 4.9. Triticale

#### 5.0 Oilseeds

##### 5.1. Introduction

##### 5.2. Canola

##### 5.3. Flax