

AP310
Farmland Evaluation
3 Credits

Instructor: Ken Rutherford
Phone: 780 871 5768
Original Developer: Mel Mathison
Current Developer: Ken Rutherford
Reviewer: Rob Koebel
Created: 01/05/1994
Revised: 23/07/2015
Approval: 23/07/2015

The Implementation Date for this Outline is 01/09/2015

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2602 - 59 Avenue, Lloydminster, Alberta, Canada T9V 3N7. Ph: 780 871 5700
5707 College Drive, Vermilion, Alberta, Canada T9X 1K5. Ph: 780 853 8400
Toll-free in Canada: 1 800 661 6490



AP310 Version: 14



Farmland Evaluation

Calendar Description

This course provides theory and practice in farmland assessment according to Alberta Municipal Affairs Assessment Standards Guidelines. It includes the evaluation of farmland in relation to soils, climate, and productivity factors. The course provides training in soil evaluation to a level that students can successfully use the Alberta Municipal Affairs farmland assessment manual. The preparation of assessment reports and interpretation of aerial photographs, soil surveys, and county maps will be considered.

Rationale

This is a required course for the Real Estate Appraisal and Assessment students. A basic understanding of soils and landforms is necessary to apply the guidelines of the Alberta Municipal Affairs Assessment Standards Manual. As agricultural soil and climate conditions vary across the province, the assessment ratings for farmland values will also vary.

The soil types and climatic conditions are reviewed for the agricultural regions determined by the assessment manual. The course also provides practice using soil survey reports, the Canada Land Inventory soil capability for agriculture maps, and aerial photograph interpretation to further assist the assessment process.

Prerequisites

None

Co-Requisites

None

Course Learning Outcomes

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

1. describe the format of the Alberta Farmland Assessment manual.
2. explain the basic concepts involved in farmland assessment.
3. describe the agricultural regions of Alberta.

4. use the Dominion Land Survey System to determine legal land locations.
5. describe the characteristics of the major soil Great Groups for the Canadian System of Soil Classification in Alberta and their potential influence on the valuation of farmland.
6. recognize and describe factors that affect productivity and valuation of farmland.
7. describe soil conditions that influence farmland productivity.
8. use the farmland assessment manual to determine valuation.
9. complete standard arable and irrigated farmland assessment forms.
10. interpret aerial photographs to assist with the farmland assessment process.

Resource Materials

Reference Texts:

Brady, N. C. & Weil, R. R. (1999). *The nature and properties of soils*. (12th ed.). New Jersey:

Prentice Hall.

Soil Classification Working Group (1998). *The Canadian system of soil classifications*. (3rd. ed.).

Ottawa, ON: Agriculture and Agrifood Canada.

Assessment Standards Branch (1984). *Alberta municipal affairs farmland assessment*

manual. Edmonton, AB.

Conduct of Course

The course is approximately 56 hours of lecture and 8 hours of lab/field work. The classroom instruction is in a lecture style with the use of overheads. Questions and discussions occur during the classroom instruction to insure the material is understood. Assessment examples are completed in class that cannot be done at a later date due to availability of some materials. Lab periods concentrate on basic physical and chemical properties of soil and soil profiles.

Evaluation Procedures

The final grade is an aggregate of the following components:

Midterm exams (2 @ 20%)	40%
Labs/Assignments	20%
Comprehensive final exam	<u>40%</u>
Total	100%

The final exam will be cumulative and may include material covered in the laboratory or field sessions.

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

Regular attendance is essential for success in any course. Absence for any reason does not relieve a student of the responsibility of completing course work and assignments to the satisfaction of the instructor. Poor attendance may result in the termination of a student from a course(s).

The instructor will recommend that the Registrar withdraw any student who does not meet the established attendance requirements. A failing grade of RW (Required to Withdraw) will appear on the student's transcript.

In cases of repeated absences due to illness, the student may be requested to submit a medical certificate.

Instructors have the authority to require attendance at classes.

Course Units/Topics

Major Topics

1. Introductory soils
 - soil horizons and profiles
 - soil formation
 - soil physical properties
 - soil chemical properties

2. Soil Classification
 - basis for the Canadian System of Soil Classification
 - introduction to the classification of the soils mainly used for farmland in Alberta
3. Basis of the farmland assessment manual
4. Using the farmland assessment manual to explain differences in agricultural regions and soil types
5. Using the farmland assessment manual for pasture lands
6. Use of aerial photos and Canada Land Inventory soil capability for agriculture maps to assist in farmland evaluation
7. Use of soil survey reports to assist in farmland evaluation
8. Practice using the farmland assessment manual to determine value with specific examples
9. Introduction to irrigated land assessment



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