Course Syllabus

-Fully Online Version –
Professional Development Series
Time Requirement: 30 hours (8 weeks)

- **Module 1:** Farm Service Center Distance Map
- **Module 2:** Access Calculations
- **Module 3:** Agroclimatic Areas & Agricultural Regions
- **Module 4:** Soil Productivity
- **Module 5:** Increased Cost of Production
- **Module 6:** Assessing an Irrigated Parcel of Farm Land
- **Module 7:** Highest and Best Use

Course Evaluation:

- Open-book Module Quizzes = **35%**
- Discussion Board Postings = **10%**
- Case Study Assignment = **25%**
- Final Exam = **30%**

Intermediate Farmland Assessment - Course Grading Rubric:

Open-Book Module Quizzes worth 35% of final Grade (5% for each Quiz)		
Name of Quiz	Possible Marks:	Actual Marks:
Module 1 Quiz	/20 marks	
Module 2 Quiz	/18 marks	
Module 3 Quiz	/12 marks	
Module 4 Quiz	/20 marks	
Module 5 Quiz	/16 marks	
Module 6 Quiz	/21 marks	
Module 7 Quiz	/17 marks	
	/ 124 marks total (35% of grade)	

Module Discussions worth 10% of final Grade		
Discussion number:	Possible Marks:	Actual Marks:
Module 1 Discussion	/10 marks	
Module 2 Discussion	/10 marks	
Module 3 Discussion	/10 marks	
Module 4 Discussion	/10 marks	
Module 5 Discussion	/10 marks	
Module 6 Discussion	/10 marks	
Module 7 Discussion	/10 marks	
	/ 70 marks total (10% of grade)	

Grading Scale for Discussion Boards:

1 – 3 marks	**4 – 6 marks**	**7 – 8 marks**	**9 – 10 marks**
Little to no effort in answering question – did not refer to course materials, demonstrated little to no knowledge of topic. Did not post a comment or question to another student's posting.	Answered the question to a very basic level, but provided no rationale or reference to the course materials to support their opinion or answer. Did not post a comment or question to another student's posting.	Answered the discussion question and provided a rationale or reference to the course materials to support their opinion or answer. Did not post a comment or question to another student's posting.	Answered the discussion question and provided a very clear and concise rationale or reference to the course materials to support their opinion or answer. Posted a thoughtful comment or question to another student's posting.

Case Study Assignment 25% of final Grade		
	Possible Marks:	Actual Marks:
Assignment:	/21 marks	

Final Exam worth 30% of final Grade		
Module 1 to 7 Exam:	Possible Marks:	Actual Marks:
Final Exam:	/70 marks	

Module 1: Farm Service Center Distance Map

The 1984 Farm Land Assessment Manual incorporates a farm service center rating as a location adjustment against all farmland parcels in Alberta. In order to apply a farm service center location adjustment to a farmland parcel, a map needs to be created that specifies both the farm service center utilized, along with the distance a farmland parcel is from that farm service center.

Module Outcome:

Create a farm service center distance map that will generate location adjustments to be applied as a factor in the farmland assessment calculation.

Module Objectives:

1.1 Explain the relevance of a farm service center.
1.2 Determine the farm service centers for a municipality.
1.3 Determine the individual farm service center rating.
1.4 Create a farm service center distance map.
1.5 Calculate the location adjustment from the distance map created.
1.6 Apply the location adjustment to a farmland assessment calculation.

Module 2: Access Calculations

The 1984 Farm Land Assessment Manual recognizes the ability to access a farm land parcel in the form of a location adjustment. There has been an evolution in the way access and road proximity for a farm land parcel has been calculated from 1984 to present day.

Module Outcome:

Determine the appropriate location adjustment to a parcel of farm land based on the ability or inability to access that said parcel of farm land, and then apply that factor in the farm land assessment calculation.

Module Objectives:

2.1 Define access and how it applies to a parcel of farm land.
2.2 Explain the evolution of access adjustments in the 1984 Manual.
2.3 List the various access types that can be used to calculate the access location adjustment.
2.4 Determine the location adjustment based on a farm land parcels access.
2.5 Apply the access location adjustment to a farm land assessment calculation.

Module 3: Agroclimatic Areas & Agricultural Regions

The 1984 Farm Land Assessment Manual utilizes a farm land rating system to produce farm land assessments in Alberta. The basic framework for the calculation of agricultural land assessments can be broken down into two categories. First, there are net soil productivity ratings, and secondly there are increased costs of production ratings. A major component of establishing productivity ratings are understanding what agro climatic areas are and how those areas relate to an agricultural region.

Module Outcome:

Differentiate between 'Agroclimatic Areas' and 'Agricultural Regions', and how those two factors play a role in establishing a soil master rating in the 1984 Farm Land Assessment Manual.

Module Objectives:

1.1 Explain what an Agroclimatic Area is.
1.2 Explain what an Agricultural Region is in the context of the 1984 Farm Land Manual.
1.3 Define what impact climate and agricultural region have on farm land assessments.
1.4 Demonstrate how to map Agricultural Regions where multiple regions exist in a municipality.
1.5 Determine the 'Master Rating' for a farm land parcel and how it is related to an agricultural region.

Module 4: Soil Productivity

Soil productivity is one of two main factors utilized by the 1984 Farm Land Assessment manual to generate a farm land assessment. The other factor is *the increased costs of production* which will be discussed in Module 5. The system of rating farm land in Alberta for assessment purposes was developed using average net income as the major criterion. There are factors which decrease the productivity of the soil, and those factors will be identified and examined in the context of the 1984 Farm Land Assessment manual.

Module Outcome:

Identify factors that affect soil productivity, as prescribed by the 1984 Farm Land Assessment manual to enable accurate calculation of the net soil productivity rating.

Module Objectives:

4.1 Determine the Agricultural Region.
4.2 Explain the difference between 'Master Rating' and 'Adjusted Rating'.
4.3 Determine the soil classification and typical soil profile using the 'soil viewer' and the Soil Survey for the County of Two Hills No 21.
4.4 Determine the surface depth rating, subsoil rating, and surface texture rating.
4.5 Determine if acidity, salinity/alkalinity, frost hazard, and/or flooding are factors affecting production.
4.6 Calculate the net soil productivity rating for a farm land field.

Module 5: Increased Cost of Production

Increased cost of production is one of two main factors utilized by the 1984 Farm Land Assessment manual to generate a farm land assessment. The other factor is ***soil productivity*** which was discussed in Module 4. The system of rating farm land in Alberta for assessment purposes was developed using average net income as the major criterion. There are conditions that increase the cost of production on a parcel of farm land, and those conditions will be identified and examined in the context of the 1984 Farm Land manual.

Module Outcome:

Identify the conditions that affect the increased cost of production, as prescribed by the 1984 Farm Land Assessment manual to enable the accurate calculation of the increased cost of production rating.

Module Objectives:

5.1 Describe what Increased Cost of Production means, what the conditions are, and how it is defined in the 1984 Farm Land Assessment Manual.
5.2 Calculate the Surface Texture Rating (ITC) to help determine the Increased Cost of Production Rating.
5.3 Calculate a Topography Rating to help determine the ICP Rating.
5.4 Explain how to determine a Stone Cover Rating.
5.5 Describe what the Miscellaneous Ratings are and how they can impact production costs.
5.6 Calculate the Increased Cost of Production Rating for a farm land field.

Module 6: Assessing an Irrigated Parcel of Farm Land

Assessing an irrigated parcel of farm land in Alberta using the 1984 Farm Land manual utilizes many of the same concepts developed in Modules 1 to 5 but the application of the concepts are quite *different* for an **Irrigation Assessment** as compared to **Dry Land Arable**. There are also new concepts that relate specifically to irrigate land. Assessing irrigated farm land includes determining factors that affect 'Net Soil Productivity' which includes the Agroclimatic Zones, Irrigation Master Rating, Location Rating and Miscellaneous Factors that affect Irrigated Soil Productivity.

Module Outcome:

Determine factors that impact the calculation of the 'Net Soil Productivity' and 'Increased Cost of Production' and an Irrigation Final Rating for an irrigated parcel of land utilizing the 1984 Farm Land Manual.

Module Objectives:

6.1 Describe the most common types of irrigation systems used in Alberta
6.2 Determine the Agroclimatic Zone for an Irrigated Farm Land Field
6.3 Describe how to determine the Irrigation Master Rating and list factors that may impact it
6.4 Determine the Location Rating of an Irrigated Farm Land Field
6.5 Identify Miscellaneous Factors that Affect Irrigated Soil Productivity
6.6 Determine the Net Productivity Rating for an Irrigated Farm Land Field
6.7 Identify the Factors that Affect Irrigation Increased Cost of Production Ratings
6.8 Calculate the Irrigation Final Rating for an Irrigated Parcel of Farm Land.

Module 7: Highest and Best Use

The term 'highest and best use' is a fundamental concept applied in the creation of farm land assessments in Alberta. Understanding this concept and applying it properly in accordance with the procedures established in the 1984 Farm Land Assessment manual, will ensure fairness and equity among farm land assessments within municipalities and the Province.

Module Outcome:

Explain the meaning of the term 'highest and best use' and how it relates to Dryland Arable, Dryland Non-arable, Irrigated Arable, and Pasture Farm Land assessments.

Module Objectives:

7.1 Describe what 'highest and best use' means in the context of the 1984 Farm Land manual.
7.2 Determine the use of a farm land field in the context of the 1984 Farm Land manual.
7.3 Explain the relationship between Dryland Arable and Dryland Non-Arable ratings.
7.4 Describe how a Dryland Arable field could be rated as Pasture Farm Land utilizing the highest and best use concept.
7.5 Explain how a Dryland Non-Arable field could be assessed as Dryland Arable utilizing the highest and best use concept.
7.6 Explain how an Arable Irrigated Field could be assessed as Dryland Arable utilizing the highest and best use concept.