

Dalhousie University, Faculty of Agriculture

AGRI5710 Graduate Module Course

Module Title: Using the HOLOS model to predict net GHG emission of ruminant agriculture systems

Instructor: Alan Fredeen

Frequency of formal classes/meetings

Dates of module offering:

February TBA.: 2 h Lecture on Holos, ruminant GHG emission and carbon sequestration systems.

March 11-12: Webinar offered over two days by Agriculture and Agri-Food Canada, attendance is mandatory to receive credit for the module. **However, students Must Register for Webinar ASAP.** Participation is not guaranteed due to limited space.

Register at: aafc.holos.aac@canada.ca

March TBA: post- Webinar followup, Assignment based on HOLOS modeling will be issued

April 1: Assignment due

Module Content and Learning Objectives

Focus: learning and applying the newest version of Holos to predict The GHG emission of a ruminant agroecosystem and necessary offsetting mechanisms including first and foremost, sequestration of soil organic carbon.

Learning Objectives

1. Learn how to operate Holos v4
2. Apply the program to predict GHG emission and necessary offsetting mechanisms
3. Verification of module results accomplished by locating a relevant scientific paper on Web of Science.

Method of Evaluation:

10% Webinar attendance
10% Webinar active participation I.e. Questions
25% Demonstration of model use capability
25% Assignment results
30% Verification

No restrictions on enrollment: number of students, background preparation or prerequisite courses