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