

## **Grad Module: Methodologies of Greenhouse Gas Measurement**

A review of climate change, global warming potential, and various methods of measurement for greenhouse gas (GHG) fluxes (in-field/in-lab). Discussions on nutrient losses, cycling, sources of agricultural greenhouse gas emissions and best management practices for mitigation. Emphasis will be placed on various types of GHG analyzers.

**Format:** Lecture (in person/MS Teams), 2.0 hours/week for 4 weeks. In field component 2hrs.

### **Method of Evaluation:**

1) Paper	40%
2) Presentation of paper	25%
3) Participation in weekly discussions	20%
4) In-field component	15%

**Participation:** Each student will be expected to participate with questions and comments related to lectures, literature provided, lab materials. Students at times will be expected to occasionally lead discussions on selected readings and reviews.

**Paper:** A review and critique of methodologies and a closer look of data comparing using different methodologies related to gas measurement. Max. 20 page paper double spaced including references.

**Presentation:** To be scheduled at end of the module and will include a powerpoint presentation 15 mins in length including questions. The presentation will include selected material from the written paper.