

## Grad Module: Soil Organic Matter Dynamics and Management

A review of our current understanding of organic matter distribution, storage and dynamics in soil, and the tools (physical and biological fractionation techniques, C isotopes and conceptual 'pools' or models) used to help characterize it. Particular emphasis will be placed on discussion of the mechanisms and potential of soil C sequestration, and the impact of management practices (cropping systems, tillage, amendments) and edaphic factors on soil organic matter dynamics.

**Format:** Lecture (via Zoom), 2.0 hours/week for 4 weeks.

### Method of Evaluation:

1) Essay	40%
2) Presentation of paper	20%
3) Participation in weekly discussions	40%

Participation: Each student will be expected to participate with questions and comments related to lectures and distributed readings, and occasionally lead discussion on selected readings.

Essay: A review on a topic of your interest related to soil organic matter (Confirm topic with Dr. Lynch). Ten to fifteen pages double spaced including references.

Presentation. Scheduled at end of module. Approx. 15 minutes including questions. The presentation will include selected material from the major essay written by each student.

Instructor: Dr. Derek Lynch

Contact information: [derek.lynch@dal.ca](mailto:derek.lynch@dal.ca)

Dates module will be offered: November. Weekly lecture period TBD.