

## Graduate Module

**Title:** Soil Organic Matter Dynamics and Management

**Instructor:** Dr. Derek H. Lynch  
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**Timing:** Winter (Feb-Mar) 2016

### **Description:**

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, 2.5 hours/week for 4 weeks. Each student will be expected to participate with questions and comments related to lectures and distributed readings. The presentation will include material from the major essay written by each student.

### **Method of Evaluation:**

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