Class Schedule - Spring 2019

1. Soils and Landscapes (Jan 9-18)
   a. What is soil and what does it do?
   b. Landscapes: soil, water, rock
   c. Watersheds and landscape formation
   Lab 1: Maps; Rocks and Soil Profiles (MPS 1201)

2. Soil Profiles and Their Formation (Jan 21-25)
   a. Weathering of rocks
   b. Soil profile formation
   c. Soil horizons
   Lab 2: Soil Properties and Profiles (MPS 1201)

3. Physical Properties of Soils (Jan 28-Feb 1)
   a. Soil texture
   b. Soil density and porosity
   c. Managing soil physical properties
   Lab 3: Soil Profiles in the Field (Whitehall)

4. Soil Horizons and Classification (Feb 4-8)
   a. The soil taxonomy system
   b. Diagnostic horizons
   c. Soil orders
   Lab 4: Soil and Landscape Interpretation (Whitehall)

5. Chemical Properties of Soils (Feb 11-15)
   a. Soil mineralogy
   b. pH and ion exchange
   c. Acidity and salinity
   Lab 5: Soil Physical Properties (MPS 1201)

6. Plant Nutrients (Feb 18-22 – Monday holiday)
   a. Plant nutrition and essential elements
   c. Microelements
   Lab 6: Cation Exchange Capacity (MPS 1201)

Exam 1: Weeks 1-5 (Feb 22)

7. Soil Biology and Productivity (Feb 25-Mar 1)
   a. Soil organisms
   b. Roles of soil organisms
   c. Productivity of agricultural and forest soils
   Lab 7: Soil Organisms (MPS 1201)

8. Fertilization (Mar 4-8)
   a. Fertilizers
   b. Nutrient and soil management
   c. Sustainability
   Lab 8: Soil Testing and Organic Matter (MPS 1201)

9. Soil Water (Mar 18-22)
   a. Interaction of water with soil
   b. Storage capacity of soils and profiles
   c. Water flow in soils
   Lab 9: Soil Water Content (MPS 1201)

10. Precipitation and Evapotranspiration (Mar 25-29)
    a. Precipitation
    b. Evapotranspiration
    c. Field water budgets
    Lab 10: Water Movement (MPS 1201)

Exam 2: Weeks 6-9 (Mar 29)

11. Infiltration, Streamflow, Groundwater (Apr 3-7)
    a. Infiltration (forest and cropland)
    b. Sources of stream flow
    c. Aquifers
    Lab 11: Rainfall and Runoff (MPS 1201)

12. Hydrologic Statistics and Hydraulics (Apr 10-14)
    a. Hydrographs
    b. Basic hydraulics
    c. Management effects on hydrology
    Lab 12: Measuring Streamflow (Local Stream)

13. Erosion and Sedimentation (Apr 17-21)
    a. Importance of erosion
    b. Erosion mechanics
    c. Erosion control
    Lab 13: Discharge and Soil Erosion (MPS 1201)

14. Soil and Water Quality Management (Apr 22-26)
    a. Types and sources of contamination
    b. Movement of contaminants in the landscape
    c. Manage landscapes for soil and water quality
    Lab 14: Walk in the Woods (UGA Botanical Garden)

Exam 3: Weeks 10-13 (Apr 26)

Last Day, Review: Mon, Apr 29
Reading Day: Wed, May 1
Final Exam: Mon, May 6, 12 - 3