Course Objectives
The course is designed to provide a comprehensive understanding of the relationships in basic soil physics and its applications to environment quality and sustainable use of natural resources. The syllabus meets the curriculum needs of students in Soil Science, Environmental Sciences, Natural Resources, Agricultural Engineering, Horticulture and Crop Sciences, Forestry, Geology, Climatology, Civil Engineering, Architecture, Biology and others.

Learning Outcomes
Gain a working understanding of soil’s physical, mechanical, hydrological and rheological properties in relation to environment quality and sustainable management of terrestrial ecosystems with regards to global warming and gaseous emissions, soil erosion, water quality, and non-point source pollution, earthworms and other soil biota, and food security

Learn applications of soil physical properties and processes which will be discussed with regards to the following special topics:

i. Greenhouse effect, global C cycle, gaseous emissions and C sequestration,
ii. The hydrologic cycle, wetland management, drainage, irrigation and salinity,
iii. Soil erosion, land degradation and food security,
iv. Biofuels and residue management, among others,
v. Soil health and ecosystem services.

No prerequisites. Contact Dr. Lal for additional information.

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