

**Texas Tech University, Plant and Soil Science Spring Seminar 2024**

**Title: Multi-scale observation and modeling of terrestrial ecosystem production**

**Speaker: Xiangming Xiao, Ph.D. Professor of Ecology and Remote Sensing at School of Biological Sciences, University of Oklahoma.**

**Location: MCOM 153 (Texas Tech University)**

**Date/Time: Thursday, April 25<sup>th</sup> / 12:00 – 1:00 PM**

**Abstract**

Terrestrial ecosystems change substantially over time and space. In this seminar, I will first introduce multi-scale and integrated observation over a range of terrestrial ecosystems, where carbon, water and energy fluxes are measured. Second, I will introduce Vegetation Photosynthesis Model (VPM) that uses satellite images and climate data to estimate daily gross primary production (GPP) and report the global GPP data product. Third, I will show the relationship between GPP and crop yields across the scales from the Contiguous United States to state and local crop fields.