

NASA Remote Sensing for Land Management
May 20th – June 17th, 2014
Every Tuesday at 12 pm EDT (4 pm UTC)
(Five Webinars: one hour per week)

Course Objective: This course focuses on satellite image access and visualization. It does not cover the use of any image processing software for image analysis, which may be taught in future courses.

Week 1: Overview of NASA Remote Sensing and Earth systems modeling data for Land Management/Natural Resource Management

Course Introduction

Fundamentals of Remote Sensing

Examples of satellites, sensors for Natural Resource Management

Week 2: Overview of Land Cover Mapping

Landsat and MODIS: existing land cover products and overview of processing methods (NDVI, Gap Analysis, Landfire, etc.)

Examples of Data Applications: Wildfire and air quality, Site suitability, phenology?

Week 3: Overview of Soil Moisture and Evapotranspiration

Satellite, Sensors, and Models for these Data

Examples of Data Applications: Irrigation Management, Agricultural Mapping

Week 4: Overview of Change Detection

Landsat and MODIS: existing change detection products and overview of processing methods

Examples of Data Applications: Forest disturbance, urban expansion

Week 5: Overview of Web-tools for Data Access (with live demos)

Landsat and MODIS: Spatial and Temporal selection of Data

Importing Data into GIS