University of California, San Diego Extension Guangzhou University Summer 2019 GIS Program

Day 08 - Activities: Image Analysis and Remote Sensing

Lecture (in class):

- Lecture 8: <u>Image Analysis and Remote Sensing</u> (PDF)
- Demonstration:
 - Living Atlas of the World
 - View the world with Landsat imagery

Lab (in class):

- ArcGIS Pro Tutorial
 - o Finish Tutorial 5a: Make a Layout
 - Finish Tutorial 7a: <u>Map Hurricane Storm Surge</u>
 - Instructions: English / Chinese
 - Tutorial 8: <u>Classify Land Cover to Measure Shrinking Lakes</u>
 - Optional Tutorials:
 - Mapping: <u>Cartographic Creations in ArcGIS Pro</u>
 - Image Analysis: <u>Assess Burn Scars with Satellite Imagery</u>

Reading (Homework):

- ArcGIS Imagery Book:
 - Chapter 02: The Nature of Remote Sensing (<u>English</u> / <u>Chinese</u>)
 - Chapter 03: Defining Imagery (<u>English</u> / <u>Chinese</u>)
 - Chapter 04: Perceiving The Imperceptible (English / Chinese)
- ArcGIS Pro Documentation:
 - o Overview of image classification
 - Generalization of classified raster imagery
 - Smoothing zone edges with Boundary Clean and Majority Filter
- GIS An Introduction (McHaffie and Hwang, 2019)
 - o Chapter 9: Introduction to Remote Sensing and GIS (pp 239-260)

Homework:

- Complete Tutorial 7a or 8 using one of the following softwares:
 - ArcMap or ArcGIS Online or QGIS
- Story Maps Finish: Create a Story Map Cascade (San Diego):
- Finish: Getting to Know the New Story Maps