## 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: Image Analysis and Remote Sensing (PDF)
- Demonstration:
  - o 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: Map Hurricane Storm Surge
    - Instructions: <u>English</u> / <u>Chinese</u>
  - Tutorial 8: <u>Classify Land Cover to Measure Shrinking Lakes</u>
  - Optional Tutorials:
    - Mapping: Cartographic Creations in ArcGIS Pro
    - 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)
  - 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