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

Day 07 - Activities: Rasters and Terrain Analysis

Lecture (in class):

- Lecture 7: Rasters and Terrain Analysis (PDF)
- Demonstration:
 - o Video: Raster Calculator
 - Digital Elevation Model: <u>La Jolla Marine Protected Areas</u> (MPAs)

Lab (in class):

- ArcGIS Pro Tutorials
 - Tutorial 7a: <u>Map Hurricane Storm Surge</u>
 - Instructions
 - o Tutorial 7b: Visualize Shrinking Malaria Rates in Africa

Reading (Homework):

- ArcGIS Book Chapter 04: Great Maps Need Great Data
 - English version
 - Chinese version
- ArcGIS Pro Documentation:
 - What is the ArcGIS Spatial Analyst extension?
 - Essential Spatial Analyst terms
 - Data formats supported by Spatial Analyst
 - Analysis environments and Spatial Analyst
 - o A quick tour of using Map Algebra
- Essentials of GIS (Campbell, 2011)
 - Chapter 8 Geospatial Analysis II: Raster Operations (pp 167-184)

Homework:

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