DGHT Advanced GIS Training Online Format

Goal
This training is designed to provide the participants knowledge and skills in the use of GIS software and geospatial data to better describe DGHT programmatic and research activities.

Audience
As a basic to advanced course, the information is designed for staff new and experienced to the use of GIS.

Learning Objectives
By the end of the training, the participants should be able to do the following:
- Describe the potential of GIS to answer additional programmatic and research questions
- Conduct geospatial analysis and visualization with QGIS and GeoDa

Hardware and Software Requirements
Software: QGIS Version 3.22.5 https://www.qgis.org/en/site/
Software: GeoDa 1.2 https://geodacenter.github.io/

Resources
Tutorial: https://docs.qgis.org/3.22/en/docs/training_manual/
Documentation: https://docs.qgis.org/3.22/en/docs/user_manual/
Reading Material: https://docs.qgis.org/3.22/en/docs/gentle_gis_introduction/

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1

Advanced | | | Learn advance GIS vector and raster analysis which includes cell statistics, buffer, dissolve, zonal statistics, select features. | 1. Reading: 10.1 – 10.6
2. Hands on homework
    6.2. Lesson: Vector Analysis (interns)
    Vector and Raster Analysis – Site Location Analysis of VMMC services in Zambia (Week7.mp4) (CDC staff)

Office Hour | |
| 2

Advanced | | | Learn network analysis, shortest distance. | 1. Hands on homework
    6.3. Lesson: Network Analysis (interns)
    Network Analysis – Cross Border Site Access in Mozambique and South Africa (Week8.mp4) (CDC staff)
Office Hour | |
| 3

Advanced | | | Learn spatial statistics and interpolation. | 1. Reading: 11.1 – 11.7
2. Hands on homework
    6.4. Lesson: Spatial Statistics (interns)
    Spatial Statistics – Site Accessibility, Recency Interpolation in Uganda (Week9.mp4) (CDC staff)

Office Hour | |
| 4

Advanced | | | Learn Spatial Autocorrelation, hotspot Getis Ord G* and Anselin Local Moran's I | 1. Hands on homework
Hotspot Analysis with GeoDa of Interruption data in Ukraine (Week10a.mp4, Week10c.mp4)

Office Hour | |