GIS for Geoscientists: A Guided Introduction

Delivered by Nicholas Barber (University of Cambridge) for University College London Department of Earth Sciences

Four-part workshop, where I aim to hit four objectives:

1. Highlight what GIS can do for geoscientists
2. Outline the key principles of a geographic information system
3. Provide a fully guided GIS workflow template
4. Identify key areas of growth for GIS in geoscience research

This will be done in a virtual course format, using a combination of Zoom, and the course home page on GitHub. Sessions will have interactive Q and A, and all attendees will have permanent access to course materials through the course webpage.

*GIS for Geoscientists: A Guided Introduction* Course Structure:

1. August 10th, 2020: **Introductory Lecture.** *Covering goals for course, my background, and my “Laws for GIS” (essentially, my operating principles for using GIS, combined with basic GIS theory)*
2. August 12th, 2020: **Beginner GIS***. Covering project planning, projection systems, loading data, georeferencing, data management, manipulating vector layers, basic spatial analysis, editing layout, and creating maps.*
3. August 17th, 2020: **Intermediate GIS.** *Covering non-spatial data, interpolation, geoprocessing tools, raster manipulation, geostatistics, converting between data types, advanced symbology, connecting to spatial databases, and basic Python in QGIS*
4. August 19th, 2020: **One-on-One Tutorials.** All day availability for participants to get 1-1, 30-minute advisory sessions from me. Could simply be a discussion, 1-1 Q&A, or even a screen-shared walk through of a problem they are having.

Survey for Participants: [See Google Form](https://forms.gle/XVJt8EgXZ4aXHqtGA)

Course Home Page: <https://github.com/ndb38/mcgill-gis-june2020>. NOTE: I would prefer you don’t share the page yet; I still have a lot of work to do on it and I want to have it in good shape before your department sees it.

Note to self for Academic CV: “Invited International Virtual Teaching Experience”