Hi all,

Welcome to the VMSG GIS for Geoscientists workshop! If you are receiving this email, you signed up to take part in our 4-part lunchtime webinar series, beginning next Wednesday at 12 GMT.  These workshops will be hosted by Nicholas Barber (Cambridge) and supported by Claire Harnett (UCD) and Emma Watts (Southampton). Details on how to join, what we will cover, and what to do in advance can be found below. We will mostly be working with the software in the second session, so don't worry if you're not quite fully up and running for Wednesday- but it would help you to follow along.

Also, critically, bookmark this webpage: <https://github.com/ndb38/gis-for-geoscientists>. This will be our home page and main point of contact for the course. All the lectures, data, and guides can be found here. Announcements about course content and solutions to technical problems may be posted here as well. Your other port of call will be the VMSG Discord (**Claire**) for inquiries and discussion, and the Youtube Playlist (**Emma)** for recordings of the webinars and the supplemental lectures.

Read on for more details!

Course Logistics

**Zoom Details – Claire?**

Course Outline

* **Wed. Nov. 3rd: Session 1 – Principles for using GIS in the Geosciences**
  + Course Objectives
  + Principles of GIS
  + Tour of the Interface
* **Wed. Nov. 10th: Session 2 – Beginner GIS Exercises**
  + Guagua Pichincha Hazard Assessment
  + Projections + Data Types
  + Managing Layers, Manipulating Data, Designing Your Map
* **Wed. Nov 17th: Session 3 – Intermediate GIS Exercises**
  + Getting more out of GIS
  + Geoprocessing, Spatial Analysis, Data Management, Advanced formatting, Geostatistics
* **Wed. Nov. 24th: Advanced GIS Exercises** 
  + Peak into Advanced GIS
  + Custom Actions , Model Builder, Python, Google Earth Engine, Databases

**Pre-Workshop Software Checklist** (COMPLETE THIS BEFORE THE FIRST WORKSHOP):

Make sure you familiarize yourself with the Course Home Page: <https://github.com/ndb38/gis-for-geoscientists>. Try downloading some of the files, and bookmark this page! **Even after the workshop ends, this page will stay up and you will have permanent access to the workshop resources.**

I recommend installing QGIS and the recommended plugins BEFORE the first session, following the instructions below, the Session 1 PDF guide, and the corresponding Supplemental Lecture (#3). If you have any issues, we are running a dedicated installation issues Q&A prior to the first Session – see above for Zoom link and time.

* **QGIS 3.16 STABLE RELEASE** [https://qgis.org/en/site/forusers/download.html](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fqgis.org%2Fen%2Fsite%2Fforusers%2Fdownload.html&data=02%7C01%7C%7Cc234856f5dfd4b1e6d6f08d83ad52452%7C1faf88fea9984c5b93c9210a11d9a5c2%7C0%7C0%7C637324035301598124&sdata=1PqMpQBU7XUgAun2cJANoBN0tteqOjuNxdy4VHKSWAQ%3D&reserved=0)
* **QGIS Plugins, 7 in total**: 1) QuickMapServices, 2) SRTM-Downloader, 3) Easy Custom Labeling, 4) Google Earth Engine, 5) Memory Layer Saver 6) Group Stats 7) QuickOSM
  + Installed under "Plugin Manager" in QGIS
  + May require troubleshooting with python packages
* **NASA Earthdata account**: Please register for a NASA Earthdata account to ensure you will be able to use the SRTM-Downloader plugin: <https://urs.earthdata.nasa.gov/users/new>

Beyond the system software above, here are some crucial web resources we'll need to perform the tasks in Session 2.

* USGS Earth Explorer: [https://earthexplorer.usgs.gov](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fearthexplorer.usgs.gov%2F&data=02%7C01%7C%7Cc234856f5dfd4b1e6d6f08d83ad52452%7C1faf88fea9984c5b93c9210a11d9a5c2%7C0%7C0%7C637324035301608124&sdata=hNXipchpJEob9%2FXUo6Uo8Kwm8Fj6%2B9Eftrr5c%2FhyVEM%3D&reserved=0) and Bulk Download Application (BDA): [https://www.usgs.gov/media/images/earthexplorer-bulk-download-application-bda](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.usgs.gov%2Fmedia%2Fimages%2Fearthexplorer-bulk-download-application-bda&data=02%7C01%7C%7Cc234856f5dfd4b1e6d6f08d83ad52452%7C1faf88fea9984c5b93c9210a11d9a5c2%7C0%7C0%7C637324035301608124&sdata=D2jyyOh3pmKYi7d6yslNyDiCFEIvyUrMxDYw5ti9MyU%3D&reserved=0)
* Tufts GIS base layer database: [https://geodata.tufts.edu](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fgeodata.tufts.edu%2F&data=02%7C01%7C%7Cc234856f5dfd4b1e6d6f08d83ad52452%7C1faf88fea9984c5b93c9210a11d9a5c2%7C0%7C0%7C637324035301608124&sdata=kHe668uzNdyW6u0IMfI3%2BTyX5wgkBjb7wTVB5bmY24E%3D&reserved=0)
* Projection Wizard (helps us determine projection to use): [https://projectionwizard.org](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fprojectionwizard.org%2F&data=02%7C01%7C%7Cc234856f5dfd4b1e6d6f08d83ad52452%7C1faf88fea9984c5b93c9210a11d9a5c2%7C0%7C0%7C637324035301618111&sdata=pNv0sLSvZNwVkQE41JOJsRGZd4G0OjXjcaR%2BTqMJVls%3D&reserved=0)
* EPSG Parameter database: [http://www.epsg-registry.org](https://eur01.safelinks.protection.outlook.com/?url=http%3A%2F%2Fwww.epsg-registry.org%2F&data=02%7C01%7C%7Cc234856f5dfd4b1e6d6f08d83ad52452%7C1faf88fea9984c5b93c9210a11d9a5c2%7C0%7C0%7C637324035301618111&sdata=HMVG8qQKW7KkqpK6oslnaJAQIGYUS3N%2BLL%2BmNW6F2WM%3D&reserved=0), and EPSG reference for the projection system we will use: [https://epsg.io/31977](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fepsg.io%2F31977&data=02%7C01%7C%7Cc234856f5dfd4b1e6d6f08d83ad52452%7C1faf88fea9984c5b93c9210a11d9a5c2%7C0%7C0%7C637324035301628106&sdata=tLnm7tn64KMDuM6u9%2BXDAwNuxO%2FwRrX%2FZ%2FZ9KSO%2Bb%2Bw%3D&reserved=0)

If you have any questions about installation issues, data access, or workshop logistics, email Claire Harnett or Emma Watts; they will convey your questions to Nick. Have a great week! Can't wait to meet you all!

-Nick