Global Health Informatics Workshop II (U10.2172):
Health Mapping in a Digital Age

Spring 2010

Instructor: Eric Green, Ph.D.
Associate, Population Council
Adjunct Assistant Professor of Global Public Health, New York University

Office: One Dag Hammarskjöld Plaza, New York, NY 10017, USA
Email: eric.green@nyu.edu / egreen@popcouncil.org
Phone: +1 917-267-9298
Web: www.ericpgreen.com
Networking: ericpgreen (Twitter) / epgreen (Skype)

COURSE DESCRIPTION

pub•lic health in•for•mat•ics [**puhb**-lik helth in-fer-**mat**-iks]

> "...the systematic application of information and computer science and technology to public health practice, research, and learning."
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> —O'Carroll P, Yasnoff WA, Ward ME, Ripp LH, Martin EL, eds. *Public Health Informatics and Information Systems*. NY, Springer; 2003:5.

Public health informatics is a broad field that integrates information technology and public health. Given the rapid pace of new developments in health technologies, this discipline is evolving constantly. One of the most interesting and dynamic sub-disciplines is health mapping. From influenza to malaria, public health researchers and practitioners are using spatial data to inform prevention, treatment, and policy-making efforts in the U.S. and around the world. This workshop is designed to give students an overview of current trends in health mapping; knowledge of state-of-the-art tools, methods, and resources for collecting, analyzing, and visualizing geographic health data; and experience working with several web-based and desktop programs and spatial data resources. The objective is to frame health mapping as an accessible set of tools and methods that students can begin to use in their work, even without years of specialized training.

LEARNING OBJECTIVES

Students in this workshop will:

- learn about the history and current trends in health mapping;
- learn about state-of-the-art tools, methods, and resources for collecting, analyzing, and visualizing geographic health data; and
- experiment with web-based and open-source desktop programs.

GRADING

This is a 0 credit, pass/fail course. To pass, students must attend the entire workshop and participate in discussions and all activities.

AGENDA

This is a one-day workshop. Separate sessions are scheduled for February 6th and 20th from 9:00am to 4:00pm. The workshops will meet in the Carlisle Computer Classroom (CCC), located in MSB Room 198B of the NYU School of Medicine at 550 First Ave (between 30th St. and 33rd St).

****Students should attend their scheduled session as space in the CCC will be limited.****

9:00 am	**Introduction**
9:30 am	**History and current trends in health mapping**
10:45 am	*Break*
11:00 am	**Using on-line mapping tools**
12:00 pm	*Lunch*
12:45 pm	**Using spatial data resources**
1:30 pm	**Using desktop GIS software**
2:45 pm	*Break*
3:00 pm	**Putting it all together**
4:00 pm	End

COMPUTERS

The Carlisle Computer Classroom is equipped with 20 PCs. If students would like to bring personal laptops, this will be allowed. There is a "guest" wireless network for students without a valid Kerberos ID (NYU Net IDs will not work).

In order to participate with a personal laptop, students must download and install Quantum GIS prior to the workshop. QGIS is a free, open source GIS program that runs on multiple platforms.

1. Go to http://www.qgis.org/.
2. Click on "Download" and then "Long term support (LTS) version."
3. Windows users should use the first download option in the table: Windows OSGeo4W (1.0.2 LTS). The direct download link is http://trac.osgeo.org/osgeo4w/.
4. Mac users should use the Mac OS X (1.0.0 LTS) version. The direct download link is http://download.osgeo.org/qgis/mac/qgis-1.0.0.dmg.gz.
5. Advanced Mac users may want to download the more current version (1.0.2) from http://www.kyngchaos.com/software:qgis. This version requires the installation of several "dependency frameworks" prior to installing QGIS (i.e., GDAL 1.6, PROJ, GEOS, SQLite3, GSL, and UnixImageIO). The frameworks can be downloaded here at http://www.kyngchaos.com/software/frameworks.