

## GOH/GIS Analysis Workshop

**Instructors:** Dr. Alka Patel & Dr. Kathryn Berger

**Purpose:** GIS workshop for graduate students, academics and health professionals with an interest in applying GIS to health studies. This two-day workshop will provide a basic theoretical foundation for using GIS and allow participants to apply basic principles with hands-on experience.

### Two day workshop:

January 6<sup>th</sup> and 7<sup>th</sup>, 2013

- 9 am – noon; 1 – 4 pm

### Location:

- Main Campus – Earth Science Building ES 307

### Course Outline:

Day 1: 6 hours

Basics of GIS: (1.5 hours)

- What is GIS?
- Spatial Data types
- Attribute data
- Geographic parameters
- Topology
- Metadata

Hands on GIS: (3.5 hours)

- Introducing Esri ArcGIS Desktop – Exploring ArcMap
- Exploring ArcCatalog & ArcToolbox
- Exploring data types
- Exploring attribute data
- Creating spatial data
- Linking spatial data
- Basic Map creation

Open lab time: (1 hour)

Day 2: 6 hours

Resources: (1.5 hours)

- How to get started
  - Software
  - Data
  - People
  - Hardware
- Training
  - Esri courses
  - Geography Department

Basics of GIS Analysis: (1.5 hours)

- How can GIS be used for analysis?
- Examples of GIS for Research
  - Research Questions 1
  - Research Questions 2
  - Research Questions 3
  - Research Questions 4

Hands on GIS: (2 hours)

- Buffering
- Studying Relationships
- Examples of specialized techniques of interest

Open lab time: (1 hour)