

Concordia University
Department of Geography, Planning and Environment
Introduction to Geographic Information Systems
May 25th – May 29th 2020

CONTENT OF THE PROGRAM

Course runs from 9Am to 5PM, with a lunch break and 2 coffee/tea breaks (provided)

Two-day module

Certificate: Introduction to Geographic Information Systems (Using QGIS)

- Introduction to GIS, Spatial data models and QGIS
- Coordinate systems and projections in QGIS
- Data collection and visualization: GPS field exercise
- Visualizing data using Google Earth
- Making maps in QGIS (cartographic elements and exporting finished maps)
- GIS analysis in QGIS – Reproject, query
- Georeferencing data and digitizing vector data from georeferenced satellite basemaps
- **Guest Lecture**

Three-day module

Certificate: Introduction to Geographic Information Systems (Using QGIS and Carto)

- Two-day module content
- GIS analysis in QGIS – Reproject, query, buffer, clip, dissolve
- Making thematic maps in QGIS: finding, downloading, joining and querying Census data and Census boundaries
- Creating and sharing online maps
- **Guest Lecture**

Four-day module

Certificate: Introduction to Geographic Information Systems (Using QGIS, Carto and GRASS GIS)

- Three-day module content
- Finding and preparing raster data for analysis (digital elevation and satellite images)
- Visualizing elevation and hillshade in QGIS
- Introduction to Satellite Image Classification using GRASS GIS
- **Guest Lecture**

Five-day module

Certificate: Introduction to Geographic Information Systems (Using QGIS, Carto and GRASS GIS)

- Four-day module content
- Introduction to geographic inquiry process and GIS project development
- Individual project support
- Presentation of Final Projects by participants