



GIS 120 Ticket 70552

03:55pm to 6:50pm MW

first class meeting August 20th

last class meets December 5th

Syllabus – Introduction to GIS 120

Instructor: Warren Roberts | Rio Hondo College GIS | Los Angeles County

Email: gisteacher@gmail.com

Twitter follow [RHCGIS](#)

To service the working professional, this course is offered in evening and most course material can be accomplished while in the classroom. Link to access online can be found at program homepage <http://riohondo.blackboard.com>. Directions to access including login & initial password provided online.

Office Hours Office hours will be available following first week of classes. See last page.

Requirements

Course requires access to Internet. To perform the lessons you must have PC and Mouse. The software ArcGIS 10 ArcINFO is a 1 year student license. Fortunately you have access to the best labs on campus and better than many universities. You will be provided software ArcGIS10. However you have access to the college GIS lab remotely via remote desktop. Directions will be provided on BlackBoard. If you use a Mac you must install parallels or BootCamp and install Windows before you can install GIS software.

Course Description

This course sequence offered by the Rio Hondo College is a required course of the GIS certificate and also required in various programs on campus. The course is transferable to the Cal State Universities (and others) where you can apply it to a major or perhaps a GIS minor (CSUP). There is a shortage of people with the practical experience to apply GIS in a variety of fields from public safety, health,

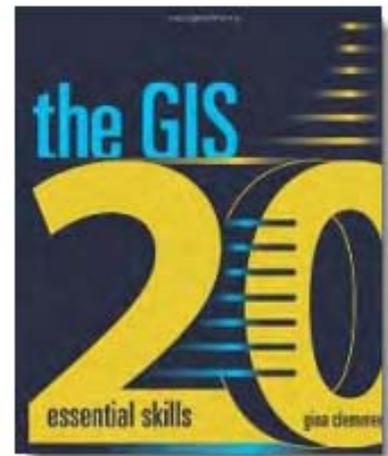
planning business and many other areas. Employment or advancement prospects are 'especially good' for persons with a combination of a specific field and GIS. Regardless if you are experienced in a specific field, changing your career or just starting your education, successfully completing this course will provide you a very marketable toolset for use in any field. And I mean .. any field!

Prerequisites

This course is designed for those who are new to GIS and ArcGIS or those who are infrequent users of ArcGIS who do not have a background in GIS. Students should know how to use Windows-based software. Computer experience **is expected**.

Course Text

The GIS 20: Essential Skills ISBN: 978-1589482562 Available on campus or online at Amazon.com or other locations online. Obtain a used copy where available. Please install the data DVD from the back cover of the text. Software will be available for download (see link on BlackBoard), or mailed to you



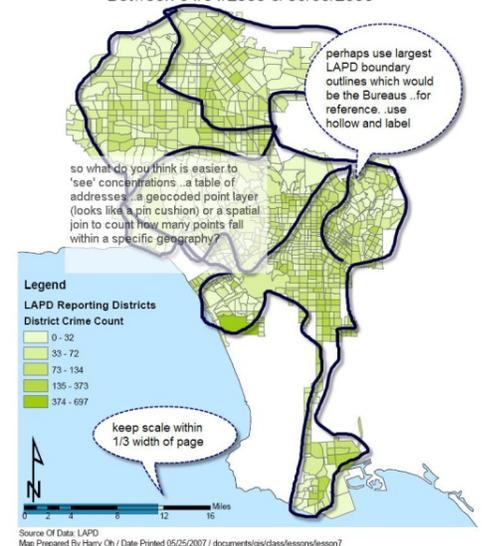
Accessibility

Students with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) Office as soon as possible. [Science Building; Phone: (562) 908-3420]

Lesson deliverables

How does one submit lessons? Whether online or on campus, completed GIS lessons are paperless and submitted online as a PDF as you would to a supervisor

Los Angeles Police Department Crime Counts within Reporting Districts Between 04/01/2000 & 06/30/2000



or a report or presentation. Each lesson you will submit to the drop box (Blackboard) the instructor returns selected pdf submissions with comments for you to resubmit with changes. To keep cohesiveness in the class, participation is **encouraged**. Of course you are required to complete the lab exercises & online class. Don't worry, I am here to help you and you are welcome to visit me on campus Monday - Thursday evenings.

Student Learning Objectives

The student will be able to locate addresses upon a GIS basemap, isolating incidents based on time and or crime type to eventually generate a layout for a report or results are then used to prepare maps, graphs and reports that help determine crime patterns, crime trends, law enforcement personnel allocations, and related item. Your evaluation at the completion of the course is as follows:

Excellent	The student completes course lessons & can display addresses from a table in GIS isolated by type and geographic location and create deliverable layout.
Satisfactory	Student completes partial lessons. In addition, the student (with support) will display addresses from a table in GIS isolated by type and geographic location and create deliverable layout.
Unsatisfactory	Student completes no lessons & is unable to display addresses from a table in GIS and unable to perform most GIS functions. Student is unable to explain why GIS is an intergral part of crime analysis.

When you successfully complete the course, you will be able to ...

- ✓ Demonstrate understanding of importance of file management
- ✓ Demonstrate a working knowledge of GIS desktop mapping software.
- ✓ Demonstrate how to create a base map suitable for crime mapping and analysis and obtain additional basemap material online.
- ✓ Refine a table of addresses and demonstrate the ability to address match locations upon basemap.
- ✓ Find resources and demonstrate how to obtain new addresses for placement in map (pawnshop, bowling alley, etc).
- ✓ Perform database and spatial queries such as buildings in the floodzone or customers with an isolated area.
- ✓ Demonstrate basic steps how to create a new layer (digitizing / boundaries).
- ✓ Understand importance and perform various cartographic techniques and create map layout templates (logo, disclaimers, format, etc)
- ✓ Demonstrate the ability to use various export formats for presentation purposes (PowerPoint, etc)
- ✓ Use Web to build interactive GIS map
- ✓ Use GPS to collect feature (hydrants, poles, soil samples, etc) locations and import into GIS

Course Contents

- GIS Primer ~ Navigating Los Angeles using ArcGIS
- Working & managing your data (shapefile & geodatabase)
- Isolating your Project Area
- Displaying and Symbolizing Data (How to Lie With Maps)
 - Working with quantitative data (mapping amounts of things such as crime areas.
 - Working with Qualitative data (mapping types of things such as land use, post office, health center)
 - joining tables
- Geocoding (address matching) / working with latitude longitude
- Spatial and tabular queries
 - Querying your data (asking “where is ...” or “show me only ..”)
 - Using attribute query (asking a table to display or find)
 - Using select by location (various GIS spatial analysis tools)
 - Spatial Queries
 - Find locations nearby (buffer tools)
 - Determining concentrations
 - Overlaying resources to determine associations
 - Buffer analysis (how many crimes within ...)
- Creating your own layer (digitizing)
- Layouts / presentation

Frequently asked questions

(online class)

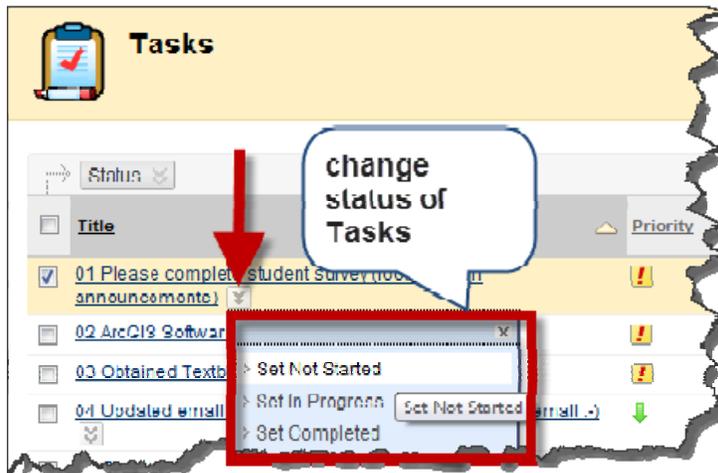
- What is web enhanced? Course is on cmapus and material shared and submitted to student (and in return to faculty) through BlackBoard
- Are there other dates I need to keep in my schedule for this class?
 - Yes, we have an additional GPS exercise (optional) off cmapus (date to be determined).
 - LA County GIS Day is in November and you are invited to join us in attendance. Vanpool will be provided. Event located in Alhambra and is free (more information will be provided)
- Do I need a computer? You can perform all your class related work in the lab.
- Can I install GIS on my PC? Yes, but not Mac although Mac users will soon have have options, contact me
- Any other software?
 - Excel will be nice to have but not required as there are alternatives (such as freely available Google Document)
 - Adobe Acrobat Reader (free <http://www.adobe.com/reader>) is required to view the lessons and feedback on your submitted work.
- What other resources as a student do I have?
 - You have access to various campus resources (health, career center, counselors, etc).
 - ESRI online virtual campus lessons

Lets Start Here

Check off the items below as you perform each one

Check off the items below as you perform each one.

- Explore Black Board. <http://riohondo.blackboard.com>
- Start by viewing the Tasks List and 'check' each item you complete



- Trust me, file management is very important. If you are working on a person computer, make a new folder **GIS** on the c:\ drive or equivalent. GIS projects can be many hundreds if not thousands of files. Knowing where your data is located is vital. For this class, we'll attempt to keep files in one location. Furthermore, to avoid problems, **do not place folder** on *Desktop* or *My Documents*.
- Please register for **CRN 72337**. Simply login to AccessRio and select 'Register for Class'. **This is of no cost** and will provide you a login if you were to visit the campus or access the lab through our Remote Desktop.

Below is an Example of Lesson 003, community mapping (showing Hispanic census relative to school Academic Performance Index). Don't worry about the text in samples as shown below, its simply a 'filler text.'

