Subject: GIS Applications (GIS 220)

Email Contact Information: wroberts@riohondo.edu

Catalog Course Description: GIS 220 is for students to apply and expand tools learned in GIS120 including digitizing with topology, georeferencing and deriving new GIS data by importing CAD (Computer Aided Drafting) and photogrammetry data obtained by sUAV (small Unmanned Aircraft Vehicle). Lessons include suitability analysis such as where to locate a new school and watershed modeling, digitizing parcels and will create mobile applications for field data collection (i.e. fire hydrant inventory). The semester may include field trips to industry events and attend off campus survey exercises.

Student Learning Outcomes:
Completes minimum of 75% of course lessons.
Student can share (save) and recover lessons either by file or online.
Student can demonstrate their understanding of SQL and spatial queries.
Student generates and provides a new layer with topology and domains.
Student generates mobile GPS application for collecting and reporting to GIS.
Student participates in the drone capture, import and surface modeling of drone outputs (orthomosaic, DSM, DTM) in GIS.
Student can import and interpolate sample points into a raster.
Student can build weighted model using raster and vector data to analyze a geographic problem.
Student georeferences scanned asbuilt to ground control points.

By logging into Canvas you affirm that you are the student who enrolled in the course(s) and are the person who will complete the assigned work. Furthermore, you agree to follow the regulations regarding academic integrity, personal identification and the use of student information as described in BP 5500 (Standards of Conduct) and AP 5520 (Student Conduct Procedures) which are the Rio Hondo College student conduct codes that govern student rights and responsibilities. You acknowledge that failure to abide by the regulations set forth in BP 5500 and AP 5520 may result in disciplinary action, including expulsion from the college.

This is NOT a self-paced course. There are firm deadlines in this class. There are assignments due on a regular basis. Please plan your time carefully!

Textbook: Please consult the Bookstore for information at (562) 463-7345 or go to Rio Hondo College Online Bookstore

Over the course of the semester there will be regular instructor student contact.

Methods of student contact include:
Students meet for minimum of initial hour of each scheduled class meeting. All meetings are recorded and accessible the same evening. Faculty office hours will be posted both on Canvas and syllabus. Faculty contact can be made both thru email and Slack. Information on methods of student contact will be covered at first class meeting and convenient links on the Canvas page.

The instructor may drop you for non-participation.
There will be a one to three business day delay after an add code is used before a student may be able to log on to Canvas.

For students new to online classes, it is highly recommended that you take the Online Orientation through our Online Education website. This will help explain what online classes are like and familiarize you with how the class is laid out. The orientation can be found at: [http://www.riohondo.edu/canvas-orientation/](http://www.riohondo.edu/canvas-orientation/)

Email Responses: Instructors will make every attempt to respond to students in a timely fashion. Responses can take up to 48 hours before a response is received, excluding weekends and holidays.

Disability: A Student with a verified disability may be entitled to appropriate academic accommodations. Please contact your instructor and/or the Disabled Students & Programs office at 562-908-3420 for more information.

*Modification and Disclaimer:* The instructor reserves the right to modify the content of the course or any course procedure. It is the responsibility of the student to keep apprised of all changes. If the student wishes to drop the class he/she is responsible for initiating the drop. Do not take it for granted that you will be dropped. If you stop working and do not drop the course, you may get an undesirable grade.

**Additional Information:**
Registered students will have access to campus high tech computer lab via remote desktop. No software install on your personal computer is required however is an option if preferred.

Students are required to register for Spring 2021 Open Lab section (ACEDD Skill Development). This will provide you access to the lab. There is no fee for registering for CRN 35946. You are not required to register for CRN 35946 if you were required by another course this semester.