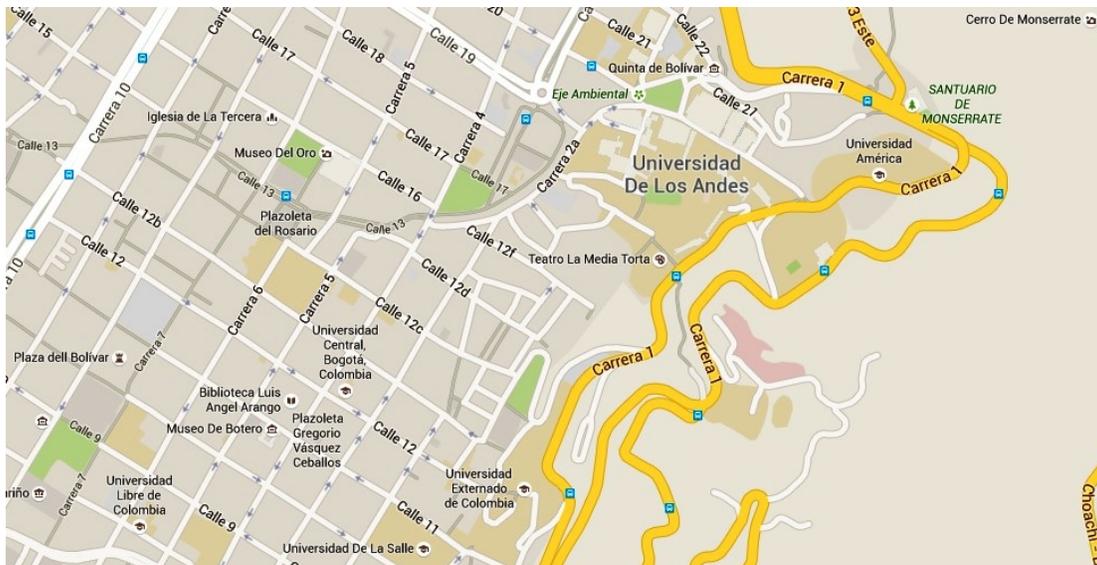


Juniper GIS is partnering with the *University of the Andes (Universidad de los Andes)* in Bogota, Colombia to offer intensive ArcGIS training this coming January and February. The university will offer the one week [ArcGIS for Environmental Analysis](#) class at their campus January 25-29, and then the one-week *Advanced Topics for ArcGIS* class February 1-5. The class will be taught by John Schaeffer, who has over 22 years experience using and teaching GIS, especially to conservation groups internationally. The class will be taught in English, but there will be two Spanish-speaking helpers to assist students.

Each class is approximately \$500 USD per week and if you take both classes, the fee will be approximately \$900 USD. Class registration is handled by the university with the pricing in Colombian Pesos. Seating is limited, so it is recommended that you register by December 13th, as after that, the university will be on holiday break. For more information on registration and pricing, see https://educacioncontinuada.uniandes.edu.co/images/newsletters/2016-1/informacion_geografica/eflyer-informacion_geografica.htm.

The course descriptions for the two classes are below. If you have more questions on course content, please feel free to contact John Schaeffer at john@junipergis.com. If you have questions about the registration process, or general question about the university and Bogota, contact Federico Riet Sapriza at frietsapriza@gmail.com.

Bogota is a vibrant city, set in the Andes at an altitude of over 8,000 feet, and the weather for the class should be relatively dry with daytime temperatures in the 50's and 60's. The University of the



Andes is located in downtown Bogota, within easy walking distance of La Candelaria, the oldest part of town, with many historic buildings and parks. Lodging expenses are very reasonable and there is a good transportation system, so it is easy to get from your lodging to the university.

Working with ArcGIS for Environmental Analysis

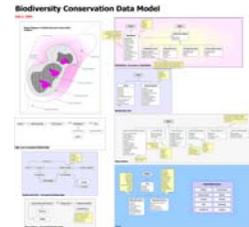
This one-week intensive course will focus on core GIS skills and introduce some advanced topics, all with an emphasis on conservation GIS. This class is appropriate for new GIS users and for experienced GIS users wanting more in-depth instruction.

Core GIS skills include compiling and organizing data, understanding projections, using symbology and labels to understand the data, working with tables to maximize the database functionality of GIS, using edit tools to create and clean the data, performing analysis, and creating finished maps. Students will also learn some advanced skills – working with Spatial Analyst, using raster GIS techniques for analysis, using ModelBuilder to create models for analysis, and moving data to and from Google Earth.

Students will practice and improve these skills while working through typical GIS projects that include identifying areas for elephant habitat, displaying coral abundance levels on reefs, and corridor analysis. These projects will use conservation and natural resource data from the US, Kenya, Mexico, and local data where applicable.

Advanced Topics for ArcGIS

Working with Geodatabases and Linear Referencing, 2 days. This course introduces users to the Geodatabase, a data format that provides enhanced tools for data creation, data modeling, and data validation. Participants will learn how to design, create and manage Geodatabases. At the end of the course, students will have an in-depth understanding of the Geodatabase structure and how to use subtypes, domains, and Geodatabase topology to clean data and maintain data integrity. Since one of the strengths of a Geodatabase is to validate and correct data, there will be many examples of editing, particularly with specialized Geodatabase editing tools and other advanced editing methods. In the last section students will learn how to create routes and use linear referencing for analysis working with stream and fish data.



Working with ModelBuilder, 1 day. Students will learn how to use ModelBuilder to both automate basic workflows and to perform complex analysis. The course will first cover the ArcGIS Geoprocessing environment, which provides the foundation for ModelBuilder operations. Students will then learn how to create models and tools (dialog boxes with user input) in ModelBuilder. The models will cover a variety of functions, including iteration, batch operations, process models, and branching. Students will also learn how to add Python Scripts to ModelBuilder and how to use sub-models. This is a practical, hands-on course designed to increase your productivity, making both analysis and basic tasks more efficient.



Using Spatial Analyst for ArcGIS, 2 days. This course introduces participants to the Spatial Analyst extension and using Raster GIS by working through several projects. The first project illustrates basic raster functionality by locating the best



site for a solar installation. The second project demonstrates more advanced analysis by determining wildland fire hazard zones. A third project explores the process of analyzing water tables and the impact of irrigation, providing an opportunity to look at the Hydrology sample provided for ArcGIS. The final projects combine the skills learned in earlier projects to locate sites for elephant conservation zones in Kenya and to do least-cost path analysis to find the best corridor between an elephant herd and a reserve area.

In this second class, there will be ample time for people to work on their own projects, especially if you take both classes. For more information on these courses please contact John Schaeffer at john@junipergis.com.