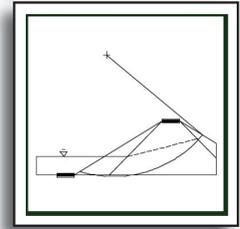


# Introduction to GIS for Mining and Reclamation I – Online



This course is an introduction to the basics of the ArcGIS Desktop software. The course is designed around mining and reclamation examples and exercises. Techniques for using the features of this software to generate high quality maps and analyzing selected data sets are taught. Specific training areas will be ArcCatalog, ArcMap, and ArcToolbox.



Students will learn to recognize various file types and differences between formats, e.g., Raster vs. Vector, Shapefile, Aerial photos/Satellite images, DRG's, DOQQ's, GPS and CAD layers. Students will learn what coordinate systems, datum's, and projections are and why understanding them is vital to working with spatial data. Extraction of CAD layers into the GIS, modifying attributes of shapefiles, geo-rectification and scanning will be covered. Introduction to various mobile computing software and hardware that TIPS supports and how it relates to the permitting process workflow will be examined.

**This course is administered online in the Training Virtual Campus and is available during scheduled times throughout the year. Please follow the standard TIPS scheduling and registration procedures to enroll. Contact your TIPS Training Contact or the TIPS Training Program Lead with questions.**

**Duration: 5-week Period**  
**Course Code: VGAD**

## TOPICS COVERED

The course will provide a basic understanding of ArcGIS and include:

- ▼ A basic understanding of various ArcGIS screens and functions
- ▼ A basic understanding of coordinate systems, datums, and projections
- ▼ Locating and adding baseline data from online sources (e.g., imagery, topography)
- ▼ Importing external data (Excel tables, CAD drawings, GPS points)
- ▼ Digitizing and georeferencing spatial data
- ▼ Performing basic data analysis using ArcGIS tools (editing, clip, buffer, selection)
- ▼ Properly displaying the data through the use of symbology, transparency, etc.
- ▼ Designing and printing maps for publication

**WHO SHOULD ATTEND:** Regulatory or AML staff with degrees in geology, soil science, hydrology, civil or mining engineering, or related natural sciences with little or no experience with GIS.

**COURSE PRE-REQUISITES:** Familiarity with GIS or mapping concepts is helpful. **Class size limited to 12–17 students.**