



## Course Content

### Course Description:

Python is becoming more and more popular for writing custom scripts in ArcGIS. In ArcGIS 10, the command line window has been replaced with the Python window which executes true Python statements. Python scripts can be used to manipulate a map, execute geoprocessing commands, and read/write files. This three-day course teaches basic Python syntax, working with ArcPy (the Python scripting module for ArcGIS), and file manipulation.

### Audience:

This course is for those who are already comfortable with the basics of ArcGIS and want to learn how to write Python scripts to manipulate data and maps.

### Prerequisites:

Students should have knowledge of Microsoft Windows® and be familiar with the basic use of ArcGIS, including the topics covered in either the Fundamentals of ArcGIS or ArcGIS Desktop I classes.

### Topics:

#### Introduction to Python

- Python
- Writing scripts
- Syntax
- Help and resources

#### Modules and Decision Making

- Object oriented scripting
- Decision making
- Arcpy

#### Lists and Looping

- Lists Loops
- Input arguments
- arcpy.mapping

#### Geoprocessing with Python

- ArcToolbox
- arcpy.env
- Calling tools
- Error handling

#### Cursors

- Cursor types
  - search
  - update
  - insert
- Row object
- Cursors and data locking

#### Working with Geometry

- Understanding geometry
- Reading and writing geometry



**Python for GIS 10.x**  
Course ID#: 1700-200-10.x-W  
24 Hrs

**Working with Map Documents**

- Map documents
- Data Driven Pages

**Script Tools**

- ArcToolbox
- ModelBuilder