# Python Essentials in ArcGIS 1: Introduction

## Goals of the workshop

- Present the case for using Python in ArcGIS
- Introduce the Python language and basic concepts
- Introduce ArcPy (new at ArcGIS 10.0)
- Show the Python window in ArcGIS (new at ArcGIS 10.0)
- Demonstrate using geoprocessing tools in Python
- Explore several ArcPy functions that can be used to enhance geoprocessing workflows in Python
- Provide resources to help attendees continue learning about the Python language and scripting in ArcGIS

## Major topics covered

- The Python language: basic concepts; variables; logic; looping; IDEs
- Geoprocessing in Python: Getting started; running tools; using environments
- Exploring ArcPy: What it is; what functionality it provides
- Using functions: Using list functions to perform batch processing; using Describe to get data properties
- Handling errors: Simple techniques to anticipate and deal with errors; getting and displaying messages
- Performing common scripting tasks: Bulk conversion; batch processing.
- Making your script portable: Receiving arguments; setting relative paths.
- Getting additional help: Useful Python language references; Geoprocessing Resource Center.