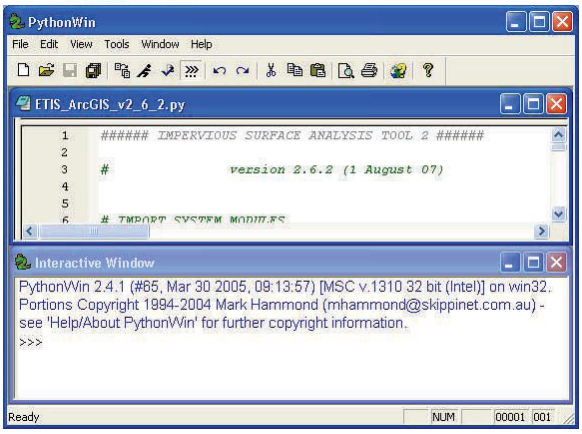
# Developing Custom Geospatial Tools: An Introduction to Python Scripting

```
##Script Name: Clip Multiple Feature Classes
##Description: Clips one or more shapefiles
##from a folder and places the clipped
##feature classes into a geodatabase.
##Created By: Insert name here.
##Date: Insert date here.

#Import standard library modules
import arcgisscripting, sys, os

#Create the Geoprocessor object
gp = arcgisscripting.create()

#Set the input workspace
gp.workspace = sys.argv[1]

#Set the clip featureclass
clipFeatures = sys.argv[2]

#Set the output workspace
outWorkspace = sys.argv[3]
```




This two-day course introduces ArcGIS users to the capabilities and uses of scripts. Scripts are relatively easy-to-use programming languages and can combine the full capabilities of ArcGIS with the functionality of a scripting language. As a result, scripts have far greater functionality than models but have the expense of being more difficult to develop. The course will explore the use of Python to automate GIS tasks. Python is provided free with ArcGIS and is the scripting language supported by ESRI. The goal of the course is to provide students with the foundation and the resources necessary to develop proficiency with automating geoprocessing tasks with Python scripts. Through a combination of brief classroom presentations and hands-on exercises, students will learn how to:

- *Work with basic Python objects: numbers, strings, variables, lists, dictionaries*
- *Create the geoprocessor to provide the script with access to ArcGIS functionality*
- *Run ArcToolbox tools within Python*
- *Use loops to run iterative tasks*
- *Set script parameters to be specified at runtime*
- *Import a script into ArcGIS to be run out of ArcToolbox*
- *Export a model as a Python script*
- *Find documentation and tutorials for working with ArcGIS in Python*

This is an advanced course. Individuals registering for the course should have a solid background of working with ArcGIS, ArcToolbox and with geoprocessing tools.

The course fee is $100.

To register for the course, please complete the following and mail with your payment to the address at the bottom left (sorry, we can only accept checks or purchase orders at this time).

Mail to:

Geospatial Technology Program
Middlesex County Extension Center
1066 Saybrook Road
PO Box 70
Haddam, CT 06438-0070

Phone: 860-345-4511
Fax: 860-345-3357
E-mail: cary.chadwick@uconn.edu
http://clear.uconn.edu/geospatial

Course date
(check one) ☐ November 3-4, 2009

Name: _____

Address: _____

Town, State, ZIP: _____

E-mail: _____

Phone: _____ P. O. # _____

This course is offered through the Geospatial Technology Program, Department of Extension, Center for Land Use Education and Research, College of Agriculture and Natural Resources, University of Connecticut. For more information visit http://clear.uconn.edu/geospatial