# Intermediate to Python Programming for ArcGIS ver 10.2.2



ERIA Consultants, LLC Dr. Michael Tuffly

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#### **Outline**

This workshop will focus on the creation of a geospatial simulation model using python and ArcGIS. That is, using an array of common geoprocessing tools and techniques we will construct a stand-alone simulation model that can be run within ArcGIS.

## **Target Audience**

This course is designed for intermediate (python) programmers who want to create a spatial simulation models using python coupled with common geoprocessing tools for ArcGIS. After completing this course, attendees will have the knowledge and skill to create a basic simulation model using various spatial parameters and tools. In addition, attendees will become familiar with the operations found in the Numpy and Scipy python libraries.

### **Benefits**

If desired, participants will be able to get GIS Professional (GISP) educational credits. These educational credits can be apply for the GISP certificate or for recertification credits (http://www.gisci.org/). This course also can be used for continuing education credits (CE) for the American Society for Photogrammetry and Remote Sensing (ASPRS) Certified Mapping Scientist (CMS) certification (http://www.asprs.org). Also this course can be used for Certified Forester Education (CFE's) from the Society of American Foresters (http://www.safnet.org).

## **Prerequisites**

Fundament knowledge of python (version 2.7.5) programming. Basic understanding of the arcpy module. Midlevel knowledge of geoprocessing via ArcGIS (version 10.2).

## **Needed Equipment**

This workshop can be given in person (on-site) or online (Webinar). If given online attendees will need an internet connection, a computer with ArcGIS (ver 10.2 or better) installed. I will supply the data, manuals, and personal instruction.

#### Instructional Theme

Most examples and exercises in this workshop are environmental based. That is, exercises primarily use publicly available data from government agencies such as: USGS, EPA, USFS, and BLM.

## **Workshop Cost**

The cost for these workshops are negotiable. Contact Mike (email address above) for a quote. Please let him know the following information: 1) which workshop your organization is interested in taking, 2) the number of people attending the workshop, and 3) if the workshop will be online or on-site.

#### Instructor's Bio

Michael Tuffly is the Principal for Environmental Resource Inventory and Analysis LLC (ERIA Consultants, LLC) in Boulder, Colorado. He is also a Certified Mapping Scientist, Remote Sensing from the American Society for Photogrammetry and Remote Sensing (ASPRS), Certified Forester from the Society of American Foresters (SAF), Certified Senior Ecologist from Ecological Society of America (ESA), and a GIS Professional (GISP) from the Geographic Information System Certification Institute (GISCI).

Mike holds a B.S. in Forestry, an M.S. in Natural Resource Management from Humboldt State University and a Ph.D. in Forest Science from Colorado State University in Fort Collins, Colorado.

Dr. Tuffly has over 25 years of experience in applied GIS and spatial modeling for federal, state, private, and nonprofit organizations. In addition, he has over 30 years addressing various fire, natural resource and forest management issues in the United States and abroad. He has been an adjunct Professor in the Warner College of Natural Resources at Colorado State University in Fort Collins, Colorado. Mike has a term, on the SAF Forester Certification Review Board (CRB), from 2013 to 2016. He serves on the Professional Review Committee (PRC) of the CRB. He also serves as the 2014 President of the Rocky Mountain Region of ASPRS. He is also on the GISCI certification review committee since 2012.



