

# TNGIC 2020 Pre-Conference Workshops - April 7, 2020

## ArcGIS Pro Workshop - \$25

**Course Length:** 4 hours

**Max Number of Students:** 50

**Overview:** In this 4-hour workshop, you will be introduced to ArcGIS Pro, its interface and advanced capabilities. You will learn how to successfully make the transition from ArcMap as well as how to take advantage of the advanced features of ArcGIS Pro.

This workshop is divided into 4 sections, as follows:

- **Introduction to ArcGIS Pro**

Whether you have tried ArcGIS Pro or not, it is a bit different from what you are likely used to. Learn how to navigate the ArcGIS Pro interface. See how Projects are organized. Understand a number of the options that can be controlled to make ArcGIS Pro work the way you want.

- **Making the Transition from ArcMap**

You may be an old hand at ArcGIS Desktop and are now ready to make the transition to ArcGIS Pro. We will walk through first steps you can take to start moving your work to ArcGIS Pro. Let's talk about the work you do and how to get over the hump of learning and using this new application. There are a lot of resources for making this transition and we want to make sure you are taking advantage of all of them.

- **How do I do that in ArcGIS Pro?**

So you can navigate yourself around ArcGIS Pro. You can replicate your existing workflows from your ArcMap days. So what are you missing? What's the big deal with Pro anyways? Learn how to leverage what you already know about Pro with some advanced discussion on editing, map production and geographic analysis.

- **Advanced Features of ArcGIS Pro**

Finally, we will wrap up with a section on what are considered some of the most useful and powerful features found only in ArcGIS Pro. For example:

Learn how to take advantage of the Task feature in ArcGIS Pro

Use Arcade for symbology, labeling and popups

The Solution Deployment Tool

Automation through Python and Jupyter Notebooks

### **Instructors:**

#### **Mike Sweeney – Bio**

Mike Sweeney works as a Solution Engineer in the Charlotte regional office of Esri. He has over thirty years of GIS implementation experience in many diverse application areas. Most of his time is spent exploring and explaining new releases of the ArcGIS software and working with clients in North Central Florida. Mike earned a BA in Geography with a minor in Computer Science from SUNY-Albany and a MS in Geography from the University of South Carolina.

#### **Robert Rike – Bio**

**Robert (Bob) Rike** is an Account Executive on the Esri State Government Team and has worked with Esri for 14 years. He currently supports State Agencies in Alabama, Georgia, Tennessee and Virginia to implement GIS systems and geospatial solutions. Prior to joining Esri Bob worked Coordinating the development and use of GIS in with the State of Virginia as well as the electric utility industry in Maryland and local government in Virginia. Bob earned a Bachelor of Landscape Architecture degree from Virginia Tech.

# **Python Primer – Writing Your First Script - \$80**

**Course Length:** 8 hours

**Max Number of Students:** 15

**ArcGIS Version:** 10.x App: ArcMap

## **Overview**

Tailored to the non-programmer, this course introduces the attendees to scripting basics: variables, loops, conditional statements, etc. via a series of short lecture presentations and hands-on “try-its” to accomplish a worthwhile task. The task is to create a script that will write a log file of broken links in a map document and then run that script as a tool from ArcToolbox. If you have never programmed before, this course is the perfect course to prepare you to be successful in the more detailed Python for ArcGIS - Writing Scripts to Manipulate GIS Data.

## **Audience**

Attendees should be familiar with the basic use of ArcGIS, including the topics covered in the TeachMeGIS Fundamentals and Intermediate classes, and should also be familiar with geoprocessing.

## **Topics Covered**

- Introduction to Python – Discover what Python is and places it is commonly used, as well as basic syntax. (Python; String Syntax)
- Comments, Numbers, and Variables – Learn how and why to use comments in a script, the proper syntax for numbers, and how to declare variables. (Comments and Numbers; Variables)
- Rules and Functions – Discuss rules for writing scripts, such as case sensitivity, as well as string functions and how to include paths in a script. (Python Rules; String Functions)
- Objects, Properties, and Methods – Find out what site packages and objects are, as well as the difference between properties and methods. (Object Oriented Scripting; arcpy)
- Looping – See how to use loops to repeat lines of code for a set of items. (Working with Loops)
- Using the Help – Access the help documentation to get code samples and use the arcpy.mapping module. (Help; arcpy.mapping)
- Write to a File – Have scripts create a text file. (Writing to a Text File; File Workflow)
- Input Arguments – Make a script that prompts for arguments at run time. (Making Scripts Dynamic; sys Module; Capturing Arguments)
- Create a Script Tool – Create a custom toolbox and custom script tool (Toolboxes in ArcToolbox; Custom Script Tools)
- Document the Tool – Write the help for the custom script tool that you created. (What is Help?; Creating Help Documentation)

## **Instructor:**



**Jennifer Harrison**  
President, TeachMeGIS  
<http://www.TeachMeGIS.com>

Jennifer Harrison has a B.A. in Mathematics and an M.S. in Geosciences from Murray State University in Murray, Kentucky. She has been consulting in the GIS field since 1992 and has been teaching Esri software (ArcGIS, Workstation ARC/INFO, AML® and ArcView) since 1997. Jenny has been named one of ESRI's top 5 instructors in the US for several quarters.

## **Introduction to QGIS - \$25**

**Course Length:** 4 hours

**Max Number of Students:** 20

**Needed for Class:** Laptop with QGIS 3.10 installed.

QGIS Download link here: <https://qgis.org/en/site/forusers/download.html> (we can use windows or Mac during the class). We will be using QGIS 3.10.x which is the current Long-Term Release.

**Overview:** This 4 hour class will introduce you to QGIS and how your organization can utilize it. It runs on Windows, Linux, and MacOS. It can view shapefiles, DEMs, tiffs and is very ESRI Compatible. We will walk through the interface, data formats, and hopefully make a map. Bring questions, a laptop with QGIS, and prepare to have some fun learning a new piece of Free and open source software for Geoinformatics.

**Instructor:**

Randal Hale

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Randal Hale is the owner/operator of North River Geographic Systems, Inc in Chattanooga TN. He has working for NRGS for the last 14 years providing clients with solution and software centered around Free and Open source software for Geo (FOSS4G). On the weekends you'll find him either doing something with the QGIS community or in a canoe. There is a chance he might be hiking.