# Geographic Information Systems in Water Resources

CUAHSI Virtual University, 2019

David Tarboton

## Exercise 0. Pre-Course Self-Assessment of GIS Knowledge

**Objective.** The objective of this exercise is for me to learn about you and your background in Geographic Information Systems. There will be no grade for this assignment.

1. Describe your knowledge of geographic information systems in water resources from previous classes or experience you have. Please tell me what you would like to learn from this module.
2. General background. Please indicate which university and department you are in, what degree you are working on and how far along you are. Why are you taking this module?

|  |  |  |
| --- | --- | --- |
| 1. Have you been able to access and open ArcGIS Pro?
 | Yes | No |
| 1. Did you do Getting Started With ArcGIS Pro Lesson?
 | Yes | No |

If no, why not.

* Already know how to use ArcGIS
* Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

In the following table please assess your ability to do each of the following using ArcGIS Pro. Enter 0 for don’t know, 1 for Maybe and 2 for Confident in the column at the right.

|  |  |
| --- | --- |
| Create an ArcGIS Pro project and manage where data files are stored |   |
| Open, Close and Save ArcGIS Pro project  |   |
| Import data from an existing map project  |   |
| Work with layers |   |
| Manipulate the map display (at least the basics – zoom and pan) |   |
| Work with ribbon controls (at least the basics) |   |
| Save a project |   |
| Change symbology  |   |
| Add data from a geodatabase |   |
| Work with feature class and feature datasets |   |
| Select features from a feature class using a select by attributes query |   |
| Create a new Feature class from selected features |   |
| Specify a specific red green blue color for layer symbology  |   |
| Change the transparency of a layer |   |
| Bookmark a map extent |   |
| Use swipe to explore and visualize layer interactions |   |
| Select a subset of a multipart feature and create a buffer around it. |   |
| Clear a selection |   |
| Add a new field to an attribute table |   |
| Calculate a field in an attribute table |   |
| Create a feature class (in a geodatabase) |   |
| Set the coordinate system for a feature class being created |   |
| Look up the spatial reference/coordinate system of a layer |   |
| Create a feature by drawing or tracing on a map |   |
| Locate a geoprocessing tool such as “Erase” and figure out how to use it |   |
| Using a layout to construct a finished map |   |
| Add information from ESRI Living Atlas |   |
| Use a definition query to control the display of a layer |   |
| Adding a title to a layout |   |
| Adding a legend to a layout |   |
| **Total (Add the scores from above)** |  |

Scores 40-60. You are a pro.

20-39. Some review and practice is needed.

0-19. Please take the time to do the Getting Started With ArcGIS Pro Lesson.

The Getting Started With ArcGIS Pro Lesson is at <https://learn.arcgis.com/en/projects/get-started-with-arcgis-pro/>. These skills were identified as I worked through this lesson.