



GIS WORKSHOP **APPLIED GEOSPATIAL SOLUTIONS** **IN NATURAL RESOURCES**



Workshop Dates: **22 - 25 May 2017**

Early Arrival: Monday @ 1:00 pm

Start Time: Monday @ 1:30 pm

Adjourn Time: Thursday @ 2:00 pm

Workshop Duration: 4 days (half day on Monday and Thursday)

Registration Deadline: Monday, May 15, 2017



Location: Tall Timbers Research Station & Land Conservancy -- *The Barn*

Instructors: Theron M. Terhune, Diana McGrath & Joe Noble

Course Website: <http://www.gis.ttrs.org/GISHome.html>

Cost: 4-Day (Monday – Thursday) Workshop \$625.00
Workshop fee includes all materials, workbook, GIS data on jump drive, snacks/drinks and light breakfast/lunch each day.
** *Group (5 seats or more) Rates Available*
*** *On-Site Lodging is Available:*
Contact us via Email or phone for more details.

Registration Limit (max): 25

Topics Covered: Focus will be on using ArcGIS 10.x. Components of a GIS; Working with datums and projections, GPS data development, archiving and integration into ArcGIS; working with shapefiles, layers, geodatabases, and etc.; Geoprocessing and basic editing; spatial data creation and manipulation; creating and working with maps, map templates, etc.

Description: This is a hands-on, exercise-based GIS course that explores the range of functionality of ArcGIS; the course has been tailored to aptly benefit those working in conservation and natural resources, but may also broadly apply to professionals outside these fields. We will explore essential tools and techniques for creating, working with, visualizing, and managing geographic data. In particular, this course will provide you with experience using various GPS units and how to integrate GPS derived data into a GIS. Additionally, we will cover the fundamentals of map creation, template development, and sharing/dissemination of your map products. We **will not** exhaustively lecture or cover definitions and mundane GIS terms; we would rather focus on explaining “real-world” application of a GIS and provide you the opportunity to gain experience through exercises and mini-projects teaching/presentation (35%), hands-on exercises (50%), field and group exercises (10%), and discussion/application (5%).

Tentative Schedule



Days 1-2, a sample of topics and modules:

Components of a GIS & GIS Data

- Overview of GIS Concepts
- GIS Interfaces: ArcMap, ArcCatalog, ArcToolbox
- Creating Data vs. Using Data
- A Map Project: mxd, mxt or msd?

Processing/Working with GIS Data

- Working with Shapefiles, Feature Classes, etc.
- Creating and Using Geodatabases
- Working with Attribute Data: querying, joining tables

GPS Data Development & Map Integration (*Field Exercise*)

- Overview of GPS: units and error
- Collecting, Archiving & Post-processing GPS Data
- GPS Tools & Functionality: making life easier!

Basic Geospatial Analysis & Geoprocessing

- Buffering, Clipping, Unions, and Summary Statistics
- Data overlay and extracting attributes
- Field calculator and attribute assignment

GIS Resources & Retrieval of Data

- Out-of-the-Box, and Beyond, tools
- ArcScripts, Third Party Extensions and Custom tools
- Data resources and acquisition

Data Sharing & Distribution

- Working with symbols, map symbology, labels and classification
- Graph & Table integration
- Generating and displaying multiple frames
- Creating maps, map templates, and map layouts
- Exporting maps
- Exporting and disseminating data
- Creating/editing Metadata

Tall Timbers Research Station & Land Conservancy

Days 3-4, a sample of topics and modules:

Basics of Map Making and Editing: starting with nothing

Editing and Digitizing
Georectification/Georeferencing and Rubbersheeting
GIS data resources and Integration
Labels and Annotation
Tips, Tricks, and short-cuts

GeoDatabase Design

GeoDB components
Using and Understanding Domains and Subtypes
Feature Datasets
Data Types in gdb

(Depending on time) Moving Beyond the Basics

Customizing the Interface
Automation of Processes: Model Builder and Script tools

(Depending on time) A look into Cross-platform GIS and Open GIS

Quantum GIS (QGIS)
Google Earth and ArcGIS
ArcExplorer
Tapping in to GRASS and R

Advanced Geoprocessing & Batch Processing

Workshop Participant Questions

Work with “Real” Data and Consulting:

Problems, work-a-rounds and solutions

**You are encouraged to bring your own data and questions

**ArcGIS data setup and design questions



GIS WORKSHOP
Applied Geospatial Solutions in Natural Resources
Application Form



Name: _____ Agency/Organization: _____

Address: _____

City: _____ State: _____ Zip: _____

Primary Phone: _____ Cell Phone: _____

**Email Address¹: _____

If student, School Name: _____

Please rate your Windows – based PC experience: Beginner Intermediate Advanced

Please rate your GIS – based experience: Beginner Intermediate Advanced

What GIS software products have you worked with? _____

Method of payment: Credit Card Check Enclosed Money Order P.O Number: _____

Credit Card Information: Master Card Visa Credit Card # _____

Expiration Date: _____ 3-digit SSN: _____

Signature: _____

Applications & Payments are due by **Monday, 15 May 2017**

For more information: call (850) 893 – 4153 (ext. 268) or E-mail: theron@ttrs.org

Send this application to:

**Theron M. Terhune,
13093 Henry Beadel Drive, Tallahassee, FL 32312**

or fax it to: (850) 906 - 0837

or E-mail: theron@ttrs.org

Reserve your place early by sending in your application ASAP! * (Pre-payment is required) *****

¹ Email will be the primary means of correspondence for this workshop and dissemination of updates, GIS data, etc.