



GIS WORKSHOP

APPLIED GEOSPATIAL SOLUTIONS IN NATURAL RESOURCES



Workshop Dates: **3 - 7 December 2012**

Early Arrival: 8:00 am – Coffee & Light Breakfast

Start Time: 8:30 am

Workshop Duration: 5 days (half-day on Friday)

Registration Deadline: Monday, November 26, 2012

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

Instructors: Theron M. Terhune, PhD, GISp
Joe Noble, GIS Specialist

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

Cost: Option 1: 5-Day (Mon-Fri) Workshop \$650.00
Option 2: 3-Day (Mon-Wed) Workshop \$575.00
Workshop fee includes all materials, workbook, various GIS data, snacks/drinks, light breakfast and lunch each day.
****New** Group (5 seats or more) Rates Available:
*****New** On-Site Lodging (Limited Availability):
\$35 each for shared room / night or \$50 individual room / night

Registration Limit (max): 20

Topics Covered: Focus will be on using ArcGIS (version 10.x w/reference to 9.x). Components of a GIS; Working with datums and projections, GPS data development, archiving and integration into ArcGIS; 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; the workshop has been tailored to aptly benefit those working in conservation and natural resources, but also applies to professionals outside these fields. We explore essential tools and techniques for creating, working with, visualizing, and managing geographic data. In addition, upon completion you will gain experience using various GPS units and how to integrate GPS derived data into a GIS. We focus on explaining “real-world” application of a GIS through teaching/presentation (35%), hands-on exercises (50%), field and group exercises (10%), and discussion/application (5%).



Tentative Schedule



Days 1-3, 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 4-5, 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 gdfs

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

Group Projects

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: _____ Signature: _____

Refund Policy for Cancellations:

- ✓ >2 weeks prior to class: full refund;
- ✓ Less than 1 week prior to first class meeting: no refund.

Applications & Payments are due by Monday, 26 November 2012

For more information: visit the course website, 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 – but will not be processed until the Monday 1 week prior to workshop start date)**

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