

NC STATE UNIVERSITY  
College of Natural Resources  
Forestry Educational Outreach Program  
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**PAID**  
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Raleigh, NC

# Introduction to Applied GPS and GIS for Foresters

*Including custom designed start-to-finish  
mapping projects for foresters*

<b>GPS</b>	<b>GIS</b>
April 9 - 10, 2001	April 11 - 12, 2001
Raleigh, NC	Raleigh, NC



*Sponsored by*  
Forestry Educational Outreach Program  
NC State University Department of Forestry  
NC State University Center for Earth Observation

## Introduction to Applied GPS and GIS for Foresters

### About the Workshops

Global Positioning System (GPS) and Geographic Information System (GIS) technology is taking the forestry community by storm. Knowing how to properly use this technology can greatly speed up the processes of mapping and inventorying. These workshops cover everything from start to finish. Attendees will learn how to collect field data with a Geo-Explorer II GPS unit, enter the data into ArcView GIS software and how to obtain the output they desire. The courses will offer custom designed training specifically for foresters. The courses may be taken

### Who Should Attend?

This workshop is essential for any forest manager or natural resource professional involved in forest inventorying and mapping. Whether you are a beginner or know the basics of this technology, these workshops will increase your speed and accuracy, teach you to incorporate it into your work, and bring you up to date on current technology trends.

### About the Instructor

**Laura Pickens** received her BA in Biology from UNCA in 1990. She worked as a Forestry Technician and a Biologist for the US Forest Service for a total of 5 years before returning to NCSU as a graduate student. In August of 1998, she received her Masters of Natural Resources degree with a technical option in Spatial Information Systems. She has since worked for the NCSU Center for Earth Observation as a Research Associate and is responsible for managing a large contract with the NC Division of Forest Resources (NCDENR). Laura has been responsible for developing and implementing a statewide GIS program for the NCDFR, including training NCDFR foresters to use both GPS and GIS.

### Accreditation

These workshops will each offer 15 Continuing Forestry Education (CFE) credits authorized by the Society of American Foresters.

## Registration and Fees

The registration fee for the workshops includes course handouts, refreshment breaks, and lunch.

Registration fees are:

- Both GPS and GIS Workshops (April 9 - 12): \$670
- GPS Workshop (April 9 - 10): \$325
- GIS Workshop (April 11 - 12): \$395

The deadline to register for the workshops is April 2, 2001.

## Workshop Locations and Lodging

The workshops will take place in Room 5103 Jordan Hall on North Carolina State University campus in Raleigh, NC. The field exercises will take place at Schenck Forest, approximately five miles from the campus. A map indicating the location of the workshop and local lodging options will be included with your registration confirmation letter.

**Lodging is not included in the registration fee**, however, you will receive a list of local hotels with your registration confirmation letter.

## Introductory Applied Courses in GPS and GIS for Foresters

**GPS:** April 9 - 10, 2001 Raleigh, NC

### Day 1: Monday April 9, 2001 - 8:30am-5:00pm

Using the Trimble GPS software

- Mission Planning
- Organizing your data collection
- Creating a Forestry Data Dictionary

Operating the Trimble GeoExplorer II

- Collecting non-attributed data
- Collecting Generic Feature data
- Collecting data using a Data Dictionary

Field Data Collection at Schenck Forest

- Discussion of problems associated with field data collection
  - canopy interference
  - poor PDOP's and satellite reception
- Collection of point, line and polygon data
  - uses of each feature type
  - which feature type is appropriate and when?

### Day 2: Tuesday April 10, 2001 - 8:30am-5:00pm

Post-Processing Data Using the Trimble Pathfinder Office Software

- Downloading data from the rover to the PC
- Obtaining base station files
- Differential Correction of data
- Viewing data with an aerial image backdrop
- Printing a quick map

Exporting GPS data to ArcView GIS

- Creating a quick GIS map (if time allows)

Choosing the GPS that is right for you

- What types of GPS systems are available?
- Which are appropriate for your work?
- What equipment and software do you need?

**GIS:** April 11 - 12, 2001 Raleigh, NC

### Day 1 - Wednesday April 11, 2001 - 8:30am-5:00pm - a

**hands-on instructor-guided forestry project**

ArcView Basics

- Making a basic forest management map
- Manipulating spatial and tabular displays

GIS in Forestry Overview

- Who is doing what?
- Where can I get help?

Creating a Forest Management Database

- Integrating Image Data and Heads-up Digitizing
- Suggestions on data development and layout

### Day 2 - Thursday April 12, 2001 - 8:30am-5:00pm - an on- **your-own forest management mapping project**

Creating a Forest Management Project (from start to finish)

- Build your own Forest Management Project
- Customizing ArcView (Adding helpful scripts)
- Helpful hints for foresters

Finding data on the web and in our state!

*Note: The agenda for each workshop will depend on the weather. However, the workshops will take place, rain or shine.*

**For upcoming workshops and more information on the Forestry Educational Outreach Program visit the FEOP home page at [www.ncsu.edu/feopor](http://www.ncsu.edu/feopor)**

contact Susan Moore at 919-515-3184, fax 919-515-6883 or [susan\\_moore@ncsu.edu](mailto:susan_moore@ncsu.edu)



## Registration Form Introductory Applied Courses in GPS and GIS for Foresters Registration Deadline is April 2, 2001

Name \_\_\_\_\_

Organization \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Daytime Phone \_\_\_\_\_

Fax \_\_\_\_\_

E-Mail \_\_\_\_\_

Special accommodations required \_\_\_\_\_

**I wish to** \_\_\_\_\_ GPS & GIS, April 9-12 \$670

**attend:** \_\_\_\_\_ GPS only, April 9-10 \$325

\_\_\_\_\_ GIS only, April 11-12 \$395

### Method of Payment

Check \_\_\_\_\_ make payable to NC State University

Credit Card: \_\_\_\_\_ MasterCard \_\_\_\_\_ Visa **ONLY**

Card #: \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Name of Cardholder: \_\_\_\_\_

Address of Cardholder: \_\_\_\_\_

I agree to allow NC State University to charge this credit card for the workshop registration.

Signature of Cardholder: \_\_\_\_\_

**Send payment to** Forestry Educational Outreach Program, NC State University, Campus Box 8003, Raleigh, NC 2769 or Fax with credit card information to 919-515-6883.