NY State GIS Conference 2008

Pre-Conference Workshop:
Geographic Information Systems (GIS) Basics
Sunday October 6, 2008

Instructor: Eddie Bevilacqua, Associate Professor,
SUNY ESF, Dept. Forest and Natural Resources Management

Aim: To provide a basic introduction to Geographical Information Systems (GIS), mapping, and their use in various applications, including environmental sciences and natural resources management. Participants will gain an understanding of relevant theoretical aspects of geography and mapping, along with practical experience of using GIS.

Learning objectives: By the end of the workshop, participants should be able to:

- Describe what geographical information systems are, and recognize some of their benefits and limitations.
- Compare and contrast raster and vector data models.
- Describe the difference between spatial and aspatial information.
- Gain some basic practical experience in retrieving, storing, manipulating, analyzing, and displaying spatial data derived from various sources using GIS.
- Appreciate some of the potential applications of GIS in natural resources management and environmental sciences.

Course outline: The course will cover: introduction to GIS and data models; display and analysis of spatially referenced data; NY State related geographies and geographic data; applications in natural resources, and environmental sciences.

Who the course is intended for: This course is intended for individuals with little or no prior experience in using GIS. The course is a broad-brush introduction to both theory and practice in GIS applications. Further software-specific training may be required if participants wish to gain further skills.

Software: Practical elements of this course will be taught using ESRI's ArcGIS software. Concepts and skills are transferable to other packages, such as MapInfo, but these other packages are not available for teaching on the course.

Teaching time: 4 hours consisting of a combination of presentations and computer based exercises.