

**COURSE NUMBER**

FHWA-NHI-151039

COURSE TITLE**Applying GIS and Spatial Data Technologies to Transportation**

FHWA developed this training in cooperation with the Bureau of Transportation Statistics, to train participants in how to implement transportation planning applications that rely on spatial data technologies. This course describes examples of applications using today's major spatial data technologies and discusses various aspects of the applications such as the level of effort for development, technological challenges, training needs, and evaluation measures. Particular emphasis is placed on crosscutting implementation issues, both technological and organizational. Exercises focus on using spatial data technologies in an environment where data sharing and cooperative agreements are essential components for success. Reflecting NHI's commitment to learner-centered training, the training offers participants opportunities for discussion and joint problem solving through which they will gain information about the roles and responsibilities of other team members.

The overall training goal is to prepare participants to evaluate and plan for the implementation of a variety of transportation planning applications that rely on spatial data technologies.

OUTCOMES

Upon completion of the course, participants will be able to:

- Recognize and list emerging/current spatial data technologies
- List the benefits and limitations of each technology
- Benchmark the trends in terms of high, medium, and low risk for implementation
- List reasons a transportation planner would want to apply the technology
- Describe specific examples of applications utilizing spatial data technologies in transportation decisionmaking
- Identify common obstacles when implementing each technology.
- Recognize the value of both internal and external cooperative efforts when implementing the technologies

TARGET AUDIENCE

Participants should have a basic understanding of geographic information systems (GIS). Various professional users of spatial data technologies from State departments of transportation, metropolitan planning organizations, county/city governments; professional staff from State/Federal agencies that have cooperative efforts with other agencies such as environmental data warehouses (e.g., Florida, North Carolina, etc.), transit agencies, airport/port authorities, and consultants.

TRAINING LEVEL: Intermediate

FEE: 2013: \$400 Per Person; 2014: N/A

LENGTH: 2 DAYS (CEU: 1.6 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

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