



COURSE NUMBER

FHWA-NHI-137002

COURSE TITLE

Deploying Integrated ITS - Metropolitan

This course supports integrated intelligent transportation system (ITS) infrastructure deployment with consideration of the National ITS Architecture. Combining the technical and institutional components of integrated ITS infrastructure, the course emphasizes the regional context in which the public components of ITS infrastructure will be implemented and integrated. The importance of each component is discussed and placed in context with the regional decision that must be made by State and local agencies. The course provides transportation program managers with an understanding of the technical and institutional implications for deploying integrated infrastructure within the framework of a regional architecture.

This course is part of the core ITS curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to <http://www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2>.

OUTCOMES

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

- Identify the needs that can be addressed by ITS strategies
- Select the best practices for planning and programming integrated ITS in a metropolitan area
- Relate the need for a regional architecture and use of standards to ensure integrated ITS deployment
- Select the best practices for ITS project planning, design, construction, and implementation
- Explain the systems engineering approach to ITS project implementation
- Describe the use of a "concept of operations" to plan for integrated systems
- Identify typical costs and benefits of different types of ITS deployments

TARGET AUDIENCE

This course is intended for State agencies, metropolitan planning organizations (MPOs) and city/local/county transportation professionals who implement ITS deployment schedules as part of the planning process, deal with public safety, and plan for highway and transit; ITS specialists who provide information or recommendations in operations; those who fulfill regulations (oversight), manage ITS or operations providers, coordinate projects and programs, review specifications, develop regulations and specifications, and design systems; engineers; regional architecture developers; systems integrators; and private sector people associated with these tasks.

TRAINING LEVEL: Beginner

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Linda Dodge • (202) 366-8034 • linda.dodge@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



COURSE NUMBER

FHWA-NHI-137005

COURSE TITLE

ITS Telecommunications Overview

This course provides a broad introduction to telecommunications technologies, the associated issues, and practical lessons learned in the applications for such technologies of intelligent transportation systems (ITS).

This course is part of the core ITS curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

OUTCOMES

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

- Recognize and deal with the current issues associated with the deployment and application of telecommunications infrastructure within the context of transportation project development, design, operations, and management
- Plan and conduct a requirements analysis to match devices and components to telecommunications technologies
- Make use of regional ITS architectures for telecommunications planning
- Explain the fundamentals of telecommunications at a basic level
- Define some of the key terminology and concepts used in transportation telecommunications
- Generalize a frame of reference to help in identifying and defining the institutional and organizational issues associated with the effective use of telecommunications technology in an advanced transportation context

TARGET AUDIENCE

Public and private sector transportation professionals, including project planners, engineers, managers, and senior technicians, involved in ITS transportation planning and ITS deployment, such as MPOs transit agencies, municipalities, State highway agencies, FHWA Division and Resource Center offices, FTA personnel, and systems integrators.

TRAINING LEVEL: Beginner

FEE: \$220 Per Person

LENGTH: 1.0 DAY (CEU: 0.6 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



NHI and the Consortium for ITS Training and Education (CITE) now offer a reciprocal certificate program. CITE offers credit for successful completion of NHI courses toward participants' ITS Project Management Certificate Program. Contact Training Program Manager Bud Cribbs at bud.cribbs@fhwa.dot.gov for more information



COURSE NUMBER

FHWA-NHI-137007

COURSE TITLE

Rural ITS Toolbox

This course describes many practices and techniques related to intelligent transportation systems (ITS) that have been successfully applied to rural transportation problems. These successes are documented in the Rural ITS Toolbox (Toolbox). The course goes further than what is provided in the Toolbox and includes problem-solving techniques and training that prepare participant to describe the contents of the Toolbox to their stakeholders. Toolbox training helps to identify ITS solutions that can have a low-cost/high-return impact on rural transportation.

This course is part of the core ITS curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to <http://www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2>.

OUTCOMES

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

- Define ITS by discussing the elements and functions of ITS
- Comprehend the value of the Rural ITS Toolbox for articulating rural ITS deployment strategies
- Discuss local examples of regional ITS projects
- Explain the benefits of rural ITS
- Recognize the need to identify stakeholders and the importance of fostering interaction among them
- Identify information resources, such as Web sites, other training, data libraries, etc., for more information on ITS
- Tailor portions of the Rural ITS Toolbox for presentation/discussion with other rural stakeholders so that they recognize their roles in rural ITS deployment

TARGET AUDIENCE

County, municipal, and town executives; traffic engineers; State, Federal, and local transportation planners; transit and highway operators of MPOs; public safety responders including enforcement, fire, EMS, towing, public works; transportation management center (TMC) operators; motor carrier managers; environmental groups; IT personnel; college and university faculty and students; and consultants and contractors.

TRAINING LEVEL: Beginner

FEE: \$220 Per Person

LENGTH: 1.0 DAY (CEU: 0.6 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Linda Dodge • (202) 366-8039 • linda.dodge@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



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COURSE NUMBER

FHWA-NHI-137013

COURSE TITLE

Using the National ITS Architecture for Deployment

This course is designed to be an interactive workshop that demonstrates how to apply National ITS Architecture tools and methodologies to the development of regional and project ITS architecture. A copy of the National ITS Architecture 4.0 on CD-ROM is provided in the course.

This course is part of the core ITS curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to <http://www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2>.

OUTCOMES

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

- Use the National ITS Architecture as a tool when developing regional and project ITS architectures
- Identify integration opportunities while developing regional and project ITS architectures
- Use the National ITS Architecture CD-ROM to find definitions
- Identify the difference between user service and user service requirements, and describe how these relate to the National ITS Architecture
- Identify the types of projects that must comply with USDOT policies regarding consistency with ITS architecture and standards, and describe the key requirement for compliance
- Define the systems engineering process as it is used with the National ITS Architecture

TARGET AUDIENCE

Public-sector audiences involved in ITS transportation planning and ITS deployment, as well as system integrators and private-sector transportation professionals who develop ITS solutions.

TRAINING LEVEL: Beginner

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



COURSE NUMBER

FHWA-NHI-137015

COURSE TITLE

Introduction to National ITS Architecture

The course provides broad overview of the National ITS Architecture and the role it plays in ITS planning, designing, and implementation processes. The course presents background on the National ITS Architecture and introduces the notion of user service. The physical architecture is explained using examples of local implementations of the National ITS Architecture. Specific elements of the physical architecture, such as subsystems and terminators, are presented in some detail. Computer Requirements: Recent version of a Web browser, such as Internet Explorer 4 or 5 or Netscape 4 with Javascript enabled; the latest versions of Macromedia Shockwave and Flash (available for download at <http://www.macromedia.com/shockwave/download>); and an Internet connection using at least 56K modem.

OUTCOMES

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

- Define the systems engineering process, as it is used with the National ITS Architecture
- Develop an understanding of the context within which the architecture is to be applied to the ITS planning, design, and implementation process
- Disseminate updated information on the evolving standards and protocols being developed to support the architecture
- Recognize the content and procedures associated with the National ITS Architecture

TARGET AUDIENCE

Public-sector audiences involved in ITS transportation planning and ITS deployment, as well as system integrators and private-sector transportation professionals who develop ITS solutions.

TRAINING LEVEL: Beginner

FEE: \$75 Per Person

LENGTH: 6.0 HOURS (CEU: 0.6 UNITS)

CLASS SIZE: MINIMUM: 1; MAXIMUM: 1

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



Online courses are interactive training in Web-based format that can be accessed from any computer with an Internet connection.



COURSE NUMBER

FHWA-NHI-137019

COURSE TITLE

ITS Software Acquisition

This course provides a general understanding of the many issues involved in intelligent transportation system (ITS) software development and acquisition processes. The course is focused specifically on ITS software issues.

This course is part of the core ITS curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2.

This course is a companion course to FHWA-NHI-137020 Intelligent Transportation System (ITS) Procurement.

OUTCOMES

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

- Describe the basic technologies used in software development
- Describe the private-sector view of software development
- Describe the intellectual property rights and how they must be considered
- Manage the procurement of ITS software
- Write a Request for Proposal for software procurement
- Describe quality assurance issues

TARGET AUDIENCE

Federal, State, and local transportation professionals who are involved in the planning, decisionmaking, and implementation of ITS projects which have a significant software component, or who are involved in coordinating these ITS projects.

TRAINING LEVEL: Beginner

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



Browse the NHI course catalog by a specific category or topic. Go to the Browse Catalog area under the Training tab at the NHI Web site.



COURSE NUMBER

FHWA-NHI-137020

COURSE TITLE

Intelligent Transportation System (ITS) Procurement

Deployment of ITS introduces new challenges to State and local transportation agencies that operate under traditional procurement practices developed to support the design and construction of roads and bridges or to design and construct rail projects. The traditional practices do not readily accommodate the special needs of ITS procurement that is focused on operations. For this reason, the transportation professional must recognize the special considerations required in ITS procurements, and understand how they can be accommodated.

This course is intended to heighten awareness of the challenges in procuring ITS within the traditional construction project environment. It combines lectures with presentations of case studies to describe the lessons learned from past ITS projects and to help ensure successful ITS procurement.

This course is a companion course to, but not a prerequisite for, FHWA-NHI-137019 ITS Software Acquisition. This course is also part of the core ITS curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to <http://www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2>.

OUTCOMES

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

- Describe the nature of intelligent transportation systems and explain why procuring intelligent transportation systems is different from traditional construction procurements
- Describe the potential barriers that may arise from procuring intelligent transportation systems within the traditional construction-oriented environment
- Describe lessons learned from previous ITS projects
- Apply innovative contracting mechanisms and flexibilities in existing regulations to mitigate barriers
- Apply lessons learned to existing policies and procedures to achieve improvements in procuring intelligent transportation systems

TARGET AUDIENCE

Federal, State, and local transportation professionals who are directly involved in procuring ITS systems, specifically personnel responsible for developing and reviewing statements of work for ITS procurement, including program managers, contracting officers, and attorneys.

TRAINING LEVEL: Beginner

FEE: \$220 Per Person

LENGTH: 1.0 DAY (CEU: 0.6 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



We'd love to hear from you! One way to submit feedback is by clicking "Contact Us" on any Web site page.

**COURSE NUMBER**

FHWA-NHI-137022

COURSE TITLE**CORSIM Traffic Simulation Model Training**

This course provides an understanding of CORSIM, the simulation package within the Traffic Software Integrated System (TSIS) suite of tools, which simulates traffic and traffic control conditions on combined surface street and freeway networks. CORSIM is a powerful tool that can be applied to wide areas of interest including:

1. Practical traffic engineering activities such as signal retiming, traffic impact studies, analysis of major traffic events, stadium operations, corridor traffic operations, and freeway incident impacts
2. Evaluating ITS technologies, such as real time traffic adaptive control, real time traveler information and route guidance, and network-wide dynamic traffic assignment

CORSIM determines the impact of traffic engineering and control strategies on a prescribed network's operational performance expressed in terms of various measures of effectiveness (MOEs). The MOEs, such as speed, travel time, volume, and delay, provide insights into the effects of the applied strategy on traffic operations and provide the basis for optimizing the applied strategy.

The hosting organization is responsible for providing computers with the following recommended requirements: 200 MHz Intel Pentium II Processor or equivalent with 128 MB RAM, Windows 2000, Windows NT or Windows XP, color monitors, 50 MB of available disk space. NOTE: Maximum of two participants per terminal.

OUTCOMES

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

- Describe CORSIM features, including advantages and disadvantages
- Determine appropriate uses for CORSIM
- Identify types and sources of data
- Given real-world data, prepare a link-node diagram, then code for input to CORSIM
- Input data, run CORSIM, and interpret output for arterial, freeway, and combined networks
- Identify circumstances and procedures for calibrating models
- Interpret and fix common error messages
- Use CORSIM to simulate traffic improvements

TARGET AUDIENCE

Traffic engineers in the public and private sectors, as well as in academia, who are involved in ITS planning and deployment.

TRAINING LEVEL: Beginner**FEE:** \$420 Per Person**LENGTH:** 3.0 DAYS (CEU: 1.8 UNITS)**CLASS SIZE:** MINIMUM: 20; MAXIMUM: 30**NHI Training Information:** (703) 235-0534 • nhitraining@dot.gov**Subject Matter Contact:** John Halkias • (202) 366-2183 • john.halkias@fhwa.dot.gov**NHI Training Program Manager:** Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



COURSE NUMBER

FHWA-NHI-137024

COURSE TITLE

Introduction to Systems Engineering for Advanced Transportation

This course is an introduction to systems engineering for intelligent transportation system (ITS) project managers and project staff. It provides a high-level view of a broad and rich topic area, introducing basic system engineering concepts in the context of ITS projects. The course helps participants understand the benefits of applying systems engineering approaches as a means of developing quality systems. The course covers technical practices such as modeling, prototyping, trade-off analysis and testing, and management practices such as risk assessment and mitigation, which make up best practices in the systems engineering arena. A combination of lecture and classroom exercises, with transportation systems examples, is used to illustrate the basic concepts and to introduce the topics.

This course is available as a Web-based course at the Consortium for ITS Training and Education (CITE) located at <http://www.citeconsortium.org/registration.html>.

This course is also part of the core ITS curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to <http://www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2>.

OUTCOMES

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

- Define systems engineering and its application to ITS
- Describe the system's life cycle and its relationship to systems engineering
- Develop, derive, and validate requirements for a system
- List the systems engineering tools available to mitigate risk
- Define and apply the concept of earned value as a tracking mechanism
- List three alternative strategies that may be applied to decisionmaking under uncertainty
- Identify where to find appropriate standards for developing ITS projects
- Identify resources that may help project personnel to look at systems as a whole

TARGET AUDIENCE

Transportation engineers and other practicing ITS professionals or technical persons at all levels of government and in the private sector. ITS project managers, technical team members, contractors, and staff are all appropriate participants. Project managers would particularly benefit from it since they direct the efforts of many people. Professionals involved in ITS at any level may attend to broaden their understanding of complex systems beyond current technical knowledge.

TRAINING LEVEL: Beginner

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



COURSE NUMBER

FHWA-NHI-137026

COURSE TITLE

Managing High Technology Projects in Transportation

The course is designed to improve project management skills of both public and private-sector personnel responsible for managing the implementation of technology-intensive transportation projects. It provides training related to the fundamental principles and practices of good project management; the steps to be taken for the planning, design, procurement, and implementation of transportation systems projects; the types of project management tools available for managing transportation systems projects; and the basic skills required to be a good project manager. This course also covers project management techniques associated with all phases of system acquisition from planning through acceptance. This course is also part of the core Intelligent Transportation Systems (ITS) curriculum established by the ITS Professional Capacity Building (PCB) program. For more information on the core curriculum, go to <http://www.pcb.its.dot.gov/Catalogs/ITSCurriculum.htm#section2>.

OUTCOMES

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

- Describe why tailored project management techniques are critical to success in managing advanced transportation projects
- Define key components in planning the project
- Identify the primary participants that need to be involved throughout the development of a project
- Identify the stages of the process and the management tools that are applicable at each stage
- Identify and describe key general management skills that are applicable to managing projects for advanced transportation systems

TARGET AUDIENCE

Current and prospective project managers, project engineers, and designers from State DOTs and State and local transportation agencies, as well as those in the private sector who support the lifecycle implementation of advanced transportation projects.

TRAINING LEVEL: Beginner

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



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COURSE NUMBER

FHWA-NHI-137029A

COURSE TITLE

Turbo Architecture Software Training

This course provides training on the Turbo Architecture tool, which is a high-level, interactive software training program to assist transportation planners and systems integrators in the development of regional and project architectures using the National Intelligent Transportation Systems (ITS) Architecture as a starting point. Turbo Architecture helps users integrate multiple project architectures with each other and with a regional architecture. In addition, Turbo Architecture provides an initial start toward both architecture development and consistency with the National ITS Architecture. Turbo Architecture software can be used to support project level activities.

Prerequisites:

1. Windows skills-The ability to traverse directories, open/close/resize/minimize windows, switch between open windows, and launch and navigate browser
2. ITS knowledge-Knowledge of common ITS concepts and terminology
3. Architecture knowledge-The ability to translate all ITS elements in their region into architecture entities (subsystems, terminators, architecture flows), and to translate their region's transportation services into market packages
4. National ITS Architecture CD-ROM skills-Proficiency in using the Architecture CD to find information on subsystems, terminators, architecture flows and market packages

System Requirements:

The hosting organization is responsible for providing computers with the following minimum requirements: at least 400MHz CPU, 64 MB of RAM, 150MB hard-disk space available, external mouse, CD-ROM drive, and Diskette Drive (1.44MB); Windows 98SE, 2000, or XP; and Workstation monitors configured for 1024x768 resolution. NOTE: Maximum of two participants per terminal.

OUTCOMES

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

- List the preparatory decisions and assembly of information needed to create a Regional Architecture or a Project Architecture
- Describe the six steps in the process used by Turbo Architecture to create a Regional Architecture or Project Architecture
- Use Turbo Architecture software to create and modify a simple Regional Architecture or Project Architecture, including: entering inventory data, selecting Market Packages, reconciling inventory inconsistencies, building the architecture, customizing interconnects and architecture flows, and printing reports and diagrams
- Merge a Project Architecture with a Regional Architecture database
- Describe in general terms how to extend the Regional or Project Architecture by adding architecture flows, subsystems and terminators beyond those defined by the National ITS Architecture

TARGET AUDIENCE

State DOT and local agency staff from metropolitan planning organizations (MPOs) and city/county transportation agencies, as well as private sector consultants who are developing regional and project architectures, and transportation personnel who are responsible for assembling ITS inventory data for a region or project and who use Turbo to build and customize their regional or project architecture.

TRAINING LEVEL: Intermediate

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



COURSE NUMBER

FHWA-NHI-137030

COURSE TITLE

Principles and Tools for Road Weather Management

This course provides transportation professionals in highway maintenance and/or highway operations with training to develop tools and strategies for addressing road weather problems. The course begins with an overview of the types of road weather problems and their associated costs, as well as basic meteorology for non-meteorologists. Through this course, participants are exposed to various strategies for addressing road weather problems, including Road Weather Information Systems (RWIS) and the development of crosscutting decision support systems to respond effectively to weather situations. In addition, road weather solutions unique to maintenance management, traffic management, traveler information, and emergency management are discussed.

OUTCOMES

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

- Recognize the crosscutting impacts that weather has upon roadway operations
- Identify the technical and institutional challenges of implementing road weather management strategies
- Explain the range of effective and open solutions to the various types of weather for various management practices, i.e., maintenance, traffic, emergency, and safety management
- Discuss the variety of operational tools and techniques available to the transportation community to deal with the impacts

TARGET AUDIENCE

This course is designed for persons engaged in any aspect of highway maintenance, operations, traffic management, emergency management, and highway safety, specifically those engaged in the implementation of solutions for roadway problems; technical specialists engaged in the implementation of solutions for roadway problems that are caused by weather; State and local transportation/public works agencies, and mid-level managers who direct their agency's resources; and FHWA personnel.

TRAINING LEVEL: Beginner

FEE: \$220 Per Person

LENGTH: 1.0 DAY (CEU: 0.6 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Roemer Alfelor • (202) 366-9242 • roemer.alfelor@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



To view the new Executive Summary go to the NHI Web site at www.nhi.fhwa.dot.gov or go directly to the URL https://admin.acrobat.com/_a55098539/n137030execsummary/



COURSE NUMBER

FHWA-NHI-137042

COURSE TITLE

Configuration Management (CM) for Traffic Management Systems

Configuration management (CM) is the practice of handling changes systematically, so that a system maintains its integrity over time. CM involves the policies, procedures, techniques, and tools to manage, evaluate proposed changes, track the status of changes, and maintain an inventory of system and support documents as the system changes. The need for and use of CM plans has increased significantly as a result of the rapid deployment of ITS projects and the development of traffic management systems. Many agencies are unaware of the need for and importance and value of CM programs and plans to the continued operation and maintenance of their systems.

OUTCOMES

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

- Discuss the potential benefits and value of CM
- Describe how CM supports the management and operation of traffic management systems
- Identify the role and potential CM applications have in relation to traffic management systems
- Explain the differences between maintenance, testing and acceptance procedures, and CM
- Discuss the key CM issues to consider for field devices, traffic control software, agency, and regional applications
- Identify the types of CM tools that are available and their potential applications

TARGET AUDIENCE

Public and private sector transportation professionals (project planners, engineers, managers, and senior technicians) involved in ITS transportation planning and ITS deployment, such as MPOs transit agencies, municipalities, State highway agencies, FHWA Division and Resource Center offices, FTA personnel, and systems integrators. The course is designed for any individual who is directly involved in documenting a project baseline, lifecycle, and changes for the duration of the project.

TRAINING LEVEL: Intermediate

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Emiliano Lopez • (202) 366-2199 • emiliano.lopez@fhwa.dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



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COURSE NUMBER

FHWA-NHI-137043

COURSE TITLE

Integrated Transportation Management for Small- and Medium-Sized Communities

This is a 1-day introductory course aimed at helping those involved in the planning, design, implementation, and operation of ITS in small- and medium-sized communities. This course introduces the use of Advanced Transportation Management Systems (ATMS) and Advanced Traveler Information Systems (ATIS) when deployed in small- and medium-sized communities.

This course covers ITS strategies for transportation management and traveler information in smaller communities and the issues associated with them. Participants are stepped through selecting an ITS strategy and defining ITS projects within that strategy. Information is presented on the ITS planning and development process, deployment issues, and operations and maintenance issues. The course concludes by covering the resources available and, additionally, the course materials serve as excellent reference material for course participants upon completion of the day.

OUTCOMES

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

- Identify specific areas in which Advanced Transportation Management Systems (ATMS) and Advanced Traveler Information Systems (ATIS) can benefit small- and medium-sized communities
- Describe the impact of Intelligent Transportation System (ITS) initiatives on small- and medium-sized communities
- Discuss the value of, and barriers to, several integrated traffic management strategies
- List the steps in the ITS planning and development process for small- and medium-sized communities

TARGET AUDIENCE

This course is designed to assist a wide range of stakeholders who may be involved in the planning, design, implementation, and operation of ITS in small- and medium-sized communities. These stakeholders include: State and local transportation planners, metropolitan planning organizations (MPO) coordinators and directors, city engineers, traffic engineers, public works employees, local signal technicians, State DOT engineers (e.g., local resident engineer, district traffic engineer), city managers, transit/paratransit operators, local police/fire/EMS, and representatives of information technology (IT) departments.

TRAINING LEVEL: Beginner

FEE: \$220 Per Person

LENGTH: 1.0 DAY (CEU: 0.6 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

NHI Training Information: (703) 235-0534 • nhitraining@dot.gov

Subject Matter Contact: Linda Dodge • (202) 366-8034 • linda.dodge@dot.gov

NHI Training Program Manager: Bud Cribbs • (703) 235-0526 • bud.cribbs@fhwa.dot.gov



See page 8 in the front of the catalog to learn how to enroll in an NHI session.

**COURSE NUMBER**

FHWA-NHI-137044

COURSE TITLE**Improving Highway Safety with Intelligent Transportation Systems (ITS)**

This is a 2-day course aimed at increasing awareness of the potential to gain highway safety improvements through the deployment of Intelligent Transportation System (ITS) technologies at the highway system, mainstream (highway improvement project) and stand alone project level, and accelerate the introduction and evaluation of ITS applications by increasing the recognition of their contribution to making highways safer. Furthermore, the course surveys the participants on their experiences deploying ITS for highway safety improvements and reviews procedures and requirements of safety strategic planning and the ITS deployment process.

OUTCOMES

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

- Discuss participant's highway safety challenges and triumphs
- Identify general uses of ITS to improve highway safety
- Identify and discuss USDOT ITS initiatives
- List, describe, discuss, and extract four highway safety priority areas specific to State or local highway/street agencies
- Identify and demonstrate how ITS can contribute to improved highway safety and traffic operations through a work zone
- Identify and discuss the current status of highway safety and the need to continuously improve highway safety programs
- Identify and discuss ITS-supported countermeasures that can be employed to address highway safety priority areas identified in the participant's jurisdictions
- Identify and discuss organizational and individual-level actions for potential ITS and Safety collaboration in the future at the planning level and necessary activities to enable the actions

TARGET AUDIENCE

The Improving Highway Safety with Intelligent Transportation Systems course is designed to assist professionals in both the highway safety and ITS communities. Participants may be planners, operators, designers, or maintenance personnel. These may be for example, the employees of, or contractors for, State departments of transportation, metropolitan planning organizations, and city and county agencies.

The course activities will draw on attendee's experience, expectations, and contributions. Because an underlying objective is to foster cooperation among the Safety and ITS communities, it is critical that both be well represented: a 50/50 split in attendees' backgrounds would be most desirable.

TRAINING LEVEL: Intermediate

FEE: \$320 Per Person

LENGTH: 2.0 DAYS (CEU: 1.2 UNITS)

CLASS SIZE: MINIMUM: 20; MAXIMUM: 30

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