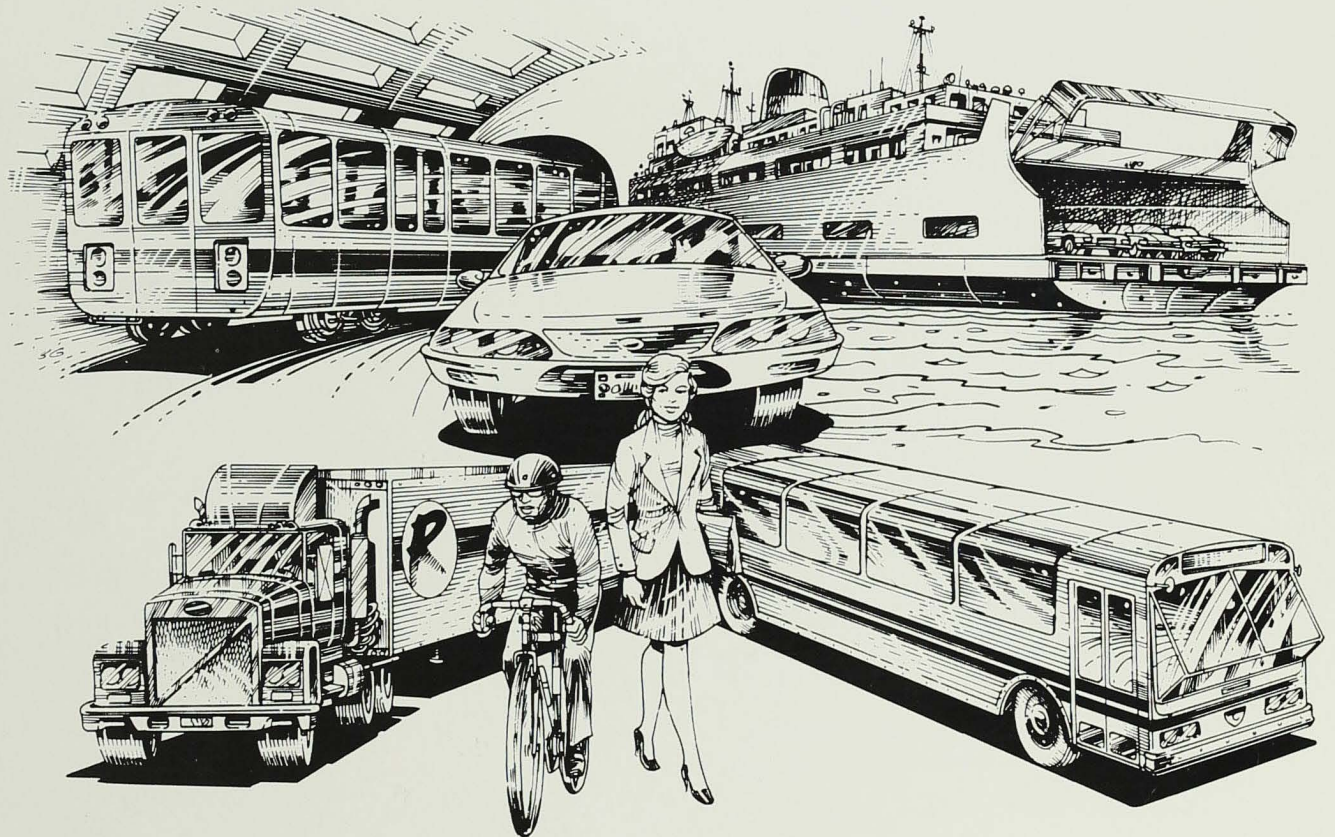




U.S. Department
of Transportation

Federal Transit
Administration

Federal Highway
Administration



PLANNING AND ENVIRONMENTAL TRAINING CATALOGUE





U.S. Department
of Transportation

Federal Transit
Administration

Federal Highway
Administration

April 20, 1995

Dear Colleague:

We are pleased to provide you with the first joint training catalogue prepared by the planning and environmental staffs of the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA). With passage of the Intermodal Surface Transportation Efficiency Act and issuance of the Final Rule on Statewide Planning; Metropolitan Planning and the Interim Final Rule for Management and Monitoring Systems, FTA's and FHWA's planning programs have become more closely coordinated than ever. We therefore combined our training offerings in a single catalogue to encourage greater cross-training and interaction among the various players in the transportation planning community. As we strive to continue our historically high level of technical support, FTA and FHWA are revising their training programs to better reflect the multimodal nature of transportation planning. Although many existing courses have already been revised, the overall effort is ongoing with continual review and updating of existing courses combined with the development of new training offerings to meet the changing training needs of our customers.

As the nature of transportation planning broadens to encompass more modes and address a greater array of related issues and disciplines, we encourage you to take advantage of this training. These courses have been developed to keep you and your staffs abreast of current Federal procedures and requirements. The catalogue provides information on requesting courses and registering for training. Working together, we can ensure that planning provides the basis for meeting the nation's transportation goals.

Sincerely,

Robert H. McManus
Federal Transit Administration
Associate Administrator for
Grants Management

Thomas J. Ptak
Federal Highway Administration
Associate Administrator for
Program Development



U.S. Department
of Transportation
Federal Transit
Administration
Federal Highway
Administration

April 1, 1981

Dear Colleague:

We are pleased to provide you with the first of a series of training materials prepared by the planning and environmental staffs of the Federal Transit Administration (FTA) and the Federal Highway Administration (FHWA). With passage of the Intermodal Surface Transportation Efficiency Act and renewal of the Federal-Aid Highway Act, the Federal Transit Administration and the Federal Highway Administration have become more closely coordinated than ever. The Federal Transit Administration and the Federal Highway Administration are now working together to coordinate our training efforts in a single catalog to encourage greater cross-fertilization and interaction among the various players in the transportation planning community. As we move to continue our historical high level of technical support, FTA and FHWA are revising their training programs to better reflect the intermodal nature of transportation planning. Although many existing courses have already been revised, the overall effort is ongoing with continued review and updating of existing courses consistent with the development of new training offerings to meet the changing training needs of our customers.

As the nature of transportation planning continues to evolve, it is imperative that we address a greater array of related issues and disciplines. We encourage you to take advantage of this training. These courses have been developed to help you and your staffs extend or expand Federal resources and responsibilities. The catalog provides information on existing courses and registering for them. Working together, we can ensure that planning provides the basis for meeting the nation's transportation goals.

Sincerely,

Thomas J. Fink
Federal Highway Administration
Associate Administrator for
Program Development

Robert H. McManus
Federal Transit Administration
Associate Administrator for
Grants Management

FTA/FHWA PLANNING AND ENVIRONMENTAL TRAINING CATALOGUE

Table of Contents

Page

About the Training Program	1
----------------------------------	---

About This Catalogue	1
----------------------------	---

COURSES CURRENTLY OFFERED:

Major Investment Studies	1
Financial Planning and Programming for MPOs	2
Ecology and Highway Development	2
Project Development and Environmental Documentation	2
Fundamentals and Abatement of Highway Traffic Noise	3
Historic and Archaeological Preservation	3
Improving the Effectiveness of Public Meetings and Hearings	3
Fundamentals of Air Quality for Transportation Planning and Project Development	3
Functional Assessment of Wetlands (WET II)	3
Visual Impact Assessment for Highway Projects	4
Environmental Training Center	4
Administration of FHWA Planning Grants	5
Statewide Transportation Planning Procedures	5
Application of GIS for Transportation	5
Corridor Preservation for Technical Staff	5
1990 Census Transportation Planning Package	6
Promoting Planning Partnerships: Strategies for Achieving Consensus	6
Bicycle and Pedestrian Planning under ISTEA	6
Capacity and Planning Analysis for Arterial Analysis	7
Site Traffic Impact Traffic Analysis and Assessment	7
Introduction to Urban Travel Demand Forecasting	7
Access Management, Location and Design	8
Innovative Highway Financing and Elements Of Financial Planning: Technical Methodologies	8
Estimating the Impacts of Transportation Alternatives	8
Congestion Management for Technical Staff	9
Management Systems for Managers	9
Intermodal & Public Transportation Management Systems for Technical Staff ...	9
Landside Access for Intermodal Facilities	10
Workshop on Transportation-Air Quality Analysis	10
Highway Program Financing	10
Pedestrian and Bicyclist Safety and Accommodation	11

Table of Contents

	<u>Page</u>
Courses Under Development	11
Training in the Planning Stage	12
About NTI and NHI	15
Course Schedule	15
Course Requests	16
Fee Structure	16
Course Computer Requirements	16
NHI Course Sponsors Needed	16

ABOUT THE TRAINING PROGRAM

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) offer a variety of planning and environmental training courses, workshops, and seminars to individuals primarily in Federal, state, and local government, including Metropolitan Planning Organizations (MPO) and Transit Authorities.

The training, which varies in length from one to four days, covers a wide variety of planning and environmental-related topics including travel demand forecasting, project traffic forecasting, transportation planning for air quality analysis, congestion and intermodal management systems, access management, and promoting improved planning partnerships. Some courses concentrate on technical aspects while others focus on policy related issues.

ABOUT THIS CATALOGUE

This catalogue identifies courses that are currently available as well as courses that are under development or which are planned for future development. An FTA or FHWA contact is provided for each course that is currently available or under development. These individuals are available to answer technical questions about the training subject. For information on registering for, attending or sponsoring an National Highway Institute (NHI) course (those with 5-digit course numbers), the NHI contact is Al Miller. The name of the National Transit Institute (NTI) person that can provide information on registration for currently available courses is listed with each NTI course.

The catalogue also provides details on how agencies and organizations can arrange to sponsor an NHI course and how individuals wishing to attend a particular course can determine when and where that course is being offered.

COURSES CURRENTLY OFFERED

In the following course list, each course is referenced by its NHI (5 digit) or NTI (4 digit) course number and title followed by a brief description including the course length. For more detailed technical information on any of these courses, you may call the listed contact person. Unless otherwise indicated, the contact is an FHWA staff member. For specific information on the process to host or register for a course, see the section on the NHI and the NTI.

9401: Major Investment Studies

Contact:

Donald Emerson, FTA (202) 366-0096
Sheldon Edner, FHWA (202) 366-4066
Linda Howe, NTI (908) 932-1700

This 3-day course is designed to help states, transit operators, and metropolitan planning organizations carry out the planning requirements for major metropolitan transportation investments. Designed for the study manager, the course provides an overview of the procedural and technical aspects of major investment studies. Topics covered in lectures, group discussions and workshops include: the reasons for doing a Major Investment Study (MIS), the relationship of the MIS to the planning and environmental processes, the identification and evaluation of alternatives, travel forecasting, cost estimating, environmental analysis, financial analysis, and study management.

Target Audience: Senior planners working for state Departments of Transportation (DOT), MPOs, transit operators, local governments, and consultants who are responsible for managing a major investment study.

**9402: Financial Planning and
Programming for MPOs***Contact:*

FTA, Nancy Strine (202) 366-4984
FHWA, Martin Weiss (202) 366-5010
NTI, Neal Denno (908) 932-1700

This 3-day course addresses the financial planning requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA) and the FTA/FHWA metropolitan and statewide planning regulations. Presentations, group exercises, and discussion are used to give participants a basic understanding of Federal laws and regulations on financially constrained plans and Transportation Improvement Program (TIP), Federal funding programs and their inherent flexibilities and eligibility requirements, fundamentals of financial analysis and planning, basic methods for cost estimation and revenue forecasting, and techniques for checking the reasonableness of estimates and forecasts developed by others. This course is a companion to NHI course #15256, "Innovative Highway Financing and Elements of Financial Planning: Technical Methodologies."

Target Audience: Professional staff of MPOs and member agencies such as transit operators and state DOTs engaged in developing the financial components of transportation plans and TIPs.

**14203: Ecology and Highway
Development**

Contact: Paul Garrett (202) 366-2067

This course provides information on ecology and ecological methods for assessing the effects of proposed highway improvements. Instruction highlights the importance of ecological principles when assessing impacts, selecting project alternatives and developing mitigation strategies.

Target Audience: State DOT, local and FHWA employees who must integrate

environmental issues into program and project decisionmaking.

**14205: Project Development and
Environmental Documentation***Contact:*

FHWA, Lee Dong (202) 366-2054
FTA, Sheila Cohen (202) 366-0096

This 3-day course explains in a comprehensive fashion the project development process for Federal-aid highway, transit, and railroad projects. This treatment addresses the development of project concept from planning through construction, merger of environmental and permitting requirements, interagency coordination, project streamlining and flexibility, corridor preservation, enhancement, mitigation, and cooperating agency policy.

In addition to the broader treatment of the project development process, the course gives specific training on technical and policy aspects of environmental document preparation. This includes detailed instruction on the National Environmental Policy Act (NEPA), Council on Environmental Quality and FHWA/FTA implementing regulations, decision making on types of environmental documents as well as the information needed for those documents. The latter includes format, coordination, general content, processing and approval.

The course addresses Section 4(f) of the DOT Act and Federal implementing procedures. This includes documentation, coordination, and approvals. The Section 4(f) instruction gives thorough treatment of applicability, alternatives selection and content.

Target Audience: FHWA/FTA staff, state personnel (including consultants acting for the state), MPOs, transit operators, resource and permitting agencies, and local government staff who prepare and review environmental documents.

14207: Fundamentals and Abatement of Highway Traffic Noise

Contact: Bob Armstrong (202) 366-2073

This three and one-half day course is designed to provide training in the fundamentals of sound and its transmission, traffic noise sources, measurement methods, traffic noise prediction, and noise barrier design.

Target Audience: Federal, state, and local personnel responsible for identifying and analyzing highway noise problems and developing means for minimizing potential noise impacts.

14211: Historic and Archaeological Preservation

Contact: Bruce Eberle (202) 366-2060

This course provides instruction on the when, who, and why to apply appropriate historic preservation procedures to locate and identify resources, to determine the effect of proposed transportation projects on significant historic and archeological resources, and to resolve the effects.

Target Audience: Federal, state, regional and local transportation agency personnel who coordinate environmental and preservation actions with respect to federally funded highway, transit, and railroad projects which affect historic, archeological, and architectural resources.

14213: Improving the Effectiveness of Public Meetings and Hearings

Contact: Florence Mills (202) 366-2062

This basic workshop emphasizes practical techniques and processes for organizing and conducting the two most common public involvement techniques: public meetings and public hearings. It is designed to increase the knowledge of participants in the application of methods to enhance the

effectiveness of public meetings and hearings in both transportation planning and project development.

Target Audience: State highway agency, transit agency, and MPO officials responsible for planning or conducting public meetings and hearings.

14217: Fundamentals of Air Quality for Transportation Planning and Project Development (Available 1995)

Contact: Richard Schoeneberg
(202) 366-2076

This course covers transportation-air quality considerations at both the system planning and project development stages of analysis. Through a combination of lecture, workshops, case studies, and computer exercises the following topics will be addressed: 1) Federal legal and regulatory requirements, 2) atmospheric and meteorological conditions of concern, 3) emission trends and characteristics of transportation activities, 4) analysis techniques at both regional and project levels of concern, and 5) documentation and reporting.

Target Audience: State DOT, MPO, local transit agencies, and state and local air quality staff.

14218: Functional Assessment of Wetlands (WET II)

Contact: Paul Garrett (202) 366-2067

The course offers an overview of wetland regulations and ecology, impact of highways on wetlands, mitigation projects, and methods of assessing wetland functional values. The course is available in three versions, either totally classroom or classroom/field exercise. The classroom only version is two days, and emphasizes only the hydrogeomorphic (HGM), Wetland Evaluation Technique, and Evaluation of Planned Wetland functional assessment techniques. The classroom/field exercise

option is used to demonstrate the wetlands assessment and analysis techniques presented in the course, and includes wetlands regulations, wetlands ecology, and mitigation planning. The classroom/field option is available in three and four day versions. Selection of the 2, 3, or 4-day course version should be determined after discussion with the *Contact*.

Target Audience: Primarily for state DOT personnel who have professional/technical responsibilities relating to highway design, construction, operation, or maintenance activities affecting wetlands. Other Federal, state, local government, and industry personnel with related responsibilities may be permitted to attend on a space available basis.

14226: Visual Impact Assessment for Highway Projects

Contact: Gene Johnson (202) 366-2071

This course is designed to provide the highway professional with an understanding of the process used in the development of a visual impact analysis. It provides guidance on the identification, assessment, and evaluation of visual resources. The course also explains how highway projects are to be assessed and evaluated to determine their effects upon visual resources. It illustrates how the resulting assessment information can be used in making decisions about managing visual resources in the Planning and Maintenance of Highway Projects.

Target Audience: Federal and state personnel who are directly or indirectly responsible for identifying and analyzing visual impacts resulting from highway improvements.

14228: Environmental Training Center

Contact: Bob Wheeler (202) 366-2029

This three week program has been designed to provide participants with the tools needed to manage the environmental process for transportation agencies. The Environmental Training Center will focus on methods to fully integrate environmental considerations into agency policies, procedures, and the project decision making process. The course emphasizes early and continuous involvement of Federal, state, and local governments and the increased decisionmaking role of environmental agencies such as the Environmental Protection Agency and the Army Corps of Engineers. Technical requirements for environmental documents under NEPA will be addressed in light of the organizational and functional relationships that identify the importance and interrelationship of the various environmental requirements which apply to transportation programs. The goal is to manage the transportation planning and project development processes in such a way that good project decisions are made through collaboration with all significant stakeholders and that environmental commitments are accomplished.

Target Audience: Employees of Federal, state and local transportation agencies or consultants working for those agencies who have responsibilities in the areas of environmental program management, environmental impact identification and analysis or who are involved in environmental document review and/or preparation. Participants may have responsibility for addressing environmental impacts of transportation projects either in the transportation planning or project development process. Participants should have a basic knowledge of Federal environmental legislation.

**15121: Administration of FHWA
Planning Grants**

Contact: Tony Solury (202) 366-5003

This two day course provides a basic understanding of the responsibilities and relationships that exist between FHWA, the state, and metropolitan planning organizations in the administration of FHWA planning grants. This course is updated as necessary to include the most recent administrative and legislative changes including revisions to Office of Management and Budget Circulars A-87 and A-102, 49 CFR Part 18, and 23 CFR, Part 420.

Target Audience: Federal, state, MPO, and local planning agency personnel that are involved with the use and administration of FHWA planning grants.

**15127: Statewide Transportation Planning
Procedures**

Contact: Bob Gorman (202) 366-5001

This multi-day (usually 4 day) course provides a basic understanding of the ISTEA statewide transportation planning requirements and an in-depth understanding of the practices and procedures for statewide transportation planning. It is oriented to state DOT staff involved in developing state transportation plans and programs. Topics discussed include: the statewide transportation planning process, systems analysis procedures, management systems, data needs and collection procedures, needs estimation, Clean Air requirements, project level analyses, intermodal issues and public involvement.

Target Audience: State and Federal planning professionals and new managers that desire a fast-paced review of the state-of-the-practice.

**15129: Application of GIS for
Transportation**

Contact: Roger Petzold (202) 366-4074

A Geographic Information System (GIS) is a system of hardware, software, data, people, organizations and institutional arrangements for collecting, storing, analyzing, and disseminating information about areas of the earth. Geographic Information System for Transportation is the adaptation of the technology to transportation issues specific to the management and analysis of transportation networks.

Target Audience: Federal and state personnel, MPO, transit agencies, and local governments that are interested in the implementation of a GIS for Transportation

**15130: Corridor Preservation for
Technical Staff**

Contact: Robert Wheeler (202) 366-2029

This course explains the objectives of corridor preservation and presents case studies illustrating the application of corridor preservation efforts. The course includes discussion in the following areas: 1) the nature and magnitude of the problem corridor preservation is intended to address; 2) the impact of the National Environmental Policy Act on corridor preservation; 3) use of the products from the transportation planning process; 4) land use controls; and, 5) public/private partnerships. The case studies identify various approaches to corridor preservation including different levels of corridor analysis (i.e., planning studies, feasibility analyses, and phased environmental documents) and various types of land use controls.

Target Audience: Technical staff involved in project development, planning, project development, and right-of-way functions at the Federal, state, and local levels.

15131: 1990 Census Transportation Planning Package (CTPP) Applications

Contact: Barry Zimmer (202) 366-4082

This three day course is no longer offered. Beginning mid-1995 a free two-day technical assistance session is being planned with emphasis on applications of the urban element of the CTPP. FHWA and the Bureau of Transportation Statistics have teamed together to provide this technical assistance session. Concentrated time will be spent on the uses of the TransVu CTPP software, the background of the CTPP and metropolitan applications of the Census data. The manual to accompany this offering will provide a resource document for practitioners. These sessions are designed for persons who may have already taken the NHI Course #15131. Approximately ten areas will be targeted to host the sessions nationwide. Additional information will be available as the details are worked out.

Target Audience: State and local planning staffs. Individuals directly involved in any aspect of transportation system planning, including highway and transit planners, land use planners, system modellers and other persons involved in developing transportation planning inputs, developing or using analytical methods, and evaluating planning output.

15133: Promoting Planning Partnerships: Strategies for Achieving Consensus

Contact: Sheldon Edner (202) 366-4066

This course focuses on the changed roles of traditional transportation agencies and new planning participants (e.g., ports, airports, rail, etc.) in the surface transportation planning process. The concepts central to understanding shared power decision systems and techniques for decision making in such settings will be discussed and

evaluated. Application of these techniques will be demonstrated using participant examples.

This course can be structured to reflect the specific problems, issues, opportunities, and constraints of particular metropolitan areas or states. Information on such custom tailoring is available from the contact.

Target Audience: State, MPO, local government, and transit agency staffs and operators of other modes of transportation.

15135: Bicycle and Pedestrian Planning Under ISTEA

Contact: John Fegan (202) 366-5007

This one day course describes the bicycle and pedestrian planning process and how it relates to metropolitan and statewide planning processes. It covers Federal legislation, implementing regulations, joint FHWA/FTA technical guidance, managing the planning process, public involvement, and developing and implementing a bicycle and pedestrian plan.

The suggested components of the bicycle and pedestrian plan are presented with information on how these components can be developed for individual states and metropolitan planning areas. The course covers both the initial development and the subsequent modifications of plans and programs to integrate consideration of the needs of bicyclists and pedestrian needs in the development of an intermodal transportation system.

Target Audience: Planners and engineers at state, metropolitan, and local levels who are responsible for developing and updating the bicycle and pedestrian planning required by ISTEA.

**15250: Capacity and Planning Analysis
for Arterial Analysis**

Contact: Ron Giguere (202) 366-2203

The three day course introduces techniques both for determining the demand on arterial facilities and for evaluating the performance of intersections, arterials, and corridors. The four day course includes freeway facilities as well. Discussions focus on the latest material from the 1985 Highway Capacity Manual much of which has been or is being revised. The course is constantly being updated to reflect these changes. Methods and tools to evaluate arterial and freeway components (four day course only) at both the planning and operational levels are presented. Specific data requirements along with procedures for estimating turning movements and determining service volumes are also discussed. In addition to lectures, the course incorporates software demonstrations and microcomputer workshops to apply analytical techniques. Hands-on exercises employ widely used microcomputer programs. In the software applications, emphasis is placed on understanding the inputs and interpreting the outputs.

Target Audience: Federal, state, and local transportation planners and engineers who are or may be involved in capacity and traffic analysis of existing or future facilities.

**15253: Site Traffic Impact Analysis and
Assessment**

Contact: Brian Gardner (202) 366-4061

This three day course will present the major elements and recommended practices for site impact analysis and assessment. It replaces the current Site Impact Traffic Evaluation course (same course number). The technical, administrative, economic and legal issues surrounding these topics will be addressed, as will relevant travel demand management and access design issues and techniques. The lectures and course

materials will be supplemented by workshops, case studies, and examples.

Available summer 1995.

Target Audience: State and local transportation planners and engineers who are involved in the development or review of traffic analyses for new developments.

**15254: Introduction to Urban Travel
Demand Forecasting**

Contact: FTA, Nancy Grubb (202) 366-0096
FHWA, Barry Zimmer (202) 366-4082

This is a four-day introductory course in travel demand forecasting. It covers, through lectures and workshops, the traditional four step planning process: trip generation, trip distribution, mode choice, and traffic assignment. It also includes lectures on information needs and the development of networks and zone structures. This course is offered both in the field and at Headquarters in Washington, D.C. The headquarters course, usually presented the first week of March and October, includes software demonstrations of transportation planning microcomputer applications to problems previously solved manually in class.

There are three options to the field course. It can be presented: (1) using the microcomputer package used by the host agency to reinforce the theory taught; (2) as a non-computerized course with hand-solved workshop problems; or (3) as the Urban Transportation Planning System (UTPS) course (formerly Course 15206).

Target Audience: Federal, state, and local planners relatively new to planning who wish to gain a better understanding of the principles and techniques of travel demand forecasting.

15255: Access Management, Location and Design

Contact: Ron Giguere (202) 366-2203

This three day course provides a comprehensive and detailed discussion of access management for streets and highways. This course has been updated to include material from the new National Cooperative Highway Research Program report, "Access Management Guidelines for Activity Centers," material from the 1993 National Conference on Access Management, and additional information on developing, implementing and administering a comprehensive access management program. Course elements include: benefits and issues related to access management; access design principles, management programs and policies; techniques for controlling access; retrofit access control techniques in developed areas; access design and location guidelines; site access and site plans; and evaluation of access improvement strategies.

Target Audience: State and local planning and design technical staffs and land use planners.

15256: Innovative Highway Financing and Elements of Financial Planning: Technical Methodologies

Contact: Bill Marley (202) 366-5009

This two day course discusses five types of innovative highway financing: public/private agreements, impact fees, special assessment districts, innovative toll projects, and local option taxes. Case studies are used to present the financing history of several innovative techniques for financing projects with substantial private sector involvement. In addition, the course incorporates four computer workshops which utilize public domain software related to special assessment districts, impact fees, toll rates and revenue expenditure forecasts. This course is a com-

panion to the NTI course, #9402, "Financial Planning and Programming for MPOs".

Target Audience: State DOT, MPO and member agencies including transit authorities, and local government employees, and other staff responsible for all or any of the following: 1) the design, development, review, and operation of innovative financing techniques, 2) incorporation and programming of the techniques into financial planning procedures, 3) financial review of plans, metropolitan TIPs, and Statewide TIPs (STIPs).

15257: Estimating the Impacts of Transportation Alternatives

Contact: Patrick DeCorla-Souza
(202) 366-4076

This three day course provides guidance on estimating costs, benefits and impacts for evaluation of highway, mass transit, and demand management alternatives at the system level, as well as for screening alternatives at the corridor/subarea and project levels. Topics to be covered include estimation of public and private costs; air pollutant emissions; energy consumption; safety/ security, economic development, equity and other social and environmental impacts; and techniques for cost-benefit and cost-effectiveness analysis. Software for estimating impacts will be introduced through hands-on workshops. While this course in its current construction deals only with highway examples, the innovative financing methodologies are applicable to other modes.

Target Audience: Federal, state, MPO, local government, and transit agency planning staffs.

**15259: Congestion Management for
Technical Staff**

Contact: Douglas Laird (202) 366-5972

This three day course provides participants with an in-depth examination of the elements required to successfully develop, implement, and operate a congestion management system (CMS). Subjects will include: modes and networks to monitor, the development of performance measures, establishment of a data collection and performance monitoring plan, identification and evaluation of CMS strategies, linking performance measures to CMS strategies, monitoring strategy effectiveness, relationship to other management systems, and documentation of the CMS. The course is designed for staff responsible for CMS implementation and operation.

Although this course is offered as a stand-alone 3-day course, our preference is to offer it in joint sequence with course #15263 Intermodal & Public Transportation Management Systems (IMS/PTMS) for Technical Staff. Under this arrangement, the CMS course would be presented over the first three days, followed by 1-1/2 days on IMS/PTMS. We encourage this option to be seriously considered before requesting the CMS course.

Target Audience: Planners and engineers at state and local levels as well as representatives from MPOs, transit agencies and other organizations who will be participating in the development and implementation of CMS.

**15262: Management Systems for
Managers**

Contact: Dane Ismart (202) 366-4071

This one-day course (Listed as: "Management Systems: An Overview for Transportation Executives" in the NHI Catalog) provides a basic understanding of the ISTEA management systems,

requirements, and guidance on the implementation, integration and administration of the management systems, with emphasis on the IMS, CMS, and PTMS. It is oriented to state DOT department heads, MPO directors, and others at an upper management level. Topics discussed include: organizational capability, funding options, sanctions and time frame. Emphasis is placed on the congestion, intermodal, and public transportation management systems; however, discussions on implementation and integration will include all management systems.

Target Audience: Federal, state, MPO, and local government managers that are interested in the implementation of ISTEA management systems.

**15263: Intermodal & Public Transportation
Management Systems for
Technical Staff**

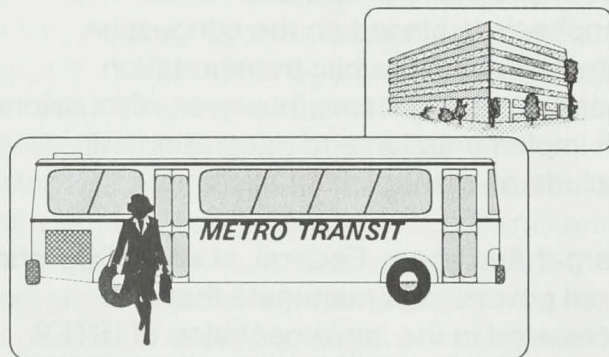
Contact: Dane Ismart (202) 366-4071

This three-day course (Listed as: "Management Systems for Technical Staff" in the NHI Catalog) covers in detail the technical guidelines and requirements for the state development, establishment, and implementation of the IMS and the PTMS. Discussion on the relationships and integration with the other management systems, especially the congestion management system, will be included. Emphasis will be on understanding the basis for the IMS and PTMS, performance measures and data needed to assess strategies, and methods to successfully design, implement, and administer the IMS and PTMS.

Although we offer this course as a stand-alone 3-day course, our preference is to offer it in joint sequence with NHI course #15259, Congestion Management Systems for Technical Staff. Under this arrangement, the CMS would be presented over the first three days, followed by 1-1/2 days on IMS/PTMS. We encourage this option to be

seriously considered before requesting the 3-day IMS/PTMS course.

Target Audience: Practitioners responsible for designing and implementing management systems. Individuals directly involved in any aspect of transportation system planning will also benefit.



15264: Landside Access for Intermodal Facilities

Contact: Lee Chimini (202) 366-4068

This three-day course will focus on the methodologies and design elements for improving access to airports, seaports, truck, rail, and inter-city transit terminals. It will cover both freight and passenger travel and present tools and techniques necessary to assess the efficiency of intermodal terminal access strategies and improvements. A discussion on how the Clean Air Act Amendment affects the process will be included.

Target Audience: State, MPO, and local planners as well as those in the private sector involved in the planning of terminal and port facilities.

15265: Workshop on Transportation-Air Quality Analysis

Contact: Jerry Everett (202) 366-4079

This two-day course emphasizes state-of-the-art practices for developing travel related data for mobile source

emissions inventories, analyzing transportation improvement programs and plans for conformity to state implementation plans (SIP), forecasting and tracking vehicle miles of travel (VMT), and evaluating transportation control measures (TCM). Additional topics include procedures for analyzing accessibility changes using the four-step travel demand forecasting (TDF) process, emission factor models, and travel demand forecasting and emission factor model interactions. These procedures will be demonstrated through manual workshops. This workshop is designed to be flexible so that the topics of interest to each locality are emphasized. An understanding of the travel demand forecasting process would be helpful for those taking this course.

Target Audience: FHWA, state DOT, MPO, air quality agency, and local government planning staffs and other practitioners interested in the transportation/air quality linkage. One objective of this workshop is to provide a forum for both transportation and air quality analysts to come together and discuss issues of mutual interest. [NOTE: If 25% or more of the attendees represent state or local air quality agencies, there is no course fee.]

35005: Highway Program Financing

Contact: Dick Osborne (202) 366-4062

This two day course is designed to explain the aspects of Federal-aid highway financing which are unique to the FHWA program. The explanation includes, but is not limited to: 1) the content and policy implications of authorizing and appropriating legislation, 2) how Federal-aid highway funds are distributed, 3) the effect of policy/budget considerations on the use of Federal-aid funds, and 4) the operation of the Highway Trust Fund.

Target Audience: State, DOT, MPO, and local government employees.

**38061: Pedestrian and Bicyclist Safety
and Accommodation**

Contact: John Fegan (202) 366-5007

This three day course is designed to provide training on safely integrating pedestrian and bicyclist consideration into normal highway planning, design, operations, enforcement and education programs. Topics include: Needs identification; program development and funding opportunities; engineering pedestrian and bicyclist accommodations; education programs; law enforcement programs; marketing a pedestrian and bicyclist program to the community; resource assessment; evaluating pedestrian and bicyclist accommodations; and post course action plan.

Target Audience: FHWA and the National Highway Traffic Safety Administration field office personnel, state and local government personnel, traffic engineers, educators, and law enforcement personnel.

COURSES UNDER DEVELOPMENT

**9403: ISTE Management Systems for
Transit Operators (tentative title)**

Contact:

Sean Libberton, FTA (202) 366-0055
Neal Denno, NTI (908) 932-1700

FTA and NTI are planning a series of regional conferences/workshops focusing on the role that transit operators have in the development and utilization of ISTE management systems. Topics to be covered include how transit can benefit from the systems; development of transit-sensitive performance measures for use in the CMS; sources of data for PTMS, CMS, and IMS; and system integration issues. Summer, 1995.

9404: Public Involvement in Transportation Decisionmaking: Effective Techniques and Processes

Contact:

Paul Verchinski, FTA (202) 366-6385
Florence Mills, FHWA (202) 366-2062
Linda Howe, NTI (908) 932-1700

The course will provide an overview of the FTA/FHWA public involvement requirement and will then concentrate on methods of planning a public involvement process tailored to the unique characteristics of a given metropolitan or statewide planning or project development process. Through a participatory process, participants will be taken through a variety of techniques for proactively involving citizens and special citizen populations in transportation decisionmaking.

15134: Travel Surveys and Data

Collection (Available late CY 1995)

Contact: Jerry Everett (202) 366-4079

This course will focus on the variety of data needed to respond to current and new travel models, including survey design, and methods of sampling, collecting, and analyzing the data. Coordination of data needs within the metropolitan transportation planning process, including system performance and air quality, will be stressed. Using supplemental data sources will be included.

15260: Advanced Travel Demand Forecasting

Contact: Patrick DeCorla-Souza
(202) 366-4076

This three-day course will emphasize advanced practices for system level modeling and analysis of travel demand management (TDM). It will include state-of-the-art procedures for land use forecasting, travel demand modeling using the four-step process and estimation of TDM impacts. An understanding of the travel demand forecasting process is a prerequisite for this course.

Statewide Transportation Planning*Contact:* Dee Spann (202) 366-4086

This multi-day (usually 4 day) course is under development. It will provide an understanding of the ISTEA statewide transportation planning requirements and an opportunity for more in-depth understanding of practices and procedures for intermodal statewide transportation planning. It will be oriented to staff involved in statewide transportation planning including State DOTs, modal partners (railroads, bus companies, trucking companies, ports, shippers, etc.). Topics discussed will include: the process and organization for statewide transportation planning, the principal products of the process (plan and state TIP), relationship of management systems to the planning process, relationship of statewide planning to metropolitan planning, the 23 factors, public involvement, the technical aspects of transportation planning (data and data collection, system forecasting, needs studies, project development, etc.).

Highway Runoff Water Quality*Contact:* Fred Bank (202) 366-5004

FHWA's existing course material on highway runoff water quality will be re-organized, with stand-alone training modules. The modules will cover specific subjects, such as planning for water quality protection, constituent monitoring, assessing the potential for impacts, mitigation planning, design of drainage features, etc. Individual training sessions will consist of one or more of the modules, as requested by the sponsoring agency, based on the needs of the personnel in a particular locality.

Target Audience: State DOT, local transportation and FHWA personnel responsible for water quality issues when planning, designing and implementing transportation improvements.

Advanced Historic Preservation Course*Contact:* Bruce Eberle (202) 366-2060

This training will be developed as an upgrade and extension of the existing course, #14211. It will incorporate National Historic Preservation Act amendments and Advisory Council regulations and policy changes resulting from the passage of ISTEA and other issues, such as historic landscapes and Native American concerns. The training will be presented by a team of principle participants in the historic preservation process.

Target Audience: State, regional, local, and federal staff.

TRAINING IN THE PLANNING STAGE

The following topics have been identified for development into new courses, seminars or modules for inclusion in current courses.

- **Market Segmentation in Transit Operations and Available Service Options**

This course will cover methods to identify segments of the transit market and match those segments with available service options. The course will address market segments addressing transit access (such as bicycle on transit and telecommuting) as well as the nature of service including big bus/little bus, express service, bus trolleys, and light rail. Tools for determining resource and demand requirements of service options as well as ridership estimates and other requirements will be presented. Examples of alternative service options implemented in areas having completed market segmentation studies will be incorporated into the course. The course will address transportation demand management as a segmentation strategy. It will also address the uniform fleet issue in the provision of alternative service options.

■ **Transportation and Land Use Course**

This course should cover a variety of topics related to the linkages between land use and transportation including: population and employment forecasting at the regional, subarea, and activity center levels; trip generation characteristics of different land use types and densities, including mixed use development; land use strategies to reduce travel demand (what strategies have been tried, and what do we know about their effectiveness); techniques for estimating the land use impacts of transportation alternatives; joint development; corridor preservation; and current topics (livable communities, Enterprise Communities/ Empowerment Zones etc.).

■ **Land Use Planning and Air Quality Considerations for Comprehensive Planners and Developers**

The course will describe the relationships among air quality considerations, economic development, land development, and transportation. It will provide an understanding of the impacts which traditional land use development has on economic development in terms of the carrying capacity of transportation systems, air quality, etc. At the development, project, and activity center level, the course will show the different transportation impacts of different design concepts. At the regional level, it will show the gross impacts of suburban, low-density, auto-oriented development on economic development, transportation efficiency, transportation costs, and taxation. The course will present the economic and development benefits of alternative types of land development and air quality considerations. The focus of the course will be on land development rate of return, not social benefits.

■ **GIS Application for MPOs**

This topic will most likely be a new module for #15129, Application of Geographic Information Systems (GIS) for Transportation. This module will cover applications of

GIS for such activities as congestion and intermodal management systems, project development activities and major investment studies, and environmental impact analysis.

■ **Intermodal Terminals Seminar**

The objective of this seminar is to identify, review, and synthesize the results of these discussions and identify gaps in theory or information for the planning and design of intermodal terminals. This seminar will explore with the sponsors of a representative number of terminals a number of issues and factors that would define what has worked and what has not within the overall original planning context for their intermodal facility. The issues and factors which could be focused on include, but are not limited to; ridership, passenger usage, design criteria, operating efficiencies, safety and security, passenger flow modelling/simulation, capital cost, maintenance costs, siting/design, joint development potential, etc. The seminar participants, by invitation only determined by a steering committee, will include those with intermodal terminals already operating and/or with terminals planned.

■ **Introduction to Transportation System Planning**

This course will review the procedural and technical aspects of system planning. The procedural elements of the FTA/FHWA planning regulations to be reviewed include: MPO designation; role of system planning in the development of planning products; roles and responsibilities of agencies involved; clean air conformity; and citizen participation. Technical elements of the course include an introduction to: travel demand forecasting; land use forecasts and plans; financial planning; identification of transportation needs; identification, development and evaluation of alternatives; definition of management systems and their role in system planning; major investment studies; regional and subarea analyses, emissions forecasts, and inclusion of other environmental impacts.

■ **Noise and Vibration Impact Assessment for Transit Projects**

This 2-3 day course will cover procedures and analytical methodology for performing noise/vibration impact assessments for common types of transit projects. Methods will be presented for both bus and rail modes and different levels of analysis will be described depending on the stage of planning /project development (i.e., general assessment appropriate for a major investment study versus detailed assessment conducted during preliminary engineering). The course assumes a basic understanding of transportation noise and vibration fundamentals and it is intended for practitioners such as acoustics consultants and noise analysts in state and local transportation agencies. This course will be offered as an outreach effort to familiarize transit planners and technicians with the procedures and methods contained in a guidance manual and companion computer spreadsheet program soon to be released by FTA. A large part of the course will be devoted to presenting case studies using the techniques in the manual. It is expected the course will be offered 2-3 times each year for at least the first two years after the guidance manual's release.

■ **Role of the MPO**

This training for MPO policy board members will cover the basics of what an MPO is, what its responsibilities are, and what authority it has. It will describe the 3c process, the decisions required by that process, and the information necessary to make those decisions. It will cover the relationship between the MPO and its member agencies and clarify the roles and responsibilities of each. The training will provide examples of productive MPO activities and will cover the history of MPOs including the passage and content of ISTEA as well as the environment which engendered ISTEA.

■ **TIP Development**

This course will cover the development of transportation improvement programs and Federal funding processes including a complete description of the process of taking a project from conception to implementation. It will include instruction on project phasing, public participation, cross modal trade-offs, project selection, and other program administration topics.

■ **Travel Demand Forecasting for Transit and HOV**

The course will cover transit/high occupancy vehicle (HOV) issues throughout the 4-step travel demand forecast process, as well as discuss transit network building. Topics to be covered include the following: direct generation of trips, transit captives, composite impedance in trip distribution, modal demand structures, calibration of transit units in assignment, HOV assignment, costing issues, transit equilibration, validation and reasonableness checks of results, and how transit/HOV issues relate to ISTEA. The course will last four days with lectures and manual workshops the first three days and computer workshops the fourth day.



■ **Travel Forecasting Improvements**

To respond better to requirements of ISTEA and Clean Air Act Amendments of 1990, travel demand forecasting is undergoing change, both near-term improvements to existing models and complete redesign of the analytical process for the longer-term. As new methods become available, training in their use and application will be provided through a new course or set of modules to be included in existing courses.

■ **Design and Application of Travel Demand Management (TDM) Techniques Including Telecommuting**

This four-day course is designed to show participants how to plan, develop, design, operate and evaluate TDM programs for the public and private sectors. Specific information will be presented on the effectiveness of a broad range of TDM actions that cover improved services, incentives, disincentives, and alternative work arrangements including telecommuting. Guidance will be presented on developing and evaluating TDM programs at work sites. A computer model to evaluate the impact of TDM programs will also be demonstrated. The lecture/discussion format provides an opportunity to understand tools developed jointly by FHWA and FTA.

Prerequisite: Participants should have employment in or responsibility for TDM programs.

■ **Environmental Leadership Seminar**

This seminar is intended to clarify the leadership role required to promote the new policy initiatives, tools, and methods necessitated by the emphasis on environmental preservation expressed in the US Department of Transportation Strategic Plan and the FHWA Environmental Policy Statement. The seminar will identify the roles of stakeholders in the transportation planning and project development process. It will emphasize communication and collaboration skills needed by managers to bring stakeholders into the process, seek new partnerships, and reach those historically underserved by the transportation system. The seminar will also discuss methods of project planning that better integrate transportation, environmental, and land use issues.

■ **Introduction to Transit**

The course will be designed to provide basic information on a wide range of transit matters. Topics will include: history of transit; history of Federal transit programs; structure of transit agencies; route scheduling; transit finance; transit/land use linkages; interest groups in transit; labor issues; transit travel and demographic characteristics; paratransit; and social, environmental, and energy issues. The course will include discussions relating to the joint planning regulations, livable communities, and Americans with Disabilities Act.

ABOUT NTI AND NHI

The NTI was created by ISTEA to "...develop and administer...training programs..." [49 USC §5315(a)]. Located at Rutgers University, NTI provides training at locations around the country to help states and localities meet the statutory requirements of the planning program. It also provides training geared to other agency needs.

The NHI is the technical training arm of FHWA and is part of the FHWA Office of Research and Development. NHI's role is to facilitate technology transfer by serving as a bridge between research and the practical application of new technology for state, local and private sector organizations involved in transportation. NHI makes training courses available to transportation agencies.

COURSE SCHEDULE

For NHI course schedules, call the contact person for the course or Mr. Al Miller of NHI at (703) 285-2787.

The most current schedule for any particular NTI course can be obtained from the NTI contact listed following that course's description.

COURSE REQUESTS

Questions regarding the procedures for requesting an NHI course should be directed to the Training Officer in your state's transportation or highway agency, the NHI contact in the FHWA Division office in your state or the NHI course coordinator in Washington (for all courses listed in this brochure, the coordinator is Mr. Al Miller at (703) 285-2787).

A formal course request requires the submittal of an FHWA form #1530 which can be obtained from any of the course contacts previously noted.

At present, NTI courses cannot be requested individually as NHI courses are but instead are offered on a schedule and at locations predetermined by NTI. Anyone interested in a particular NTI course, however, should call the appropriate NTI contact so that interest can be reflected in the scheduling of future offerings.

FEE STRUCTURE

The same legislation that created the NTI requires training in areas that "...are a Federal program responsibility" to be provided at no cost to "...Federal, State, and local transportation employees..."

[49 USC §5315(c)] There will be fees assessed for training that is not related to a Federal program responsibility. However, all courses listed as *Currently Available* in this edition of the catalogue have no fee.

For NHI courses, a subsidized fee structure, tied directly to the course length, is available to government organizations. This fee covers any number of participants up to the maximum for each course. Fees cover the costs of instructor travel, course materials, etc. The fees are as follows:

- o 1 day course - \$1000
- o 1-1/2 to 2 day course - \$2000
- o 2-1/2 to 3 day course - \$3000
- o 3-1/2 or 4 day course - \$4000

The fee structure listed above must be doubled (as directed by 1991 legislation) if a course is sponsored by a private-sector organization.

COURSE COMPUTER REQUIREMENTS

Several courses include hands-on microcomputer training. For these courses, there should be a maximum of three students per computer. In such cases, course sponsors are asked to provide computers at the course site. This can be accomplished in several ways: (1) sponsors can arrange to have course participants bring microcomputers with them; (2) an existing microcomputer laboratory can be utilized (often, community colleges, colleges, and universities have laboratories which can be accessed at minimal cost); or (3) microcomputers can be rented from vendors who specialize in short term leasing. Call the course contact person for more information on specific computer requirements.

NHI COURSE SPONSORS NEEDED

FHWA typically does not host courses. The agency relies on State and local agencies to serve as sponsors. Consequently, the opportunities to attend a particular course are dependent on the willingness of the sponsor to host the course. States, MPOs, and local agencies can sponsor a course in one of several ways:

- o State agencies can use their own training funds or specially designated federal funds to pay fees.
- o Federal, state, MPO, and local agencies can charge a registration fee to registrants. Such fees generally run \$25-\$50 per day.
- o Combinations of agency funds and registration fees can be applied.

The host agency may open attendance to all individuals regardless of affiliation or be selective as to who can attend.

Course sponsors are responsible for providing the training facility, inviting the participants, providing audio-visual equipment necessary, and other miscellaneous housekeeping duties necessary for a successful training course.

Agencies and organizations are encouraged to sponsor courses which meet their needs and which, in turn, give other agencies and individuals a chance to obtain desired training. Many of the planning and environmental courses in this catalogue are multimodal in nature and work best when the participants represent diverse agencies. Sponsors are strongly encouraged to invite state, MPO, and transit agency staff to participate in relevant courses. Course sponsors can feel rewarded in that they are facilitating technology transfer as well as giving their agency a high profile. Sponsoring a course takes time, creativity, persistence, and patience, but is well worth the effort.

Several states have ongoing training programs supported by a budget allocation. However, in many states and most localities, such resources are limited. In these situations, creative techniques can be pursued to generate revenues for the course fee or cut costs for facilities and equipment.

Possible methods include:

- o Combining with other agencies to jointly fund a course
- o Contacting the Technology Transfer (T²) Center in your state for assistance and/or possible co-sponsorship
- o Surveying neighboring states, or regions, to determine if there is enough interest in a course with a prescribed registration fee to cover all costs for the course, facilities, and equipment
- o Working with local colleges and universities to provide facilities and equipment
- o Obtaining a training facility in a public building by reserving far in advance of the course date
- o Contacting hotels for a conference room (sometimes hotels will offer a conference room at a significantly reduced rate if they can be guaranteed that a sizable number of sleeping rooms will be occupied by course participants)

U.S. Department
of Transportation

Federal Transit
Administration

Federal Highway
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