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Advanced Freight Planning

Sample Preliminary Lesson Plan



U.S. Department of Transportation
Federal Highway Administration 

Sample Preliminary Lesson Plan (PLP)

Lesson 1: Introduction and Course Overview

Lesson Number:	1
Lesson Title:	Introduction and Course Overview
Topics:	<ul style="list-style-type: none"> • Instructors introduce themselves and provide background on their freight experience. • Participants introduce themselves and state at least one learning expectation for the course. • Instructors provide a course overview, including course outcomes, agenda and lesson linkages. • Instructors identify the resource material found on the Resource CD included in the Participant Workbook and discuss its applicability as a reference for them. • Instructors list and review ground rules and participants contribute to the ground rules presented.
Instructional Method:	<p><u>Mini-lecture</u>: Instructors open the course by welcoming participants, reviewing housekeeping items and leading participants through introductions.</p> <p><u>Activity 1</u>: Participants state their name, including: who they are, what they do and for how long; and, describe their role in the field of freight planning.</p> <p>Based on pre-course information and the participant introductions, the instructors assess whether the target audience is in attendance or whether DOTs or MPOs are not adequately represented.</p> <p>If indications are that the target audience is not represented, instructors will be prepared to make adjustments identified in the Instructor Guide. Instructors <u>will not</u> have to modify the materials or slides. Instructors will adjust how they facilitate some of the activities and present some of the mini-lectures to accommodate the under-representation of one of the agencies among the attendees. For example, if MPO professionals are not adequately represented, the instructor will help introduce the attendees to MPO specific considerations through more examples and instructor led discussion of the urban and local nature of MPO concerns and issues.</p> <p>The Instructor Guide provides direction on how to handle a lack of</p>

	<p>representation of either one of the agency types for the conduct of the overarching exercise. <u>The course will be designed to be presented to the target audience, but can be easily adapted to an audience that may be skewed towards one type of organization.</u></p> <p><u>Mini-lecture:</u> Instructors review course outcomes and ground rules, and then lead participants through Activity 2.</p> <p><u>Activity 2:</u> Participants are prompted to fill in the blank of the following statement, “I hope to learn ___ about freight planning”. A slide with this statement is presented on screen for participants. Instructors capture the participant learning expectations on a flip chart.</p> <p>After learning expectations are captured, instructors solicit any additional ground rules from the participants and add them to the general list.</p> <p><u>Mini-lecture:</u> Instructors address participant learning expectations. Instructors present a general slide that lists what will be covered and what will not. Instructors introduce and set up the course “parking lot”. Instructors provide references for further information on those expectations not covered by the course and review course agendas.</p>
<p>Instruction Day:</p>	<p>Day 1, Introduction and Course Overview: 8:30 AM - 9:15 AM</p>
<p>Time Allocation:</p>	<ul style="list-style-type: none"> • Mini-lecture: housekeeping - 5 minutes • Activity 1: introductions - 15 minutes • Mini-lecture: outcomes and ground rules - 10 minutes • Activity 2: participant learning expectations - 10 minutes • Mini-lecture: address expectations and parking lot - 5 minutes • Introduction and Course Overview Total Time - 45 minutes
<p>References:</p>	<ul style="list-style-type: none"> • Documentation, websites and input provided by state and/or jurisdiction. • Course Reference CD • FHWA Office of Freight Management and Operations - http://www.ops.fhwa.dot.gov/freight/index.cfm • FHWA- Office of Planning - http://www.fhwa.dot.gov/freightplanning/index.htm

Lesson 2: Selling the Importance of Freight in the Planning Process

Lesson Number:	2
Lesson Title:	Selling the Importance of Freight in the Planning Process
Performance-Based Learning Outcomes:	<ul style="list-style-type: none"> Describe the role of a region's freight transportation systems in supporting economic competitiveness. Compare multi-modal freight needs of different supply chains.
Instructional Methods: Facilitated Discussion Lecture/ Presentation	<p>Lesson Kick-off Discussion (10 minutes):</p> <ul style="list-style-type: none"> Ask the participants to share their experiences with selling the benefits of freight planning. Ask them to whom they were trying to sell to and to list the challenges or barriers and how they overcame those challenges. <p>Instructors Presentation/Interactive Discussion (50 minutes):</p> <p>PowerPoint slide presentation to:</p> <ul style="list-style-type: none"> Discuss who you have to sell freight to and why. Define a supply chain and how it differs for various industries. (Two supply examples will be used throughout the course as part of the exercise.) Ask participants to identify needs associated with supply chain attributes. Examine how different industries use transportation. Examine how businesses make location decisions with regard to their freight needs. Explore case studies of successfully linking economic development to competitiveness via freight transportation. Ask participants to discuss specific examples of transportation projects that were undertaken in response to a specific business. <p>Overarching Small Group Exercise (50 minutes)</p> <p>In this first installment of the "overarching exercise" groups will fill in worksheets related to "supply chain scenarios" diagram / charts that will be distributed.</p> <ul style="list-style-type: none"> Each group is asked to identify a major business in their scenario region and describe in general terms how the supply chain concept applies, using the worksheet to fill in elements of the diagram based on the transportation resources in the region (i.e., how do the raw inputs get to the business and how do they arrive at your door). Each group will discuss what transportation issues (congestion, bottlenecks, inadequate facilities) the selected business may face in executing its supply chain management

	<p>functions. Near the end of the exercise participants report on their scenario for a key business/industry in their region, and describe how they believe that businesses supply chains work.</p>
Instruction Day:	Day 1: A.M.
Time Allocation:	<p>Lesson Kick-off Discussion - 10 minutes Instructors Presentation -50 Minutes Exercise - 50 minutes</p>
Evaluation Plan:	Participants' learning will be evaluated by their participation, questions and exercise involvement.
References:	<p>http://www.ops.fhwa.dot.gov/freight/freight_analysis/econ_methods</p> <ul style="list-style-type: none"> • TRB Proceedings 25: Global Intermodal Freight: State of Readiness • BTS: U.S. International Trade & Freight Transportation Trends

Lesson 6: Day 1 Review and Day 2 Overview

Lesson Number:	6
Lesson Title:	Day 1 Review and Day 2 Overview
Performance-Based Learning Outcomes:	NA
Instructional Method: Lecture / Presentation	<p>Instructors Presentation/Interactive Discussion (30 minutes)</p> <p>The instructors will make a short presentation using humor about worst case freight bottlenecks. This will be followed by an interactive “beach ball” exercise summarizing the key learning objectives covered in each of the modules that have been presented throughout the day, stressing points that will be covered on the end of course test.</p> <ul style="list-style-type: none"> • Modal “mega-trends” with freight carrier industries. • How “mega-trends” can impact local transportation networks. • Describe key supply chain management concepts. • List economic drivers that motivate supply chain decisions. • Describe how private sector service requirements can be linked to public sector performance measurement. <ul style="list-style-type: none"> ○ Some of the key learning points will be determined by the Learning Track (optional modules) selected by the host. <p>Following the “beach ball” review exercise, a brief overview of day 2 agenda will be presented.</p>
Instruction Day:	Day 2: A.M.
Time Allocation:	Instructors Presentation/Interactive Discussion - 30 minutes
Evaluation Plan:	NA
References:	<ul style="list-style-type: none"> • http://www.ops.fhwa.dot.gov/freight/index.cfm

Lesson 7: Using Freight Planning: Freight Project Identification

Lesson Number:	7
Lesson Title:	Using Freight Planning: Freight Project Development
Performance-Based Learning Outcomes:	<ul style="list-style-type: none"> • Summarize methods for identifying freight projects • Discuss the benefits of engaging private sector stakeholders in project identification
Instructional Method: Lecture / Presentation	<p>Instructors Presentation/Interactive Discussion (50 minutes) The instructors will use a slide presentation to discuss various methods that can be used to identify freight specific projects focusing on using data, private sector stakeholders and system inventories. They will:</p> <ul style="list-style-type: none"> • Describe how to identify freight projects including Quick Start and Quick Fix projects. • Illustrate data driven techniques for identifying freight projects transportation improvement programs. • Ask participants to describe methods they may have employed to identify and rank freight projects. • Discuss private sector involvement (Engaging the Private Sector) <p>Examples from peer agencies will be presented to reinforce each of the key methods.</p> <p>Small Group Exercise (30 minutes) This lesson employs builds on the overarching exercise. Building on the overarching scenario, participants will use their scenario profile and partial datasets to:</p> <ul style="list-style-type: none"> • Prepare a list of potential long-range and short-range freight projects, including a short list of potential “jump start” projects. • Outline a plan to engage the private sector. • Develop potential criteria for prioritizing project
Instruction Day:	Day 2: A.M.
Time Allocation:	Instructors Presentation/Interactive Discussion - 50 minutes Exercise - 30 minutes
Evaluation Plan:	Participants' learning will be evaluated by their

	participation, questions or activity/exercise.
References:	<ul style="list-style-type: none">• Engaging the Private Sector Workshop Materials• FHWA Presentations on SAFETEA-LU• NCHRP: 8-47 Guidebook for Freight Policy, Planning, and Programming for Small and Medium Metro Area• NCHRP 8-36: Best Practices in Statewide Freight Planning