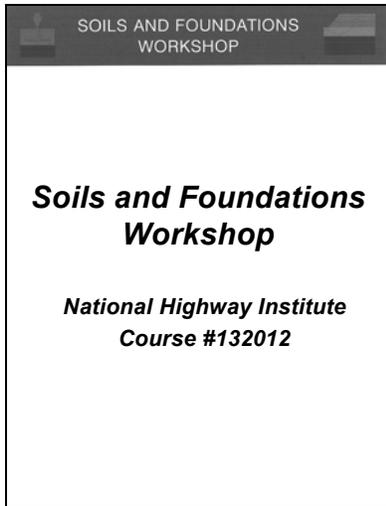


LESSON 1

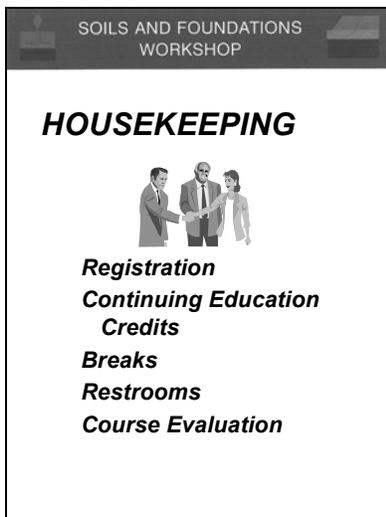
TOPIC 1

Workshop Introduction



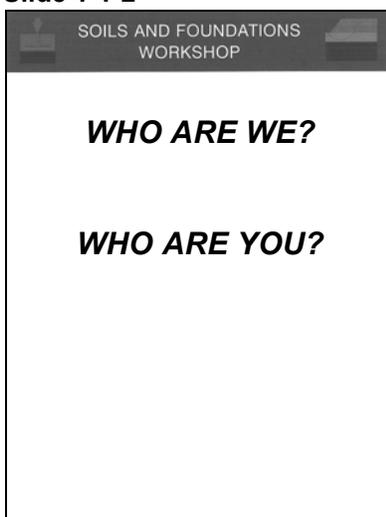
Slide 1-1-1

Instructor places course title overhead on screen about 15 minutes prior to class start time. Interact with the state representative who will introduce both the course and the instructors.



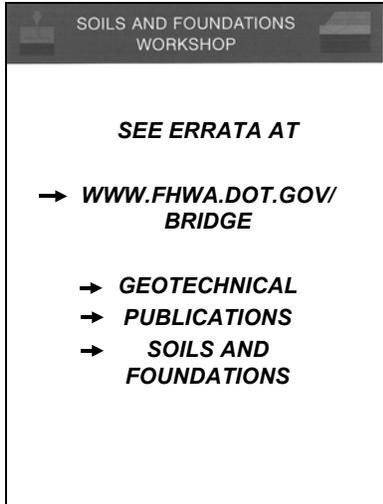
Slide 1-1-2

After the local training officer introduces the workshop, the items above should be explained to the group. All participants should be told that they should register on the NHI course form and on whatever forms the host state requires. Continuing education credits are given, and the lead instructor should point out the requirements for obtaining the credits and for registering for them. Forms are provided in the NHI packet. Emphasis should be placed on frequent breaks and the requirements that breaks shall end promptly when participants are asked to return to their seats. Locations of rest rooms (and, if appropriate, break and lunch rooms) should be pointed out. Finally, participants should be told that they will be asked to fill out a course evaluation form at the end of the course.

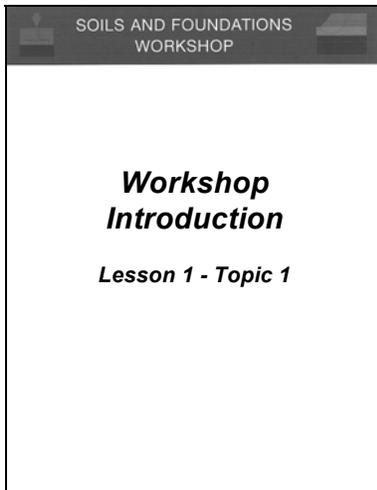


Slide 1-1-3

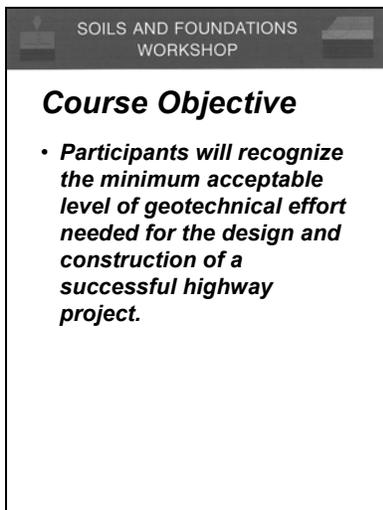
Each participant should be asked to stand and introduce himself/herself. The self-introduction should include the participant's name, affiliation (if not with the State DOT), division or unit where employed, and a few words on why he or she is interested in attending a course on soils and foundations. This activity should take 3 - 5 minutes.



Slide 1-1-4



Slide 1-1-5



Slide 1-1-6

Instructor should point out to the participants to consult this web site for any errors which may be identified in the Reference manual.

At this point, a series of overheads may be shown by either the instructor or an FHWA representative to overview current features of the FHWA geotechnical program. The group need not take detailed notes as the FHWA where this information is located will be identified in the presentation.

Explain the use of the course materials, participant workbook, and the reference manual. Invite the students to follow the course presentation and add notes in the participant manual. Explain the reference manual material will be covered at the end of each topic or lesson.

Define overall learning objective

SOILS AND FOUNDATIONS
WORKSHOP

Overall Learning Objective

Participants will recognize the minimum levels of geotechnical knowledge and skill needed for a successful highway project and will be able to apply that knowledge to their local agencies and conditions.

Slide 1-1-7

SOILS AND FOUNDATIONS
WORKSHOP

Course Content

- *SITE EXPLORATION*
- *BASIC SOIL PROPERTIES*
- *LABORATORY TESTING*
- *SLOPE STABILITY*
- *EMBANKMENT SETTLEMENT*
- *SPREAD FOOTING DESIGN*
- *PILE DESIGN*
- *CONSTRUCTION ASPECTS*
- *FOUNDATION REPORT*

Slide 1-1-8

SOILS AND FOUNDATIONS
WORKSHOP

Definition of Learning Outcomes

<i>Knowledge</i>	<i>Skill</i>
• <i>Ability to Understand a Technical Process</i>	• <i>Ability to Perform a Technical Task</i>
• <i>Learned by Presentation</i>	• <i>Learned by Practice</i>

Slide 1-1-9

Emphasize that the reference manual and the course contain the minimum level of geotechnical work that FHWA considers necessary for a successful highway project. The manual can be useful in establishing guidelines for in-house or consultant work.

Instructor shows first 4 overheads.

After 4th overhead displayed, ask students what they want to achieve from these course lessons.

List the answers on a flip chart, post the final result and refer back after each section to view accomplishments. Explain that the manual and course are designed to follow the geotechnical process for a typical project from beginning to end. Successful completion of each step in the process requires a certain minimum level of knowledge and skill in the topic area. A fictitious project, called the Apple Freeway, will be used to demonstrate the application concepts.

Explain the difference between knowledge and skill. Then quiz students with next overhead.

SOILS AND FOUNDATIONS
WORKSHOP

***Acquired Knowledge
vs. Acquired Skill***

***Categorize the Following
Learning Results as Either
Knowledge or Skill?***

- *List Pile Types*
- *Evaluate Pile Design Alternates*
- *Calculate Bearing Capacity*
- *Construct an Effective Stress Diagram*
- *Recall Exploration Equipment Types*
- *Describe a Pile Load Test*

Slide 1-1-10

Test students on learning concepts.

Ask the group to identify which items are knowledge or skill. Explain that basic courses such as this are weighted toward knowledge learning; more difficult specialized courses are weighted toward attainment of skills.

Then show a pre-prepared flip chart sheet of other NHI geotechnical courses and the FHWA web site address where more information can be found. Post the sheet on the wall and refer to the sheet later in topic areas where more detail is available in other courses.