



COURSE NUMBER

FHWA-NHI-132089



COURSE TITLE

TCCC Earthwork Series: Earth Materials as Engineering Materials - WEB-BASED

The Earth Materials as Engineering Materials is part of the Earthwork Series. This training is an overview of the basic properties of earth materials or soil and their engineering properties as they relate to construction. Soil is the product of mechanical and chemical weathering of rocks. Most naturally occurring soils consist of a mixture of assorted grains of different sizes and shapes.

This course consists of five lessons. The lessons include components and types of soil, soil description and classification, engineering characteristics, process of material verification, and preliminary inspector responsibilities. The course discusses the Atterberg Limits, which include shrinkage limits, liquid limits, plastic limits, and plastic index. These are the four basic measures of the nature of fine-grained soil. This is an interactive training that covers all areas thoroughly, including questions to ensure the participant understands the materials.

OUTCOMES

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

- Identify the components and types of soil
- Identify the soil characteristics that effect engineering performance
- Recognize the differences between description and classification of soil
- Explain the processes of soil verification
- Recognize preliminary inspector responsibilities as a part of contract specifications

TARGET AUDIENCE

This training is targeted to both agency and industry technicians that will be using earth materials as engineering materials on an earthwork project. This training is beneficial to anyone working on the project but is targeted to the intermediate to advanced technician. This training is recommended for the Transportation Curriculum Coordination Council levels II through IV.

TRAINING LEVEL: Basic

FEE: 2013: \$0 Per Person; 2014: N/A

LENGTH: 1.5 HOURS (CEU: 0 UNITS)

CLASS SIZE: MINIMUM: 1; MAXIMUM: 1

NHI Customer Service: (877) 558-6873 • nhicustomerservice@dot.gov