



## COURSE NUMBER

FHWA-NHI-132010A

## COURSE TITLE

### Earthquake Engineering Fundamentals (Web-based)

This 4-hour NHI training course 132010A entitled “Earthquake Engineering Fundamentals” is a Web-Based pre-requisite to the 2-day 132094A “LRFD Seismic Analysis and Design of Transportation Geotechnical Features” and 132094B “LRFD Seismic Analysis and Design of Structural Foundations and Earth Retaining Structures” courses. The participants will generally be notified to take the WBT course about 1 month before the ILT sessions and must complete this course before the start of the 132094A or 132094B course. The course consists of 6 lessons including: Earthquake Fundamentals (L1); Intro to LRFD Seismic Design (L2); Earthquake Ground Motions (L3); Seismic Hazard Analysis (L4); AASHTO Design Ground Motion Characterization (L5); and Intro to Geotechnical Hazards (L6).



## OUTCOMES

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

- Describe basic earthquake concepts
- Explain basic concepts of LRFD Seismic Design
- Describe earthquake ground motions
- Describe aspects of seismic hazard analysis
- Explain AASHTO design ground motion characterization
- Describe basic aspects of geotechnical hazards

## TARGET AUDIENCE

This course is intended to engage a target audience of bridge and geotechnical engineers with zero and up to 20 years of experience that are preparing to attend the 132094A and 132094B Instructor-Led Training courses.

**TRAINING LEVEL:** Intermediate

**FEE:** 2016: \$0 Per Person; 2017: N/A

**LENGTH:** 4 HOURS (CEU: .4 UNITS)

**CLASS SIZE:** MINIMUM: 0; MAXIMUM: 0

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