Soil Mechanics, Slope Stabilization, Failures & Repairs

Chattanooga, TN - Thursday, March 5, 2020

**Learning Objectives**

**You’ll be able to:**

**Explain** the importance of recognizing soil properties, as well as the need to investigate soil composition before undertaking site development.

**Identify** types of slopes and use soil investigation techniques, such as drilling, boring and test pits, to evaluate site soils.

**Prevent** slope failures, recognize potential problems in the field, and determine causes of slope instability.

**Explore** strategies to improve or restore slope stability, including vegetation and the use of geosynthetic materials.

**Continuing Education Credits**

- **Professional Engineers**
  - 7.0 PDHs (HSW)
- **Architects & Landscape Architects**
  - 7.0 AIA LU|HSW
- **Contractors**
  - Non-Credit Continuing Ed.

**Reinforce** slope stability using geosynthetics

**Explore** earth structure failures and fixes

**Review** slope mechanics and soil classification

**Use** soil investigation techniques such as drilling and boring

**Examine** causes of slope instability

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**Agenda**

**Slope Mechanics and Classification**
- Properties of soil
- Importance of recognizing soil properties
- Formation of soils
- Types of soils

**Soil investigation**
- Site reconnaissance
- Geology and visual observations
- Drilling and boring
- Test pits
- Establishing appropriate investigational methods
- Obtaining and reviewing geotechnical reports

**Slope Stability Analysis**
- Fundamental soil characteristics and slope instability
- Engineering mechanics underlying slope instability
- Geologic conditions and construction practices
- Field observations to distinguish types of instability
- Construction practices to improve or restore stability
- Examining causes of slope instability
- Slope stability analysis
- Use of vegetation
- Surface protection
- Evaluating types of slopes
- Natural slopes
- Engineered slopes

**Reinforced Slope Stability Analysis**
- Calculations and software
- Geosynthetic materials
- Alternatives
- Exercise
- Learn to visually identify geosynthetics as to type, method of manufacture, relative strength, relative permeability, and relative cost

**Earth Structure Failures and Fixes / Site Layout and Prevention**
- How to prevent a potential problem or failure
- How to recognize a potential problem or failure in the field
- Typical causes of problems or failures with geotechnical structures
- Case studies/examples of failures and repairs

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**Presented by Bill Simpson**

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Additional Learning

Webinar Series

Commercial Solar Peaker Batteries

- **Part I**  
  Wed., Feb. 5, 2020, 11:00 AM - 1:20 PM CST
- **Part II**  
  Thurs., Feb. 6, 2020, 11:00 AM - 1:20 PM CST

Pumping and Piping Systems

- **Introduction to Pumps:**  
  Operation, Principles and Calculations  
  Thurs., Feb. 6, 2020, 11:00 AM - 1:00 PM CST

- **Pumping and Piping Design:**  
  Standards and Codes  
  Thurs., Feb. 6, 2020, 1:30 - 2:30 PM CST

- **Piping System Components, Materials and Calculations:**  
  Fri., Feb. 7, 2020, 10:00 AM - 1:00 PM CST

- **Handling Pump and Piping System Problems:**  
  Fri., Feb. 7, 2020, 1:30 - 2:30 PM CST

Pavement Design

- **Principles of Pavement Design:**  
  Wed., Feb. 12, 2020, 11:00 AM - 12:00 PM CST

- **Flexible Pavement Design:**  
  Wed., Feb. 12, 2020, 12:30 - 2:30 PM CST

- **Rigid Pavement Design:**  
  Thurs., Feb. 13, 2020, 11:00 AM - 1:00 PM CST

Ethical Issues for Engineers

- **Resolving Disputes and Handling Ethical Issues in Government Projects:**  
  Fri., Jan. 31, 2020, 1:00 - 5:00 PM CST

- **Complying with Rules of Professional Conduct:**  
  Fri., Feb. 14, 2020, 12:00 - 1:00 PM CST

For more information and other online learning opportunities visit: www.halfmoonseminars.org/webinars/

Continuing Education Credit Information

This seminar is open to the public and offers 7.0 PDHs (HSW) to professional engineers and 7.0 HSW PDHs/continuing education hours to architects and landscape architects in most states, including Tennessee. Educators and courses are not subject to preapproval in Tennessee.

This seminar is approved by the American Institute of Architects Continuing Education System for 7.0 LU/HU (Sponsor No. JBB58) and the Landscape Architecture Continuing Education System for 7.0 HSW PDHs. Only full attendance is reportable to the AIA/CES and the LA/CES. Visit www.halfmoonseminars.org for complete AIA/CES course information under this seminar listing.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida, Indiana, Maryland, New Jersey, North Carolina, and North Dakota. HalfMoon Education is deemed an approved architect continuing education sponsor for architect and landscape architects in New York.

This course offers building contractors with a non-credit continuing education opportunity. It has not been approved by any state contractor licensing board.

Attendance will be monitored and attendance certificates will be available after the seminar for most individuals who complete the entire event. Attendance certificates not available at the seminar will be mailed to participants within fifteen business days.

Can’t Attend? Order the Manual and Audio from the Live Seminar as a Self-Study Package

Audio recordings of this seminar are available for purchase starting at $269. See registration panel for more information and please refer to specific state licensing rules or certification requirements to determine if this learning method is eligible for continuing education credit.

Registration

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How to Register

Online: www.halfmoonseminars.org

Phone: 715-835-5900

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Additional Registrants:

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Complete the entire form. Attach duplicates if necessary.

Tuition

[ ] I will be attending the live seminar. Single Registrant - $289.00. Three or more registrants from the same company registering at the same time - $269.00 each.

[ ] I am not attending. Please send me the self-study package:
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