Agenda

Presented by Gregory Robinson

General Considerations
- Introduction
- Historical considerations
- ASCE 7-10 and the commentary
- Classifying buildings and structures by occupancy category
- Load combinations

Dead Loads, Soil Loads and Hydrostatic Pressure
- Defining dead loads
- Soil loads and earth pressure
- Hydrostatic pressure

Live Loads
- Defining live loads
- Uniform and concentrated live loads
- Live load reduction
- Lateral live loads
- Vehicle loads, impact loads, aircraft wheel loads

Wind Loads
- Wind speed, importance factor, exposure, enclosure classifications
- Computation procedures, methods 1, 2 and 3
- Wind speed, importance factor, exposure, enclosure classifications
- Main wind force resisting system vs. components and cladding

Rain, Ice and Snow Loads
- Computing rain, ice and snow loads on roofs
- Unbalanced, drifting and sliding loads
- Computing ice loads on structures

Flood Loads
- Still and moving water
- Hydrostatic and hydrodynamic loads
- Wave loads
- Loads on breakaway walls, pile structure

Earthquake Loads
- Scope and application
- Seismic ground motion values, short and long period coefficients
- Seismic design category
  - Importance factor and occupancy category
  - Seismic design category
- Simplified structural design criteria for bearing walls and building frame systems
- Design requirements for non-structural components

Learning Objectives

You’ll be able to:

Classify buildings and structures by occupancy category.

Define requirements for handling dead loads, soil loads and hydrostatic pressure.

Meet design requirements for uniform and concentrated live loads, as well as lateral live loads.

Design for wind, rain, ice and snow loads.

Identify requirements for handling earthquake loads.

Structural Design Loads under the ASCE 7 Standard

Chapel Hill, NC - Tuesday, March 24, 2020

Classify buildings by occupancy category

Learn how to design for dead loads, soil loads, and hydrostatic pressure

Meet requirements for uniform and concentrated live loads

Design for loads resulting from flood waters and waves

Calculate rain, ice and snow loads on roofs

Receive design guidance related to wind and earthquake loads

Continuing Education Credits

Professional Engineers
- 6.0 PDHs

Architects
- 6.0 HSW Contact Hours
- 6.0 AIA LU|HSW

Contractors
- Non-Credit Continuing Ed.

International Code Council
- .6 CEUs (Building)

AIA Continuing Education Provider
Gregory Robinson, PE Consulting Engineer

Mr. Robinson is a graduate of North Carolina State University from which he received his bachelor's degree in Civil Engineering and his master of Civil Engineering degree. He has over 30 years of experience in the structural engineering field and has been in private practice for over 24 years. Prior to establishing his own practice Mr. Robinson worked for Bechtel Petroleum in San Francisco and for various structural engineering firms in the Raleigh area. Mr. Robinson is a licensed professional engineer in 16 states. He has taught structural analysis classes at the community college level and has conducted numerous seminars over the last 20 years. He also served on a sub-committee for the North Carolina Building Code Council tasked with reviewing the provisions of the North Carolina Residential Code for interior moisture control and water intrusion. Mr. Robinson’s practice includes design, analysis and evaluation of steel, concrete, masonry and timber structures. He has investigated over 1,500 wood frame buildings for damage, and he has developed plans of repair for structures and finishes.

“Very great presenter & will definitely attend his seminars again.” — Engineer

Here’s what past attendees had to say about the program and presenter Gregory Robinson:

“Wield of information and real-world examples.” — Architect

“Very great presenter and will definitely attend his seminars again.” — Engineer

Additional Learning

Webinar Series

- **Foundations in Cold Regions**
  - **Introduction to Foundations in Cold Regions**
    - Thurs., Feb. 20, 2020, 11:00 AM - 12:30 PM CST
  - **Shallow Foundation Design in Cold Regions**
    - Thurs., Feb. 20, 2020, 1:00 - 2:30 PM CST
  - **Deep Foundation Design in Cold Regions**
    - Fri., Feb. 21, 2020, 11:00 AM - 12:30 PM CST
  - **Foundation Construction in Cold Regions**
    - Fri., Feb. 21, 2020, 1:00 - 2:00 PM CST

**Soil Mechanics and Slope Stability**

- **Soil Investigation and Classification**
  - Tues., Feb. 25, 2020, 11:00 AM - 1:00 PM CST
- **Reviewing Hydraulic and Mechanical Properties of Soils**
  - Tues., Feb. 25, 2020, 1:30 - 5:00 PM CST
- **Determining and Increasing Bearing Capacity**
  - Wed., Feb. 26, 2020, 11:00 AM - 1:00 PM CST
- **Determining and Increasing Slope Stability**
  - Wed., Feb. 26, 2020, 1:30 - 5:00 PM CST

**Designing for Climate Resilience**

- **Current and Anticipated Climate Effects on Structures and Communities**
  - Thurs., Feb. 27, 2020, 11:00 AM - 12:30 PM CST
- **Assessing the Impact of Sea Level Rise, Changing Temperature and Changing Weather Patterns**
  - Thurs., Feb. 27, 2020, 1:00 - 5:00 PM CST
- **Studying the Impact of Extreme Weather**
  - Fri., Feb. 28, 2020, 11:00 AM - 12:30 PM CST
- **Adapting Sites, Outdoor Spaces, New Construction and Existing Buildings to Withstand Extreme Weather Events**
  - Fri., Feb. 28, 2020, 1:00 - 5:00 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 6.0 PDHs to professional engineers and 6.0 HSW contact hours to architects, licensed in all states. HalfMoon Education is an approved continuing education provider for engineers in North Carolina.

This seminar is approved by the American Institute of Architects Continuing Education System for 6.0 LU|HSW (Sponsor No. J885). Courses approved by the AIA qualify for North Carolina architects. Visit www.halfmoonseminars.org for complete AIA|CES course information. Only full attendance is reportable to the AIA|CES.

HalfMoon Education is an approved continuing education sponsor for contractors in Florida. HalfMoon Education is an approved continuing education sponsor for architects in Florida. HalfMoon Education is an approved continuing education provider for New York engineers and architects.

The International Code Council has approved this event for .6 CEUs in the specialty category of Building. However, this seminar is not approved for continuing education credit for architects.


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

Tuition

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<td>Single Registrant</td>
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