

Agenda

Presented by Vincent F. Fratinardo, P.E., S.E., RRC

Understanding Structural Loads

Types of structural loads
General structural integrity
Classifying buildings and structures
Modifying and expanding existing structures

Dead Loads, Soil Loads and Hydrostatic Pressure

Weight of materials and structure
Soil loads and hydrostatic pressure

Live Loads

Uniformly-distributed loads
Concentrated loads
Required live loads
Impact loads

Flood Loads

Design loads
Loads on breakaway walls
Hydrostatic and hydrodynamic loads
Wave loads

Rain, Ice and Snow Loads

Calculating rain, ice and snow loads on roofs
Design coefficients
Unbalanced, drifting and sliding loads

Wind Loads

Wind speed, importance factor, exposure, enclosure classifications
Allowed procedures (methods 1, 2 and 3)
Basic definitions and requirements
Main wind force resisting system vs. components and cladding

Earthquake Loads

Scope and applicability
Seismic ground motion values/geologic hazards and geotechnical investigation
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

Structural Design Loads under the ASCE 7-16 Standard
St. Louis, MO - Thursday, April 26, 2018

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Identify the various types of structural loads.

Define the design standard for live loads, dead loads, soil loads, and hydrostatic pressure.

Learn how to design for loads resulting from flood waters and waves.

Calculate rain, ice and snow loads on roofs.

Determine wind loads factoring in wind speed, exposure, and enclosure classifications.

Define seismic ground motion values applicable to earthquake loads.



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Receive an overview of the various types of structural loads

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

Understand how to design for loads resulting from flood waters and waves

Calculate rain, ice and snow loads on roofs

Explore wind load factors including wind speed, exposure, and enclosure classifications

Receive design guidance related to earthquake loads

Continuing Education Credits

Architects

7.0 HSW CEUs/CE Hours
7.0 AIA HSW Learning Units

Professional Engineers

7.0 PDHs

International Code Council

.7 CEUs (Building)

Contractors

Non-Credit Continuing Ed.



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Faculty

Vincent F. Fratinardo, P.E., S.E., RRC
Mr. Fratinardo is a civil/structural engineer. He has an extensive engineering and investigation background in warehouse facilities, retail buildings, churches, schools, office buildings, hospitals, condominiums and residential single family homes. His 18 years of experience includes civil and structural engineering analysis, design, construction administration, field investigation, and project management. Mr. Fratinardo has designed numerous new buildings, building additions, building renovations, and mechanical platforms and supports. He has designed and analyzed roof, wall and floor framing systems utilizing steel, concrete, masonry, and wood construction. Mr. Fratinardo has vast expertise in commercial and residential building damage investigations. He has legal experience in depositions, arbitration hearings and trials, and he has prepared and performed numerous continuing education presentations. Mr. Fratinardo graduated from Michigan State University with a bachelor of science degree in Civil Engineering, and he also holds a master of engineering degree in Civil Engineering from Texas A&M University. He is a registered professional engineer in multiple states.

Testimonials from recent HalfMoon Education seminars taught by Vincent F. Fratinardo:
“Vince is well spoken & easy to understand.” - *Architect*

“The course was very helpful in identifying the different effects seen by structures. Sometimes they are things you may not always consider. Presenter did a great job and was very personable.” - *Project Manager*

Seminar Information

Holiday Inn Forest Park
5915 Wilson Avenue
St. Louis, MO 63110
(314) 645-0700

Registration
8:00 - 8:30 am
Morning Session
8:30 - 11:45 am
Lunch (on your own)
11:45 am - 12:45 pm
Afternoon Session
12:45 - 5:00 pm

Tuition
\$279 for individual registration
\$259 for three or more registrations.

Each registration includes a complimentary continental breakfast and printed seminar manual. Registration does not include a copy of ASCE 7.

Receive a reduced tuition rate of \$101 by registering to be our on-site coordinator for the day. For availability and job description, please visit www.halfmoonseminars.org.

How to Register

- Visit us online at www.halfmoonseminars.org
- Mail-in or fax the attached form to 715-835-6066
- Call customer service at 715-835-5900

Cancellations: Cancel at least 48 hours before the start of the seminar, and receive a full tuition refund, minus a \$39 service charge for each registrant. Cancellations within 48 hours will receive a credit toward another seminar or the CD/manual package. You may also send another person to take your place.

Continuing Education Credit Information

This seminar is open to the public and offers 7.0 PDHs to professional engineers and 7.0 HSW CEUs/continuing education hours to architects in all states, except Florida architects. Educators and courses are not subject to preapproval in Missouri.

This seminar is approved by the American Institute of Architects for 7.0 HSW Learning Units (Provider No. J885). Only full attendance can be reported to the AIA/CES.

HalfMoon Education is deemed an approved architect continuing education sponsor in New York. HalfMoon is an approved continuing education sponsor for engineers in Florida, Louisiana, New Jersey, New York (NYSED Sponsor No. 35), North Carolina, and North Dakota.

The International Code Council has approved this event for .7 CEUs in the specialty area of Building.

This course offers a non-credit continuing education opportunity to construction contractors. It has not been approved by any state contractor licensing entity for mandatory continuing education credit.

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.

Additional Learning

March Webinar Series

Solar Photovoltaic Project Design and Development

- **Solar Photovoltaic Project Design and Development, Part I**
Wed., Mar. 7, 2018, 11:00 AM - 2:15 PM CST
- **Solar Photovoltaic Project Design and Development, Part II**
Thurs., Mar. 8, 2018, 11:00 AM - 2:15 PM CST

Deep Excavations

- **Introduction to Deep Excavations**
Thurs., Mar. 15, 2018, 11:00 AM - 1:00 PM CDT
- **Soil Mechanics, Cantilever Walls and Anchored Sheet Pile Walls**
Thurs., Mar. 15, 2018, 1:30 - 3:00 PM CDT
- **Braced Excavation Design**
Fri., Mar. 16, 2018, 11:00 AM - 12:30 PM CDT
- **ASD and LRFD Design**
Fri., Mar. 16, 2018, 1:00 - 2:30 PM CDT

HEC-RAS

- **Hydraulic Principles and Applications**
Thurs., Mar. 22, 2018, 11:00 AM - 1:00 PM CDT
- **Working with the HEC-RAS User Interface**
Thurs., Mar. 22, 2018, 1:30 - 3:00 PM CDT
- **Water Surface Profiling**
Fri., Mar. 23, 2018, 11:00 AM - 1:00 PM CDT
- **Steady Flow Surface Profile Demonstrations**
Fri., Mar. 23, 2018, 1:30 - 3:30 PM CDT

Commercial Energy Conservation Code

- **Commercial Energy Conservation Code and COMcheck Introduction**
Weds., Mar. 28, 2018, 11:00 AM - 1:00 PM CDT
- **Building Envelope Energy Efficiency**
Weds., Mar. 28, 2018, 1:30 - 3:30 PM CDT
- **Heating, Ventilation and Air Conditioning Systems**
Thurs., Mar. 29, 2018, 11:00 AM - 1:00 PM CDT
- **Service Water Heating, Power and Lighting**
Thurs., Mar. 29, 2018, 1:30 - 3:00 PM CDT

For more information visit:
www.halfmoonseminars.org/webinars/

Can't Attend? Order the CD/Manual Package:
An audio recording of this seminar is available for \$289 (including shipping). Allow five weeks from the seminar date for delivery. 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	Registrant Information
Online: www.halfmoonseminars.org	Name: _____ Company/Firm: _____ Address: _____ City: _____ State: _____ Zip _____ Occupation: _____ Email: _____ Phone: _____
Phone: 715-835-5900	Additional Registrants: Name: _____ Occupation: _____ Email: _____ Phone: _____ Name: _____ Occupation: _____ Email: _____ Phone: _____
Fax: 715-835-6066	
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278	
Complete the entire form. Attach duplicates if necessary.	Email address is required for credit card receipt, program changes, and notification of upcoming seminars and products. Your email will not be sold or transferred.

() I need special accommodations. Please contact me.

Tuition () I will be attending the live seminar. Single Registrant - \$279.00 . Three or more registrants from the same company registering at the same time - \$259.00 each. () I am not attending. Please send me the CD manual package for \$289.00 . (S&H included. Please allow five weeks from seminar date for delivery)
Checks: Make payable to HalfMoon Education Inc.
Credit Card: <i>Mastercard, Visa, American Express, or Discover</i> Credit Card Number: _____ Expiration Date: _____ CVV2 Code: _____ Cardholder Name: _____ Billing Address: _____ City: _____ State: _____ Zip: _____ Signature: _____ Email: _____