

Faculty and Credit Information

Presented by
Gregory A. Robinson, P.E. 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.

Continuing Education Credit Information

This webinar is open to the public and offers 7.0 PDHs to professional engineers and 7.0 HSW continuing education hours to licensed architects in all states.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider No. 0004647), Indiana (License No. CE21700059), Maryland, New Jersey (Approval No. 24GP00000700) and North Carolina (S-0130). HalfMoon Education is deemed an approved continuing education sponsor for New York engineers and architects via its registration with the American Institute of Architects Continuing Education System (Regulations of the Commissioner §68.14(i)(2) and §69.6(i)(2)). Other states do not preapprove continuing education providers or courses.

The American Institute of Architects Continuing Education System has approved this course for 7.0 LU | HSWs (Sponsor No. J885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .7 CEUs in the specialty area of Building (Preferred Provider No. 1232).

Attendance will be monitored, and attendance certificates will be available after the webinar for those who attend the entire course and score a minimum 80% on the quiz that follows the course (multiple attempts allowed).

Can't Attend? Order the Webinar as a Self-Study Package!

Recordings of this webinar are available for purchase. See course listing online 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.

Calculating Design Loads for Residential and Small Commercial Buildings

Live, Interactive Webinar - Wednesday, June 29, 2022

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PO Box 278
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Learning Objectives

You'll be able to:

Explore the treatment of live, dead and combination loads in building codes and other standards.

Calculate dead and live loads on roofs, floors, walls, foundations, decks and balconies.

Perform calculations for loads on joist, rafters, beams and columns.

Explore wind, water, seismic and earth pressure loads.

Receive practical tips on using spreadsheets and other software to calculate design loads.

HalfMoon Education Live Webinars

Calculating Design Loads for Residential and Small Commercial Buildings

Live, Interactive Webinar - Wednesday, June 29, 2022



Review the treatment of live, dead and combination loads in building codes and other standards

Learn how to calculate dead and live loads for common components

Understand how to determine additional design loads due to wind, snow, flood and seismic activity

Perform calculations for loads on joist, rafters, beams and columns

Receive practical tips on using spreadsheets and other software to calculate design loads

Continuing Education Credits

Professional Engineers
7.0 PDHs

Architects
7.0 HSW CE Hours
7.0 AIA LU | HSW

International Code Council
.7 CEUs (Building)



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Agenda

Treatment of Structure Loads in Building Codes and Standards

- Building codes
 - Historical coniderations
 - ASCE 7-5 and 7-10
 - CRSI, ASTM, API, AASHTO, FAA, AREA, AWWA, SCEANC, FEMA, etc.
- Load combinations
 - Allowable strength design (ASD)
 - Load and resistance factor design (LRFD)

Dead Loads

- Definition of dead load
- Common materials and components

Live Loads

- Definition of live load
- Live load examples
 - Roofs, floors, walls
 - Traffic and various wheel loads, distribution considerations

Wind Loads

- ASCE 7 background
- Computing wind loads
 - Main wind force resisting system (MWFRS)
 - Components
 - Parapets

Rain and Snow Loads

- Ponding and drainage
- Snow: balanced, unbalanced and drifting

Water, Moving and Still

- Hydrostatic pressure
- Flood loads
 - Uplift, flowing water, scour, relief of flood forces
- Waves

Seismic, Blasting and Ground Vibration Loads

- Basic seismic considerations
 - Ground motion and equivalent lateral force
 - ASCE 7 design formulae and coefficients, how does all this work?
 - Non-building structures
- Ground vibration from blasting

Earth Pressure Loads

- Retaining walls
- Buried structures
 - Active, passive and at-rest conditions
- Live loads, direct and through soil

Application of Loads to Various Structures and Components

- Common building components: joists, rafters, beams, columns and walks
- Structural analysis considerations
- Examples and case studies
 - Wind loads on components
 - Foundation in flood-prone areas
 - Buried vault

Using Spreadsheets and Software to Calculate Design Loads

- Spreadsheet design considerations
 - Format, documentation, notes
 - Using the “goal-seek” function for trial and error situations
- Examples and case studies
 - Load tabulation
 - Load combinations
 - Wind loads on components
 - Earth pressure
 - Foundation in flood-prone area
 - Buried vaults and culverts

Added Value:

Enhance your learning - a recording of this webinar will be available for attendees to stream online for two weeks after the program date.
(Must attend live webinar to earn live webinar credits)

Webinar Information

Log into Webinar	Break
8:00 - 8:30 am EDT	12:15 - 1:15 pm EDT
Morning Session	Afternoon Session
8:30 am - 12:15 pm EDT	1:15 - 5:00 pm EDT

Tuition

\$319 for individual registration
\$289 for two or more registrants from the same company at the same time.
Included with your registration: *PDF seminar manual.*

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

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

Can’t Attend? Order the Webinar as a Self-Study Package!

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Registration

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Complete the entire form. Attach duplicates if necessary.		Occupation: _____
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		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 webinar.** Single Registrant - **\$319.00**. Two or more registrants from the same company registering at the same time - **\$289.00** each.
- () **I am not attending.** Please send me the webinar recording:
- ☐ Streamable MP4 Video/PDF Manual for **\$329.00**.
 - ☐ USB Video/PDF Manual for **\$329.00**.

Checks: Make payable to HalfMoon Education Inc.

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