

Agenda

Presented by Eugene H. Brislin Jr., P.E./S.E.

Seismology and Earthquake Actions

- Earthquake characteristics
- Effects of soil conditions
- Western, central, and eastern U.S. seismicity

Structural Dynamics and Response

- Ground motions and structural response
- Response spectra
- Damping
- Modal superposition analysis

Modern Philosophy of Seismic Design

- Seismic design objectives
- Inelastic response and ductility
- Proportioning

U.S. Seismic Codes

- History
- Performance objectives
- Hazard levels

ASCE-7 Seismic Design

- Mapped spectral response
- Design response spectrum
- Seismic design category and design factors
- Seismic force resisting systems
- Estimating period
- Structural irregularities
- Equivalent lateral force procedure
- Load combinations, over strength, redundancy
- Diaphragms and shear walls
- Deflection limitations

Material-Specific Seismic Force Resisting Systems

- International Building Code (IBC) provisions
- American Institute of Steel Construction (AISC 341) provisions
- American Concrete Institute for Structural Concrete (ACI 318) provisions
- American Concrete Institute for Masonry Structures (ACI 530) provisions

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Seismic Design and Construction

Live, Interactive Webinar - Thursday, May 23, 2024

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PO Box 278
Altoona, WI 54720-0278



Learning Objectives

You'll be able to:

Review seismology and earthquake actions.

Understand structural dynamics and response.

Discuss the modern philosophy of seismic design.

Review U.S. seismic design codes including hazard levels.

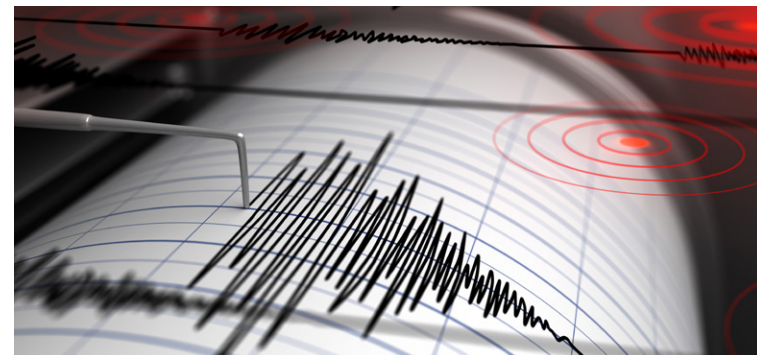
Examine ASCE 7 seismic design standards.

Explore material-specific seismic force resisting systems.

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Your LIVE Education Leader Presents

Seismic Design and Construction

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Understand earthquake actions and consider the effect of soil conditions

Explore structural dynamics and response

Discuss the modern philosophy of seismic design and identify seismic design objectives

Review seismic design requirements in U.S. building codes

Examine ASCE 7 standards for seismic design

Review specific provisions for seismic force resisting systems in steel, wood, concrete and masonry structures

Continuing Education Credits

Professional Engineers
7.0 PDHs

International Code Council
.7 CEUs (Building)

Architects
7.0 HSW CE Hours
7.0 AIA LU | HSW

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Webinar Information

Online - Thursday, May 23, 2024	
Log into Webinar	Break
8:00 - 8:30 am CDT	12:30 - 1:30 pm CDT
Morning Session	Afternoon Session
8:30 am - 12:30 pm CDT	1:30 - 5:00 pm CDT

Tuition
\$339 for individual registration.
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Faculty



Eugene H. Brislin Jr., P.E./S.E.
Structural Engineer in Summerville, SC
Mr. Brislin has been a professional engineer for more than 21 years and has designed many structures and performed many different types of analysis in that time. He has worked for a steel fabricator, an architectural/engineering firm and a seismic consultant, and he has been in private practice for over 13 years. Mr. Brislin earned his BSCE degree from The Citadel in Charleston, South Carolina, and his MSCE degree from the University of South Carolina. He has completed all his course work for his Ph.D. degree but has not completed his dissertation. His graduate study work has been in mathematical elasticity. Mr. Brislin has worked on a wide variety of projects from arenas such as Gund Arena in Cleveland, Ohio, and the Edward Jones Arena in St. Louis, Missouri, to renovation and seismic retrofit of the South Carolina State House and the design of the Columbia South Carolina Museum of Art. He has done stress analysis on weapons systems for the Department of Defense and has consulted on cellular telephone concealment projects. Mr. Brislin's company routinely performs modal analysis of structures to provide more accurate seismic loads and to reduce the cost of seismic requirements through more advanced analysis techniques. The company is knowledgeable concerning structural dynamics and can perform a full dynamic analysis for complicated structures, and ductility requirements in concrete and masonry as well as welded steel moment connection requirements on toughness of steel.

Additional Learning

Reinforced Concrete Building Design and Construction
- Friday, April 26, 2024 | 8:30 am - 4:30 pm CDT

Structural Design Loads under the ASCE 7-22 Standard
- Friday, April 26, 2024 | 9:00 am - 4:30 pm CDT

Working with the IECC's 2021 Climate Zone Maps
- Friday, April 26, 2024 | 9:30 am - 12:30 pm CDT

Soil Mechanics, Bearing Capacity and Slope Stabilizations
- Thursday, May 2, 2024 | 8:30 am - 4:30 pm CDT

A Drainage Technology Update
- Friday, May 3, 2024 | 2:00 - 4:00 pm CDT

Introduction to HEC-HMS Modeling
- Friday, May 3, 2024 | 9:00 am - 4:30 pm CDT

Retrofitting Houses Toward the Passive House Standard
- Friday, May 3, 2024 | 9:00 am - 4:00 pm CDT

Credit Information

This webinar is open to the public and is designed to qualify for 7.0 PDHs for professional engineers and 7.0 HSW continuing education hours for licensed architects in all states that allow this learning method. Please refer to specific state rules to determine eligibility.

HalfMoon Education is an approved continuing education sponsor for engineers in Florida (Provider License No: CEA362), 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(ii)(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 HSW LUs (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).

On-Demand Credits
The preceding credit information only applies to the live presentation. This course in an on-demand format is not pre-approved by any licensing boards and may not qualify for the same credits; please consult your licensing board(s) to ensure that a structured, asynchronous learning format is appropriate. The following pre-approvals may be available for the on-demand format upon request:
7.0 HSW LUs (AIA)

Building Power System Short Circuit Analysis and Overcurrent Protection Coordination Based on NEC 2023
- Monday, May 6, 2024 | 12:00 - 2:00 pm CDT

Engineering Projects from Start to Finish
- Monday, May 6, 2024 | 8:30 am - 4:30 pm CDT

Construction Cost Estimating
- Wednesday, May 8, 2024 | 9:00 am - 4:30 pm CDT

Handling Ethical Issues in Construction Contracting
- Wednesday, May 8, 2024 | 9:00 - 10:00 am CDT

Natural Ventilation Principles and Techniques
- Thursday, May 9, 2024 | 9:00 am - 4:00 pm CDT

2021 International Building Code Essentials
- Friday, May 10, 2024 | 8:30 am - 4:30 pm CDT

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