Agenda

Presented by Robert P. Schaffer, P.E.

Preliminary Concepts of Structural Steel Design

Design theory Design objectives ASD vs. LRFD Loads and load combinations

Structural Steel Flexural and Compression Members

Flexural members

- Forces on members
- Flexural member design
- **Compression Members**
- Forces on members
- Compression member design

Structural Steel Tension Members and Connection Design

Tension members

- Forces on members and connections
- Tension member design
- Tensile effects and failures
- Load transfer and connection design
- Bolted connections
- Bolt design, size, spacing, and failures

Welded connections

• Weld design and weld failures

Combined Forces, Combined Loads and Structural Steel Applications

Combined forces, combined loads Structural steel applications and case studies Commercial and industrial buildings Residences Parking structures Bridges

Can't Attend?

Order the Webinar as a Self-Study Package!

Recordings of this webinar are available for purchase. 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.



Learning Objectives

NON-PROFI I.S. POSTAGE F EAU CLAIRE, ' PERMIT NO. 2

HalfMoon Education Inc. PO Box 278 Altoona, WI 54720-0278

You'll be able to:

Describe structural steel design theory and design objectives.

Identify structural loads and load combinations.

Explore design of flexural, compression and tension members.

Discuss load transfer and connection design.

Examine welded and bolted connection designs.

Identify applications for structural steel, including commercial and industrial buildings, parking structures and bridges.

Review structural steel case studies.



Live, Interactive Webinar - Friday, June 4, 2021



Examine design theory and compare ASD vs. LRFD methods of steel design

Learn about flexural, compression and tension member design

Explore combined forces and combined loads

Continuing Education Credits Professional Engineers

6.0 PDHs

Architects 6.0 HSW CE Hours





HalfMoon Education Online Learning **Basics of Structural Steel Design**

Discuss the design of welded and bolted connections

Review structural steel applications and case studies

AIA

6.0 LUIHSW

International Code Council .6 CEUs (Building)



Facultv

Robert P. Schaffer, P.E. WZG Structural Engineers, Zieglerville, PA

Mr. Schaffer is the associate principal at WZG Structural Engineers and has 19 years of experience in structural analysis and design throughout the Mid-Atlantic region. He is a graduate of Penn State University Architectural Engineering program with an emphasis in Structural Engineering and has project experience in commercial, higher education, industrial, pharmaceutical, hospital/life care and multi-family residential markets. In 2012, he was selected by Consulting Specifying Engineer Magazine as a Top 40 Under 40 for his achievements in structural engineering

Webinar Information

Log into Webinar 8:00 - 8:30 am CDT

Break 11:45 am - 12:30 pm CDT

Morning Session 8:30 - 11:45 am CDT Afternoon Session 12:30 - 3:45 pm CDT

Tuition

\$289 for individual registration

\$199 for three 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

Webinars are presented via GoToWebinar. Instructions and login information will be provided in an email sent close to the date of the webinar. For more information, please visit our FAQ section of our website, or visit www.gotowebinar.com.

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!

Recordings of this webinar are available for purchase. 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.

Additional Learning

Structural Forensic Engineering - Tues, April 27, 2021 | 7:30 am - 4:00 pm CDT

Construction Cost Estimating - Wed, April 28, 2021 | 8:30 am - 4:30 pm CDT

Developing Infrastructure for Electric Vehicles

- Thurs, April 29, 2021 | 9:30 am - 4:30 pm CDT

Foundation Damage and Repair: Science. Materials and Techniques - Thurs, April 29, 2021 | 9:30 am - 5:00 pm CDT

Structural Dynamics for Seismic Design - Fri, April 30, 2021 | 8:30 am - 3:30 pm CDT

Handling Ethical Issues in Government Projects - Fri, April 30, 2021 | 12:00 - 1:00 pm CDT

Handling Ethical Issues in Engineering Practice - Tues, May 11, 2021 1:00 - 2:00 pm CDT

Special Inspections under the IBC Chapter 17

- Thurs, May 13, 2021 | 11:00 am - 2:15 pm CDT - Fri, May 14, 2021 | 11:00 am - 3:15 pm CDT

Water Conservation and **Reuse for Building Professionals**

- Thurs, May 13, 2021 | 11:00 am - 3:00 pm CDT - Fri, May 14, 2021 | 11:00 am - 3:00 pm CDT

Design Principles of the 2018 International Building Code - Wed, May 19, 2021 | 8:00 am - 3:20 pm CDT

Septic System Design, **Construction and Maintenance** - Thurs, May 20, 2021 | 9:30 am - 4:30 pm CDT

Handling Ethical Issues Associated with Defects and Failures - Fri, May 21, 2021 | 11:00 am - 12:00 pm CDT

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

Continuing Education Credit Information

This webinar offers 6.0 PDHs to professional engineers and 6.0 HSW continuing education hours to architects licensed 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 6.0 LU | HSW (Sponsor No. 1885). Only full participation is reportable to the AIA/CES.

The International Code Council has approved this event for .6 CEUs in the specialty area of Building (Preferred Provider No. 1232).

Completion certificates will be awarded to participants who complete this event, respond to all prompts, and earn a passing score (80%) on the guiz that follows the presentation (multiple attempts allowed).

Registration

Basics of Structural Steel Design

Live, Interactive Webinar - Friday, June 4, 2021

low to Register		Registrant Information		
Online: vww.halfmoonseminars.org		Name: Company/Firm: Address:		
Phone: 715-835-5900		City:St Occupation: Email:		·
ax: 15-835-6066	Code:	Phone: Additional Registrants: Name:		
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 64720-0278		Occupation: Email: Phone: Name: Occupation:		
Complete the entire form. ttach duplicates if necessary.		Email: Phone:		
		Email address is required f changes, and notification of products. Your email will n	of upcoming semi	inars and
		() ら、 I need special accomm	nodations. Please co	ontact me.
registrant () I am not a Stre USB	ts from the same attending. Pleas amable MP4 Vide Video/PDF Manu		ne same time - \$ ' cording:	ree or more 199.00 each.
		Moon Education Inc. American Express, or Discov	ver	
	umber:			
Expiration Date:		CVV2 Code:		
Cardholder Na	ame:			
Billing Addres	s:			
City:		State:	Zip):
Signature:				
Email:				

How to Register		Registrant Information		
Online: vww.halfmoonseminars.org		Name: Company/Firm: Address:		
Phone: 715-835-5900		City:State: Occupation: Email:		
Fax: 715-835-6066	Code:	Phone: Additional Registrants: Name:		
Mail: HalfMoon Education Inc., PO Box 278, Altoona, WI 54720-0278		Occupation: Email: Phone: Name: Occupation:		
Complete the entire form. Attach duplicates if necessary.		Email: Phone:		
		Email address is required for cred changes, and notification of upcor products. Your email will not be s	ming seminars and	
		() 告. I need special accommodatior	s. Please contact me.	
registrant () I am not a Stree	s from the same attending. Pleas	e webinar. Single Registrant - \$2 company registering at the same e send me the webinar recording co/PDF Manual for \$299.00. al for \$299.00.	e time - \$199.00 each.	
		Moon Education Inc. American Express, or Discover		
Credit Card N	umber:			
Expiration Date:		CVV2 Code:		
Cardholder Na	ame:			
Billing Addres	5:			
City:		State:	Zip:	
Signature:				
Email:				

ow to Register		Registrant Information		
nline: ww.halfmoonseminars.org		Name: Company/Firm: Address:		
h one: 15-835-5900		City:State: Occupation: Email:		
ax: 5-835-6066	Code:	Phone: Additional Registrants: Name:		
l ail: alfMoon Education Inc., D Box 278, Altoona, WI 1720-0278		Occupation: Email: Phone: Name: Occupation:		
Examplete the entire form. tach duplicates if necessary.		Email: Phone:		
		Email address is required for cred changes, and notification of upco products. Your email will not be s	ming seminars and	
		() 占. I need special accommodation	ns. Please contact me.	
registrant) I am not	ts from the same attending. Pleas	e webinar. Single Registrant - \$2 company registering at the sam e send me the webinar recording eo/PDF Manual for \$299.00 . ual for \$299.00 .	e time - \$199.00 each.	
redit Card: /	Mastercard, Visa, A	Moon Education Inc. American Express, or Discover		
	umber:			
•		CVV2 Code		
0				
-		State:	Zip:	
0				
mail:				

Billing Address:	
0	

© 2021 HEI #21 USBSCSSD 6 4 WEBR CP