

Resources for Steel Educators: Tips and Treasures
AISC Educator Webinar Series
 July 22, 2020



**Smarter.
Stronger.
Steel.**

AISC Educator Webinar Series

Today's live webinar will begin shortly. Please stand by.

Today's audio will be broadcast through the internet. Please be sure to turn up the volume on your speakers.

Please type any questions or comments in the Q&A window.

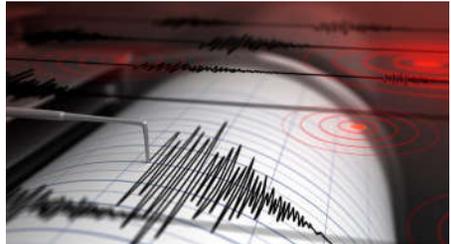
Upcoming Educator Webinar

Shake Things Up: Teaching Aids for Seismic-Resistant Design of Steel Building Structures

Thursday, August 20, 2020 at 1:00pm (Central)

Speakers:
 Patricia Clayton, PhD
 University of Texas at Austin

Matthew R. Eatherton, SE, PE, PhD
 Virginia Tech



Speakers

	<p>Kristi Sattler, SE, PE, PhD AISC Senior Engineer –University Relations</p>		<p>Jeffrey Keileh, PE, SE, LEED® AP BD+C Plant Construction Company Project Manager</p>
	<p>Judy Liu, PhD Oregon State University Professor</p>		<p>Tim Mrozowski, AIA, LEED® AP BD+C Michigan State University Professor – Emeritus, Construction Management</p>

Agenda

- Welcome and Overview
- Educator Resources
- Teaching Aid Library
- Student Programs and Resources
- Q & A

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AISC University Programs

Our programs are intended to:

- Assist in the development of future professionals who are knowledgeable in structural steel behavior and design
- Foster career development of faculty members through support of teaching, research, and service

aisc.org/universityprograms

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AISC University Programs Staff



Christina Harber, SE, PE
Director of Education



Maria Mnookin
Education Program Manager



Kristi Sattler, SE, PE, PhD
Senior Engineer – University Relations



Eric Martin
Event Registration Coordinator



Sean Faron
Education Assistant

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AISC Partners In Education (PIE) Committee

- *Judy Liu (Oregon State University) - Chair**
Aaron Hill (United States Military Academy) – Vice Chair
Hans Herrmann (Mississippi State University)
- *Jeffrey Keileh (Plant Construction Co.)**
Jason McCormick (University of Michigan)
- *Tim Mrozowski (Michigan State University)**
Adam Phillips (Washington State University)
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Brian Quinn (SE Solutions, LLC)
Patrick Tripeny (University of Utah)
Marc Uihlein (University of Illinois at Urbana-Champaign)
Katie Wheaton (Case Western Reserve University)
Ronald Ziemian (Bucknell University)

** Denotes special guest today*

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Educator Resources

MEMBERSHIP

AISC Educator Membership

Complimentary for educators currently employed full-time by an accredited university, technical school, or vocational school in the U.S.

aisc.org/join

MEMBERSHIP

AISC Educator Membership

Reminder of what's included:

- Discounts on all AISC seminars, conferences, and publications
- Subscriptions to *Modern Steel Construction* and *Engineering Journal*
- Weekly AISC/NSBA Bulletin
- Online access to resources and downloads

aisc.org/join

aisc.org

Be sure to log in!

EDUCATION **PUBLICATIONS** AWARDS AND COMPETITIONS TECHNICAL RESOURCES STEEL SOLUTIONS CENTER

PUBLICATIONS
 Design Guides
 Engineering Journal
 Historic Standards
 Historic Manuals
 ... and so much more!

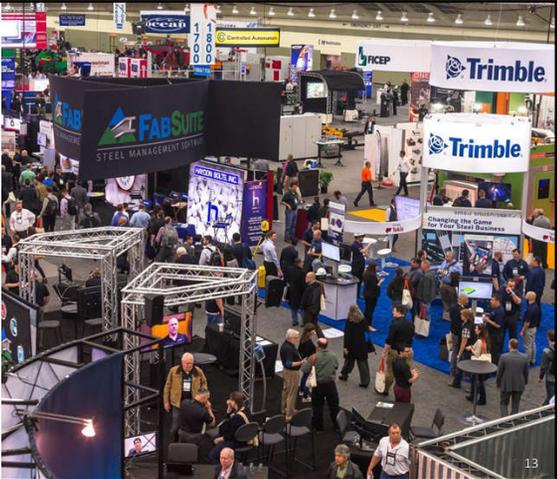
WHO MAKES THE SHAPES YOU NEED?
 SHAPE 1ST DIMENSION 2ND DIMENSION ALL GRADES SUBMIT



NASCC: The Steel Conference

- 130+ Technical Sessions
- Exhibit Hall with 240+ exhibitors
- Workshops
- Networking

aisc.org/nascc




"If you work in the steel construction industry, this is THE show to attend. Any resource you could ever want is here, all in one place!"
 —Hexagon PPM

NASCC: THE STEEL CONFERENCE

World Steel Bridge Symposium | QualityCon | Architecture in Steel
 SSRC Annual Stability Conference | NISD Conference on Steel Detailing
 Louisville, Kentucky
 Kentucky International Convention Center | April 14-16, 2021
aisc.org/nascc

NASCC: The Steel Conference

Educator Session

Session includes:

- Presentation
- Discussion

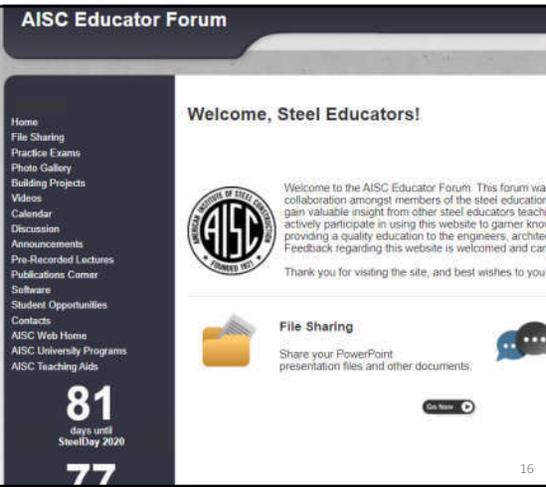
Also eligible to receive travel assistance

aisc.org/nascc



Educator Forum

Collaborate, interact with, and gain insight from other members of the steel education community



The screenshot shows the AISC Educator Forum website. It features a navigation menu on the left with links like Home, File Sharing, Practice Exams, Photo Gallery, Building Projects, Videos, Calendar, Discussion, Announcements, Pre-Recorded Lectures, Publications Corner, Software, Student Opportunities, and Contacts. The main content area has a 'Welcome, Steel Educators!' message, a 'File Sharing' section, and a countdown timer for '81 days until SteelDay 2020'.

Educator Forum

Need access?

The screenshot shows the AISC Educator Forum website. The navigation menu includes: HOME, CERTIFICATION, MEMBERSHIP, MODERN STEEL, BRIDGES, WELDED STEEL, CONFERENCE, EDUCATION, PUBLICATIONS, AWARDS AND COMPETITIONS, TECHNICAL RESOURCES, STEEL SOLUTIONS CENTER. The main content area is titled 'UNIVERSITY PROGRAMS'. A sidebar on the left lists 'IN THIS SECTION' with links: Adapt a School, Educator Awards, Educator Forum (highlighted with a red arrow), Faculty & Students at AISC, Partners in Education, Scholarships. The main content area has a section for 'Educator Forum' with a 'REQUEST ACCESS' button circled in red.

Educator Forum

File Sharing

- Case studies
- Articles
- PowerPoints
- Tip Sheets
- ... and more!

The screenshot shows the AISC Educator Forum File Sharing section. The sidebar on the left includes a countdown timer: '81 days until SteelDay 2020' and '77 days since NASCC: The VIRTUAL Steel Conference'. The main content area is titled 'File Sharing' and contains instructions for uploading files and sharing links. A list of files is shown, including 'A Beginner's Guide to the Steel Construction Manual' and 'AISC Teaching Aids'.

Educator Forum

Photo Gallery

- Steel framing
- Shear studs
- Connections
- Fireproofing
- Erection

The screenshot shows the AISC Educator Forum Photo Gallery section. The sidebar on the left includes a countdown timer: '81 days until SteelDay 2020' and '77 days since NASCC: The VIRTUAL Steel Conference'. The main content area is titled 'Photo Gallery' and contains instructions for uploading photos and sharing links. A list of photos is shown, including 'CHME_buildingoverall256.JPG' and 'CHME_cladding_alumstuds183.JPG'.

Educator Forum

Videos

- Construction time lapses
- LTB demos
- Steel failure mechanisms
- Bolt limit states

The screenshot shows the AISC Educator Forum Videos section. The sidebar on the left includes a countdown timer: '81 days until SteelDay 2020' and '77 days since NASCC: The VIRTUAL Steel Conference'. The main content area is titled 'Videos' and contains instructions for uploading videos and sharing links. A list of videos is shown, including 'Anahem Regional Transportation Intermodal Center (ARTIC)' and 'CITRIS HD Time-lapse project'.

Educator Forum

Discussion

- Add a new post
- Contribute to existing discussion

81
days until
SteelDay 2020

77
days since
NAASCC: The Virtual Steel
Conference

AISC Educator Forum

Discussion

If you would like to respond to a post, click on the post title and add your comments. If you would like to begin a new post, click "New post", add a title and write your comments.

Click on the title of any post to view additional comments and to contribute your own. The comments appear at the bottom of the post's page, so be sure to scroll down to the bottom.

Please be specific with the titles and naming convention as this is used in the search criteria for the site. The more specific and complete the title, the better the search results.

Disclaimer: AISC is not responsible for the content, quality, or accuracy of any materials referenced on this forum. This forum is meant to foster a positive environment for information sharing and community among members. Please be mindful of the content and/or comments you post, and share them in the spirit of learning.

[New post](#)

Frequently Asked Questions about Online Learning
posted Mar 19, 2020, 3:51 PM by Pat T.

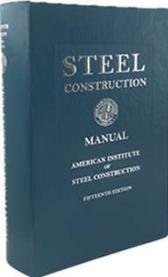
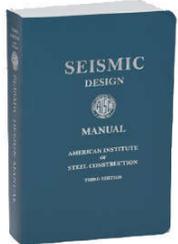
He is a list of question I have received from Faculty and Students having to do with the shift to remote learning. I am not specific to engineering, construction management or architecture but I think most apply.

1. Students are having a hard time focusing on my class. What do I do?
First, be patient. This is a hard time for most people and your students are not the most socioeconomically or socially advantaged. Many students left for a spring break and returned to a new world. So many faculty but most of us are still getting paid and know how we will pay the rent or mortgage. Stores from students whose job has been cut as restaurants and retail stores are closing. If you can, toward the student service end of your campus for resources to help your students. It is important to have standards for your students to meet but it is also important to be empathetic to their lives.
2. How do I maintain my standards set in my face to face class when I go online for the first time?

Desk Copy Program

Complimentary desk copy is available to full-time faculty who are teaching steel design courses

Contact:
universityprograms@aisc.org

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Milek Fellowship

Non-tenured university faculty member

4 year award, \$50,000-per-year

Applications due: September 18, 2020

aisc.org/milek



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Educator Awards

Lifetime Achievement Award



W. Samuel Easterling, PE, PhD
Iowa State University



Michel Bruneau, PhD, PEng
University at Buffalo



Amit H. Varma, PhD
Purdue University

Special Achievement Award



Negar Elhami-Khorasani, PhD
University at Buffalo



Julie Fogarty, PE, PhD
California State Univ., Sacramento



Emily Baker, AIA
University of Arkansas

aisc.org/awardvideos

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Teaching Aid Library

- Case studies
- Photo library
- Videos
- AESS
- Seismic design
- Bolting & welding
- Bridge design
- *Manual* examples
- ... and many more!

aisc.org/teachingaids

Teaching Aid Library

➤ *Manual Examples*

COMPANION TO THE
 AISC
STEEL CONSTRUCTION MANUAL

Volume 1: Design Examples

For Use in First Semester
 Structural Steel Design Classes

Version 15.1



aisc.org/teachingaids

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Highlights of the Teaching Aid Library

Tim Mrozowski

- Digital Library Images
- Four Story Building Case Study
- Technical Topics

Judy Liu

- Introduction to Steel Buildings PowerPoint

Jeffrey Keileh

- Steel Frames: The Design Studio Case Studies

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Teaching Aid Development Program

*** Now accepting proposals***

- Videos
- Presentations
- Design examples
- Team-based project guidelines
- Instructions for hands-on demonstrations
- Handouts
- ... ???

**Proposals Due:
 August 31, 2020**

**Send to Kristi Sattler
 (sattler@aisc.org)**

aisc.org/teachingaids

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Teaching Aid Development Program

*** Sneak Peek! ***

- 3D Web-based Connection Viewer [September 2020]
- Interactive Online Figures Demonstrating Key Concepts in Steel Design [October 2020]
- “Days of Steel” Videos [January 2021]
- Steel Connections: A Teaching Aid for Design Considerations [January 2021]
- Structural Fire Engineering Curriculum for Undergraduate Education [January 2021]
- Conceptualizing Steel Gravity Design [May 2021]

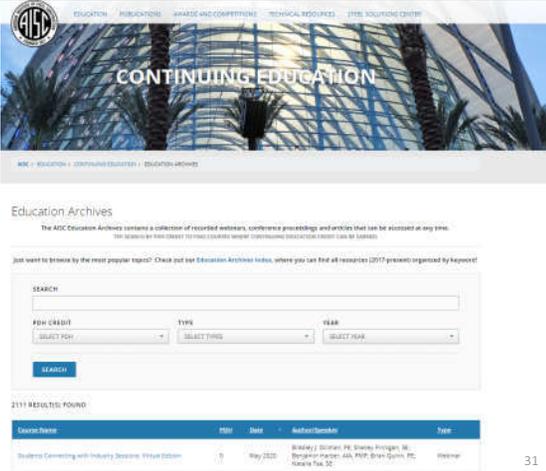


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Education Archives

Searchable collection:

- Recorded webinars
- NASCC sessions
- Conference proceedings
- Articles



aisc.org/learn

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Prototype Projects

Steel Solutions Center

Conceptual Solutions Examples:

- Healthcare
- Multi-Story Residential
- Office – Conventional Steel Framing
- Parking



aisc.org/steel-solutions-center/conceptual-solutions

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Loading Summary

Project Information

Architectural Floor Plans

Fourth Floor Framing Plan

Steel Quantity Tables

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Virtual Reality

Mill Tours

Can be viewed using:

- VR Headset
- Phone Viewer
- or -
- YouTube

aisc.org/vr

Atlas Tube
Virtual Reality Tour

VIRTUAL REALITY TOUR | NUCOR-YAMATO STEEL

Nucor-Yamato Steel
Virtual Reality Tour

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Student Programs and Resources

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Student Membership

- Free!
- Access to technical information and downloads on AISC website
- Complimentary pass to NASCC: The Steel Conference

Stronger. Steel.

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NASCC: The Steel Conference

Students Connecting with Industry Sessions

- Presentation
- Lunch
- Direct Connect

Also eligible to receive travel assistance and to attend Conference Dinner

aisc.org/scis



AISC Scholarships

Scholarships for Juniors, Seniors, and Masters Students

Over \$138,000 for 2020-2021 Academic Year

Funded by:

- AISC Education Foundation
- Local Steel Associations

aisc.org/scholarships




Student Steel Bridge Competition

- Must span approximately 20ft, carry 2,500 pounds, and meet project specifications
- Timed construction
- Load tested and weighed
- Also judged on aesthetics

aisc.org/ssbc



ACSA/AISC Steel Design Student Competition

- Explore design issues related to use of steel in design and construction
- Steel must be used as primary structural material
- At least one space must require long-span steel structure

www.acsa-arch.org/programs-events/competitions/2020-steel-competition



Image Credit: Students: Xiao Wang, Hanwei Fan & Yifeng Guo, Iowa State University | Faculty Sponsor: Thomas Leslie, Iowa State University | Project: Miami Stadium | 2014-2015 Steel Competition: 2nd Place Winner

AISC Student Clubs

- Exchange steel-related knowledge
- Engage in educational activities
- Network with peers and industry representatives

aisc.org/studentclubs



Student Contests

Previous events:

- Photo contests
- Online trivia

** Stay tuned for SteelDay 2020 contest! **




Concluding Remarks

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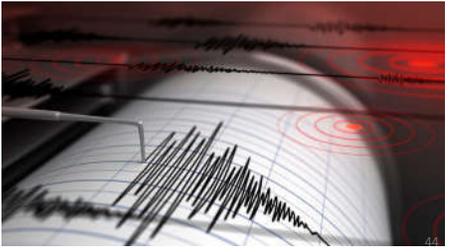
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How to Contact Us

email: universityprograms@aisc.org

website: aisc.org/universityprograms

social media:     @aisc

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Q & A

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