

# Agenda

Presented by Daniel P. Hindman, PE, Ph.D.

**Engineered Lumber Products Introduction and Design Guidance**

- Examining types of engineered lumber products
- Composite wood products
- Design criteria using NDS
  - Allowable strength design
  - Load-resistance factor design

**Structural Glued Laminated Timber**

- Types of members
- Applications and design values
- Adjustments and special considerations

**Timber Poles and Piles**

- Types of members
- Applications and design values
- Adjustments and special considerations

**Structural Composite Lumber**

- Types of members
- Applications and design values
- Adjustments and special considerations

**Pre-fabricated Wood I-Joists**

- Types of products
- Applications and design values
- Adjustments and special considerations

**Wood Structural Panels**

- Types of products
- Applications and design values
- Adjustments and special considerations

**Connectors and Fasteners**

- Mechanical connections
- Dowel fasteners

**Structural Design**

- Software
- Resources

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## Engineered Lumber Design and Construction

Live, Interactive Webinar - Wednesday, April 10, 2024

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



## Learning Objectives

**You'll be able to:**

- Use** engineered lumber products in compliance with building codes and standards.
- Reference** design values for bending members, columns, compression members and tension members.
- Discuss** applications for structural glued laminated timber and for pre-fabricated wood I-joists.
- Explore** applications for timber poles and piles, as well as for wood structural panels.
- Evaluate** connectors and fasteners, including mechanical connections, dowel fasteners and split ring and shear plate connectors.
- Get tips on** structural design for floor framing, roof framing, beams and joists.



### HalfMoon Education Live Webinars

# Engineered Lumber Design and Construction

Live, Interactive Webinar - Wednesday, April 10, 2024



- |   |  |
|---|--|
| <b>Examine</b> structural and non-structural engineered lumber products                 | <b>Study</b> timber poles and piles as well as pre-fabricated wood I-joists    |
| <b>Discuss</b> design values for structural engineered lumber                           | <b>Explore</b> structural composite lumber and wood structural panels          |
| <b>Learn</b> about applications and design values for structural glued laminated timber | <b>Examine</b> connectors and fasteners and discuss structural design software |

**Continuing Education Credits**

- |   |   |
|---|---|
| <b>Professional Engineers</b><br>7.0 PDHs                 | <b>International Code Council</b><br>.7 CEUs (Building) |
| <b>Architects</b><br>7.0 HSW CE Hours<br>7.0 AIA LU   HSW |   |



# Webinar Information

<b>Log into Webinar</b> 8:30 - 9:00 am CDT	<b>Break</b> 12:30 - 1:00 pm CDT
<b>Morning Session</b> 9:00 am - 12:30 pm CDT	<b>Afternoon Session</b> 1:00 - 5:00 pm CDT

**Tuition**  
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# Faculty

**Daniel Hindman, PE, Ph.D.**  
*Department of Sustainable Biomaterials, Virginia Tech, Blacksburg, VA*  
Dr. Hindman serves as associate professor in the Sustainable Biomaterials Department at Virginia Tech, where his research program focuses upon the efficient use of low carbon, biological-based materials for construction. His research philosophy revolves around three principles related to wood materials: structure, safety, and sustainability. Dr. Hindman is a member of several professional organizations including the American Society of Civil Engineers, the Forest Products Society, and the National Frame Building Association. He holds a professional engineering license from the Commonwealth of Virginia.

# 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.

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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**  
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7.0 HSW LUs (AIA)

# Additional Learning

- Fire Protection for Special Occupancies: Health Care Facilities**  
- Wednesday, February 28, 2024 | 9:00 am - 12:15 pm CST
  - Fire Protection for Special Occupancies: Industrial Facilities**  
- Wednesday, February 28, 2024 | 1:00 - 4:15 pm CST
  - Pumping and Piping Systems**  
- Thursday, February 29, 2024 | 11:00 am - 2:15 pm  
- Friday, March 1, 2024 | 11:00 am - 2:15 pm CST
  - International Residential Code 2021**  
- Friday, March 1, 2024 | 8:30 am - 5:00 pm CST
  - 2021 International Residential Code: Mechanical Systems**  
- Tuesday, March 5, 2024 | 12:00 - 4:30 pm CST
  - Residential Energy Efficiency Code Compliance and Stretch Code Requirements**  
- Thursday, March 7, 2024 | 8:30 am - 4:30 pm CST
  - Practical Fluid Mechanics**  
- Friday, March 8, 2024 | 8:30 am - 3:30 pm CST
  - Water Damage Events: Scope, Risks, and Accountability in Remediation**  
- Monday, March 11, 2024 | 9:00 am - 5:00 pm CDT
  - Wayfinding for Designers and Building Professionals**  
- Wednesday, March 13, 2024 | 9:00 am - 12:00 pm CDT  
- Thursday, March 14, 2024 | 9:00 am - 12:00 pm CDT
  - Current Issues in New Urbanism**  
- Thursday, March 14, 2024 | 9:00 am - 4:00 pm CDT
  - 2021 International Residential Code: Plumbing Systems**  
- Tuesday, March 19, 2024 | 12:00 - 4:30 pm CDT
  - Cold Climate Residential Design**  
- Wednesday, March 20, 2024 | 9:00 am - 4:00 pm CDT
  - Sustainable Site Design**  
- Wednesday, March 20, 2024 | 8:30 am - 4:00 pm CDT
  - Foundation and Retaining Wall Damage and Repair: Science, Materials, and Techniques**  
- Friday, March 22, 2024 | 9:00 am - 4:30 pm CDT
  - Designing and Constructing Slab-on-Grade Foundations**  
- Tuesday, March 26, 2024 | 9:00 am - 12:00 pm CDT
  - Designing and Constructing Spread Footing Foundations**  
- Tuesday, March 26, 2024 | 1:00 - 4:00 pm CDT
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