

- This course is offered *in-person* at the VirginiaTech Washington Alexandria Architecture Center and *simultaneously online via Zoom*.
- *New Group Rate*.
- Please note that a minimum number of participants are always required to offer the in-person or online programs!



STRUCTURAL TECHNOLOGY for Practicing and Associate Architects

Part One: May 17, and 18, 2024

Part Two: May 19, 2024

HYBRID EVENT

Washington Alexandria Architecture Center
1001 Prince Street
Alexandria, VA 22314

Sponsored by

Virginia Tech's
College of Architecture, Arts, and Design



About the Course

This course provides an overview of the fundamentals of the structural technology topics that every architect should be aware of. It also helps associate architects prepare for the structural portions of the Architect Registration Examination (ARE5.0) offered by the National Council of Architectural Registration Boards (NCARB). **Part One** (General Structures) reviews the necessary knowledge on structural theory and behavior of different building components in steel, concrete, and wood. **Part Two** (Lateral Forces) emphasizes the effects of lateral forces on buildings. These classes meet on Friday May 17, Saturday May 18, and Sunday May 19, 2024.

Who Should Attend

Practicing Architects: Course provides a solid review of architectural structures to help them with designs that are more feasible and better communicate with the engineering team.

Associate Architects: This course prepares participants for successful completion of the structural sections of the Project Planning and Design (PPD) and Project Development and Documentation (PDD) divisions of the ARE.

Benefits

- A copy of STRUCTURAL SYSTEMS Second Edition book.
- Up to 32 LU hours approved by the American Institute of Architects for Parts One and Two.
- A complete overview of the topics on the Architect Registration Examination.
- A complete set of information on the theoretical and practical aspects of building structures.
- Detailed information on the effects of wind and earthquakes that every architect has to know.
- Terms used by structural engineers to improve communication between architect and structural engineer.

Selected previous evaluations of this course:

"That was a wonderful, enlightening and informative session you had last weekend. You were excellent!!"

"[The instructor] was conscious of our needs."

"[Focused] on the real needs of the students [in this class]"

"A most helpful review of the ARE parts."

Class Agenda

Part One: General Structures

Friday, May 17, 8:30 am – 7:30 pm

Saturday, May 18, 8:30 am – 6:30 pm

1. Structural Theory

- Geometric Properties of Areas
- Beam and Frame Analysis
- Truss Analysis

2. Structural Framing and Load Flow in Buildings

- Gravity Load Flow
- Loads on Beams, Girders, & Columns
- Live Load Reduction
- Loads on Lintels

3. Structural Analysis and Design

- Steel Structures
- Concrete Structures
- Wood Structures
- Long-Span Systems

Part Two: Lateral Forces

Sunday, May 19, 8:00 am – 8:00 pm

1. Different Types of Lateral Loads

- Hydrostatic Loading
- Lateral Soil Pressure
- Retaining Walls
- Wind Loading
- Earthquake Loading

2. Lateral Load Flow in Building Structures and Different Lateral Resisting Systems

- Vertical Lateral Load Resisting Systems
- Flexible and Rigid Diaphragms

3. Wind Loading

- Nature of Wind
- Code-Based Wind Loading

4. Earthquake Loading

- Configuration Irregularities in Seismic Design
- Other Important Seismic Design Issues
- Code-Based Earthquake Loading

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About the Instructor

Dr. Mehdi Setareh, P.E. is Professor of Architecture in the School of Architecture at Virginia Tech. Dr. Setareh is a licensed professional engineer in the states of Virginia and Michigan and is a member of the American Society of Civil Engineers, American Concrete Institute, American Institute of Steel Construction, and the Architectural Engineering Institute. He has held the Structural Technology for Interns and Practicing Architects since 1998. He is the author of [*STRUCTURAL SYSTEMS: Architect Registration Examination 4.0 \(2015\)*](#), [*STRUCTURAL SYSTEMS - Second Edition \(2017\)*](#), and [*CONCRETE STRUCTURES, Second Edition \(2017\)*](#), published by Springer International Publishing Company.

How to Register

The fees for the seminars include course materials, 32 hours of instruction, a copy of the STRUCTURAL SYSTEMS - Second Edition (2017) [\$89.00 on Amazon.com]. Part One (General Structures) of the program consists of 20 hours of instruction. Part Two (Lateral Forces) consists of 12 hours of instruction. All participants will receive a certificate of completion upon request. This two-part seminar is eligible for a total of 32 Learning Unit (LU) hours and qualifies for 32 hours of Health, Safety, and Welfare (HSW) approved by the American Institute of Architects (AIA). Participants from the same architecture firm or institution will receive an extra 10% group discount before May 3, 2024.

To register, complete the attached form and make payment by Friday, May 10, 2024. **To benefit the early registration discount, registration must be completed by the end of Friday May 3, 2024.**

No refunds after registration. However, substitutions are accepted at any time. In case of cancellation of the program, registrants will be fully refunded.

Registration

Structural Technology for Practicing and Associate Architects

Part One: May 17 and 18, 2024

Part Two: May 19, 2024

Hybrid

Please print or type-complete a separate form for each participant.

Name _____
AIA Member # _____
Position/Title _____
Employer _____
Address _____
City _____
State _____ Zip _____
Office Phone _____
Fax _____
E-Mail _____

Registration Fee: (Check one)

- Part One : \$350
(Before May 3: \$300) (Group Rate: \$270)
- Part Two : \$190
(Before May 3: \$165) (Group Rate: \$150)
- Parts One + Two : \$500
(Before May 3: \$450) (Group Rate: \$400)

**For Payment,
[Deadline: May 10, 2024]
[CLICK HERE.](#)**

Return the registration form by May 10, 2024 (mail or email attachment only) To:

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