

Please note that a minimum number of participants are always required to offer the program!



presents:

STRUCTURAL TECHNOLOGY

for Practicing and Intern Architects

October 6 and 7, 2018

**Urban Affairs and Planning Building
1021 Prince Street,
Alexandria, VA 22314**

Sponsored by

Virginia Tech's
College of Architecture and Urban Studies



An Outreach Service of Virginia Tech



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 intern architects prepare for the structural portions of the Architect Registration Examination (ARE5.0) offered by the National Council of Architectural Registration Boards (NCARB). This course reviews the necessary knowledge on structural theory and behavior of different building components in steel, concrete, and wood, and structural framing layout. The class meets on Saturday October 6 and Sunday October 7, 2018.

Who Should Attend

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

Intern 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.
- Twenty Learning Unit (LU), and Health, Safety, and Welfare (HSW) hours approved by the American Institute of Architects.
- A complete set of information on the theoretical and practical aspects of building structures.
- Terms used by structural engineers to improve communication between architect and structural engineer.

Selected previous evaluations of this course:

"These seminars were beyond what I could have ever learned from a book or watching a video."

"[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."

"Excellent handouts." and "Comprehensive"

Class Agenda

Saturday, October 6, 8:00 am – 7:00 pm

Sunday, October 7, 8:00 am – 5:00 pm

1. Structural Theory

- Geometric Properties of Areas
- Basic Structural Analysis of Beams, Frames, and Trusses

2. Steel Structures

- Introduction to Steel Structures
- Behavior of Structural Steel Under Loads
- Different Steel Section Designations
- Structural Framing and Load Flow in Building Structures
- Steel Beams and Open Web Joists
- Steel Compression and Tension Members
- Steel Connections

3. Concrete Structures

- Introduction to Reinforced Concrete Design
- Concrete Technology
- Reinforced Concrete Beams and Slabs
- Reinforced Concrete Construction Systems
- Reinforced Concrete Columns
- Soils and Foundations

4. Wood Structures

- Introduction to Wood Design
- Wood Beams and Joists
- Wood Columns

5. Long-Span Systems

- Space Frames
- Arches
- Domes
- Folded Plates

6. Structural Framing Layout

Virginia Tech does not discriminate against employees, students, or applicants on the basis of race, sex, handicap, age, veteran status, national origin, religion, political affiliation, or sexual orientation. Anyone having questions concerning discrimination should contact the Equal Opportunity/ Affirmative Action Office.

About the Instructor

Dr. Mehdi Setareh, P.E. is Professor of Architecture in the College of Architecture and Urban Studies 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.

Location and Lodging

The course is held at the Virginia Tech, Urban Affairs and Planning Building, 1021 Prince Street, Alexandria, VA 22314. Lodging accommodations and costs for lodging and meals are the responsibility of the participant.

To receive directions to the Alexandria Center, please contact setareh@vt.edu.

How to Register

The fee for the seminars includes course materials, 20 hours of instruction, a copy of the STRUCTURAL SYSTEMS - Second Edition (2017) [\$89.00 on Amazon.com]. All participants will receive a certificate of completion upon request. This seminar is eligible for a total of 20 Learning Unit (LU) hours and qualifies for 20 hours of Health, Safety, and Welfare (HSW).

To register, complete the attached form and make payment by Friday, September 28, 2018. **To benefit the early registration discount, registration must be completed by the end of September 21, 2018.**

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 Interns and Practicing Architects

October 6, and 7, 2018

Urban Affairs and Planning Building

Virginia Tech

Alexandria, VA

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:

\$350 (Before September 21: \$300)

**For Payment,
[Deadline: September 28, 2018]
[CLICK HERE.](#)**

Return the registration form by September 28, 2018 (mail or email attachment only) To:

Dr. Mehdi Setareh
College of Architecture & Urban Studies
Virginia Tech
201 Cowgill Hall
Blacksburg, VA 24061-0205

Phone: (540) 231-5204

Fax: (540) 231-9938

Email: setareh@vt.edu