**C11 Timber Design of Light Residential and Commercial Buildings**

**Offered via the classroom and webcast**

**Purpose:** The course is intended to provide the students with the skills and knowledge required for effective design of timber buildings using the Canadian Wood Code O86-14. The course covers the key design concepts and procedures for wood design and illustrates the application through design examples and case studies of typical residential and commercial buildings. This course is delivered through lectures and home assignments.

**Selected Topics:** Introduction to timber construction; timber properties - pros and cons; design of key timber elements: joists, beams, columns, walls, wall plates, decking and sheathing (including design aids); Glulam and proprietary products (engineered structural lumbers and panels); trusses – layout and design; connection design; seismic design – flexible vs. rigid diaphragm, distribution of seismic forces, design of shear walls and their components; analysis and design of residential buildings with a 3-story “walk up” example- layout, practical considerations, shrinkage issues, etc.; analysis and design of commercial buildings, including an example of a 1-story building – layout, practical considerations; case studies.

**Course Coordinator:** Robert D. Jirava, P.Eng., C.Eng., M.IStructE, Struct.Eng.; Managing Partner, Horace Engineering Ltd.

**Instructors:** Robert D. Jirava and other guest lecturers.

**Contact:** robert@horaceeng.com

**Communications:** Notices to students and questions outside of class will be handled through e-mail only.

**Submission of Assignments:** Any assignments submitted electronically must be in the format prescribed by the instructor. All other students are required to submit their assignments in hardcopy.

**Student Code of Conduct:** Registration in this course confirms that the student has read, and will abide by, the Student Code of Conduct: [http://seabc.ca/documents/course_outlines/StudentCodeOfConduct.pdf](http://seabc.ca/documents/course_outlines/StudentCodeOfConduct.pdf)

**Schedule:** 6:30 to 8:30 P.M. on 12 Thursdays, January 12 to April 6, 2017 (Mid-term break: February 23)

**Venue:** Room C485, UBC Robson Square, 800 Robson Street, Vancouver

**Please Note: Classroom Change:** Thursday, February 2nd: Room C150

**Thursday, April 6th:** Room 1.150 Gallery

Parking: The entrance to underground parking at UBC Robson Square can be accessed at Howe and Nelson Street. More information including rates can found here: [http://robsonsquare.ubc.ca/find-us/](http://robsonsquare.ubc.ca/find-us/)

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**Webcast**

This course is offered via the internet as well as in the classroom. As it is a live transmission, the dates and times of the classes are the same as in the classroom. Should you wish to take this course via the internet, please complete the application form provided for webcast courses.

**System requirements for CSE Program LIVE e-learning Training:**
- Any DSL or Cable Connection at minimum of 1Mb.
- Speakers and/or headset plugged into your PC.
- PC with at least Windows 7 or XP running a processor greater than 1 Ghz. with Ram of 1 Gb or greater.