CERTIFICATE IN STRUCTURAL ENGINEERING PROGRAM

September 2010 Course Outline

E2 Timber Design of Light Residential and Commercial Buildings

Offered via the classroom and web cast

Purpose: This course is intended to provide the students with the skills and knowledge required for effective design of timber buildings using the Canadian Timber Code. The course covers the key design concepts and procedures for timber design and illustrates their application through design examples and case studies of typical residential and commercial buildings. The 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.; Partner, RDJ Structural Designs Ltd.

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

Contact: ***Robert D. Jirava:*** robert@rdjstructural.com

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

Schedule: 12 Thursdays, 7:00 P.M. to 9:00 P.M., September 16 to December 9, 2010 (Mid-term break: Oct 21)
Exception: Class will be held on Wednesday, November 10, rather than Thursday, November 11.

Venue: Alma Van Dusen Room, Vancouver Public Library, 350 West Georgia Street, Vancouver

Internet

This course is being 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 internet courses.

System requirements for CSE Program LIVE e-learning Training:

- ✓ Any DSL or Cable Connection better than 56K. (Boosted 56K also works. Please test to be sure)
- ✓ A microphone and speakers or headset plugged into your PC.
- ✓ PC with Windows 2000 or XP running a processor greater than 750 MHz. with Ram of 256 or greater.