

## Russell Richman Consulting Ltd.

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# THERM/WUFI Workshops 2012

Russell Richman Consulting Ltd. (RRCL) cordially invites you to attend the first annual THERM/WUFI Workshops on May 17, 18, and 19<sup>th</sup>, 2012 in downtown Toronto, Canada.

## **THERM Workshop Overview**

May 17 and 18, 2012 8:30am to 5pm Architecture Building, Ryerson University 325 Church Street, Toronto, ON

Cost - \$750 (+HST) visit rrcl.ca for payment options

Maximum participants is 15 (first come, first served)

Whether a beginner user or one with moderate experience, this workshop will elevate your skills and understanding of 2-dimensional conduction based simulation using THERM and WINDOW programs to model building envelope details. Focus will be placed on window assemblies and simulation to support Passive House certification as supported by PHIUS and PHI.

### **Proposed Schedule**

Day 1 (May 17, 2012)

Morning

- Heat transfer mechanisms for windows and walls
- Drawing in THERM

Afternoon

 Advanced rules and guidelines (drawing, simulating, importing) Day 2 (May 18, 2012)

Morning

- Passive House protocol
- Ψ-factor calculations for windows

Afternoon

 Simulating Passive House building enclosures (Ψ-factor calculations, ground conditions)



## **WUFI Workshop Overview**

May 19<sup>th</sup>, 2012 Core Workshop - 10am to 6pm WUFI Bootcamp (introduction) – 7:30am to 9:30am Architecture Building, Ryerson University 325 Church Street, Toronto, ON

Cost – \$400 (+HST) for Core Workshop only \$100 (+HST) additional for Bootcamp Maximum participants is 15 (core) and 10 (Bootcamp) (first come, first served) visit rrcl.ca for payment options

The intent of the Core Workshop is to build your current usage and analytical skills to support simulation using WUFI Pro software applied to building enclosures. Focus will be placed on super-insulated assemblies that support Passive House and extremely low energy building design. Your understanding of hygrothermal effects will be elevated in order to assist your analytical skills and draw conclusions from WUFI outputs.

The Bootcamp is a short, intensive introduction to the functionality WUFI. If you are new to or have minimal experience with WUFI, we recommend attending this portion of the day.

### **Proposed Schedule (Core Workshop)**

Day 1 (May 19, 2012)

Morning

Afternoon

- Hygrothermal mechanisms for enclosure assemblies.
- Output interpretation

- Inputting new materials
- Advanced rules and guidelines
- Case study exercises

#### **About the Instructor**

Russell Richman, Ph.D., P.Eng. is President of RRCL and an Assistant Professor in the Building Science Graduate Program within the Department of Architectural Science at Ryerson University. Russell has been practicing, teaching and researching in the combined fields of Building Science and Sustainable Buildings for over 15 years. RRCL has completed numerous consulting engineering projects utilizing THERM and WUFI. Russell is also a member of the PHIUS Technical Committee.