

Position Title: NetZED Case Study Laboratory GE

Supervisor: Dr. Alison G. Kwok

Work Space: NetZED Case Study Lab (dedicated desk); PAC 100

Hours per Week: 12 hours/week (0.30 FTE, 11 weeks)

Appointment terms: Fall 2018; Winter 2019

PROJECT DESCRIPTION & DUTIES

For Fall 2018 and Winter 2019 quarters, this position is for a GE to assist in the following research activities associated with the TallWood Design Institute grant, "Carbon Impacts of Cross-laminated Timber." The project could start in summer 2018 with (hourly pay) and continue in Spring 2019 (hourly pay) and end June 30, 2019. It's anticipated that GE applicants interested in the Fall/Winter GE positions would be able to participate through the duration of the grant.

The GE tasks will include:

- 1) Conducting a **literature search** (conference papers, articles, case studies, resources, key research personnel, etc.) on the potential to reduce greenhouse gas emissions by the use of cross laminated timber. This GE will also collect, read, summarize, annotate, develop topics (e.g. sequestration, carbon emissions during manufacturing process, how carbon value is calculated) , and analyze relevant literature through extensive library research in databases, journals, conference proceedings, research organization, and other relevant searches. *GE is expected to know how to conduct library research (beyond simple web searches), have excellent writing skills, and will be expected to use Zotero (online bibliographic software; Professor Kwok account).*
- 2) Gather **drawings** for selected six to ten CLT buildings in the U.S. and **calculate the carbon sequestered and released by the CLT and other materials** in the building using **Tally®** and other **LCA** carbon calculators. The GE will create case studies for each building to illustrate the embodied carbon impacts of various kinds of mass timber buildings. *GE to request a student copy of Tally® from Kieran Timberlake Architects (<https://kierantimberlake.com/pages/view/95/tally/parent:4>) and learn to use before Fall 2018 term. GE is expected to be able to use MS Word, InDesign, PowerPoint, Excel, Revit®, Tally®.* The intentions are:
 - a. Produce **six to ten case studies** (both electronic and print-ready) on carbon impacts; design layout to be developed
 - b. Co-author **an article** on the results of the literature search and case studies.
 - c. Design and develop a set of **factsheets** with terms, definitions (both electronic and print-ready) that will clearly explain some of the misunderstandings and gaps related to the topics mentioned above.
- 3) Develop a **series of hands-on** (1 hour) **exercises** to be used in workshops or classes.

REQUIRED EXPERIENCE & DESIRED SKILLS

The successful candidate should be skilled in REVIT, MS Word, Excel, InDesign, Illustrator/Photoshop, Powerpoint, and possess good communication (writing, speaking, note-taking) skills. The preferred candidate must be able to work independently, take initiative, and follow direction. No previous experience in Tally® is required, but willingness to learn and work alongside of an outside consultant for the project.

TO APPLY

Students interested in applying for this position should send a CV, brief letter of interest to Professor Alison G. Kwok (akwok@uoregon.edu). In your letter, please explain your interest in life cycle analysis, cross laminated timber, skills in writing, literature search, graphic/layout capabilities.

Deadline to apply: **April 24, 2018**; decision to be made by April 30, 2018