

SYLLABUS

Instructor Andrea Atkins (May/June)
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Rm 3012 (Friday mornings only)

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Lectures Fridays 10:00am-1:00pm
Room 1101 (Laptop Classroom)

Tutorials As needed, by request.

Course Description Architectural case studies are used to examine conceptual development, structural design, building process and selection of structural timber systems. Topics such as flexural, compression and truss members, connections, and plywood construction are studied using calculations, design aids, rules of thumb and the latest CSA design standards

Course Policies Each student is requested to bring a hand calculator to every class meeting. All other electronic devices, such as computers, cell phones, tablets, etc., are prohibited from use in class at all times. The exception to this rule is any device necessary for the accommodation of a student with special needs.

Text Book 2017 Wood Design Manual, Canadian Wood Council
+ Portions of the 2012 Ontario Building Code (Made available online)

Grading Final marks will be calculated on the following basis:

Assignment 1	10%
Midterm Exam	30%
Assignment 2	30%
Final Exam	30%

Assignments Assignments are to be completed outside of class time as an individual effort. Students are encouraged to consult each other or work through problems together, however, plagiarism is not permitted. Each piece of copied work will receive the grade earned, divided by the number of copies submitted. Late assignments submitted within 48 hours of the deadline will receive a 50% penalty. After 48 hours, the work will be graded but will receive no credit.

Exams Both the Midterm and the Final exam will be open-textbook exams. Students will be responsible for all material covered in the course, both in-class and in-textbook. You are welcome to write, highlight, flag, or otherwise add any material you wish into your textbook. (i.e. examples, formulae, diagrams, inspirational notes, etc.).

Avoidance of Academic Offenses

Academic Integrity In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. Refer to the Academic Integrity website (<https://uwaterloo.ca/academic-integrity/>) for details.

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- Grievance** A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4, (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-70>). When in doubt please be certain to contact the department's administrative assistant who will provide further assistance.
- Discipline** A student is expected to know what constitutes academic integrity to avoid committing an academic offense, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offense, or who needs help in learning how to avoid offenses (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate Associate Dean. For information on categories of offences and types of penalties, students should refer to Policy 71 (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-71>) Student Discipline. For typical penalties check Guidelines for the Assessment of Penalties, (<https://uwaterloo.ca/secretariat/policies-procedures-guidelines/guidelines/guidelines-assessment-penalties>).
- Appeals** A decision made or penalty imposed under Policy 70 (Student Petitions and Grievances) (other than a petition) or Policy 71 (Student Discipline) may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72 (Student Appeals) www.adm.uwaterloo.ca/infosec/Policies/policy72.htm .
- Note for Students with Disabilities** AccessAbility Services (<http://uwaterloo.ca/disability-services/>), located in the new addition to Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for with students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with the office at the beginning of each academic term.
- Issued** May 10, 2019

SCHEDULE

- Friday, May 10 introduction, wood as a building material, the wood design handbook assignment 1 introduced (AA)
- Friday, May 17 design methods in wood, design of tensile elements (AA)
- Friday, May 24 design of compression members (AA)
- Friday, May 31 design of bending members (AA)
- Friday, June 7 member design with combined loading, assignment 1 due (AA)
- Friday, June 14 midterm exam (2.5 hours) (AA)
- Friday, June 21 wood framing principles, engineered lumber materials (CB)
- Friday, June 28 NO LECTURE
- Friday, July 5 connection design, bearing (CB)
- Friday, July 12 lateral systems, stud walls, plywood, hold-downs assignment 2 introduced (CB)
- Friday, July 19 building classification, fire code, fire resistance (CB)
- Friday, July 26 part 4 buildings, rules of thumb, assignment 2 due (CB)
- Friday, August 9 final exam (2.5 hours) (CB)
e-classroom