

**ARCH 331: WORKING WITH WOOD: The Fundamentals**  
**A Design & Fabricate Workshop**

Spring 2018

Instructor: Heinz Koller  
Email: [hkoller@uwaterloo.ca](mailto:hkoller@uwaterloo.ca)  
Ext: 27659  
Instructor: Dan Jessel  
Email: [djessel@uwaterloo.ca](mailto:djessel@uwaterloo.ca)  
Ext: 27646

Office: ARC 1006B  
Class Time: Wed. 1:00pm-3:50pm  
Class Location: Room 1006 Fabrication Labs  
Office Hours: 9:00am-5:00pm Mon-Fri.

**COURSE DESCRIPTION**

This course is an introduction to basic woodworking skills and procedures using a combination of lectures and hands-on experience. In the first half of the course, students will complete a project assigned to them as primarily a skill-building exercise. The second half of the term will pursue a project of the students personal agenda with proposals individually researched and executed. Proposals will require approval by the instructor to insure they meet criteria of developing woodworking skills and techniques, as well as gaining an appreciation for craftsmanship. As part of the final submission students are expected to present their piece to a review committee and provide documentation including photos of the piece and a brief description of the process.

**LEARNING OBJECTIVES**

With the premise that manual or hand skills can facilitate and help inform conceptual and academic skills, the course provides a broad-based introduction to woodworking equipment and its fabrication methods and methodology. The projects and lectures are designed to equip students with the basic skills and knowledge required to design, fabricate and finish a designed object from wood. The educational objectives seek to stimulate and develop knowledge of process and command of skills, and foster appreciation, not only of the craft, but also the related arts.

**COURSE REQUIRES**

*Projects, Lectures, Field Trips* This course is structured to interweave various learning devices. There will be regular lectures as well as workshop projects. Some field trips are planned. Since the course meets only once a week, self-pacing and attendance at all classes and field trips are important.

**TEXT**

There are no specific texts required for this course.

**COURSE EVALUATION:**

The chart below indicates the milestones and mark breakdown for the course.

Project 1	45
Quizzes	10
Project 2	35
Process & Progress	10
<b>Total</b>	<b>100</b>

**FINAL EXAM:** There is not a final exam for this course.

## COURSE SCHEDULE:

WEEK:	DATE:	Course Components:	LECTURES:
WK 1	May 02	Intro Project 1: The Box	Wood as a Material: safety
WK 2	May 09	Field Trip: A&M Hardwoods	Measuring, Layout & Material Breakout
WK 3	May 16		Panels & Machining
WK 4	May 23		Joinery
WK 5	May 30		Adhesives, Fasteners & Hardware
WK 6	Jun. 06	Quiz	Veneers
WK 7	Jun. 13	Intro to Project 2:	Design & Engineering
WK 8	Jun. 20		Sanding
WK 9	Jun. 27		Finishing
WK 10	July 04		Curves in Wood
WK 11	July 11		Turning
WK 12	July 18		
WK 13	July 25	Quiz	End of lectures/Classes
WK 14	August 01	Projects Due	
WK 15	August 08		

## ATTENDANCE:

Perfect attendance is not mandatory however, as the critical assessments are invaluable for design development and academic performance, it is highly recommended that students participate and attend as many classes as possible (if not all). Note that critical lectures on specific equipment demand student attendance for safe operating procedures.

## LATENESS PENALTY:

All assignments are due on the date and time set by the professor. Requirements for exemptions or compassionate considerations are to be discussed with the professor in advance as soon as possible. If a student is ill and unable to complete assignments, a legal doctor's certificate must be submitted to the instructor prior to, or at the time of the actual review. By having submitted a project the student has acknowledged his condition of health and will no longer be in a position to argue the validity of the outcome on the grounds of ill health.

## DEADLINES:

All late assignments will be penalized in accordance to the UW standard parameters (5% per day). The scheduling allows for flexibility however students must be vigilant and industrious in order to meet the deadlines.

## OPTIONAL REFERENCE BOOKS /PERIODICALS:

The Encyclopedia of Woodworking  
Mark Ramuz  
Oceana Books, 2007  
ISBN978-1-84573-270-7

Understanding Wood: A Craftsman's guide to wood Technology  
R. Bruce Hoadlley  
Taunton Press, 2000  
ISBN: 1-56158-358-8

Shaping Wood: The Complete Illustrated Guide to  
Lonnie Bird

Taunton Press, 2001  
ISBN: 1-56158-400-2

Wood Working 1&2: the Artisan Course  
Paul Sellers  
Artisan Media Ltd. 2011  
ISBN: 978-0-9569673-0-5

Joinery: The Complete Illustrated Guide to  
Gary Rogowski  
Taunton Press, 2002  
ISBN 1-56158-401-0

Furniture & Cabinet Construction: The Complete Illustrated Guide to  
Andy Rae  
Taunton Press, 2001  
ISBN 1-56158-402-9  
Modern Cabinetmaking  
William D. Umstattd, Charles W. Davis  
The Goodheart-Willcox Company, Inc  
ISBN 1-59070-376-6

The Complete Book of Stationary Power Tool Techniques  
R.J. De Cristoforo  
Popular Science Books.1985

Fine Woodworking Magazine  
Taunton Publications

The Soul of a Tree: A Master Woodworkers Reflections  
George Nakashima  
Kodansha International; Sep 1 1988  
ISBN-10: 0870119036  
ISBN-13: 978-0870119033

The Craftsman  
Richard Sennett  
Yale University Press (Mar 31 2009)  
ISBN-10: 0300151195  
ISBN-13: 978-0300151190

The Nature and Art of Workmanship  
David Pye  
Fox Chapel Publishing; Revised edition (July 1, 1995)  
ISBN-10: 0964399903  
ISBN-13: 978-0964399907

Shop Class as Soulcraft: An Inquiry Into the Value of Work  
Matthew B. Crawford  
Publisher: Penguin Press HC, The; 1 edition (May 28, 2009)  
Language: English  
ISBN-10: 1594202230  
ISBN-13: 978-1594202230

The Thinking Hand (Architectural Design Primer)  
Juhani Pallasmaa  
Publisher: Wiley; 1 edition (May 12, 2009)  
Language: English  
ISBN-10: 0470779292  
ISBN-13: 978-0470779293

#### **AVOIDANCE OF ACADEMIC OFFENSES:**

Students are expected to know what constitutes academic integrity, to avoid committing academic offenses, and to take responsibility for their actions. Students who are unsure whether an action constitutes an offense, or who need help in learning how to avoid offenses (e.g., plagiarism, cheating) or about rules for group work / collaboration should seek guidance from the course professor, TA, academic advisor, or the Undergraduate Associate Dean. For information on categories of offenses and types of penalties, students should refer to

Policy #71, Student Academic Discipline,  
<http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm>

**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. [Check [www.uwaterloo.ca/academicintegrity/](http://www.uwaterloo.ca/academicintegrity/) for more information.]

**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, [www.adm.uwaterloo.ca/infosec/Policies/policy70.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy70.htm). 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 [check [www.uwaterloo.ca/academicintegrity/](http://www.uwaterloo.ca/academicintegrity/)] to avoid committing an academic offence, and to take responsibility for his/her actions. A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (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, Student Discipline, [www.adm.uwaterloo.ca/infosec/Policies/policy71.htm](http://www.adm.uwaterloo.ca/infosec/Policies/policy71.htm). For typical penalties check Guidelines for the Assessment of Penalties, [www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm](http://www.adm.uwaterloo.ca/infosec/guidelines/penaltyguidelines.htm).

**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

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](http://www.adm.uwaterloo.ca/infosec/Policies/policy72.htm).

**Note for Students with Disabilities:** The Office for Persons with Disabilities (OPD), located in Needles Hall, Room 1132, collaborates with all academic departments to arrange appropriate accommodations for 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 OPD at the beginning of each academic term.

**Turnitin.com:** Plagiarism detection software (Turnitin) will be used to screen assignments in this course. This is being done to verify that use of all material and sources in assignments is documented. In the first week of the term, details will be provided about the arrangements for the use of Turnitin in this course.

Note: students must be given a reasonable option if they do not want to have their assignment screened by Turnitin. See: <http://uwaterloo.ca/academicintegrity/Turnitin/index.html> for more information.