

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

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Class Time: Tues. 9:30am-12:30pm
 Class Location: Rm 1006 Fabrication Labs: alab (analog machine lab)
 Office: ARC 1006B
 Office Hours: 9:00am-5:00pm Mon-Fri.

COURSE DESCRIPTION

An introduction to the fundamentals of woodworking with an emphasis on skills, materials and processes through a combination of lectures, demos and a lot of hands-on exploration. The first half of the course will be structured as a skill building exercise in which students will complete a project with a set of assigned design, detail and material requirements. The second half of the term will allow students to pursue projects with more of a personal agenda with proposals being more individually researched and executed. Proposals will require approval by the instructors to insure they meet criteria of developing the expected skill sets and techniques, as well as developing 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
Total	100

FINAL EXAM:

There is not a final exam for this course.

COURSE SCHEDULE:

WEEK:	DATE:	Course Components:	LECTURES:
WK 1	Sept. 12	Intro Project 1: The Box	Wood as a Material: safety
WK 2	Sept. 19		Measuring & Layout
WK 3	Sept. 26	Trip: AGM Hardwoods	Material Breakout
WK 4	Oct. 03		Panels & Machining
WK 5	Oct. 10		Joinery
WK 6	Oct. 17	Quiz	Adhesives, Fasteners & Hardware
WK 7	Oct. 24	Intro to Project 2:	Veneers & Veneering
WK 8	Oct. 31		Design & Engineering
WK 9	Nov. 07		Sanding
WK 10	Nov. 14		Finishing
WK 11	Nov. 21		
WK 12	Nov. 28		
WK 13	Dec. 05	Quiz	End of lectures/Classes
WK 14	Dec. 12	Projects Due	
WK 15	Dec. 19		

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/ 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. 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/) 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. For typical penalties check Guidelines for the Assessment of Penalties, 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.

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.