ARC 328W / 392W
Wood Design

Instructor – Mark Maček
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Objectives
Practice woodworking skills: tool sharpening, millwork, joinery, gluing, & sanding.
Learn the characteristics of the material wood, including specific species.
Analyze the strength of wood joints.
Design a piece of furniture based on a program, with materials and techniques in mind.
Understand the point of view of the maker within the design process.
Complete the final project.

Schedule
The first six weeks, we practice solid wood joinery using hand tools and power tools. This is a crucial time to attend every day and stay current. There will be an assignment each week due on Tuesday morning. Students sharpen chisels and mill lumber to S4S. Our discussions are grounded in wood’s cellular structure and anisotropy. Strength derives from long grain, weakness from the lack of long grain. Changing moisture content creates expansion and contraction parallel to the annual rings. This is a crucial time to attend every day and stay current. There will be an assignment each week due on Tuesday morning. We will study furniture design history and visit the shops of Austin craftsmen to see how they work.

The final project is one piece of furniture of your choice of program. It must be mostly solid wood, no digital fabrication, and no larger than 20 cu.ft. Plywood is allowed as a secondary material. Final project design assignments include iterations of sketches, scaled drawings, models at 3”=1’-0”, and full-scale mock-ups. The class holds two design reviews before construction begins, allowing seven weeks for completion. The class participates in school-wide final reviews with other design studios. Begin now thinking about what you want to build for your final project. On the seventh week, your proposal will be locked in.

Readings
Required reading: The Nature and Art of Workmanship by David Pye.
There will be handouts. List of bookmarks at www.diigo.com/user/wooddesign
Design History images on Canvas
Grading
First 6 weeks 25%
Final project 75%
The first six weeks are graded on effort, timeliness, and craft. I evaluate final project designs based on intent (expression of a design idea), process (self-criticism, iterations, variations), and resolution (effort and craft). After the last day of the semester, the wood shop hours are shortened. A grade of incomplete will only be granted for illness or family emergency.

Safety Training
All students must take two forms of shop safety training. One is John Vekho’s shop safety orientation. Two is UT’s Environmental Health and Safety department (EHS) online training module (https://utdirect.utexas.edu/ehs/class.WBX?s_course_comp=0&s_course_prefix=OH&s_course_number=0500). After watching the videos, each student must pass a short exam to complete the training.

Accommodations
Students with disabilities may request appropriate academic accommodations from the Division of Diversity and Community Engagement, Services for Students with Disabilities, 471-6259.

Absence policy
Four unexcused absences will result in a full letter drop in your grade for the semester. Contact me ahead of time if you plan to miss class, and notify me as soon as possible if you are sick or have a family emergency. By UT Austin policy, you must notify me of your pending absence at least fourteen days prior to the date of a religious holy day. You will be given an opportunity to complete the missed work within a reasonable time after the absence. Please keep me informed so that I can help you.

Required supplies
Lock for desk
Tape measurer, combination square, 1” chisel
Dust masks. The good ones have two straps.
Lumber

Keep the shop clean
CLEAR your bench top and sweep the floor at the end of work day. The only available scrap wood is in the scrap bins. When gluing, cover the bench top with newspaper or wax paper.

Observe safety rules and tool maintenance
Wear hearing, eye, and respiratory protection.
No MDF. No reclaimed lumber unless specifically approved.