

**ARC 328W / 392W****Wood Design**

Unique # 00765 / 01050

Fall 2018

TTh 2:30 - 5:30 pm

GOL 1.108

*Instructor – Mark Maček**mmacek@utexas.edu*

office hours

By appointment

GOL 1.100

**Objectives**

Practice woodworking skills: tool sharpening, millwork, joinery, gluing, &amp; 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.

Week 1, Sep 3 - properties of wood, milling, sharpen chisel, S4S due Sep 6

Week 2, Sep 10 - half lap joint, Japanese saw, design history, Box due Sep 11

Week 3, Sep 17 - joinery, discuss David Pye, Block due Sep 18

Week 4, Sep 24 - how to buy lumber, field trip, final project Schematic Design review Sep 25

Week 5, Oct 1 - dovetails, glue and fasteners, Handle due Oct 2

Week 6, Oct 8 - species, curved wood, 3"=1' scale model, Design Development review Oct 9

Week 7, Oct 15 - full-scale joinery details, buy lumber, schedule for final project

Week 8, Oct 22 - work on final project, desk crits

Week 9, Oct 29 - work

Week 10, Nov 5 - work

Week 11, Nov 12 - work

Week 12, Nov 19 - work, Thanksgiving

Week 13, Nov 26 - work

Week 14, Dec 3 – work, Final Review Dec 7

**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](http://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](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.