

Carpentry

Design/Build



Spring 2013, the Saxifrage School

Course description

We will work on two major projects:

1. Designing and fabricating a small custom furniture piece; 2. taking part in a small-scale construction project (possibilities include a tiny house/shed, chicken coop, etc.). In addition to hands on experience, you will learn about the history, philosophy and practice of residential construction and sustainable carpentry methods.

Course objectives

This course will help to develop an understanding of design and construction methods, design development and design communication through the design and construction of a small furniture piece and a small shelter project. Throughout the 12 weeks we will learn basic construction skills including project planning, layout and measuring, and safe hand and power tool use. We will also ask questions and discover some answers about the relationships between 'designing' and 'building'.

Course Readings

There are some readings that will help us come to class with an understanding of some different approaches to the design/build process as it relates to both furniture building and shelter building. These readings will vary from broad design philosophy to specific construction techniques. The purpose of these readings is to introduce us to the many different views and methods used in design and construction. The readings will also be used to inform class discussions and exercises.

Materials Needed

Students will need to come to the first class with some of their own basic tools. If purchasing these tools is problematic, please make an effort to borrow them from someone you know.

Safety glasses*

Ear protection*

Dust mask*

Pencil (#2 pencils work great)

Utility knife

Tape measure

6" combination square

If you are able to, please bring...

woodworking chisels (1/2", 3/4", 1")

T-bevel

Speed square

Any special pieces of wood you would like to incorporate in your project

Instructor: Wade Caruso

awcaruso@gmail.com • 814 571 8540 • Office hours 12:30 - 5:30 PM Wed.

Class begins on Feb. 27th and runs every Wednesday from 6 – 9pm; if you don't eat beforehand, bring your own dinner to the class to eat during break.

Please read 'A Place of My Own' by M. Pollan before coming to the 1st class

Week 1

Jan 1 – 5

- Design/build discussion through 'A Place of My Own' by M. Pollan
- Project(s) intro
- Shop safety and Basic Milling

Extra Notes: Read 'Not sure yet' by Christopher Alexander for second class

Week 2

Jan 8 – 13

- Design/build discussion through Christopher Alexander reading
- Begin furniture project design
- What is your project for?
- More basic milling

Week 3

Jan 16 – 20

- Drafting and Design Communication
- Material, Structure and Joinery
- Measuring, layout

Extra Notes: Continue design for presentations during week 4

Week 4

Jan 22 – 27

- Furniture project design critiques and discussion

Extra Notes: Finalize design for next class when construction begins

Week 5

Jan 29 – Feb 4

- Begin building furniture project
- Milling and layout
- Intro to shelter project

Extra Notes: Complete reading on (A book describing the standard concept driven design method)

Week 6

Jan 16 – 20

- Continue milling and layout for furniture project
- Shelter project design discussion: Site analysis and design program

Week 7

Jan 1 – 5

- Begin joinery on furniture project
- Shelter project design: material and structural concerns

Extra Notes: Continue to work on shelter design for next class critique

Grading

There will be no grades given. We recommend you thoroughly document your work during the course through writing and photography so you can include proof of your work in your professional portfolio.

Week 8

Jan 8 – 13

- Continue joinery on furniture project
- Shelter design critique: class will choose which design to construct as a class

Extra Notes: Class will *finalize design and acquire materials for the next class when construction begins*

Week 9

Jan 16 – 20

- Finish joinery on furniture project and begin assembly
- Begin construction of shelter project: milling and layout

Week 10

Jan 22 – 27

- Finish assembly of furniture project
- Continue shelter project construction

Week 11

Jan 29 – Feb 4

- Furniture project wrap up and discussion
- Continue shelter construction

Extra Notes:

Week 12

Jan 16 – 20

- Shelter construction wrap up and discussion
- Review of work