

CRAFT IN THE DIGITAL AGE

CourseNo: ARCHA4798_001_2015_1

Meeting Time: R 06:00P-08:00P

Instructor Information:

[Nathaniel R Carter](#)

[A4798 Craft in the Digital Age](#)

A4798 Craft in the Digital Age

Nathan Carter Thursday 6 - 8pm Fabrication Shop (1st Floor, Schermerhorn Ext.)

What is the role of craft in architecture?

The skills of the architect are now dedicated to the digital. The making and testing of a project can take place entirely in the computer, but without an intimate understanding of materials and techniques of making, the architect's digital work has limited efficacy.

Making and testing belongs within the larger feedback loop of design.

The aim of the class is twofold:

- To explore craft, developing a personal understanding of materials, tools, and techniques to directly inform the design process.
- To frame this exploration in a larger context of analog and digital design and fabrication, highlighting efficiencies and limitations, and rethinking the orchestration of the two by the designer.

The class is structured around hands - on exercises in the Fabrication Shop. Students will become proficient with a number of tools, and we will test construction and joinery techniques. We will discuss tolerances, material properties/constraints, and work - flow/logic.

During the semester, students will design and fabricate Seating Units. Each seating unit will be made primarily of wood and must support a person (or persons) sitting. Students will start by designing a single person seating unit for Assignment #1. After we review the first assignment, students will have the opportunity to update/improve upon that design for Assignment #2.

The final project is to design and fabricate a multi - person seating unit that demonstrates an understanding of materiality, tools, and techniques developed from our exploration of craft. This could be one construct at a scale that accommodates multiple people, or it could be a development on the aggregation of multiple single person seating units. Students will be expected to produce a mock-up of their final project for Assignment #3. Depending on the design of the final project, this could be tests of specific joints and techniques, or full scale prototyping with inexpensive materials.

All projects can be done in pairs.

This class requires a significant amount of hands on work. Students will need to set aside time each week to work in the Fabrication Shop. Some materials might be available for the first two assignments, but students will be expected to purchase materials for their final projects. Nathan will help coordinate wood orders for delivery.

A portion of the grading for the class will be based on documentation of the work. Students are required to turn in high quality photos and drawings of their projects.

Outline of Class:

Week 01: Saws and Wood Joinery

Mini-Assignment- Make 3 test joints

Week 02: Drills, Routers, Fasteners, and CNC Routers

Assignment #1- Make one Seating Unit

Week 03: Hand Tools, Jigs, and Continuation of CNC Routers

Bring completed Assignment #1 to class

Assignment #2- Improve design of assignment one and make a new Seating Unit

Week 04: Lamination, Gluing, and Clamping

Assignment #3- design final project and do a mock-up

Week 05: Lamination Continued, Discuss Final Assignment

Bring Completed Assignment #2 to class

Week 06: Sanding and Finishing, Discuss Final Assignment

Bring Completed Assignment #3 to class

Final Assignment

Final Review