

Art 121 Three Dimensional Design
Professor: Rob Walker-Bunda
Spring 2023

Course Objectives

This course is designed to introduce you to the fundamental aspects of designing and creating structures in three dimensions. The big difference between two dimensional imagery and three dimensional form is that three dimensional objects exist in our space, they occupy space and interact with it in a way that two dimensional imagery does not. This creates challenges in that a three dimensional object can be viewed from all sides and therefore nothing is hidden from view. All aspects of a three dimensional form are integrated into how it is perceived and how it is understood. In addition, three dimensional forms have to contend with gravity in a very fundamental way, i.e., they have to stand on their own. In this course you will begin with basic forms and construction methods using easily obtained materials and as your skill level and visual understanding expand, the forms will become more complex and incorporate more intricate conceptual ideas.

The fundamental objectives of this course are:

1. Developing the critical thinking skills necessary to work from conceptual idea to formal reality.
2. Developing an understanding of the working process involved with creating three dimensional forms.
3. Developing a fundamental understanding of the aesthetics of “interesting forms” versus “less interesting forms”.
4. Developing good construction techniques resulting in “clean” final works. Emphasis will be placed on demonstrated understanding of these four fundamental objectives.

Project 1. *The Serial Plane.*

The transition from two dimensions to three dimensions can be confusing therefore, you will begin by creating a form that is not quite fully three dimensional. Using foam board, you will create a form using parallel, serial planes attached to a base. The base will act as a visually neutral space on which the form will exist. After a technical demonstration on how to work with the material, you will be expected to create a visually interesting form that creates visual tension between the apparent solidity of

the form from certain angles and the “open” aspects of the form viewed at a right angle to the parallel, serial planes. Specifics parameters of the form to be created will be discussed in class.

Project 2. The Humble Cube.

The cube is one of the most basic three dimensional forms that can be made. It is deceptively simple in appearance but it is effective as a building structure due to it's six facets and uniform structure. You will create a series of cubes necessary to construct a free-standing structure[no base] that is at least 16”x16” in dimension. No one cube can be larger than 4” in any facet dimension and each cube must be altered identically in some way [what you do to one you have to do to all of them]. This could be an opening in one or all of the facets, leaving one facet open, open corner[s], etc. Emphasis will be placed on creation of a free-standing form that is both structurally sound and visually interesting from all sides.

Project 3. The Rectangle.

Like the cube, the rectangle is a deceptively simple form. However, unlike the cube the rectangle with it's longer facets and shorter facets, creates different construction possibilities. You will make a series of rectangles necessary to construct a free standing form that is at least twice the vertical height as the horizontal height. In other words twice as tall as it is wide. Each of the rectangles can not exceed 4”x 8” in any facet and like the previous project, each of the rectangles must be identically altered in some way[see above]. The final object should be at least twice as tall as it is wide. The minimum size of the final object cannot be smaller than 8”x 16”. Emphasis will be placed on the creation of a free-standing form that is structurally sound, visually interesting from all sides and emphasizes the verticality of the structures.

Project 4. The Horizontal

In the previous project you created a form that emphasized the vertical now, you will create a structure that emphasizes the horizontal. This presents some challenges in that to create a form that emphasizes the horizontal, you must overcome the tendency of horizontal forms to appear heavy and visually dull. Your challenge is to create a freestanding horizontal form that emphasizes the horizontal without appearing heavy and visually inactive. Now that you have had some experience with the materials and what they will or won't do, you will have a bit of liberty with the basic structures you can use to create the final form. Unlike the previous projects, you will not be restricted to using solid forms as building elements[cubes, rectangles] you can experiment with different basic building shapes. Having said this however, there are some parameters

for the shapes that can be used. You can use a maximum of two different shapes [square and rectangle, hexagon and triangle, square and hexagon, rectangle and triangle, for example] but only two. Each of the two shapes can be scaled up or down in size but must be identically altered in some way. No dimension of any shape can exceed 4" and the final form must be a minimal of 16" horizontally and 8" vertically i.e. a 2:1 ratio. These dimensions can be exceeded as long as the 2:1 ratio is maintained. Emphasis will be placed on creating a free-standing horizontally oriented structure that is visually interesting from all points of view.

Project 5. Your Size

As your final project, you will use all of the concepts and skills you have developed to create a freestanding structure that is at least half your size. You may go vertical or horizontal in orientation but you must maintain the 2:1 ratio. You may use up to three different shapes and any alterations to the basic shapes must be done to all of them. The exception being methods of joining the shapes. This will be explained in class. No one piece may exceed 16" in any dimension. Emphasis will be placed on creating a freestanding structure that is at least half your height that creates visual interest from all perspectives. Extra credit will be given to any structure that achieves your full height.

Materials: The following list of materials contains the minimal amount of tools and materials you will need to successfully complete the course. There may be others you choose to pick up to make things easier on yourself. These will be discussed in class.

1. A Utility Knife [box cutter].

with replacement blades. I don't care what brand as long as the blade is stable [doesn't wobble when used]. It is imperative that you get extra blades in that as the blades get dull, they will tear the foam board versus cutting it and that creates some rough areas that are detrimental to the visual appearance of your final project. Also, you may want to pick up an Exacto knife for smaller cuts as the utility knife is not good for detailed cuts.

2. A Stainless Steel, Cork-Backed Ruler.

that is at least 18" long. This is a must! It is virtually impossible to make a straight cut without a ruler and you will need to have the ruler to accurately measure the pieces you will cut.

3. Glue.

There are hundreds of different glues out there and they all have different properties. Some dry slower but hold better, some dry faster but don't bond as well. Whichever

glue you choose, make sure to read the label to find out what it will or will not adhere to. You may also try to use a hot glue gun although as with other glues, there are different types with different properties.

4. A Mechanical Pencil.

Get whatever type you want but make sure you don't get a lead larger than 0.7 mm. Also make sure to get an eraser.

5. Some Type of Sketching Pad.

This is not a drawing course so you don't have to get one with nice drawing paper, just something to work out ideas in and outside of class. It is important that you have this because you will be expected to show works and ideas in progress in class. There are plenty in Fincher Hall that have been left behind by previous classes and are yours to use if you don't mind tearing out some pages up front. See me.

6. Drafting Tape or Painter's Tape.

This will be needed for the construction of your projects to hold them together while the glue dries.

7. Foam board. This will be provided for you in class.

Others to be discussed in class.

Class Logistics. Due to safety protocols regarding Covid, it is necessary to keep class sizes small. Depending on the final course numbers, we may have to split the class into two groups i.e. half the class will meet on Tuesday and the other half on Thursday.

Grades.

A= 100-90: Superior Completion of all course criteria on time and full attendance to all classes.

B= 89-79: Above Average Completion of all course criteria on time and full attendance to all classes.

C= 79-69: Average Completion of all course criteria on time and full attendance to all classes.

D= 68-58: Below Average Completion of all course criteria on time and full attendance to all classes.

F= 57-0: Failure to Complete any of the course criteria and five unexcused absences.

Contact Information.

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Notes about class.

It is very difficult to successfully complete this class if you don't attend each technical session as this is where new techniques and projects are introduced. Also, it is important to maintain a rational work ethic i.e., don't put things off till the last minute. Working in three dimensions takes time and if you don't put in the time and experimentation it will be reflected in your final work.

Notes about Covid.

Hopefully we will be able to complete the semester with F-T-F classes but if we are forced to go to online, we will follow procedures to be discussed on the first day of class.