**COURSE IDENTIFICATION**

**Course Title**: Foundations 3D design

**Description and Prerequisites**

This is a required course for all art majors, providing them with a foundational knowledge of three-dimensional media and an understanding of working with form, space, and the manipulation of physical art media.

**Textbooks and Required Materials**

*Design Basics 3D*, 1st ed, by Richard Roth and Stephen Pentak (Cengage) Note: this is available as an e-book at a reduced cost to the student.

Students should have basic materials such as sharp scissors, Xacto knife, ruler, pencils, Sharpies, masking tape, Scotch tape, and a hot glue gun. Other materials may be required for specific projects

**COURSE OUTCOMES & OBJECTIVES**

| Outcomes | Objectives |
|---|---|
| Knowledge | |
| Understand the history, current issues, and direction of the artistic discipline | Gain functional knowledge of the history and theory of sculpture. |
| Place works in the historical, cultural, and stylistic contexts of the artistic discipline | |
| Use the technology and equipment of the artistic discipline | Gain functional knowledge of the possibilities and limitations of sculptural materials; acquire knowledge and skill in the use of basic tools, techniques and processes to form work from concept to product. |
| Skills | |
| Use the elements and principles of art to create artworks in the artistic discipline | Develop basic understanding of basic design principles in 3D design and use these principles to address a specific aesthetic intent. |
| Create artwork that demonstrates perceptual acuity, conceptual understanding, and technical skill | Develop solutions to specific design problems through the creation of 3D works. |
| Analyze and evaluate works of art in the artistic discipline | Develop skills in the evaluation and analysis of 3D works. |
| Synthesis | |
| Produce artworks demonstrating technical | Prepare sculptural works using broad range |

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|---|---|
| skill and disciplinary knowledge | of techniques and concepts. |
| Use knowledge of art and disciplinary vocabulary to analyze artworks | Develop content-area knowledge and vocabulary. |
| Participate in critiques of own work and work of others | Apply content-area knowledge and vocabulary to evaluation of works during critique. |

**CLASS SCHEDULE**

| Week | Date | Topics and Assignments | Assessments |
|---|---|---|---|
| 1 | | Course Introduction | Read Ch. 1 and 2<br>Journal entry<br>Construct: Found object robot |
| 2 | | Structural Integrity | Read Ch. 6<br>Journal entry<br>Construct: Container for egg using only 1 sheet of poster board and tape |
| 3 | | Form and Surface | Read Ch. 5 and 8<br>Journal entry<br>Construct: foam core dodecahedron with finished surface |
| 4 | | Metals | Read Ch. 3 and 4 (quiz Week 8)<br>Journal entry<br>Construct: wire sculpture of a shoe |
| 5 | | Studio Visits | 200-300 word Response Paper for each visit<br>Journal entry |
| 6 | | Paper or Plastic | Journal entry<br>Construct: representational 3D form made of paper or plastic |
| 7 | | Wood<br><br>Writing an Artist's Statement | Construct: lidded box with exterior finish and Futurist botanical wood sculpture<br>Journal entry<br>Compose Artist's Statement—due at mid-term critique |
| 8 | | Mid-Term Critique | Mid-term Critique |
| 9 | | Wood, continued | (see week 7) |

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|---|---|---|---|
| 10 | | Ceramics | Read Ch. 8 and 9 |
| 11 | | | Journal entry<br>Construct: slab-built construction and wheel-thrown construction. Must be glazed and fired. |
| 12 | | Mixed Media | Construct: sculptural object demonstrating unexpected texture |
| 13 | | | |
| 14 | | Writing a Personal Statement | Journal entries<br>Compose Personal Statement |
| 15 | | Final Critique | Final Critique<br>Personal Statement due |

**ASSIGNMENT & ASSESSMENTS**

| Assessment | Value (of 100) |
|---|---|
| Student participation in class discussions and activities; attendance at studio visits | 10 |
| Student participation in class activities | 10 |
| Student projects—45 points total<br>1. found-object robot (5)<br>2. dodecahedron (5)<br>3. wire shoe (5)<br>4. paper or plastic sculpture (5)<br>5. lidded wood box (5)<br>6. Futurist botanical wood sculpture (10)<br>7. 2 ceramic objects (10—5 each) | |
| Multi-media project-“Unexpected Texture” | 10 |
| Studio Visit response papers | 5 |
| Journal/Sketchbook | 10 |
| Participation in critique | 10 |

Attachments-1

Written directions for assignments

- Your first assignment will be to construct a robot from found materials.
    - Except for the materials used to hold the construction together, the components should all be commercially manufactured objects you re-purpose for the project.
    - You may alter these to suit the construction, but you are not to fabricate new components out of metal, clay, wood, or other substances.
        - Cardboard boxes
        - Cans, bottles, jars
        - Cardboard tubes
        - Hot glue, wire, epoxy
- Consider the nature of a robot as a mechanical, man-made object.
- Remember what you know about the Elements and Principles of Art and Design
    - proportion, balance, unity…
    - Aesthetic appeal
- The finished robot should be no smaller than your shoe and no larger than your bicycle
- It must be able to stand unassisted
- It does not need to be humanoid, but its form and imagined function should be evident.
- It should have personality and portray a sense of whimsy
- The materials you used to construct it should be identifiable—do not paint or cover the exterior of the robot.

Read Ch. 1 and 2 in *Design Basics 3D*

Journal:

- What concerns you most about this course?
- What excites you most about this course?
- What ideas in your reading did you find to be surprising or inspirational?
- What ideas did you disagree with? Why?

- You will use your sketchbook as a journal. This is an important tool to record your educational journey in this course.
- You may type your written responses and paste them in to the journal if you prefer. If you have illegible handwriting, this is highly recommended.
- You must bring the journal to every class. We'll use it to work out many ideas.
- Every page must have a date. Titles are recommended, too.

2

- You will use your knowledge of structural integrity to conduct the classic Egg-Drop Challenge: construct a container that will allow a raw egg to survive a 12-foot drop without breaking.
- The only materials you may use are one sheet of poster board (provided to you)and Scotch tape.

- Work out your ideas by constructing prototype designs with your own paper goods—use the poster board only for your final product.

Read Ch. 6 in Design Basics 3D before attempting to construct your project. Do not complete your journal entry until after you have finished the project's construction.

Journal:

- Which concepts in the chapter did you find to be most applicable to your construction?
- What problems or challenges did you encounter as you worked? How did you solve them?
- Are you satisfied with your project? Why or why not?

3

- Construct a dodecahedron out of foam core board.
- It must be made of a single sheet, not individual pieces
  - if it is unfolded, it should form a net, as we practiced in class.
  - Use a Xacto knife to score the foam core—don't cut all the way through.
- Paint or apply another finish treatment to the outside of the form to create a new form (false shading, tromp l'oeil, etc…)
- Use hot glue to hold the construction together. No glue should be visible in the final object.
- Due Week 4

Read Ch. 5 and 8 in *Design Basics 3D* before beginning your project. Do not complete the journal entry until you have finished the project.

Journal:

- Which concepts in the chapter did you find to be most applicable to your construction?
- What problems or challenges did you encounter as you worked? How did you solve them?
- Are you satisfied with your project? Why or why not?

4

- You will make a wire sculpture of a shoe. (This might remind you of a drawing you've done in the past.)
- You are not striving for mechanical perfection in this project, but rather for the gestalt of a shoe.
- You may cut, bend, twist, wrap or use other techniques, but no glue, soldering, or fasteners are allowed. The only material you may use is wire. If you wish, you may use wire of different gauges within the same project. (Fine wire for fine details; heavy wire for overall structural elements.) You may use wire of different colors or plastic-coated wires.
- This sculpture is due Week 8 for our mid-term critique.

Read Ch. 3 and 4 in *Design Elements 3D*. You will have an exam on this content during Week 8 of our course.

Next week we'll be going on two studio visits, one to a glass studio and one to a metals studio.

- Important Guidelines:
  - Arrive on time

- Bring your sketchbook
- NO electronic interruptions
- Be an attentive listener

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Guidelines for Studio Visits

- Arrive on time
- Bring your sketchbook
- NO electronic interruptions
- Be an attentive listener

Write a 200-300 word reflection/response following each visit.

- What did you learn about working with this type of art medium?
- How does the artist's approach to his/her work differ from your own?
- Is this medium of personal interest to you? Why or why not?

- Submit this paper to the instructor electronically.
- In your journal, sketch any ideas or inspirations you gleaned from your experiences during these visits.

6

- Using your choice of paper or plastic, create a representational 3D sculpture.
- The finished work should be no smaller than 8 inches in any dimension.
- Due Week 8 for mid-term critique
- Create a journal entry describing your experience with this project

7 and 9
Part 1

- Measure, cut, and fabricate a lidded box using plywood.
- The lid must close and fasten.
- The box should be a cube or rectangular prism, with no single side longer than 10 inches or smaller than 2 inches.
- Apply an exterior finish to the box that is not a solid color and adds aesthetic appeal.
- Due Week 9

Part 2

- You will use thin plywood and wood glue to create a Futurist-inspired botanical form.
- Before Week 9, find an interesting botanical object (tree, flower, etc.)
  - Photograph this object from many angles, using close up views.
  - Translate these images into a simplified design made of geometric shapes. Create a paper template of the shapes you need to fabricate
- Construct your sculpture.
- Finished works should be no smaller than 8 inches in any single dimension
- Due Week 15 for final critique
- Create a journal entry describing your experience with this project

- Next week is our mid-term critique
- You will be presenting
    - Foam core dodecahedron
    - Wire sculpture of a shoe
    - Paper or plastic sculpture
- You will also have an exam on Ch. 3 and 4 of *Design Basics 3D*

8
Critique

- Continue working on your lidded box and Futurist Botanical projects.
- Complete the Mid-Term Exam. This is due at the start of class next week.

10-11

- You will be completing two projects in the ceramics lab over the next two weeks:
    - Slab-built construction
    - Wheel-thrown construction
- Each project will be glazed and fired.
- Each should demonstrate creativity, imagination, and craftsmanship
- Due Week 15 for final critique
- You should have completed your lidded box and Futurist-inspired botanical sculpture in the Wood Shop.
- Ceramics projects must have time to air-dry thoroughly before firing.
- Allow yourself enough time to complete all of your work. Do not imagine that you can get everything done during Week 14 and still earn a passing grade in this course.

Read Ch. 8 and 9 in Design Basics 3D
In your journal, respond to the following questions:

- How did the idea of Readymades transform art in the 20th century?
- What does the author say about the relationship between art and design?
- How do these ideas apply to your own practice as an artist or designer?

12-14

- For your final 3D project, you'll use any combination of 3 or more materials to create a sculptural object demonstrating unexpected texture. Like the fur-covered cup, the texture should surprise the viewer.
- Your work may include readymades, but should still demonstrate your personal creativity and imagination.
- You may use any of the materials we've worked with, or introduce new substances or techniques such as fabric, paper mache, or carved Styrofoam
- This is the culminating project for our course, so it should be a demonstration of your increasing skills and knowledge of working with 3D art media.
- This project must be complex enough to be an accurate representation of your artistic vision for unexpected texture, reflecting at least 18 hours of dedicated effort and concentration.
- During weeks 12, 13, and 14 of our course, the studio will be open and the instructor will be

available for assistance and critique.

- You are expected to be present for the full time of every class period. Absence will have a detrimental effect on your grade.
- A sign-up sheet for individual critiques with the instructor will be available.
- Create a journal entry describing your experience with this project

15
Final Critique

- You will present:
    - Lidded box
    - Futurist botanical sculpture
    - Slab-built and wheel-thrown ceramics
    - Unexpected texture/mixed-media sculpture
- Your journal is also due at the final critique. Every page must have a date. Handwriting must be legible.
- Absence from the final critique will have a detrimental effect on your grade.

Use of electronics of any kind is NOT allowed during critique.