ATCM 3340 -Design II Syllabus

Course Information

Semester: Fall 2017
Tuesday/Thursday
Room: ATC 4.902

Professor Contact Information

Roxanne Minnish
Email: roxanne.minnish@utdallas.edu
Office Phone: 972-883-7502
Office Location: ATC 1.911
Office Hours: Wednesdays, 1 – 3 p.m. or by appointment

Course Pre-requisites, Co-requisites, and/or Other Restrictions

Pre-requisite: ATCM 2302

Course Description

(3 semester credit hours) Continuing exploration of design principles and practices, with an emphasis on three-dimensional design, time and motion, human perception, and critique.

Broad Purpose

This course will involve students in the conceptualization and construction of forms through both physical and digital applications. Students will further their knowledge of design processes and theory, by building on the importance of aesthetic and structural principles through individualized three-dimensional design, time and motion, human perception, and critique.

Student Learning Objectives/Outcomes

Upon successful completion of this course, students will be expected to:

- Appreciate how design projects relate to areas of focus in ATEC: such as game, animation, design, and sound.
- Illustrate personal aesthetic concepts through class assignments, critiques, problem solving exercises and class discussions related to design projects.
- Build an increased awareness and appreciation of artists and designers who work with three-dimensional concepts and materials.
- Identify and apply three-dimensional formal concepts in your work such as, but not limited to: Low and High Relief, Figure/Ground, Space (positive and negative), Place, Scale, Profile, Texture, Mass, Volume, Pattern, Plane, Line, Balance, Rhythm, Repetition, Light, Color, Time…
- Categorize movement through literal and compositional means.
- Develop support drawings and maquettes when planning a design.
- Apply technical processes that include modeling, addition, and subtraction.
- Establish and define form and space through the use of point, line, plane, volume, and mass.
- Use basic design terminology to objectively critique work.
- Understand the differences between representation, abstraction and non-objectivity.

Required Textbooks

Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design, Mary Stewart et al. ISBN-13: 978-0-07-777344-1

Suggested Textbooks

Design Basics Index, Jim Krause ISBN-13: 978-1581805017
Design Basics: 2D and 3D 8th Edition, Stephen Pentak et al. ISBN-13: 978-0495909972
Universal Principles of Design, William Lidwell et al. ISBN-13: 978-1592530076

Course Materials

In addition to an open mind, you will need:

- Access to a computer
- 1 sketchbook (without lines) 8x10 to 8.5 x11
- Safety Glasses (3M Clear Frame with Clear Scratch Resistant Lenses Indoor Safety eyewear or equivalent can be found at Home Depot or Lowes)
- Hot glue gun and glue sticks
- A sharpie
- X-acto knife with various blades
- Cutting Mat (12 X 18 to 18 X 24)
- 1 pair of needle nose pliers
- 1 pair of split leather work gloves (Home Depot, Lowes)
- 1 stainless steel metal ruler
- 2 rolls of masking tape
- Scissors
- Digital Camera (Cell Phone camera will do)
- A storage container for your materials

This list is subject to change. Please do not buy any supplies until instructed to do so in order to avoid spending unnecessary money. There may be additional materials required due to changes in the syllabus or the nature of individual projects. Students are responsible for the purchase, maintenance, security, and safety of their own supplies.

This class has several design challenges throughout the semester. They are **not** listed in this syllabus due to the nature and progress of the assignments. They will be assigned as deemed by the professor.

Software

- Wix.com Account
- TinkerCAD

Week 1 - Introduction/ Design Process/Online Portfolios

August 22, 24

- Student Introductions
- Course Introduction
- Establish Learning Portfolio

Learning Objectives:

- Explain what a learning portfolio is and its value.
- Describe the requirements of a portfolio.
- Manage and prepare images/artifacts.
- Manage file sizes.
- Design and post a portfolio.

Readings: *Student Guidelines to ELPs in eLearning*

Learning portfolios are "a flexible tool that engages students in a process of continuous reflection and collaboration focused on selective evidence of learning ... The portfolio provides a critical opportunity for purposeful, mentored reflections and analysis of evidence for both improvement and assessment of students' learning."

"The Learning Portfolio: A Powerful Idea for Significant Learning" by John Zubizarreta, Columbia College (idea Paper #44, 2008)

Design Challenge: dschool Spaghetti & Marshmallow Exercise

Week 2 – Chapter 5 - Problem Seeking and Problem Solving

August 29, 31

Learning Objectives:

- Generate and define a wide array of thoughtful visual problems, and discuss multiple creative solutions to them;
- Determine the usefulness of convergent and divergent thinking in a given design scenario; apply one or both to your own design problems;
- Distinguish between a sketch, a maquette, and a prototype, and discuss how each can be helpful in developing an idea or a design;
- Explain the usefulness of brainstorming techniques such as sketching thumbnails or making lists, integrate these techniques into your own creative process;
- Give examples of strategies for idea generation and apply these strategies to collaborative exercises in creativity.

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 5

Related Readings:
Denise Shekerjian. (1991). Uncommon Genius: How Great Ideas Are Born. New York: Penguin Books.

Doris B. Wallace and Howard E. Gruber, editors. (1992). Creative People at Work: Twelve Cognitive Case Studies. New York: Oxford University Press.

Terms to Know: Convergent thinking, Divergent thinking, maquette, model, prototype

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 5

Post your first design challenge to your online portfolio.

Week 3 - Introduction to Cardboard Wearable with Sound
September 5, 7

Cardboard Wearable with Sound

Students will break off into teams to start designing a cardboard wearable with sound.

Problem Solving/ Brainstorming Wearables/ Form Follows Function/ Design Process Worksheet.

Cardboard Sculpture Part 1 by Eric Scott: https://www.youtube.com/watch?v=Xk6CJTfq8VA
Cardboard Sculpture Part 2 by Eric Scott: https://www.youtube.com/watch?v=vwoEie62LEw

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Week 4 – Chapter 6 - Cultivating Creativity
September 12, 14

Learning Objectives:

- Set realistic personal goals using strategies that suit your work and lifestyle;
- Discuss the essential habits that foster good time management skills;
- Maintain an open mind when approaching new projects and new problems, and identify areas of experimentation in your work that have not yet been explored;
- Demonstrate effective habits of work and mind, including a capacity for synthesizing ideas and techniques, and committing to a daily practice;
- Provide examples of projects which are best done in a specific sequence; discuss how these projects differ from those that may be better approached in terms of their various parts;
- Suggest a project, like the Expanded Escher Collaboration, that will foster collaborative work as well as inspire individualized input;

- Explore variations on a theme, thinking critically about its implications and often surprising results.

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 6

Week 5 – Chapter 7 - Developing Critical Thinking

September 19, 21

Learning Objectives:

- Define critical thinking, and discuss its relationship to creative thinking; understand when each can inform the direction of your work;
- Provide useful and relevant critiques on the work of your peers. Try assessing your own work using the same methods;
- Provide a compare and contrast critique of a peer's work, giving thought to the conventions and styles from which it borrows or deviates;
- Give examples of long-term projects that have benefited from the use of critical thinking techniques;
- Develop a self-assignment, applying the practical methods you have learned in this chapter in order to see it through completion.

Terms to Know: cause-and-effect critique, descriptive critique, objective criticism, subjective criticism, form, formal analysis, subject, content, context.

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 7

Week 6 – Chapter 8 - Constructing Meaning

September 26, 28

Quiz 1 review September 26 (Chapters 5-7)
Quiz 1 September 28

Learning Objectives:

- Explain the basic features of shared language, and give examples such that also work to communicate visually;
- Discuss how an understanding of the history and context of South African Apartheid, for instance, can illuminate the work of an artist like William Kentridge;
- Identify examples of cliché and stereotype, distinguishing between those that are effective in challenging assumptions, and those that are ineffective;
- Identify and explore some of the strategies that artists and designers use to construct meaning;
- Choose the style, iconography, and composition best suited to your purpose as an artist or designer;
- Discuss the aesthetic and theoretical links between modernism and post-modernism.

Terms to Know: abstract shapes, aesthetics, analogy, anesthetic, appropriation, cliché, high definition, hybridity, iconography, layering, low definition, metaphor, metaphorical thinking, modernism, nonobjective shapes, postmodernism, pure form, recontextualization, representational shapes, simile, stereotype

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 8

Week 7 – Chapter 9 - Three-Dimensional Design Elements

October 3, 5

Learning Objectives:

- Define and describe the basic building blocks from which three-dimensional objects are composed, and demonstrate the expressive power of each of these basic elements;
- Discuss applications of three-dimensional design to the fine arts, crafts, and product design;
- Describe the difference between organic, geometric, and mechanical forms with regard to their visual effect, suggestiveness, and implications;
- Identify artistic examples of static, dynamic, and kinetic forms and explain the visual effects to which each lends itself;
- Compare and contrast the various uses of light in the work of Robert Irwin, Ruth Asawa, and Stephen Knapp.

Terms to Know: page 213, *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design.*

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 9

Week 8 - Three-Dimensional Design Elements continued

October 10, 12

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 9 (continued)

Week 9 – Chapter 10 - Principles of Three-Dimensional Design

October 17, 19

Learning Objectives:

- Explore the implications of unity and variety as modes of visual organization;
- Explain the difference between scale and proportion, and demonstrate how even slight changes in either can dramatically affect compositional balance;
- Discuss the relationship between tempo and rhythm in a piece of music to the effects of similar patterns on a visual composition;
- Discuss the suggestive effect that the use of contrast has in Liza Lou's *Plan, Prepare, Execute*, for example, as compared with Arnaldo Pomodoros' *Sphere*;
- Identify and discuss visual patterns and rates of change in the works of David Watkins, Tanija and Graham Carr, and Magdalena Abakanowicz;
- Pose relevant and thought-provoking questions with regard to the visual organization of a design.

Terms to Know: anomaly, asymmetrical balance, balance, closure, containment, continuity, contrast, dominant, emphasis, focal point, grid, grouping, human scale, matrix, monumental, proportion, proximity, radial symmetry, repetition, rhythm, scale, subordinate, symmetrical balance, tempo, unity, variety.

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 10

Week 10 – Principles of Three-Dimensional Design continued

October 24, 26

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 10 (continued)

Week 11 – Chapter 11 - Materials and Methods

October 31, November 2

Quiz 2 review October 31 (Chapters 8-10)
Quiz 2 November 2

Learning Objectives:

- Define and describe the characteristics of various materials, and choose those that fit your use as well as your meaning;
- Describe the various types of armature artists use to structure, support, and present their work, and provide specific examples from your knowledge of contemporary and classic art;
- Discuss the use of contrast, transition, and polarization in Louise Bourgeois' *Blind Man Bluff*;
- Describe the differences between a traditional material and a transformative one.
- Identify specific examples of artworks that defy the traditional or transformative nature of their material makeup;

- Provide examples of the use of ephemera in contemporary art and discuss the thematic significance of these materials.

Terms to know: additive sculpture, armature, assemblage, bend, composite, compression, displacement, ephemera, exoskeleton, flying buttress, gradation, modeling, shear, solidification, subtractive sculpture, tension, torque.

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 11

Week 12 - Materials and Methods continued

November 7, 9

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 11 (continued)

Week 13 – Chapter 12 - Physical and Cerebral

November 14, 16

Learning Objectives:

- Explore the relationship between physical reality and sculptural structures, as demonstrated in work like Tadashi Kawamat's installations;
- Define basic physical forces and consider their expressive effect;
- Discuss in what ways Michaelangelo's *Pieta* is an example of representational art, and how a piece like Myra Mimlitsch-Gray's *Timepiece* differs in its representation;
- Describe similarities and differences between traditional and contemporary sculpture;
- Formulate meaningful ideas and express them in physical form.

Terms to Know: abstract artworks, nonobjective artworks, pedestal, plinth, representational artworks.

Readings: *Launching the Imagination, A Comprehensive Guide to Three-Dimensional Design* by Mary Stewart et al. Chapter 12

FALL BREAK – November 20 - 25

Week 14 - Physical and Cerebral continued

November 28, 30

Quiz 3 Review November 28 (Chapters 11-12)

Quiz 3 November 30

Week 15 – Final Presentations

December 5, 7

Last Week of Classes – Final Presentations

Grading Policy

A list of assigned readings and materials is attached. Supplemental materials may be provided or posted electronically. Advance preparation and enthusiastic participation is an important part of the learning experience and critical to in-class discussions.

20% Attendance
20% Quizzes
25% Portfolio
35% Assignments

Grading Scale

Grade	Percentage	GPA
A+	97-100	4.00
A	93-96	4.00
A-	90-92	3.70
B+	87-89	3.30
B	83-86	3.00
B-	80-83	2.70
C+	77-79	2.30
C	73-76	2.00
C-	70-72	1.70
D+	67-69	1.30
D	63-66	1.00
D-	60-62	0.70

Course & Instructor Policies

Late Work

Late work is not accepted. The key to success in this course is communication. It is the student's responsibility to correspond via UT Dallas email any absences and issues that might occur. Private Email accounts outside of UT Dallas Email accounts cannot be used for course communication, due to FERPA regulation.

Attendance

Points are assessed every class and will add up to your total attendance grade at the end of the semester. For instance, 30 classes equal 3.33 points per class credit (100 cumulative total divided by 30 class sessions). Each **unexcused** absence will be deducted 3.33 points from the cumulative total of 100 points. A tardy is 1.5 points from the cumulative total. Attendance is 20% of the cumulative grade for the semester. Attendance is necessary for the successful completion of this course. Leaving class early will result as an absence. If you do miss a class, it is YOUR responsibility to acquire materials, catch up on missed information and deadlines. Not being there is not an excuse to be unprepared.

Workshop Rules

1. Always listen carefully to the teacher and follow instructions.
2. Do not run in the lab, you could 'bump' into another student and cause an accident.
3. During work in progress, every student must wear approved safety eyewear.
4. When attempting practical work all chairs need to be put away.
5. Condense all hoses and cords used during your session.
6. When learning how to use a machine, listen very carefully to all the instructions given by the teacher. Ask questions, especially if you do not fully understand.
7. Do not use a machine if you have not been shown how to operate it safely by the teacher.
8. Always be patient, never rush in the workshop.
9. Use hand tools carefully, keeping both hands behind the cutting edge.
10. Report any damage to machines/equipment as this could cause an accident.
11. Never work when you are tired or if you have consumed *any* amount of alcohol.
12. The classroom is a shared space, which means there are other classes that take place in it. You are expected to clean up after yourselves and respect the studio equipment. The last 10 minutes of class will be used for clean up.

Critique

You are required to attend every critique, as it is mandatory. You must participate, meaning you must talk and give your opinion. Respect is key during this process. Use constructive language to help emphasize the learning activity.

Assessment: Grades are based on three major factors.

- Is the work conceptually inventive? Have you demonstrated a solid grasp of problem content? Did you really grapple with the ideas presented in each assignment?
- Is the composition visually compelling? Is every composition unified? Balanced? Well crafted? Is every square inch fully engaged?
- What was the nature of your learning process? Did you use class time effectively and come prepared to learn? Did you take risks? How many solutions did you invent for each problem? How substantial were your contributions to team assignments and critiques?

Comet Creed

This creed was voted on by the UT Dallas student body in 2014. It is a standard that Comets choose to live by and encourage others to do the same:

"As a Comet, I pledge honesty, integrity, and service in all that I do."

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to http://go.utdallas.edu/syllabus-policies for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the professor. This class is largely composed of three-dimensional design challenges. Due dates will be decided by the instructor based on progress of the class as a whole relevant to each assignment.