

USC Iovine and Young Academy

*Arts, Technology and the Business
of Innovation*

ACAD 176 - Rapid Visualization

Units: 4

Day-Time: Fall 2022 – Tuesday / Thursday, 2pm - 4:50pm

Location: IYH 110

Instructor: Aaron Siegel

Office: Online

Office Hours: By email appointment.

Contact Info: aaronsie@usc.edu

IT Help:

<https://uscedu.sharepoint.com/sites/IYAStudent/SitePages/IT-Resources.aspx>

Hours of Service: M-F, 8:30am - 6:30pm

Contact Info: iya.helpdesk@usc.edu, 213-821-6917

Course Description

Our society is dominated by verbal thinking. We learn alphabets, words, and numbers in school. A typical education primarily develops the analytical skills – reading, writing and arithmetic – the left half. The visual-thinking hemisphere assumes a subordinate role and is seldom if ever developed to its full potential. But every machine, every invention, and every modern convenience existed first as a visual thought in someone’s mind. Not only did they visualize their thoughts, but they converted them into reality. Visualization is vital not just in the arts but in all disciplines. Everyone can further their potential with the ability to visualize and use their imagination. Since ideas are only thoughts in the beginning, they are easily lost. Your ability to express these creative solutions in some visual form on paper to a degree of understanding and confidence is imperative. “Yes, I had learned to draw: but more importantly, I learned to think.” — Kurt Hanks, RV author

Learning Objectives

By the end of the semester, students will be able to:

- Know and be able to apply the visual language (elements and principles) of art/design
- Deliver group presentations on design principles and design movements
- Comprehend and use composition, proportion, and value
- Gain fluency in quickly and accurately sketching ideas and products
- Be able to render 3D objects convincingly on a 2D surface
- Understand and draw in atmospheric, isometric, linear 1, 2, 3-point perspectives
- Use prototyping skills to build ideas in 3D
- Translate orthographic views into isometric perspective
- Think visually through a unique set of graphic problems
- Apply visual problem-solving methodologies
- Know fundamentals of the architecture, denotative/connotative aspects and hierarchy of typography
- Discover the value of the collaborative design process as a tool for innovation

Prerequisite(s): None

Required Textbook: Handouts will be supplied.

Course Notes

This class is a studio class that involves demonstrations and execution of craft. It is crucial for students to attend to succeed. The demonstrations, lectures and Information given in class may not be imparted concisely through handouts, videos, classmates, or notes.

Catalog Description

Basic techniques, methods, concepts, tools, and materials that are used to quickly communicate ideas and concepts in a visual manner.

Grading Breakdown

Including the above detailed assignments, how will students be graded overall? Participation should be no more than 15%, unless justified for a higher amount. All must total 100%.

Assignment	Points	% of Grade
All Projects	70	70%
In-Class	20	20%
Quiz/Tests	10	10%
TOTAL	100	100

Grading Scale

Course final grades will be determined using the following scale

A	94-100
A-	90-93
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	59 and below

Assignment Submission Policy

Describe how, and when, assignments are to be submitted.

Grading Timeline

Your projects will generally be graded within 1-2 weeks of its due date. If I am creating a video critique for a project, then it will generally be within 2 weeks of its due date. In an individual video critique, I bring up a student's work on my screen. This form allows me to take more time with the work and discuss conceptual and visual approaches. It also allows me to dig into the actual file to make important points about tools and technical processes.

Academy Attendance Policy

The Academy maintains rigorous academic standards for its students and on-time attendance at all class meetings is expected. Each student will be allowed three excused absences over the course of the semester for which no explanation is required. Students are admonished to not waste excused absences on non-critical issues, and to use them carefully for illness or other issues that may arise unexpectedly. Except in the case of prolonged illness or other serious issue (see below), no additional absences will be excused. Each unexcused absence will result in the lowering of the final grade by 1/3 of a grade (e.g., an A will be lowered to A-, and A- will be lowered to a B+, etc.). In addition, being tardy to class will count as one-third of

an absence. Three tardies will equal a full course absence. Students remain responsible for any missed work from excused or unexcused absences. Immediately following an absence, students should contact the instructor to obtain missed assignments or lecture notes and to confirm new deadlines or due dates. Extensions or other accommodations are at the discretion of the instructor.

Automatically excused absences normally may not be used for quiz, exam or presentation days. Using an excused absence for a quiz, exam or presentation, such as in the case of sudden illness or other emergency, is at the discretion of the instructor.

In the case of prolonged illness, family emergencies, or other unforeseen serious issues, the student should contact the instructor to arrange for accommodation. Accommodation may also be made for essential professional or career-related events or opportunities. All accommodations remain at the discretion of the instructor, and appropriate documentation may be required.

Additional Policies

Add any additional policies that students should be aware of: late assignments, missed classes, use of technology in the classroom, etc.

HOW TO PURCHASE SOFTWARE AT THE DISCOUNTED ACADEMY RATE THROUGH THE USC BOOKSTORE:

The following first year software are now available for purchase **online** through the USC Bookstore at the Academy discounted rate:

<u>Software</u>	<u>IYA Short-Term License at USC Bookstore</u>
Adobe Creative Cloud	\$70 2019-2020 annual license
Apple Logic Pro	\$35 semester license
Solidworks	\$35 semester license
Apple Final Cut Pro	\$35 semester license

1. Visit the USC Bookstore online:
<https://www.uscbookstore.com/usciyasoftware>
2. Select the software license(s) you would like to purchase.
3. When you proceed to checkout, add the Promo Code "IYASoftware" (This will override the listed taxes).
4. For shipping, select FedEx Home Delivery (free).
5. Once you complete your online purchase, you will receive a confirmation email/receipt. *(Note that even if a shipping charge appears on your invoice, it will not be charged to your credit card. This relates to a known technical problem with the Bookstore's online store.)*
6. Upload your receipt [here](#) to receive access to your purchased license.
7. You will be notified by email when the license has been activated

Course Schedule: A Weekly Breakdown

	Topics/Daily Activities	Readings and Projects	Deliverable/ Due Dates
<p>Week 1 Tuesday 8/23</p> <p>LINE</p>	<p>Welcome! Syllabus + Expectations Blackboard + Attendance Introductions</p> <p>Lecture: Lines Design Elements and Principles</p> <p>In-Class Scavenger Hunt: Lines and Shapes</p>	<p>Handout: <i>Design Vocabulary</i></p> <p>PROJECT 1a + 2a: <i>Photos lines + shapes</i> <i>Duotones demos in DT</i> <i>Use InDesign template</i> <i>Due Thursday, 8/25</i></p>	
<p>Thursday 8/25</p> <p>SHAPE</p>	<p>Lecture: Shapes + Contour Design Elements and Principles</p> <p>In-Class: Observational contour drawings Proportions</p>	<p>PROJECT 1b + 2b: <i>2 Lines Compositions:</i> <i>Symmetrical and</i> <i>Asymmetrical</i> <i>2 Shapes Compositions:</i> <i>Radial and Linear</i></p> <p><i>Both Due Tuesday, 8/30</i></p>	<p>PROJECT 1a + 2a: <i>Photos lines + shapes</i> <i>Use InDesign template</i> <i>PDF format</i></p>
<p>Week 2 Tuesday 8/30</p> <p>CONTOUR</p>	<p>Review: <i>PROJECT 1b+2b</i></p> <p>Lecture: Creative Problem-Solving Process 7 Universal Stages</p> <p>In-Class: Contour – Proportions - <i>Upside-down drawings</i> *Mural project introduced</p>		<p>PROJECT 1b + 2b: <i>2 Lines + 2 Shapes</i> <i>Compositions</i> <i>PDF format</i></p>
<p>Thursday 9/01</p> <p>CONTOUR</p>	<p>Lecture: Perspective Overview Atmospheric, Isometric, Linear 1-2-3pt, Orthographic</p> <p>In-Class Drawing Exercise: Shoe contour demo 1-pt perspective</p>	<p>PROJECT 3: <i>Shoe contour drawing</i> <i>Due Tuesday 9/06</i></p> <p>PROJECT 4: <i>Design Principles</i> <i>Group Presentations</i> <i>Due Tuesday 9/06</i></p>	<p>In-Class Drawing: <i>Upside-down drawings</i></p>

<p>Week 3 Tuesday 9/06</p> <p>PERSPECTIVE</p>	<p>Review: <i>Design Principles</i> <i>Group Presentations</i> <i>Shoe contour drawing</i></p> <p>In-Class Drawing: 1-pt perspective 2-pt perspective Isometric</p>	<p>PROJECT 5: <i>1-pt. perspective copy</i> <i>Contour only</i> <i>11:30 stop</i> <i>Due Thursday 9/08</i></p>	<p>PROJECT 3: <i>Shoe contour drawing</i> <i>Upload to Mural</i></p> <p>PROJECT 4: <i>Design Principles</i> <i>Group Presentations</i></p>
<p>Thursday 9/08</p> <p>PERSPECTIVE</p>	<p>Review: 1-point perspective Exercise – Contour only</p> <p>In-Class Drawing: Isometric exercises and Orthogonal views</p>	<p>PROJECT 6: <i>Isometric</i> <i>Due Tuesday 9/13</i></p>	<p>PROJECT 5: <i>1-point perspective</i> <i>Exercise – contour only</i></p>
<p>Week 4 Tuesday 9/13</p> <p>VALUE</p>	<p>Review: Ultimate desk in Isometric</p> <p>Lecture: 2-point perspective Value – Forms</p> <p>In-Class Drawing: Begin Mural concepts brainstorming Value studies - Value scale</p>	<p>In-Class Drawing: <i>Birdhouses copy</i> <i>Due Tuesday 9/15</i></p>	<p>PROJECT 6: <i>Isometric</i> <i>Upload to Mural</i></p>
<p>Thursday 9/15</p> <p>VALUE</p>	<p>Review: <i>Design Movements</i> <i>Group Presentations</i></p> <p>In-Class: Mural concepts brainstorming Shading/Rendering value Building with shapes</p>	<p>PROJECT 7a: <i>Mural concepts</i> <i>presentations 5-7min</i> <i>Due Tuesday 9/20</i></p> <p>WATCH: Abstract: <i>The Art of Design</i> <i>Neri Oxman:</i> <i>Bio-Architecture</i></p>	<p>In-Class Drawing: <i>Birdhouses copy</i></p>
<p>Week 5 Tuesday 9/20</p> <p>MURAL</p>	<p>Review: Mural concept presentations</p> <p>In-Class: Mural concept chosen Division of labor – schedule planned</p>		<p>PROJECT 7a: <i>Mural concept</i> <i>presentations 5-7min</i> <i>All RV classes</i></p>

<p>Thursday 9/22</p> <p>MURAL</p>	<p>In-Class Drawing: Cast shadows</p> <p>In-Class: Work begins on mural</p>	<p>PROJECT 7b: <i>Mural production work over weekend</i></p>	
<p>Week 6 Tuesday 9/27</p> <p>MURAL</p>	<p>In-Class: Work on mural</p> <p>In-Class Drawing: Cast Shadows Perspective and shading review</p>	<p>PROJECT 8: <i>Midterm In-class Drawing Collection Due Thursday 10/06</i></p>	<p>PROJECT 7b: <i>Mural production work over weekend</i></p>
<p>Thursday 9/29</p> <p>MURAL</p>	<p>In-Class: Work on mural and Midterm In-class Drawing Collection Team birdhouse 3D using Bristol board</p>	<p>PROJECT 7b: <i>Mural production work over weekend Due Tuesday 10/04</i></p>	
<p>Week 7 Tuesday 10/04</p> <p>MURAL</p>	<p>In-Class: Individual Meetings Midterm In-class Drawing Collection</p>	<p><u>Graphic Design Foundations</u></p>	<p>PROJECT 7b: <i>Mural project finished</i></p>
<p>Thursday 10/06</p> <p>Parents Weekend</p>	<p>Review: Individual Meetings Midterm In-class Drawing Collection</p> <p>Break from Perspective and on to some graphic thinking/solving</p> <p>In-Class: Using all the senses Typography – Letter architecture</p>	<p>PROJECT 9a: <i>Graphic Thinking interpretation roughs</i></p> <p><i>Due Tuesday 10/11</i></p>	<p>PROJECT 8: <i>Midterm In-class Drawing Collection</i></p>
<p>Week 8 Tuesday 10/11</p>	<p>Review: Graphic Thinking interpretation roughs</p>	<p>PROJECT 9b: <i>Graphic Thinking — Interpretation Due Tuesday 10/18</i></p>	<p>PROJECT 9a: Graphic Thinking interpretation roughs</p>

<p>GRAPHICS</p>	<p>Lecture: Color Theory — Rhythm</p> <p>In-Class: Cross disciplinary thinking and drawing</p>		
<p>Thursday 10/13</p>	<p>FALL RECESS No class Thursday or Friday</p>		
<p>Week 9 Tuesday 10/18</p> <p>GRAPHICS</p>	<p>Review: <i>Graphic Thinking — Interpretations</i></p> <p>Lecture: POV</p> <p>In-Class: Perspective – Building form – Ellipses Bird hotel research and concepts</p>	<p>PROJECT 10: <i>Design Movements Group Presentations</i> <i>Due Thursday 10/20</i></p>	<p>PROJECT 9b: <i>Graphic Thinking — Interpretations</i></p>
<p>Thursday 10/20</p> <p>PERSPECTIVE</p>	<p>Review: Design movement group presentations</p> <p>In-Class: Warmups - perspective Bird hotel drawings</p>	<p>PROJECT 11a: <i>Bird Hotel concepts in 2pt contour only</i> <i>Due Tuesday 10/25</i></p>	<p>PROJECT 10: <i>Design Movements Group Presentations</i></p>
<p>Week 10 Tuesday 10/25</p> <p>PERSPECTIVE</p>	<p>Review: <i>Bird Hotel concepts in 2pt contour only</i></p> <p>Lecture:</p> <p>In-Class: Continuation of perspective Rendering textures Orthogonal to Isometric</p>		<p>PROJECT 11a: <i>Bird Hotel concepts in 2pt contour only</i></p>

<p>Thursday 10/27</p> <p>PERSPECTIVE</p>	<p>Review:</p> <p>In-Class: Warmups - perspective Bird hotel drawings</p>	<p>PROJECT 11b: <i>Bird Hotel in 2pt Final with value Due Tuesday 11/01</i></p>	
<p>Week 11 Tuesday 11/01</p> <p>PERSPECTIVE</p>	<p>Review: Bird Hotel final with value</p> <p>Lecture: Typography - Letter architecture Who are you?</p> <p>In-Class: Prototype demos</p>	<p>Project 12a: <i>3D Thinking prototype project Due Thursday 11/03</i></p>	<p>PROJECT 11b: <i>Bird Hotel in 2pt Final with value Upload to Mural</i></p>
<p>Thursday 11/03</p> <p>PERSPECTIVE</p>	<p>Lecture:</p> <p>In-Class: Product design concepts</p>	<p>Project 12b: <i>3D Thinking prototype project Due Tuesday 11/08</i></p>	<p>Project 12a: <i>3D Thinking prototype project</i></p>
<p>Week 12 Tuesday 11/08</p> <p>PRODUCT</p>	<p>Review: <i>3D Thinking prototype project</i></p> <p>In-class: Product design concepts Mindmaps Interpret expressive words</p>	<p>Project 13a: <i>Moodboards and research – photos and packaging Due Thursday 11/15</i></p>	<p>Project 12b: <i>3D Thinking prototype project</i></p>
<p>Thursday 11/10</p> <p>PRODUCT</p>	<p>Review: Product design concepts</p> <p>In-class: Orthogonal to Isometric Rendering textures</p>	<p>Project 13a: <i>12 Product solution roughs Describe idea, materials, ingredients, usage Due Tuesday 11/15</i></p>	<p>Project 13a: <i>Moodboards and research – photos and packaging</i></p>
<p>Week 13 Tuesday 11/15</p>	<p>Review: 3 Product solution roughs</p>	<p>Project 13a: <i>Choose direction Create 3 Packaging solution roughs</i></p>	<p>Project 13a: <i>12 Product solution roughs</i></p>

PRODUCT		Show how the packaging functions <i>Due Thursday 11/17</i>	
Thursday 11/17 PRODUCT	Review: 3 Product packaging roughs	Project 13b: Final Product and Package Sketches Orthogonal Views <i>Due Tuesday 11/22</i>	Project 13a: Create Packaging solution roughs Show how the packaging functions
Week 14 Tuesday 11/22 PRODUCT	Review: Final Product and Package design rendering Orthographic Views	Project 13c: Product and Package design rendering in Digital Media <i>Due Tuesday 11/29</i>	Project 13b: Final Product and Package Sketches Orthogonal Views
11/23-27 BREAK	NO CLASS	Thanksgiving Nov. 24	
Week 15 Tuesday 11/29	Review: Product and Package design rendering in Digital Media <i>In-Class:</i> Work on Final Digital Presentation	Project 13c: Final product + pckg presentation to class (Use template) <i>Due Thursday 12/01</i>	Project 13c: Product and Package design rendering in Digital Media Product and Package design rendering in Digital Media
Thursday 12/01	LAST CLASS Review: Final product presentations	Final Digital Presentation of All Work What I learned in Rapid Visualization? <i>Due Thursday 12/08</i>	Project 13c: Final product + pckg digital presentations to class (Template)

WEEK 16 12/03-06	STUDY DAYS Study Days: Dec 3-6	In-Class Type Exploration:	
Thursday 12/08 FINALS	FINAL DELIVERY AND TEST	Final Test: 7 Universal Stages 10 Dieter Rams Principles Life Cycle of a Product Perspective Tests	Final Digital Portfolio Presentation of All Work What I learned in Rapid Visualization?

** Schedule subject to change*

Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Student Health Counseling Services - (213) 740-7711 – 24/7 on call

engemannshc.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call

suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP)

-213-740-9355 (WELL)

<https://studenthealth.usc.edu/sexual-assault/>

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Relationship and Sexual Violence Prevention and Services provides immediate therapy services for situations related to gender- and power-based harm (e.g., sexual assault, domestic violence, stalking). (wording from the site)

Office of Equity and Diversity (OED) | Title IX - (213) 740-5086

equity.usc.edu, titleix.usc.edu

Information about how to get help or help a survivor of harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants. The university prohibits discrimination or harassment based on the following protected characteristics: race, color, national origin, ancestry, religion, sex, gender, gender identity, gender expression, sexual orientation, age, physical disability, medical condition, mental disability, marital status, pregnancy, veteran status, genetic information, and any other characteristic which may be specified in applicable laws and governmental regulations.

USC Policy Reporting to Title IX (213) 740-5086

<https://policy.usc.edu/reporting-to-title-ix-student-misconduct/>

The university encourages individuals to report prohibited conduct to the *Title IX Office*. Individuals can report to the university *Title IX Coordinator* in the *Office of Equity and Diversity*.

Bias Assessment Response and Support - (213) 740-2421

studentaffairs.usc.edu/bias-assessment-response-support

Avenue to report incidents of bias, hate crimes, and microaggressions for appropriate investigation and response.

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Support and Advocacy - (213) 821-4710

studentaffairs.usc.edu/ssa

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-120 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.