

USC Iovine and Young Academy

*Arts, Technology and the Business
of Innovation*

ACAD 176 - Rapid Visualization

Units: 4

Day-Time: Fall 2020 – Tuesday / Thursday, 5pm - 7:50pm

Location: Online

Instructor: Aaron Siegel

Office: Online

Office Hours: By email appointment.

Contact Info: aaronsie@usc.edu

IT Help: <http://iovine-young.usc.edu/ait/index.html>

Hours of Service: M-F, 8:30am - 5:00pm

Contact Info: iyhelp@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:

- Understand and draw in atmospheric, isometric, linear 1, 2, 3-point perspectives.
- Know and be able to apply the visual language (elements and principles) of art/design.
- Comprehend and use composition, proportion, and value.
- Be able to render 3d objects convincingly in a 2d space.
- Think visually through a unique set of problems posed in a wide variety of disciplines.
- Apply visual problem-solving methodologies.
- Know fundamentals of the denotative/connotative aspects and hierarchy of typography.
- Realize the value of the collaborative design process as a tool for innovation.

Prerequisite(s): None.

Co-Requisite(s): None.

Concurrent Enrollment: None.

Recommended Preparation: Have art supply materials ready for the first day of class.

Course Notes

This class is a studio class that involves demonstrations and execution of craft. It is crucial for students to attend in order to succeed. The demonstrations, lectures and Information given in class may not be imparted concisely through handouts, 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		Grading Scale		
Project Assignments	80%		A = 100 - 95	A- = 94 - 90
Asynchronous Exercises	10%	B+ = 89 - 87	B = 86 - 83	B- = 82 - 80
Participation	10%	C+ = 79 - 77	C = 76 - 73	C- = 72 - 70
		D+ = 69 - 67	D = 66 - 63	D- = 62 - 60
		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 week 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 two 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 $\frac{1}{3}$ 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.

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

1. Visit the USC Bookstore online:
<https://www.uscbookstore.com/usciasoftware>
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

Weekly Course Schedule

Date	Topics/Daily Activities	Readings and Projects	Deliverable/ Due Dates
Week 1 - Lines & Shapes			
8/18	Introduction, Syllabus, Schedule. Presentation: Shape Composition.		<i>Exercise:</i> Scavenger Hunt: Lines posted on Mural.
8/20	Presentation: Contour Drawing. Materials, Sketching, Shape, Volume.		<i>Exercise:</i> Contours: Fruit posted on class Google Drive.
Week 2 - Contour			
8/25	Presentation: Proportions. Line Quality, Confidence, Harmony, Rhythm.	ASYNC/ LAB/ 1hr.: Sketching with Peter Han	DUE: Symmetry/Asymmetry Thumbnails due via Blackboard at midnight 8/24. <i>Exercise:</i> Calculating Proportions posted on class Google Drive.
8/27	Presentation: Adding Value to Contour Drawings.		<i>Exercise:</i> Contours: Hand posted on class Google Drive.
Week 3 - Perspective			
9/1	Presentation: 1-Point Perspective.	ASYNC/ LAB/ 15min. 1-point perspective refined	DUE: Contour Drawing due via Blackboard at midnight 8/31. <i>Exercise:</i> Perspective Lines on Photos posted on Mural.
9/3	Presentation: 2-Point Perspective.	ASYNC/ 1hr Abstract: The Art of Design Es Devlin: Stage Design	<i>Exercise:</i> Two-Point Perspective posted on class Google Drive.
Week 4 - Value			
9/8	Presentation: Value and Shading.	ASYNC 10min Sketch like an industrial designer	DUE: One-Point Perspective Landscape due via Blackboard at midnight 9/7. <i>Exercise:</i> Value Scales posted on class Google Drive.
9/10	Presentation: Building a Perspective Cube.	ASYNC: 10min. Drawing Cast Shadows	<i>Exercise:</i> Shading Cubes posted on class Google Drive.
Week 5 - Value			
9/15	Presentation: Rendering Matte Surfaces.		<i>Exercise:</i> Rendering Matte Surfaces posted on class Google Drive.

9/17	Presentation: Rendering Glossy Surfaces.		<i>Exercise:</i> Rendering Glossy Surfaces posted on class Google Drive.
Week 6 - Creative Problem Solving			
9/22	Presentation: Universal Creative Problem Solving Process.	ASYNC/ 1hr Abstract: The Art of Design Neri Oxman: Bio-Architecture	DUE: Two-Point Perspective Bird Hotel due via Blackboard at midnight 9/21. <i>Exercise:</i> How to Make Toast posted on class Google Drive and Mural.
9/25	Presentation: Brainstorming.		<i>Exercise:</i> Brainstorm posted on Mural.
Week 7 - Creative Problem Solving			
9/29	Presentation: Mindmapping.	ASYNC/ 1hr Abstract: The Art of Design Paula Scher: Graphic Design	<i>Exercise:</i> Mindmap posted on Coggle.
10/1	Presentation: Wireframing.		<i>Exercise:</i> Wireframes posted on Google Drive.
Week 8 - Graphics			
10/6	Presentation: Graphic Development.	ASYNC 1.5 hrs: Graphic Design Foundations	DUE: Three-Point Perspective Cubes due via Blackboard at midnight 10/5. <i>Exercise:</i> Graphic Economy posted on Google Drive.
10/8	Presentation: Geometry in Graphics.	ASYNC 2 hrs: Graphic Design Foundations: Typography	<i>Exercise:</i> Geometry in Graphics posted on Google Drive.
Week 9 - Typography			
10/13	Presentation: Typography.	ASYNC .5hrs/ Chpt. 1-4 America Through Foreign Eyes	DUE: Wireframing due via Blackboard at midnight 10/12. <i>Exercise:</i> Grid Based Typography posted on Google Drive.
10/15	Presentation: Calligraphy.	ASYNC 4hrs What is Design Thinking	<i>Exercise:</i> Calligraphy posted on Google Drive.
Week 10 - Data Visualization			
10/20	Presentation: Data Visualization.		<i>Exercise:</i> Quantitative Information Design posted on Google Drive.

10/22	Presentation: Designing a Visual Language.		<i>Exercise:</i> Notation and Visual Language posted on Google Drive.
Week 11 - Data Visualization			
10/27	Presentation: Data Journaling.		<i>Exercise:</i> Data Journaling posted on Google Drive.
10/29	Presentation: Data Visualization Software.		<i>Exercise:</i> Tableau posted on Google Drive.
Week 12 - Portfolio			
11/3	Presentation: Portfolio Branding and Development.		<i>DUE:</i> Data Visualization due via Blackboard at midnight 11/1. <i>Exercise:</i> Portfolio Development posted on Google Drive.
11/5			<i>Exercise:</i> Portfolio Branding posted on Google Drive.
Week 13 - Portfolio			
11/10			
11/12			
Week 14 - Final Presentations			
11/17	Final Portfolio Presentations. Tuesday, 4:30pm - 6:30pm		<i>DUE:</i> Final Portfolio due via Blackboard at midnight 11/16.

*Outline/schedule subject to change as needed

Assignments

1. **Symmetry/Asymmetry Thumbnails (10%)**
 - a. Create a grid of 10 squares inside of your 11" x 14" sketchbook. Use straight black ink lines to create black and white compositions. 5 of the squares should be symmetric compositions, 5 of the squares should be asymmetric.
2. **Contour Drawing (10%)**
 - a. Pick a shoe from your closet that has a lot of interesting geometric details. Set your shoe up in a still life position and illustrate it from a fixed position, focusing on the contours of the geometry, the proportions of the elements, and less on the value/shading of the material itself.
3. **One-Point Perspective Landscape (10%)**
 - a. Create a landscape sketch that utilizes one-point perspective inside of your 11" x 14" sketchbook. The landscape should include a road or train tracks, buildings, utility poles, street lamps, trees, and other elements that will showcase the vanishing perspective as items move closer to the horizon line.
4. **Two-Point Perspective Bird Hotel (10%)**

- a. Design a birdhouse for multiple birds inspired by a particular architecture movement. Use two-point perspective to sketch out the architecture inside of your 11" x 14" sketchbook. Shade and render the architectural elements to give a realistic sense of lighting and materials.
- 5. Three-Point Perspective Cubes (10%)**
- a. Print, cut, fold, and glue a perspective cube based on the template provided. If you don't have access to a printer, draw your own template using a ruler and pencil.
 - b. Inside of your 11" x 14" sketchbook draw 5 different angles of your perspective cube. Light the cube with a single lighting source (non-diffuse lamp, sunlight) and try to capture the values of lighting on each side of the cube as well as the shadows that are cast from it.
- 6. Wireframing (10%)**
- a. Use graph paper, illustrator, or a wireframing application to create a wireframe representation of screens for an app of your own design. The app should have 5 different views, each of which should have a unique layout. Use a mix of image and text areas, margins, padding, overlapping elements, navigation, and iconography.
- 7. Data Visualization (10%)**
- a. Using the data set provided to you, create a question you would like to pose against the data in order to establish an appropriate visual perspective for analysis. Create a visual representation of the data set that will afford the viewer a better understanding of the subject matter.
- 8. Final Portfolio (10%)**
- a. Use Adobe InDesign to put together a comprehensive portfolio of the work you have created in this class over the course of the semester. Export your final portfolio as a print quality PDF. Upload both your .INDD project file and .PDF file to blackboard.

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/sssa

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.