

ACAD 176 - Rapid Visualization

(4 units)

Fall 2022 – M/W (5pm-7:20pm)

Location: IYH 213

Instructor: Joel G. Bell, IDSA

Office: Online

Office Hours: By appointment

Contact Info: joelbell@usc.edu

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

Hours of Service: 8:30am - 6:30 pm

Contact Info: iya.helpdesk@usc.edu

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, you 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

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 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

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		80
In-Class		10
Asynchronous		10
TOTAL		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

Assignments will be submitted to both Blackboard and to your Miro board for review and feedback

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.

Fall 2021 addendum:

- Unless students provide an accommodation letter from USC's Office of Student Accessibility Services or a letter from IYA Student Services detailing visa or travel restrictions, attendance and active participation is expected in the classroom. Any student with such accommodations should submit their accommodation document to the instructor as soon as possible to discuss appropriate accommodations. Either classroom recordings or live remote access to the class via Zoom will be provided.
- Students who are experiencing illness should not attend class in person. Please inform the instructor in advance of any class sessions that you can't attend for medical reasons, and accommodations will be arranged to view recorded lectures and submit alternatives to any missed class participation. Students will not be penalized for not attending class in person under these circumstances.
- In the event that you find yourself experiencing COVID-19 related symptoms, in keeping with university recommendations, you should Stay home! This is the best way to prevent spreading COVID-19 as supported by scientific evidence; Please do not come to an in-person class if you are feeling ill, particularly if you are experiencing symptoms of COVID-19

Iovine and Young Hall Cleanout

The Academy is unable to store student projects and materials beyond the end of the semester. Students must remove all projects and personal materials from the Creators Studio, lockers/locker room, and other classrooms by the end of each semester. **All projects and materials left in Iovine and Young Hall will be discarded two days after final exams end. No exceptions.**

Zoom etiquette

All students attending class through Zoom must have their camera on at all times. If a student is unable to keep their camera on during the synchronous Zoom session, they must contact the instructor prior to the class session to discuss expectations and accommodations if needed.

Synchronous session recording notice

Synchronous sessions will be recorded and provided to all students asynchronously (generally through recorded Zoom sessions, integrated into Blackboard).

Sharing of course materials outside of the learning environment

USC has a policy that prohibits sharing of any synchronous and asynchronous course content outside of the learning environment.

SCampus Section 11.12(B)

Distribution or use of notes or recordings based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study is a violation of the USC Student Conduct Code. This includes, but is not limited to, providing materials for distribution by services publishing class notes. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the Internet or via any other media. (See Section C.1 Class Notes Policy).

Additional Policies

Class Rules:

1. No Eating or Drinking in class
2. No sleeping in class
- 3. Turn off cell phones**
4. Students must arrive on time, ready to work with appropriate materials, and remain in class
5. Students are required to present assigned work completed at the beginning of each class
6. Repeated tardy and absences will affect your grade even though you do well on your assignments
7. Students must actively participate in the assignments using the materials assigned
8. Students must participate in discussions and critiques
9. Students are to be prepared at all times for evaluation of their work up to the current assignment. This means students will carry all sketches and renderings in a portfolio, including homework and class work. Work must be kept in presentation condition: No torn, bent, rolled, stained, smudged or folded papers
10. Students will be required to complete assignments both in and outside of class
11. At the end of class, **CLEAN UP YOUR AREA.**
12. **IF YOU DECIDE TO STOP ATTENDING CLASS, IT IS YOUR RESPONSIBILITY TO OFFICIALLY DROP**

Materials List:

1. HB Mechanical Pencil .09
2. 8.5" x 11" copy paper
3. 18" or 24" ruler.
4. 9"x12" marker pad. (Beinfeld, Canson, Letraset.)
5. Prismacolor pencils. (Black, White, Indigo Blue, Dark Brown)
6. Cool grey markers. # 2,4,6 and black broad tip felt markers.
7. Colored Markers. (Light Blue, Light Brown or Tan)

HOW TO PURCHASE SOFTWARE AT THE DISCOUNTED ACADEMY RATE

For classes that require them, the following software are available for purchase **online** through the USC Iovine and Young software catalog at the Academy discounted rate:

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

To purchase:

- Visit: <https://commerce.cashnet.com/IOVINE>
- Select the software license(s) you would like to purchase by clicking “View Details” or the software title, and make your purchase
- You will receive an order confirmation receipt at the email address you provided
- You will be notified by email when the software license has been activated

If you have any questions about this process, please do not hesitate to contact Academy IT Support at iyahelp@usc.edu.

Only currently enrolled students are allowed in this classroom. Any visitors should be cleared with the instructor prior to class. The instructor reserves the right to make verbal or written changes to the syllabus or course schedule at any time during the semester. It is the student’s responsibility to keep up to date with any changes, revisions or requirements to the syllabus.

“The instructor reserves the right to modify the course content (grading procedures, tests, etc.) as the situation dictates. The instructor will inform the students of any such announcements.”

Course Schedule: A Weekly Breakdown

	Topics/Daily Activities	Readings and Projects	Deliverable/ Due Dates
<p>Week 1 <i>Day 1</i></p> <p>LINES and SHAPES</p>	<p>Syllabus + Expectations Introductions -</p> <p>Lecture: Lines and Shapes</p> <ul style="list-style-type: none"> • Design Elements and Principles • Design is everywhere • Demo on Lines Perspective/Shapes 	<p>Design Vocabulary</p> <p>PROJECT 1: Design Elements Shape</p>	<p>Classwork: Upload perspective Sketches Completed In-Class</p>
<p>Week 1 <i>Day 2</i></p> <p>LINES and SHAPES</p>	<p>Studying Light and Shadow</p> <ul style="list-style-type: none"> • Sketching the Basic Shapes <p>Team Scavenger Hunt 1hr. <i>Design Elements - LINES Organic and Manmade</i></p> <p>PROJECT 1 Review - Team Shapes</p> <p>Drawing the Basic Shapes <i>Design Elements - SHADING</i></p>	<p><i>Study Reference:</i></p> <ul style="list-style-type: none"> • Light and Shadow <p><i>Due at Midnight</i></p> <p>Team Scavenger Hunts: <i>Circles, Squares/Rectangles, Alphabet (26 InDesign Gri</i></p>	<p>Classwork: Upload Scavenger Hunt PDF on Lines - In-Class</p> <p>DUE PROJECT 1: Design Elements Shape</p> <p>Team Scavenger Hunts: Circles, Squares/ Rectangles, Alphabet</p>
<p>Week 2 <i>Day 1</i></p> <p>CONTOUR</p>	<p>In-Class Contours</p> <ul style="list-style-type: none"> • Demo on Lines Perspective/Forms and Grids <p>Review Lines Grid Project PDF</p> <p>In-Class Drawing Exercise: <i>Calculating Proportions</i></p> <p>Line and shape Expression of line/shape</p>	<p>Lines Shapes and Grid Composition</p> <p>ASYNC/ LAB/ 1hr.: Sketching with Peter Han</p>	<p>PROJECT 2: Design Elements</p> <p>Lines - Grid Composition PDF</p> <p><i>Due at Midnight</i></p>

<p>Week 2 Day 2</p> <p>CONTOUR</p>	<p>Lecture on Contour Expression of line/shape</p> <p>In-Class Drawing Exercise: Contours</p>	<p>PROJECT 3: Design Elements Shoe Contours Due before class</p>	<p>In-Class Drawing Exercise: Calculating Proportions</p>
<p>Week 3 Day 1</p> <p>PERSPECTIVE</p>	<p>Labor Day</p>	<p>ASYNC/ LAB/ 15min. 1-point perspective refined</p>	<p>PROJECT 3: Design Elements Shoe Contours Due at Midnight 2/02</p>
<p>Week 3 Day 2</p> <p>PERSPECTIVE</p>	<p>Review Project 3 Shoe Contours</p> <p>Review Perspective I: Lecture Atmospheric/ Isometric/ 1-2pt 1-point perspective 2-point perspective</p> <p>In-Class Perspective Exercises: Building proper perspective Calculating Ellipses</p> <p>Birdhouse Project Starts Birdhouses sketches e</p>	<p>PROJECT 4a: Perspective Birdhouse 1 Line Only Due at Midnight 2/09</p> <p>ASYNC/ 1hr Abstract: The Art of Design Es Devlin: Stage Design</p>	<p>PROJECT 3: Design Elements Shoe Contours Due at Midnight</p> <p>1pt. Perspective Exercise: 1 + 2pt Perspective</p>
<p>Week 4 Day 1</p>	<p>- Light and shading techniques to form and surfaces</p> <p>Refining Birdhouse line drawing</p>	<p>ASYNC 10min Sketch like an industrial designer</p>	

<p>Week 4 <i>Day 2</i></p> <p>VALUE</p>	<p>- Applying light shade and cast shadows</p> <p>Review Project 4a Birdhouse I</p> <p>Value/Rendering: 1-10 Block Value Scale Rendering in Value: Cubes - 10/30/60/90% grey</p> <p>Be sure to sign up for Mandatory Shop Training!</p>	<p>ASYNC: 10min. Drawing Cast Shadows</p>	<p>PROJECT 4b: Perspective Birdhouse 2 Line/Value <i>Due at Midnight</i></p> <p><i>Reflection Paper: Es Devlin</i></p>
<p>Week 5 <i>Day1</i></p> <p>VALUE</p>	<p><i>In-Class Rendering Exercises:</i> <i>Building Perspective + Value</i> <i>Product Rendering</i> <i>Underlays</i></p>		
<p>Week 5 <i>Day 2</i></p> <p>VALUE</p>	<p>Review Project 4b Birdhouse 2</p> <p><i>In-Class Rendering Exercises:</i> <i>Building Perspective Value</i> <i>Product Rendering</i> <i>Underlays</i></p>	<p><i>Brainstorming ideas towards</i> <i>Animal+Machine project 7</i> <i>ideas</i></p>	<p>PROJECT 4b: Perspective Birdhouse 2 Line/Value <i>Due at Midnight</i></p>

<p>Week 6 <i>Day 1</i></p> <p>CPS</p>	<p>Review Brainstorming ideas towards Animal+Machine 7 ideas</p> <p>Creative Problem Solving Process Brainstorming 7 Stages/ Lateral Thinking and Forced Connections</p> <p>Visual Research</p> <p><i>In-Class Rendering Exercises:</i> <i>Building with Simple Shapes</i></p>	<p>PROJECT 5: Perspective Animal+Machine Drawing <i>Due at Midnight</i></p> <p>ASYNC/ 1hr <i>Abstract: The Art of Design</i> <i>Neri Oxman: Bio-Architecture</i></p>	
<p>Week 6 <i>Day 2</i></p> <p>CPS</p>	<p><i>In-Class Rendering Exercises:</i> <i>Animal+Machine</i></p>	<p>PROJECT 5: Perspective Animal+Machine Drawing <i>Due at Midnight 3/02</i></p>	
<p>Week 7 <i>Day 1</i></p> <p>CPS</p>	<p>Review Project 5</p> <p>Visual Thinking I: Using all your senses in CPS</p>	<p>ASYNC/ 1hr <i>Abstract: The Art of Design</i> <i>Paula Scher: Graphic Design</i></p>	<p>PROJECT 5: Perspective Animal+Machine Drawing <i>Due at Midnight</i></p>
<p>Week 7 <i>Day 2</i></p> <p>CPS</p>	<p>Visual Thinking II: Graphic Communication Using all your Senses to visually communicate a design</p> <p><i>In-Class Rendering Exercises:</i> <i>Materials and color</i></p>	<p>PROJECT 6a: Graphic Thinking</p> <p><i>Round 1 Sketches</i> Incorporating callouts and other design cues</p>	

<p>Week 8 <i>Day 1</i></p> <p>GRAPHICS</p>	<p>Project 6a Review in Groups</p> <p>In-Class Rendering Exercises: Photoshop/Illustrator <i>Materials/Textures</i></p> <p>Lecture on Color Theory: Science, Psychology, Aesthetics</p>	<p>PROJECT 6b: <i>Graphic Thinking</i></p> <p><i>Round 2 with color/texture and graphics Finals</i> <i>Due Midnight</i></p> <p>ASYNC 1.5 hrs: Graphic Design Foundations Color Theory</p>	<p>PROJECT 6a: <i>Graphic Thinking</i></p> <p><i>Due Midnight</i></p>
<p>Week 8 <i>Day 2</i></p> <p>GRAPHICS</p>	<p><i>Project 6b Review in Groups</i></p> <p>n-Class Rendering Exercises: Photoshop/Illustrator <i>Materials/Textures</i></p> <p><i>Graphic Thinking</i></p>	<p>ASYNC 2 hrs: Graphic Design Foundations: Typography Typography</p> <p>PROJECT 6c: <i>Graphic Thinking</i> Advertisement for a product <i>Round 3 in 3 mediums</i></p> <ul style="list-style-type: none"> • Sketch Rendering • Digital Redering • Sculpture with graphics 	<p>PROJECT 6b: <i>Graphic Thinking</i></p> <p><i>Due Midnight</i></p>
<p>Week 9 <i>Day 1</i></p> <p>TYPE</p>	<p>PROJECT 6c Review</p> <p>Color Theory and Mood Boards</p> <ul style="list-style-type: none"> • Who is your consumer? • What type of feeling and/or lifestyle are you trying to evoke? • What words, fonts, images help you convey that message? • What are the colors and materials that will help you convey your message? <p>In-Class Type Exploration: <i>Design Thinking. Mind-maps in Miro</i></p>	<p>ASYNC 4hrs What is Design Thinking</p>	<p>PROJECT 6c: <i>Graphic Thinking</i></p> <p>Advertisement for a product <i>Create a presentation of all 3 stages. Be prepared to discuss work and decisions with the class.</i></p> <p><i>Due Midnight</i></p>

<p>Week 9 <i>Day 2</i></p> <p>DATA VIZ</p>	<p>Lecture: Data Viz</p> <p>In-Class Type Exploration: Data Viz Timeline</p>	<p>PROJECT 7: Data Visualization Who are You? Timeline Roughs</p>	
<p>Week 10 <i>Day 1</i></p> <p>DATA VIZ</p>	<p>Review Project 7 Roughs in Groups</p> <p>Design/Layout/ Typography: Hierarchy, Syntax, Morphology</p>		<p>PROJECT 7: Data Visualization Who are You? Timeline Roughs</p>
<p>Week 10 <i>Day 2</i></p> <p>Collaboration</p>	<p>In-Class Work towards P7: <i>Collaborative Project Concepts Research</i></p>	<p>PROJECT 8: Collaboration Who is your user? Collaborative Cohort Project <i>Concept Sketches</i></p>	
<p>Week 11 <i>Day 1</i></p> <p>Collaboration</p>	<p>Building figures in proportion Concept Sketching</p>		<p>PROJECT 8: Collaboration Who is your user? Collaborative Cohort <i>Concept Sketches</i></p>
<p>Week 11 <i>Day 2</i></p> <p>Collaboration</p>	<p>Lecture: Image in Motion Working in Teams</p> <p>In-Class Work towards P8: <i>Concept Sketches</i></p>	<p>PROJECT 8: Collaboration Who is your user? Collaborative Cohort <i>Concept Presentations</i></p>	
<p>Week 12 <i>Day 1</i></p> <p>Collaboration</p>	<p>In-Class Work towards P8: <i>Concept Sketches</i></p>	<p>PROJECT 8: Collaboration Who is your user? Collaborative Cohort Mural <i>Concept Sketches</i></p>	<p>PROJECT 8: Collaboration Who is your user? Collaborative Cohort <i>Concept Sketches</i></p>

<p>Week 12 <i>Day 2</i></p> <p>Collaboration</p>	<p><i>In-Class Work towards P8:</i> <i>Concept Comps</i> <i>Mural Research</i></p>		
<p>Week 13 <i>Day 1</i></p> <p>Collaboration</p>	<p><i>In-Class Work towards P8:</i></p>		
<p>Week 13 <i>Day 2</i></p> <p>Collaboration</p>		<p>Classes End: Monday, April 19th.</p>	<p><i>PROJECT 8: Collaboration</i> <i>FINAL</i> <i>Collaborative Cohort</i></p>
<p>Week 14 <i>Day 1</i></p> <p>FINALS</p>	<p>Finals: Finals Portfolio Delivery/Presentations Monday Only/ 8-10:00am</p>		

*Outline/schedule subject to change as needed

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.