

USC Iovine and Young Academy

*Arts, Technology and the Business
of Innovation*

PRIN 516 - Maker Foundation II

Units: 2

Day-Time: Fall 2020, Wednesday, 9:00am - 11:50am

Location: IYH 107

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

This is an advanced level class that will reinforce the skills and techniques learned in Maker Foundation I and further student's understanding and practice of design thinking, using Adobe CS industry standard software programs: Photoshop, Illustrator, Dimension, and XD. Practical and theoretical projects will pose challenging design problems that will encourage students to research, experiment, iterate and forge effective solutions in cross disciplinary collaborations.

Projects will require looking through a wide range of lenses with which to view a project prompt and what tools are most effective towards a solution. Who are you working for? Who are you speaking to? Why is it being created? Where is this concept going to be seen and when? What are the best tools to communicate your solutions? How will you help viewers navigate and engage with your designed experience? These and many other questions will be posed in context with the digital vehicle being utilized. The prompts focus not only on the application of techniques, but also on creating effective solutions using principles of design.

Students will use software in a variety of ways including image manipulation, color correction, compositing, typography, page layout, web design, user experience, user interface and illustration.

Learning Objectives and Outcomes

- Reinforce the skills and techniques learned in Maker Foundation I.
- Identify and become familiar with contemporary computer-generated artwork and related historical, social, and cultural contexts.
- Create brand identity and marketing materials.
- Apply problem-solving methodology using digital programs.
- Utilize advanced image color correction strategies.
- Learn advanced techniques in photo compositing and digital painting.
- Compose and use appropriate hierarchy using typography.

Prerequisite(s): None.

Co-Requisite(s): None.

Concurrent Enrollment: PRIN 515 - Maker Foundation I.

Recommended Preparation: Have Adobe Illustrator and Photoshop installed prior to the first day of class.

Course Notes

Overview: Students are responsible for all readings, assignments, including homework, in-class work, lectures, and presentations.

Technological Proficiency and Hardware/Software Required

- Laptop computer with authorized installations of the following software:
 - Adobe Illustrator.
 - Adobe Photoshop.
 - Adobe Dimension.
 - Adobe XD.
 - Adobe InDesign.
- Digital camera (smartphone will do).

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.

Grading Breakdown		Grading Scale		
Project Assignments	80%		A = 100 - 95	A- = 94 - 90
Readings	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		

Evaluation

A: (95-100%) A-: (90-94%)

EXCELLENT Means that your work is excellent. You have a thorough understanding of the course content, theories and the ideas presented in lectures and readings. Grades on all your assignments, attendance and participation are consistently excellent. You are engaged and actively participate in discussions and with the assignments. All of your assignments are thoroughly researched and turned in on time. You consistently demonstrate a high level of comprehension in your discussions and through your assignments.

B+: (87-89%) B: (83-86%) B-: (80-83%)

GOOD Means that your work is good and you demonstrate an above average understanding of the course content. Your grades on all your assignments, attendance and participation are consistently good or excellent. Ideas presented in class are understood and are reflected in your assignments. Your concepts were good, if not excellent, and you were usually able to bring them to life visually as needed.

C+: (77-79%) C: (73-76%) C-: (70-73%)

AVERAGE Means that your work, attendance, and participation are fair (average). You understand some of the ideas, themes and concepts presented in class. Your attendance and participation are average. Your performance in critiques and are average.

D+: (67-69%) D: (60-66%)

BELOW AVERAGE Means that your work was below average. You did not understand most of the ideas presented in class and did not adequately demonstrate comprehension in your assignments. Assignments were routinely not turned in or turned in on time. Your assignments are mediocre or poor and you were not able to communicate comprehension. Your attendance and participation were poor.

F: (0-59%)

FAILING Means that your work was poor or missing. You didn't understand the majority of the ideas presented in class and it is reflected in your work. Your concepts and ideas were poor or lacking and/or your work was not turned in. You did not attend and participate enough to pass.

Required Readings and Supplementary Materials

- [Ultimate Guide to Product Packaging Design - Morr](#)
- [The Interface Effect – Alexander R. Galloway](#)
- [HTML Responsive Design - W3Schools](#)
- [Responsive Web Design Basics - Pete LePage](#)
- [Grid Systems - Josef Muller-Brockmann](#)
- [Information as an Aesthetic Event - Lev Manovich](#)
- [The Narrative Storyboard - Bill Buxton](#)
- [Ten Principles of Good Design - Dieter Rams](#)

Additional Online Resources

- [LinkedIn Learning - Illustrator CC 2020 One-on-One Fundamentals by Deke McClelland](#)
- [LinkedIn Learning - Photoshop CC 2020 One-on-One Fundamentals by Deke McClelland](#)
- [LinkedIn Learning - Adobe XD Essential Training by Demian Borba](#)
- [LinkedIn Learning - Adobe Dimension Essential Training: The Basics by Theresa Jackson](#)
- [LinkedIn Learning - Adobe Dimension Essential Training: Workflows with Photoshop and Illustrator by Theresa Jackson](#)
- [LinkedIn Learning - Fusion 360 Essential Training by Nick Kloski](#)
- [LinkedIn Learning - Blender 2.8 Essential Training by David Andrade](#)
- [Adobe Creative Cloud Youtube Channel](#)
- [BlenderGuru](#)

Weekly Course Schedule

Week 1 - Research: Discovery

Wednesday, 8/19:

Introduction: Syllabus, Schedule, Assignments.
Research: Subject, Mediums, Paradigms.

Week 2 - Research: Exploration

Wednesday, 8/26:

DUE: Domain Research from MF1

Research: Function, Form, Engagement, Education.

Week 3 - Product: Ideation

Wednesday, 9/2:

DUE: Research Document Presentation

Product: Objectives, Limitations, Constraints, Digital Sketching.

Reading: [The Narrative Storyboard - Buxton](#)

Week 4 - Product: Selection

Wednesday, 9/9:

Product: Feasibility, Viability, Desirability.

Reading: [10 Principles of Good Design - Rams](#)

Week 5 - Product: Modeling and Rendering

Wednesday, 9/16:

DUE: Product Selection Presentation

Product: Solid Modeling Paradigm, Modeling Software, Rendering Pipeline, Rendering Software.

Week 6 - Product: Prototyping and Printing

Wednesday, 9/23:

Product: Exporting, Printing, Cutting, Milling.

Week 7 - Packaging: Function, Form, and Experience

Wednesday, 9/30:

DUE: Product Prototype Presentation

Packaging: Containment, Safety, Organization, Form, Experience.

Reading: [Ultimate Guide to Product Packaging Design - Morr](#)

Week 8 - Packaging: Layout, Materials, and Graphics

Wednesday, 10/7:

Packaging: Layout, Graphics, Materials, Manufacturing, Sustainability, Recycling.

Watch: [Inside an Agency's Packaging Design Process](#)

Week 9 - Packaging: Printing, Cutting, and Folding

Wednesday, 10/14:

Packaging: Printing, Cutting, and Folding.

Week 10 - Digital: Web and Apps

Wednesday, 10/21:

DUE: Package Design Prototype

Digital: Web Design, Hypermedia, Responsive Design, Web 2.0, Navigation, UI/UX, Mobile App Design, Pagination, VM-MV.

Reading: [Responsive Web Design Basics - LePage](#)

Reading: [HTML Responsive Web Design - W3Schools](#)

Reading: [Grid Systems - Brockmann](#)

Week 11 - Digital: Animation and Motion Graphics

Wednesday, 10/28:

Digital: Animating 3D Modeled Assets. Applying Branding to Motion Graphics.

Reading: [The Interface Effect ch. 1-2 - Galloway](#)

Week 12 - Digital: Interactivity

Wednesday, 11/4:

Digital: Processing, Arduino, Raspberry Pi.

Reading: [Information as an Aesthetic Event - Manovich](#)

Week 13 - Exhibition: Planning, Previz, and Narrative

Wednesday, 11/11:

DUE: Web Experience Prototype

Exhibition: Concept, Narrative, Layout, Architecture, Drafting, Previz.

Week 14 - Exhibition: Exhibit Design, Asset Management

Wednesday, 11/18:

Exhibition: Asset Design, Development, Management, Production and Installation.

Week 15 - Exhibition: Asset Production, Installation

Wednesday, 11/25:

Thanksgiving: NO CLASS!

Week 16 - Final Presentations

Wednesday, 12/2:

DUE: Final Presentations of Exhibition Designs

Assignments

1. Research Document (10%):

Put together a thorough presentation deck outlining the efforts and discoveries made during the research portion of your project development. You should provide a breakdown of your subject matter, findings, imagery, pain points, opportunities, and inspirations.

2. Product Selection (10%):

Put together a presentation deck that outlines the ideation process your group has been through over the past several weeks, and what decisions you have made that have narrowed you down to select a single idea that you feel best addresses the subject matter you have chosen. Include ample visuals and renders from your earlier explorations around form and function.

3. Product Prototype (10%):

Design and product a physical prototype of your product. Use a mix of analog prototyping materials (paper, cardboard form, wire, resin, wood) as well as digital prototyping technologies (solid modeling, 3D printing, stereolithography, laser cutting) to create a functional prototype of your product design. Produce a presentation deck that outlines the iterative process you have undergone to land on your most recent and most advanced prototype design.

4. Package Design (15%):

Design, develop, and prototype the physical packaging that will contain your product. You'll need to apply the branding material you have been developing in Maker Foundation I to the physical design of your packaging. Use layout software like Illustrator and Dimension to put together the physical characteristics of your packaging. Produce and photograph the physical packaging. Put together a presentation deck that includes the design iterations of your packaging both digitally and physically, as well as showcases the final documentation of your finished package design.

5. Web Experience Prototype (15%):

Produce a website design that will be used to communicate your product to the appropriate market. Your website should utilize responsive design, and you should showcase the look and experience of the website on both desktop (large landscape screen) as well as mobile (small portrait screen). The site should be a paginated scrolling experience with a minimum of 5 different sections to showcase different aspects of your product. You should produce a wireframe, moodboarding document, and mockups all included within a presentation deck.

6. Exhibition Design (20%):

Working as an entire class, plan an exhibition that will showcase each group's product design and all of the material that they have developed around it. Each group will have their own space in the exhibition area where you must determine the display and organization of all of the different assets you have produced throughout the semester while simultaneously ensuring that you follow the exhibition branding guidelines for a consistent experience throughout. Put together a presentation deck that outlines the narrative of your exhibition space, the assets you are showcasing, and some visual representation of the space (plan view, elevation, perspective, rendering).

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

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.