USC Iovine and Young Academy
Arts, Technology and the Business of Innovation

ACAD 178 - Digital Toolbox: Mo on Graphics

Units: 2
Day-Time: Spring 2022, Tuesday/Thursday, 9:00am - 11:50am

Loca on: IYH 210

Instructor: Aaron Siegel
Office: IYH Lobby or Zoom mee ng room listed on Blackboard.
Office Hours: In person: MW, 10am - 11:45am IYH lobby.
Zoom: Mondays, 6pm - 8pm.
Contact Info: aaronsie@usc.edu

IT Help:
h ps://uscedu.sharepoint.com/sites/IYAStudent/SitePages/IT-Resources.aspx
Hours of Service: M-F, 8:30am - 6:30pm
Contact Info: iya.helpdesk@usc.edu

Course Description

ACAD 178 - Motion Graphics intends to introduce students to tools for the creation of video based graphic animation using Adobe After Effects. Students will concentrate on conceptual elements of animation, visual composition, graphic design, timing, color, typography, tracking, rotoscoping, and video compositing.

Learning Objectives and Outcomes

1. Understand concepts and principles related to visual composition, typography, timing, video compositing, rotoscoping, and motion tracking.
2. Learn the fundamentals of linear animation and digital video manipulation.
3. Become familiar with the history of motion graphic design for film and television titles.
4. Develop creative ideas around the implementation of patterns, typography, and video.

Prerequisite(s): None.
Co-Requisite(s): None.
Concurrent Enrollment: None.
Recommended Preparation: Have Adobe After Effects installed prior to the first day of class.

Course Notes

The class will be a mix of technical demonstrations, software workshop exercises, lectures on the history and contemporary applications of motion graphics, as well as collective critique sessions. Technical demonstrations may be recorded and shared with the students afterward for further review. Lecture materials will be made available on Blackboard or via class email.

Technological Proficiency and Hardware/Software Required

- Laptop computer with authorized installations of Adobe After Effects, Illustrator, and Audition.

Supplementary Learning Materials

- Mark Christiansen - After Effects CC 2021 Essential Training: The Basics
- Alan Demafiles - After Effects CC 2021 Essential Training: Motion Graphics
- Alan Demafiles - After Effects CC 2021 Essential Training: VFX

Assignments

1. Project #1: Top Five Title Sequences (10%)
    - Visit Art of the Title and select four of your favorite title sequences from the site, as well as one that is not on the site that you consider a personal favorite, and write a short description for each one (100 - 200 words) outlining the characteristics you like about it.
2. Project #2: Looping Animation (20%):
    - Create an animated composition following the description and guidelines in the rubric. The description and guidelines must be followed explicitly, but any room for interpretation is encouraged to be played with.
3. Project #3: Kinetic Typography (20%):
    - Use 8, 16, or 20 lyrical measures of a song (ie: a verse) to create a short video using kinetic typography animated in sync with the music following the description and guidelines in the rubric. Use After Effects and the various text, shape and effects tools to implement the appropriate styles and animations to match the style of music and content of the lyrics.
4. Project #4: Interface Mockup (20%):
    - Use rotoscoping, tracking, and compositing techniques to create a short (10 second) video of a fictional graphic user interface experience, either touchscreen/surface based or holographic (think Minority Report or Tron 2). Your interface should be an original design that you have created in Adobe Illustrator and After Effects, and the footage of the user interaction should be original footage you film yourself.

Grading Breakdown			**Grading Scale**		
Top Five Title Sequences	10%			A = 100 - 95	A- = 94 - 90
Looping Animation	20%		B+ = 89 - 87	B = 86 - 83	B- = 82 - 80
Kinetic Typography	20%		C+ = 79 - 77	C = 76 - 73	C- = 72 - 70
Interface Mockup	20%		D+ = 69 - 67	D = 66 - 63	D- = 62 - 60
Quizzes (5% x4)	20%		F = 59 and below		
Participation (24 in-class lab exercises)	10%				

Weekly Class Schedule

Week	Tuesday	Thursday
1	***1/11:*** Syllabus / Schedule / Assignments. After Effects Interface. Timeline, Layers, Keyframes. Shape Layers. Exporting and Compressing Media. *LAB #1: Ball Bounce* *LAB #2: Ball Bounce and Roll*	***1/13:*** DUE: Project #1: Top Five Title Sequences. Shape Layer Modifiers, Layer Styles. Footage, Compositions, Assets. Photoshop / Illustrator Pipeline. Importing Illustrator files as Compositions. *LAB #3: Shape Modifier* *LAB #4: Imported Illustrator Graphics*
2	***1/18:*** DUE: Quiz #1: After Effects Basics Track Mattes and Masks. Nesting Compositions. Parent/Child Layer Relationships.	***1/20:*** DUE: Project #2: Looping Animation. Presentations & Critique.

	Motion Blur. *LAB #5: Masked Animation* *LAB #6: Parent / Child Animation*	
3	***1/25:*** Audio in Audition & After Effects. Snapping & Alignment. Text Layers, Text Styles. Text Effects and Animation Presets. *LAB #7: Text Property Animation* *LAB #8 Text Animation Preset*	***1/27:*** Audio Analysis. Expressions. *LAB #9: Audio Visualizer* *LAB #10: Expressions*
4	***2/1:*** DUE: Quiz #2: After Effects Features 3D Transforms. Lights. Materials. *LAB #11: 3D Transforms* *LAB #12: Lights & Materials*	***2/3:*** Cameras. *LAB #13: Camera Movement* *LAB #14: Depth of Field*
5	***2/8:*** Cinema4D Renderer. Extruded Geometry. Raytracing, Reflections. *LAB #15: Extruded Geometry* *LAB #16: Raytraced Materials*	***2/10:*** DUE: Project #3: Kinetic Typography. Presentations & Critique.
6	***2/15:*** DUE: Quiz #3: After Effects Features Chroma Key, Rotoscoping. *LAB #17: Chroma Key* *LAB #18: Rotoscope Footage*	***2/17:*** Motion Tracking. *LAB #19: One-Point Tracking* *LAB #20: Four-Point Tracking*
7	***2/22:*** Footage Effects. *LAB #21: Blur* *LAB #22: Glow*	***2/24:*** Footage Effects. *LAB #23: Noise & Grain* *LAB #24: Color Separation / Glitching*
8	***3/1:*** Working Day.	***3/3:*** DUE: Quiz #4: After Effects Features DUE: Project #4: Interface Mockup. Presentations & Critique.

HOW TO PURCHASE SOFTWARE AT THE DISCOUNTED ACADEMY RATE

The following first year software are now available for purchase online through the USC Iovine and Young software catalog at the Academy discounted rate:

Software	**IYA Short-Term License**
Adobe Creative Cloud	$70 2021-2022 annual license (active through July 2022)

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 iya.helpdesk@usc.edu.

Assignment Rubrics

Student work will be assessed based on:

- Level of understanding and execution of software skills on assignments.
- Degree of complexity of the assignment goal both creatively and technically.
- Innovative application of tools and concepts covered in class.

Assignment Submission Policy

Submit all of your digital assets for your assignments via the team Google Drive at least one hour prior to the start of the class session. Make sure you submit the original project file (After Effects project file and resources) as well as a static exported file (compressed .mp4 using h.264 or h.265 compression). Each in-class lab exercise is due at midnight of that class day and will count towards your participation credit. ***Templates or plugins are not allowed on any assignments or in-class lab exercises. All work (including images, illustrations, and footage) must be created from scratch by you.***

Grading Timeline

Checkpoints and assignments will be reviewed, graded, and provided with feedback within a week of submission.

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 ⅓ 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.

Spring 2022 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

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).

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.