

# VFX374/474 – Compositing 1 – Syllabus

DePaul University Winter 2023 (501)

Instructor CK "Kaia" Olsen

## Instructor Contact Information

- **Instructor:** CK "Kaia" Olsen - (He/Him)
- **Email:** [colsen11@depaul.edu](mailto:colsen11@depaul.edu)
- **Office Hours:** Tuesdays Noon-1:30PM
- **Office Hours Zoom Link:** <https://depaul.zoom.us/j/753170617>
- **Phone:** +1 (312) 415-9095
- **Preferred Contact:** via email first
- **Tech Support:** [scaavsupport@depaul.edu](mailto:scaavsupport@depaul.edu)

I generally respond to emails within 24 hours Monday through Friday. I generally DO NOT respond to emails on the weekends or holidays. As such, please don't wait until the weekend to ask class related questions.

## Course Information

- **Description:** Compositing is the art and science of manipulating photographic imagery. This project-based course builds the core tool set for compositing live-action filmed footage.
- **Topics will include:** Photographic principles, Green Screen, Compositing, Rotoscope, Basic Animation and more.
- **Meeting Day/Time:** Tuesdays 1:30pm - 4:45PM CST
- **Class Physical Location:** DePaul Center, Concourse Level, Room C106b
- **Instruction Type:** Synchronous Lecture-Discussion

## Course Prerequisites

VFX200 or ANI105 or GD105 or DC225. Additionally, you will need at a minimum:

- Frequent access to a Mac or Windows computer that connects to the Internet, with the following suggested technical specifications: Intel® 7thGen CPU or equivalent, 16 GB of RAM, Graphics card with 4GB+ VRAM, 1920 x 1080 or greater monitor resolution, 30GB disk space for installation. (*Specifications lower than this should be tested in advance of class to ensure a good experience.* Instructions to find out the specifications of your system are available here: [Finding Out Your Technical Specifications](#))
- **Access to [NUKE X and NUKE STUDIO software](#) from The Foundry**
- Access to your Depaul e-mail account that you check regularly.
- Access to a software suite such as Microsoft Office (Word, Excel, Power Point). DePaul students are eligible to receive Office 365 ProPlus for installation on their home computer and personal mobile devices. See [Office 365 Education Plus](#) for installation instructions.
- Administrator access to a computer to install software.
- The ability to view video files.

## Required Materials (available via D2L)

- *The Art and Science of Digital Compositing, Second Edition* by Ron Brinkmann ([Links on D2L](#))

## Learning Outcomes

- Navigate the interface of a node-based compositing application.
- Remove rigs and visual artifacts from video footage

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- Efficiently rotoscope using motion trackers and curves.
- Design and produce green screen content for visual effects.
- Create a clean chromakey matte from greenscreen or bluescreen footage.
- Composite moving images with photorealistic lighting and perspective.

## **Assessment**

- Nuke Weekly Exercises: 25%
- Team Project:
  - VFX Pre-Production Packet: 10%
  - Project Footage: 5%
  - Project Rough Cut 5%
  - Work In Progress Edit: 10%
  - Final Composited Sequence: 10%
  - Peer Review: 10%
- Nuke Final “Performance Test”: 25%

**PLEASE NOTE: ALL COURSE ASSIGNMENTS WILL BE TURNED IN/SUBMITTED WITHIN D2L.**

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## Course Outline

### Week 1

- Topics: Course overview; Introduction to compositing; Digital image fundamentals; Introduction to Nuke.
- Assignments: Nuke Exercise 1 - Shark Composite
- Reading: *The Art and Science of Digital Compositing, Second Edition*
  - Introduction to the Second Edition, Pages: xiiv - xix
  - Chapter 1: Introduction to Digital Compositing, Pages: 1 - 14

### Week 2

- Topics: Nuke Fundamentals: Interface, Timing, Animation & Color.
- Assignments: Nuke Exercise 2, Team Project Assignments
- Reading: *The Art and Science of Digital Compositing, Second Edition*
  - Chapter 3: The Digital Representation of Visual Information, Pages: 53 - 92
  - Chapter 4: Basic Image Manipulation, Pages: 93 - 130
- Due: Nuke Exercise 1

### Week 3

- Topics: Shot design; Pre-production; 2D Tracking; Team project production.
- Assignments: Nuke Exercise 3
- Reading: *The Art and Science of Digital Compositing, Second Edition*
  - Chapter 2: Learning to See, Pages: 15 - 52
  - Chapter 5: Basic Image Compositing, Pages: 149 - 183 (stop at “Morphing” section)
  - Chapter 12: Creating Elements, Pages: 345 - 366
- Due: Nuke Exercise 2

### Week 4

- Topics: Shooting on a greenscreen.
- Reading: *The Art and Science of Digital Compositing, Second Edition*
  - Chapter 6: Matte Creation and Manipulation, Pages: 189 - 231
- Due: Nuke Exercise 3

### Week 5

- Topics: Rotoscoping; Rig Removal; Team project production.
- Reading: *The Art and Science of Digital Compositing, Second Edition*
  - Chapter 8: Image Tracking and Stabilization, Pages: 249 - 262 (stop when you get to “Camera Tracking” section)
- Reading: Chapter 4, *Digital Compositing with Nuke*

### Week 6

- Topics: Chromakeying; Team project production.
- Assignments: Nuke Exercise 5
- Reading: *Keylight Users Guide* (PDF)
- Due: Nuke Exercise 4

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## **Week 7**

- Topics: Compositing Workflows; Nuke Studio; Team project footage review.
- Reading: *The Art and Science of Digital Compositing, Second Edition*,
  - Chapter 11: Quality and Efficiency, Pages: 327 - 344
  - Chapter 13: Additional Integration Techniques, Pages: 367 - 403
- Due: Nuke Exercise 5, Team project greenscreen footage

## **Week 8**

- Topics: Advanced chromakeying techniques, Managing noise and grain; Team project production.
- Reading: *The Art and Science of Digital Compositing, Second Edition*
  - Chapter 7: Time and Temporal Manipulations, Pages: 233 - 247
  - Chapter 9: Interface Interactions, Pages: 263 - 290
- Reading: Chapter 6, *Digital Compositing with Nuke*
- Due: Team Project Rough Cut

## **Week 9**

- Topics: Compositing color management, Compositing effects; Team project production.
- Due: Team project post-visualization

## **Week 10**

- Topics: Team project final critique, Peer review, Nuke Performance evaluation overview.
- Due: Team project final sequence

## **Week 11- Finals Week**

- FINAL: Nuke performance test

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## Course Policies

- **Focus:** Class time requires your complete attention. All students are expected to participate in all class activities. This means no distractions, such as cell phone use, web browsing, texting/chatting, food, or working on other projects in class.
- **Professionalism:** Students are expected to act according to the professional environment of the classroom. This includes but is not limited to:
  - Maintaining a positive and open-minded attitude while participating in class discussions.
  - Progressively achieving the highest standards of quality of artwork to be submitted for grading.
  - Defending their artwork in an articulate manner that demonstrates critical and analytical thinking.
  - Demonstrating neat, self-disciplined, and timely work habits.
  - Attending class on time and stay throughout the whole class period.
- **Dailies:** Each week we will spend the first portion of class reviewing your assignments together as a group. IN ORDER TO BE INCLUDED IN DAILIES, YOUR ASSIGNMENT MUST BE TURNED IN BY NOON ON THE DAY **BEFORE** CLASS. Please do not wait until the last moment to work on your VFX assignment.
- **Grace Period:** I have a 24 hour Grace Period for assignment submissions, so there will be no late penalty for assignments turned in **AFTER** the Dailies cutoff but **BEFORE** Class starts. **HOWEVER**, these will not be included within Dailies preventing you from getting valuable in-class feedback. Any assignment turned in after this Grace Period will be considered **LATE WORK**.
- **Resubmissions:** Visual effects are a highly iterative process. In the spirit of this, any of the initial six VFX exercise assignments that are turned in **BY THE ORIGINALLY ASSIGNED DEADLINE** are able to be revised and resubmitted. Revised files should be uploaded to the original submission folder on D2L. Resubmissions will be accepted until the beginning of the final class of the course. Neither the Student Presentation nor Final Project assignments are eligible for resubmissions.
- **Late work:** Assignments submitted late will have their grades reduced by 20% per class the assignment is late. **Late assignments are not eligible for resubmissions.**
- **Grading:** I generally grade assignments within 10 days of submission, and assign grades according to the following: **A=93-100, A-=90-92, 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=0-59.**
- **Attendance:** Attendance is key to success in this course. Students who miss three days of class without prior instructor approval (in writing) will have their final grade lowered by 20%. Students who miss four days of class automatically fail the course. Missing more than 15 minutes of class (again without prior instructor approval) counts as an absence.
- **Contact:** Please make time during my office hours to ask questions in person, as this is often the fastest way to answer a complex question. I also can be available outside of office hours by appointment. I make every effort to respond to email within 24 hours, except on weekends and holidays. If you have an issue or emergency, please contact me as soon as possible before the next class date.
- **Have fun:** Making film and VFX can be challenging and stressful; don't forget to have fun and enjoy the process. We are all artists, and our art thrives when we put our individual ideas, passion and enthusiasm into our work.
- **Syllabus Changes:** This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be addressed during class, and posted here in D2L.
- **Drop Dates:** Can be found at <https://academics.depaul.edu/calendar/Pages/default.aspx>

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## **University Policies**

### **Covid-19 Health & Safety Precautions**

Keeping our DePaul community safe is of utmost importance in the pandemic. Students, faculty and staff are expected to (1) wear a mask as required at all times while indoors on campus; (2) refrain from eating and drinking in classrooms; (3) keep current with their COVID-19 vaccinations or exemptions; (4) stay home if sick; (5) participate in any required COVID-19 testing; (6) complete the online Health and Safety Guidelines for Returning to Campus training; and (7) abide by the City of Chicago Emergency Travel Advisory. By doing these things, we are Taking Care of DePaul, Together. The recommendations may change as local, state, and federal guidelines evolve. Students who do not abide by the mask requirement may be subject to the student conduct process and will be referred to the Dean of Students Office. Students who have a medical reason for not complying with any requirements should register with DePaul’s Center for Student with Disabilities (CSD).

### **Accommodations and Students with Disabilities**

Students seeking disability-related accommodations are required to register with DePaul's Center for Students with Disabilities (CSD) enabling you to access accommodations and support services to assist your success. There are two office locations:

- Loop Campus - Lewis Center #1420 - (312) 362-8002
- Lincoln Park Campus - Student Center #370 - (773) 325-1677

Students can also email the office at [csd@depaul.edu](mailto:csd@depaul.edu)

Students who are registered with the Center for Students with Disabilities are also invited to contact me privately to discuss how I may assist in facilitating the accommodations you will use in this course. This is best done early in the term. Our conversation will remain confidential to the extent possible.

### **Additional Accommodations**

This course may include instructional content delivered via audio and video. If you have any concerns about your ability to access and/or understand this material in its default format, please notify me within the first week of the course so accommodations can be made.

### **Preferred Name and Gender Pronouns**

Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the quarter so that I may make appropriate changes to my records. Please also note that students may choose to identify within the University community with a preferred first name that differs from their legal name and may also update their gender. The preferred first name will appear in University related systems and documents except where the use of the legal name is necessitated or

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required by University business or legal need. For more information and instructions on how to do so, please see the Student Preferred Name and Gender Policy at [policies.depaul.edu](https://policies.depaul.edu).

## **University Counseling Services**

DePaul University Counseling Services (UCS) is committed to providing a range of culturally aware and sensitive clinical services to help currently enrolled DePaul students remove barriers to academic and personal success by addressing emotional, psychological, and interpersonal concerns through multiple treatment modalities. Services offered include: group counseling, individual counseling, couples counseling, crisis management, consultation, referrals, and telereach/outreach workshops. All services are currently being offered on a virtual, remote basis with no fees due to COVID-19. To connect with the counseling center, contact our main number at (773) 325-7779 during regular business hours (Monday-Friday, 9am-5pm) to schedule an initial consultation, which is typically scheduled within 1-2 business days.

If you need more immediate assistance or are in acute distress, you can call the main number during regular business hours and ask to speak with a counselor. If you are experiencing a life-threatening emergency, call 911 or go to your nearest emergency room. The Counseling Services staff has extensive experience with providing support services to individuals of varying social identities and backgrounds. Further, our counselors know that commitment to diversity, inclusivity, and anti-racism is an ongoing and open-ended journey and, as such, our counselors frequently and regularly engage in self-reflection and training opportunities to increase cultural awareness and to challenge one’s own privileges and biases.

## **Assistance with Writing – The Writing Center**

I strongly recommend you make use of the Writing Center throughout your time at DePaul. The Writing Center provides free peer writing tutoring for DePaul students, faculty, staff, and alumni. Writing Center tutors work with writers at all stages of the writing process, from invention to revision, and they are trained to identify recurring issues in your writing as well as address any specific questions or areas that you want to talk about. Visit [www.depaul.edu/writing](https://www.depaul.edu/writing) for more information.

## **Student Evaluations**

At the end of this course, you will be provided with the opportunity to evaluate this course. Course evaluations provide valuable feedback that can improve teaching and learning. The greater the level of participation, the more useful the results. As students, you are in the unique position to view the instructor over time. Your comments about what works and what doesn’t can help faculty build on the elements of the course that are strong and improve those that are weak. Isolated comments from students and instructors’ peers may also be helpful, but evaluation results based on high response rates may be statistically reliable (believable). As you experience this course and material, think about how your learning is impacted. Your honest opinions about your experience in and commitment to the course and your learning may help

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improve some components of the course for the next group of students. Positive comments also show the department chairs and college deans the commitment of instructors to the university and teaching evaluation results are one component used in annual performance reviews (including salary raises and promotion/tenure). The evaluation of the instructor and course provides you an opportunity to make your voice heard on an important issue – the quality of teaching at DePaul. Don’t miss this opportunity to provide feedback!

## **Academic Integrity**

DePaul University is a learning community that fosters the pursuit of knowledge and the transmission of ideas within a context that emphasizes a sense of responsibility for oneself, for others and for society at large. Violations of academic integrity, in any of their forms, are, therefore, detrimental to the values of DePaul, to the students’ own development as responsible members of society, and to the pursuit of knowledge and the transmission of ideas. Violations include but are not limited to the following categories: cheating; plagiarism; fabrication; falsification or sabotage of research data; destruction or misuse of the university’s academic resources; alteration or falsification of academic records; and academic misconduct. Conduct that is punishable under the Academic Integrity Policy could result in additional disciplinary actions by other university officials and possible civil or criminal prosecution. Please refer to your Student Handbook or visit Academic Integrity at DePaul University (<http://academicintegrity.depaul.edu>) for further details.