

VFX374 – Compositing 1 - Syllabus

DePaul University

Course Information

Course Number/Title: VFX 474 – Compositing 1

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.

Prerequisites: VFX200 or ANI105 or GD105 or DC225

Term: Spring 2020

Section: 901

Meeting Day/Time: Tuesdays 1:30pm-4:45pm CST (Chicago Time) beginning 3/31/2020

Location: ONLINE via Zoom Live Stream: <https://depaul.zoom.us/j/724063612>

Instruction Type: Lecture-discussion

Drop Dates: Can be found at <https://academics.depaul.edu/calendar/Pages/default.aspx>

Course Management and Materials: D2L

Tech Support: scaavsupport@depaul.edu

Faculty Information

Christopher Olsen (Colsen11@depaul.edu) 312-415-9095

Office Hours: Tuesdays and Thursdays Noon-1:30pm ST (Chicago Time)

Office Hours Location: ONLINE via Zoom Live Stream

Learning Outcomes

Students will be able to:

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

Software

NukeX, Nuke Studio

Textbook and Electronic Readings

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

Assignments & Grading

Nuke Weekly Exercises: 20%

Team Project:

VFX Preproduction Packet: 10%

Project Footage: 10%

Work In Progress Edit: 10%

Final Composited Sequence: 20%

Peer Review: 10%

Nuke Final “Performance Test”: 20%

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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*

- A. Introduction to the Second Edition
 - a. Pages: xiiv - xix
- B. Chapter 1: Introduction to Digital Compositing
 - a. 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*

- A. Chapter 3: The Digital Representation of Visual Information
 - a. Pages: 53 - 92
- B. Chapter 4: Basic Image Manipulation
 - a. 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*

- A. Chapter 2: Learning to See
 - a. Pages: 15 - 52
- B. Chapter 5: Basic Image Compositing
 - a. Pages: 149 - 183 (stop when you get to “Morphing” section)
- C. Chapter 12: Creating Elements
 - a. Pages: 345 - 366

Due: Nuke Exercise 2

Week 4

Topics: Shooting on a greenscreen.

Reading: *The Art and Science of Digital Compositing, Second Edition*

- A. Chapter 6: Matte Creation and Manipulation
 - a. Pages: 189 - 231

Due: Nuke Exercise 3

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Week 5

Topics: Rotoscoping; Rig Removal; Team project production.

Reading: *The Art and Science of Digital Compositing, Second Edition*

A. Chapter 8: Image Tracking and Stabilization

a. 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

Week 7

Topics: Compositing Workflows; Nuke Studio; Team project footage review.

Reading: *The Art and Science of Digital Compositing, Second Edition*

A. Chapter 11: Quality and Efficiency

a. Pages: 327 - 344

B. Chapter 13: Additional Integration Techniques

a. 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*

A. Chapter 7: Time and Temporal Manipulations

a. Pages: 233 - 247

B. Chapter 9: Interface Interactions

a. 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

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.
- Resubmissions: Visual effects are a highly iterative process. In the spirit of this, any of the initial Nuke exercise assignments that are turned in ON TIME 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 penalties cannot be made up by 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.**
- Attendance: Attendance is key to success in this course. Student who miss three days of class will have their final grade lowered by 20%. Students who miss four days of class will automatically fail the course. Missing more than 15 minutes of class 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 all of our passion and enthusiasm into our work.

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University Policies

Changes to Syllabus

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be thoroughly addressed during class, posted under Announcements in D2L and sent via email.

Online Course Evaluations

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at <http://academicintegrity.depaul.edu/>. If you have any questions be sure to consult with your professor.

Academic Policies

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at: <http://www.cdm.depaul.edu/Current%20Students/Pages/PoliciesandProcedures.aspx>

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at:

csd@depaul.edu

Lewis Center 1420, 25 East Jackson Blvd.

Phone number: (312)362-8002

Fax: (312)362-6544

TTY: (773)325.7296