VFX474 Compositing 1 Syllabus
DePaul University

Course Information
Course Code: VFX474
Course Title: Compositing 1
Prerequisites: DC 420
Term: Spring 2019
Section: 1
Class Hours: Tuesdays, 1:30-4:45pm
Location: CDM 632

Faculty Information
Brian Andrews
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Office Hours: Mondays 2:30pm - 5:30pm
Office Hours Location: CDM 477

Course Description
Compositing is the art and science of manipulating the content of photographic images. This project-based course builds the core tool set for compositing live-action filmed footage.

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.
- Supervise green screen production and post-production.

Software
NukeX, Nuke Studio

Textbook
The Art and Science of Digital Compositing, Second Edition by Ron Brinkmann

Assignments & Grading
Nuke Exercises: 20%
Team Project:
> VFX Preproduction Packet: 10%
> Greenscreen Footage: 10%
> Final Composited Sequence: 20%
> Peer Evaluation: 20%
> > *VFX474 students must act as VFX producers for the project.
Nuke Performance Evaluation: 20%

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

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, Team project preproduction packet

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

Note: Class will be held at Cinespace Studios from 1:15pm - 4:30pm. I recommend taking the shuttle from the CDM building which departs hourly for Cinespace.

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

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

Note: Final class day runs from 2:30 - 4:45pm.

Topics: Nuke performance evaluation.

Cinespace Orientation

This course requires shooting at Cinespace for your team project. If you have not completed Cinespace safety training you can do so here: https://d2l.depaul.edu/d2l/lp/navbars/653204/customlinks/external/12540

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. I highly encourage revisions and resubmission of work based off of feedback from the class. Resubmitted files should be submitted to the original submission folder on D2L. Resubmissions will be accepted until the beginning of the final class of the course. Project reviews are time based and therefore not eligible for resubmissions. Late work penalties cannot be made up by resubmissions.
- Late work: Assignments submitted late will have their grades reduced by 15% per class day 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 attend office hours and ask questions in person, as this is often the fastest way to answer a complex question. I also am available outside of office hours by appointment. I make every effort to respond to email within 24 hours, with the exception of Sundays and holidays. If you have an issue or emergency, please contact me as soon as possible before the next class date.
- Have fun: While 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.

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