



Digital Art and Animation

3D/CG ART

Make art using a 3D/CG industry workflow.

Years taught: 2011-2019, 2021

[UF Catalog](#)[Course Description](#)[Course Details](#)

ART 3616C/6675C introduces the student to the use of 3D computer generated imagery in the production of contemporary art. In the process of learning this practice, and the discourse that surrounds it, you will learn how to 3D model and navigate an "animation workflow" prevalent in the computer graphics industry. The emphasis is on the development of an experimental art practice that combines form, method, and content, encouraging the artist to "seize" the means of production towards their own ends.

Multiple projects emphasizing different aspects of what is considered the "animation pipeline", from 3D modeling, texturing, lighting, simple motion, and post-production compositing techniques, will be used to develop the students skills in the overall, artistic use of these technologies. You will learn to integrate CG elements with photographic background imagery in the form of still or short motion composites. Lectures on principles and methods, introduction to the history of animation in contemporary art, and screenings of past and contemporary uses of computer graphics in art practice are planned. Reading and writing assignments will lead to class discussions investigating the nature of digital art and animation.

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Credits: 3; Prereq: [DIG 2131C \(Digital Imaging\)](#) and [DIG 2282C \(Timebased Media\)](#) or with permission of faculty.

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Undergraduate: ART 4612c Section 2893
Graduate: ART 6925c Section 8259
Class: ONLINE – See UF Canvas for Zoom links/info.
Time: T/Th 8:30AM – 11:30AM
Website: <http://jackstenner.com/teaching/dig-art-animation>
Listserv: Class contact will be made through UF Canvas.

Objectives

Over the course of the semester, the goal is to help you develop your art practice in the following ways:

1.

Articulate
Intervene in the cinematic image, digitally.

2.

Compose
Compose motion graphics and imagery.

3.

Criticality
Engage in meaningful discussion and develop a sense of criticality.

4.

Synthesis
Synthesize multiple softwares into a workable production pipeline.

5.

Communicate
Propose ideas in a way that clearly demonstrates intent.

6.

FUN
Have FUN!



Attendance

Grades

Evaluation

Covid-19

Grades will be based 95% on projects, reviews, and class assignments. 5% will be based on class participation. See below for the breakdown. You are expected to constructively criticize your peers. Constructive criticism is considered a part of your class participation.

Detailed, specific info on grades and grading can be found at:

<https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

Notwithstanding the description of grades above, generally, grades are conceived in this way:

A(Excellent) Student's work is of exceptional quality and the solutions to problems show a depth of understanding of the program requirements. Project is fully developed and presented well both orally and graphically. Student has developed a strong and appropriate concept that clearly enhances the overall solution. The full potential of the problem has been realized and demonstrated.

B(Good) Student's work shows above average understanding and clear potential. All program requirements are fulfilled and clearly and concisely presented.

C(Fair) Student's work meets minimum objectives of course and solves major problem requirements. Work shows normal understanding and effort. Quality of project as well as the development of knowledge and skills is average.

D(Poor) Student's work shows limited understanding and/or effort. Minimum problem requirements have not been met. Quality of project or performance as well as development of knowledge and skills is below average.

F(Failure) Student's work is unresolved, incomplete and/or unclear. Minimum course objectives or project requirements are not met, and student's work shows lack of understanding and/or effort. Quality of project or performance is not acceptable.

Instructor's evaluation of student's interest, motivation, attendance, proficiency and overall development or improvement during the semester will be taken into consideration in determining the final course grade. This syllabus is subject to refinement and development throughout the semester based on feedback and class interaction. Policies and grading criteria are absolute and will not change. Any substantial changes will be discussed with the class prior to implementation.

Grading breakdown:

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Simple Form = 15%
Form and Meaning = 15%
What is Real? Proposal = 10%
What is Real? = 20%
What is Real? Documentation = 10%
Reflective Writings = 15%
Participation = 15%
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Attendance	Grades	Evaluation	Covid-19
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Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>.

Because of Covid-19, classes will be held via Zoom this semester. Links to the Zoom meetings are located on the course Canvas page. It is critical that you attend class in this manner and at these times in order to keep up with the course.

Attendance	Grades	Evaluation	Covid-19
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Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

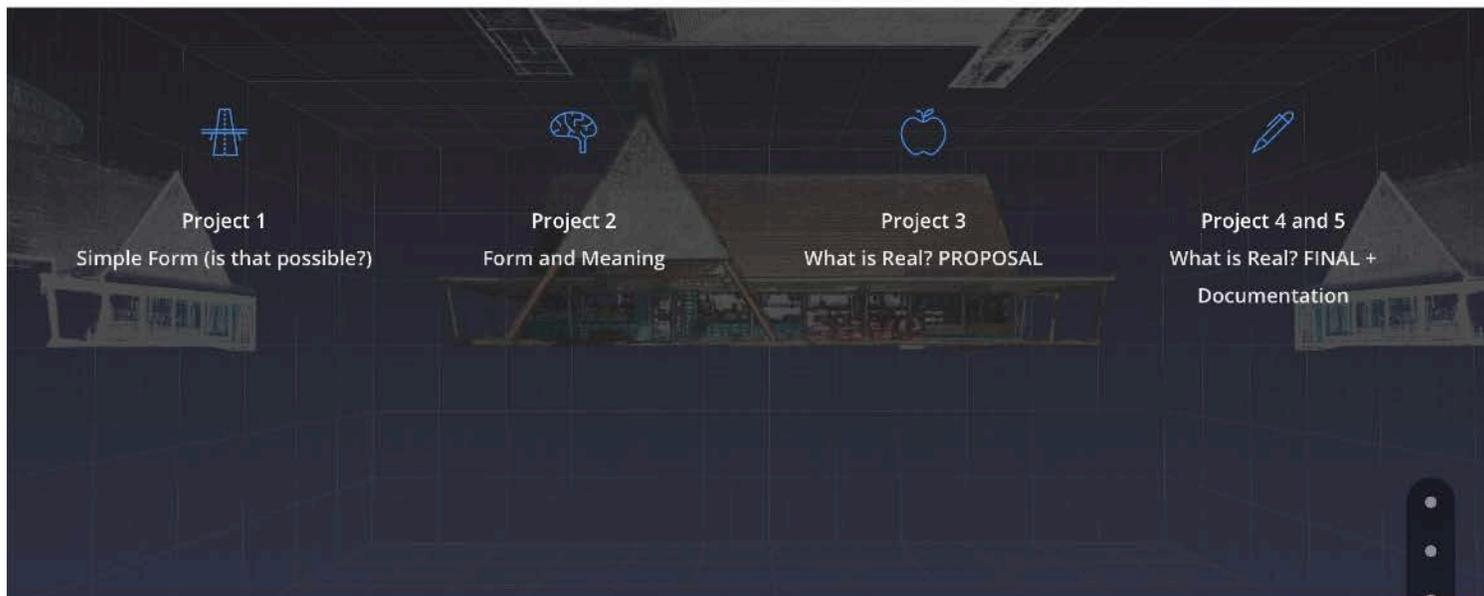
Attendance	Grades	Evaluation	Covid-19
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Due to Covid-19, the course this semester will be delivered synchronously, online. You will join the class at the prescribed time via Zoom. If you have hardware or software issues, you need to contact Teaching Lab Specialist, Michael Christopher, and coordinate use of equipment provided on campus. Our class sessions **may** be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Materials/Fees	Readings	Policies
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Be sure to read the [University of Florida Policies](#) regarding academic honesty, the honor code, accomodations for students with disabilities, wellness, computer use and acceptable use policy, disruptive behavior, health and safety, email and communications, and late work policy.

Projects



Keep up with the Weekly Schedule

[2011-2019 Archived Schedule](#)

Digital Art and Animation Resources

Projects



Project 1

Simple Form (is that possible?)



Project 4 and 5

What is Real? FINAL +

Documentation

Simple Form (is that possible?)



Select a single "real world" object and using polygonal modeling techniques, replicate it. Photograph the object and create reference image planes to use as the basis for your model. Export your model and convert it to an stl file to be printed using the Art + Architecture Fabrication Lab. Create a continuously looping turntable animation and export it to a 1080p HD mp4 file. Create 1 "beauty" animation and 1 "playblast" animation with the wireframe topology of your model visible. Post the movie files to your wiki page along with a reference photo of the replicated object.

Projects



Form and Meaning

Select two to three "real world" objects whose juxtaposition creates meaning greater than each might individually to create a digital assemblage. Using polygonal modeling techniques, replicate these forms and compose them in a way that supports your interpretation of their relationship or suggests a poetic reading. Apply V-Ray materials to your object and light the model with a minimum 3 point lighting setup as described in class. Optionally, you may use textures produced in Mari or Substance on the surface of your models. Create a continuously looping turntable animation and export it to a 4K DCI resolution exr(multichannel) image sequence (4096 x 2160). Use Nuke or After Effects to compile a QuickTime movie of your animation. Upload this video to YouTube or another video platform for review. On Canvas, post a still frame from your final animation and a reference photo of the replicated/referenced objects as well as a paragraph describing the form and content of your assemblage.

Projects



Project 1

Simple Form (is that possible?)



Project 2

Form and Meaning



Project 3

What is Real? PROPOSAL



Project 4 and 5

What is Real? FINAL +
Documentation



What is Real? PROPOSAL

You will be evaluated based on your ability to clearly articulate your ideas for the What is Real? project.

2011-2019 Archived Schedule

Digital Art and Animation Resources

Projects

What is Real? FINAL + Documentation

P4: Model (poly), texture, light, and composite a 3d form into a "real world" background plate to create a meaningful image. Your goal is to blur our ability to separate "real" from "virtual" while self-reflexively creating an image that addresses a clear concept. Submit a 4K composite image to Canvas and write a paragraph about the idea. You aren't required to integrate motion, but if you do, render a 4K DCI video of no more than 15 seconds. Distill all you have learned in the previous exercises with respect to form, content and method. In addition to the final composite described above, create a continuously looping turntable animation of your model and export it to a 1080p HD mp4 file. Create 1 "beauty" animation and 1 "playblast" animation with the wireframe topology of your model visible. Post the movie files to your choice of video platform.

P5: Document your research for this project and post it to Canvas via a link to your personal blog or via PDF.

Digital Art and Animation Schedule

Simplified course schedule for new curriculum, Spring 2021.

[return to course](#)

Digital Art and Animation Schedule Simple

Tuesday 01.12, Thursday 01.14

Week 1: Introduction

Content:

Syllabus

Intro to Digital Art and Animation

Lecture: Art * Film * Animation - various works

SCREEN: Goodbye Uncanny Valley, by Alan Warburton

Assignment:

WATCH PARTY - DUE Thursday

Post at least one example of a cool/good/exciting 3D artwork to Canvas page.

Include a paragraph with your analysis of the work and why you think it is worthy as an artwork.

Be prepared to discuss your choice in class on Thursday.

Install Maya if you haven't already.

Readings:

[Jones, Caitlin. 1996. "The Function of the Studio \(when the studio is a laptop\)." Artlies, Issue 67.](#)

[Watch: Maya 2020 Essential Training - Parts Intro-3](#)

Tuesday 01.19, Thursday 01.21

Week 2: Poly Modeling

Content:

Discuss reading.

SCREEN: Norman McLaren: Creative Process

Develop/Discuss projects

DEMO: Maya Polygonal Modeling Intro

Assignment:

BEGIN: Project 1 [Simple Form (is that possible?)]

Readings:

[Alt, Casey. 2002. "The Materialities of Maya: Making Sense of Object-Orientation." Configurations 10 \(3\): 387-422.](#)

[Watch: Maya 2020 Essential Training - Parts 4-6 \(especially pt. 5\)](#)

Tuesday 01.26, Thursday 01.28

Week 3: Poly Modeling

Content:

Discuss Reading

SCREEN: Computer Animation Rules, by Harun Farocki

SCREEN: Parallel I-IV, by Harun Farocki

DEMO: Maya Polygonal Modeling

Work on Project 1 [Simple Form (is that possible?)]

Assignment:

FINALIZE: Project 1 [Simple Form (is that possible?)]

Readings:

None

Tuesday 02.02, Thursday 02.04

Week 4: Poly Sculpting

Content:

CRITIQUE: Project 1 [Simple Form (is that possible?) - Tuesday]

Intro to CG/3D Sculpting

Assignment:

BEGIN: Project 2 [Form and Meaning]

Decide what sculpting tool you prefer (Mudbox, ZBrush), install and watch tutorials. (Thursday)

Install Chaosgroup V-Ray and begin tutorials.

Readings:

[McKim, Joel. 2017. "Speculative Animation: Digital Projections of Urban Past and Future." Animation 12 \(3\): 287-305.](#)

[Watch: Learning V-Ray for Maya](#)

[Watch \(choice\): Mudbox 2016 Essential Training](#)

[Watch \(choice\): ZBrush 2020 Essential Training](#)

Tuesday 02.09, Thursday 02.11

Week 5: Sculpting and Texturing

Content:

Discuss Reading

Introduction to Texturing.

UV layout in Maya

Intro to V-Ray Materials and lighting

Assignment:

Integrate texture and lighting as you develop Project 2.

Readings:

[Watch: UV Mapping Polygonal Objects](#)

[Watch: Introduction to Lights in V-Ray Next](#)

[Watch \(choice\): Substance Painter 2019 Essential Training](#)

[Watch \(choice\): Learning Mari](#)

Tuesday 02.16, Thursday 02.18

Week 6: Texturing and Lighting

Content:

More V-Ray Materials and Rendering

Texture workflow between Maya and Paint Program (Substance, Mari).

Create a scene that exhibits: bitmap texture, metallic car paint, transparency, reflectivity, bump map, displacement map

Assignment:

FINALIZE: Project 2 [Form and Meaning]

Readings:

None

Tuesday 02.23, Thursday 02.25

Week 7: Form and Meaning

Content:

CRITIQUE Project 2 [Form and Meaning] Tuesday

Intro to FINAL PROJECT [What is Real?] Thursday

SCREEN: The Virtual is Real, Cécile B. Evans Interview

Assignment:

BEGIN - FINAL PROJECT [What is Real?] Thursday

1. Research and document (ie, post online) your project ideas.
2. Photograph proposed shooting locations and mock up potential shots.
3. Prepare to present your project proposal.

Readings:

None

Tuesday 03.02, Thursday 03.04

Week 8: Lighting

Content:

REVIEW PROPOSAL [What is Real? Proposal] - present your concept and production plan - THURSDAY

Beyond a generic lighting setup!

Lighting and lighting/rendering techniques

Assignment:

WORK on What is Real?

Readings:

None

Tuesday 03.09, Thursday 03.11

Week 9: Compositing

Content:

DEMO: Rendering, shadows, layers and passes

Configure EXR render elements in V-Ray

SCREEN: View a Selection of Animations on my Plex Server

Assignment:

WORK on What is Real?

Readings:

[Maya Render Setup \(UFL LinkedIn Learning\)](#)

Tuesday 03.16,

Week 10: Concept and Design Development

Content:

1. Begin assembly of CG elements/scene for your shoot
2. Finalize your site photo plate.
3. You must pre-plan EVERY element of your shot, in advance.
4. Select spherical panorama for HDRI lighting (in lieu of shooting it).

Assignment

WORK on What is Real?

Readings:

[Wood, Aylish. 2006. "Re-Animating Space." Animation 1 \(2\): 133-52.](#)

Tuesday 03.23, Thursday 03.25

Week 11: Image-based Lighting

Content:

Discuss Reading

High Dynamic Range Imaging

SCREEN: Animation, Mask (2011), by Jordan Wolfson

Assignment:

WORK, WORK, WORK, on What is Real?

Readings:

[Charnley, Alex. 2017. "Digital Unreason: Jordan Wolfson's 'Evil Jew.'" Animation 12 \(3\): 318-33.](#)

[Roberta Smith, NY Times Review of Wolfson's Animation, Mask.](#)

[Direct link to NY Times review \(behind paywall\).](#)

Tuesday 03.30, Thursday 04.01

Week 12: Compositing

Content:

Discuss Readings

Studio: Continue CG Work.

Assignment:

WORK on What is Real?

Readings:

Väliaho, Pasi. 2017. "Animation and the Powers of Plasticity." *Animation* 12 (3): 259-71.

Tuesday 04.06, Thursday 04.08

Week 13: Refine and Tune

Content:

Discuss Reading

Studio: Continue CG Work.

Assignment:

WORK, WORK, WORK on What is Real?

Readings:

None

Tuesday 04.13, Thursday 04.15

Week 14: Compositing - Rendering - Final Production

Content:

Put it all together and fix what is broken (trust me, it will be broken)

WORK, WORK, WORK on What is Real?

Assignment:

Finish What is Real?

Readings:

None

None

Tuesday 04.20, Tuesday 04.20

Week 15: Last Day of Class

Content:

This is it...be done!

WORK - FINISH

Assignment:

Put it all together and be happy.

Readings:

None

Wednesday 04.21, Wednesday 04.21

Week 16: NOT SPRING BREAK - No class

Content:

nothing at all

Assignment:

None

Readings:

None

Tuesday 04.27

Exam Week: Final Exams - final review 7:30AM - 9:30AM.

We'll schedule how to handle the final when we get closer.