

# 2D DIGITAL ANIMATION TECHNIQUES

<b>COURSE NUMBER:</b> DIG3313C	<b>CREDIT HOURS:</b> 3.0
<b>SEMESTER/YEAR:</b> FALL 2017	<b>CLASS LOCATION:</b> ORC, NORMAN (NRG) 0120
	<b>CLASS MEETING TIME(S):</b> M 10:40 AM-11:30 AM W: 10:40 AM-12:35 AM
<b>INSTRUCTOR:</b> Chelsea Cantrell	<b>OFFICE LOCATION/HOURS:</b> NRG 116- M/T: 11:45-12:45
	<b>CONTACT EMAIL:</b> Contact via Canvas Inbox
<b>CONTACT PHONE:</b> (352) 294-2000	<b>COURSE WEBSITE:</b> HTTP://ELEARNING.UFL.EDU

**COURSE DESCRIPTION**

This Course is designed to instill an understanding of animation principles and produce quality 2D Digital animations implementing these principles and exploring various techniques. During the course of the semester the students will be assigned 12 weekly projects and two group-based projects focused on principles that utilize key aspects of the required software. For the final project each student will create an animated film, 15-30 seconds in length, through which they will learn the production process of animation including writing a treatment, storyboarding, timing through animatics and final rendered animations.

**PREREQUISITE KNOWLEDGE AND SKILLS**

Must match what the course was approved as; if in doubt check the course entry in the Approvals system (<http://approvals.ufl.edu>).

**PURPOSE OF COURSE**

To introduce students to the animation as an art form; implementing a firm understanding of timing, animation principles and the scope of techniques animation can cover. The students will learn industry standard practices in applied creativity.

**COURSE GOALS AND/OR OBJECTIVES:**

By the end of this course, students will be able to:

1. Identify and apply the 12 Animation Principles
2. Have an understanding of timing and motion through key-frames, holds and in-betweens
3. Relate knowledge of various animation history and techniques
4. Describe characteristics of well-designed and executed animation
5. Demonstrate skills in the use of industry standard tools.

**COURSE SCHEDULE:**

The FINAL EXAM TIME SCHEDULED FOR THIS COURSE will be announced in advance of each semester by the University of Florida Registrar’s Office at <http://www.registrar.ufl.edu/soc/>

Week	Topic	Assignments/Quizzes
1	Course Objectives History of Animation <ul style="list-style-type: none"> <li>• Persistence of Vision</li> <li>• Early Animation Devices</li> </ul>	<a href="#">Read: The Animator’s Survival Kit pgs 11-34</a>

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	<p>Principles of Animation</p> <ul style="list-style-type: none"> <li>• Key-frames</li> <li>• In-betweens</li> <li>• Cycles</li> <li>• Morphing 1</li> </ul> <p>PS: Overview, Animation Timeline</p>	<p><b>Assign 1: (2) Digital Flipbooks (Morphing, Action/Event)</b></p> <p><b>Upload an Image of your Choice for the Morphing Group Project</b></p>
2	<p>Review: morphing</p> <p>Principles of Animation</p> <ul style="list-style-type: none"> <li>• Timing and Spacing Charts</li> <li>• Squash and Stretch</li> <li>• Morphing2</li> </ul> <p>PS: Brushes, Demonstration of using a timing sheet for the bouncing ball</p> <p>AE: Overview of Interface, Composition Settings, Creating Layers, Shapes</p>	<p>Read: <a href="#">The Animator's Survival Kit pgs 35-69, 256-272</a></p> <p><b>Assign 2: (2) Bouncing Balls (Ping-Pong, bowling, beach ball, etc- no personality- 5 seconds)</b></p> <p><b>Group Assign 1: Morphing (Due wk4)</b></p> <p><b>DUE:</b>  <a href="#">Proj 1: (2) Digital Flipbooks (Morphing, Event Cycle)</a>  <a href="#">Image for Morph Project</a></p>
3	<p>Review: Bouncing Balls (Online)</p> <p>Principles of Animation</p> <ul style="list-style-type: none"> <li>• Slow In, Slow Out</li> <li>• Squash and Stretch</li> <li>• Timing</li> <li>• Anticipation</li> </ul> <p>Visual Rhythm Transitions</p> <p>AE: Basic Animation- Key-framing (position/scale/rotation/opacity), Anchor Point, Creating Shapes, Motion Paths, using Markers, Importing Audio</p>	<p>Read: <a href="#">The Animator's Survival Kit pgs 84-101</a></p> <p><b>Assign 3: Bringing Shapes to Life (shape animation with personality)</b></p> <p><b>DUE:</b>  <a href="#">Proj 2: (2) Bouncing Balls (ping-pong, bowling, beachball, etc- no personality- 5 seconds)</a></p>
4	<p>Review: Bringing Shapes to Life (Online)</p> <p>Walk Cycle</p> <ul style="list-style-type: none"> <li>• Walk and Run</li> <li>• Overlapping Action</li> <li>• Attitude</li> </ul> <p>Rotoscope Technique</p> <ul style="list-style-type: none"> <li>• Cycles, Locomotion</li> </ul> <p>PS: Review of Brushes, Breakdown of Character Design for Puppet</p>	<p>Read: <a href="#">The Animator's Survival Kit pgs 102-163</a></p> <p><b>Assign 4: Walk Cycle</b></p> <p><b>Group Assign 2: Rotoscope reference footage (Due wk8)</b></p>

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	AE: Importing from PS, Animating a Puppet, Building Hierarchies (parenting, nesting, precomping)	<b>DUE:</b> <b>Proj 3: Bringing Shapes to Life</b> <b>Group Proj 1: Morphing</b>
5	<p>Review: Walk Cycle (online) Screen: Morphing Assignment</p> <p>Character Sketch Exercise What Makes a Character? Principles of Animation</p> <ul style="list-style-type: none"> <li>• Staging</li> <li>• Solid Drawing</li> <li>• Appeal</li> </ul> <p>Character Design-Puppet</p> <ul style="list-style-type: none"> <li>• Reference</li> <li>• Personality</li> <li>• Visual Contrast</li> <li>• Replacement Parts</li> </ul> <p>PS: Creating a Character Ready For Animation AE: Introduction to 3D Space, Camera (demo of animated character on a simple BG)</p>	<p>Read: The Animator's Survival Kit pgs 164-216</p> <p><b>Assign 5: Puppet Character Design</b></p> <p><b>DUE:</b> <b>Proj 4: Walk Cycle</b></p>
6	<p>Review of Character Designs (online)</p> <p>Concepts of Design</p> <ul style="list-style-type: none"> <li>• Composition of a scene</li> <li>• Color Design</li> <li>• Value</li> <li>• FG, MG, BG elements</li> </ul> <p>Shot Composition Principles</p> <p>AE: Setting up a Simple 3D Environment, Precomping (character), Animating the Camera, Cutting Between Cameras</p>	<p>Read: The Animator's Survival Kit pgs 217-255</p> <p><b>Assign 6: Character Encountering and Obstacle (note: create simple BG, use at least 2 shots)</b></p> <p><b>DUE:</b> <b>Proj 5: Puppet Character Design</b></p>
7	<p>Review: Character Encountering Obstacle (online)</p> <p>Replacement Animation</p> <ul style="list-style-type: none"> <li>• Lip Sync</li> <li>• Stop Motion</li> </ul> <p>AE: Demonstration of Replacement Lip Sync Animation, Working with Sound, Using Audio Cues</p>	<p>Read: The Animator's Survival Kit pgs 297-326</p> <p><b>Assign 7: Lip Sync Animation (to audio clip of your choice- articulate body language)</b></p> <p><b>DUE:</b> <b>Assign 6: Character Encountering Obstacle</b></p>
8	<p>Review: Lip Sync Animation (online)</p> <p>Poetry, Music and Animation</p>	<p>Read: The Animator's Survival Kit pgs 273-296</p>

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	<ul style="list-style-type: none"> <li>• Creating a mood</li> <li>• Visual Abstraction</li> <li>• Overview of Text</li> </ul> <p>AE: Text Tools + Animation, Presets Overview, Blend modes, Masking and Track Mattes Intro</p>	<p><b>Assign 8: Animation that Expresses Mood/Emotion (movement, color, texture)</b></p> <p><b>DUE:</b>  <a href="#">Assign 7: Lip Sync Animation</a>  <a href="#">Group Proj 2: Rotoscope</a></p>
9	<p>Review: Animation Expressing Mood/Emotion (online)</p> <p>Writing a Treatment          Story vs Theme          Visual Techniques for Theme/Story</p> <ul style="list-style-type: none"> <li>• Creating a mood</li> <li>• Color, Texture, Composition</li> </ul> <p>AE: Color Correction, Lights          AUDACITY: Introduction to sound software</p>	<p><a href="#">Read: The Animator's Survival Kit pgs 327-339</a></p> <p><b>Assign 9: Write a Treatment for the Final Project w/ Style frames/Character Sketch</b></p> <p><b>DUE:</b>  <a href="#">Proj 8: Animation that Expresses Mood/Emotion</a></p>
10	<p>Review: Treatment (in-class presentation?)</p> <p>Storyboarding          Shot Composition          Directing the Audience          Transitions</p> <p>PS: Demonstration of storyboard setup in Photoshop          AUDACITY: Sound instruction cont.</p> <p>Work on Storyboards</p>	<p><a href="#">Read: The Animator's Survival Kit pgs 70-83</a></p> <p><b>Assign 10: Storyboards</b></p> <p><b>DUE:</b>  <a href="#">Proj 9: Treatment w/ Style frames/Character Sketch</a></p>
11	<p>Review: Storyboards (In-class presentation?)</p> <p>Creating an Animatic</p> <p>AE: Show how to import storyboards and edit an animatic (sequencing and trimming layers)</p>	<p><b>Assign 11: Animatic</b></p> <p><b>DUE:</b>  <a href="#">Proj 10: Storyboards</a></p>
12	<p>Review: Animatic</p> <p>Sound for Animation</p>	<p><b>Assign 12: Animatic with Sound and Progress on Final Project Design/Animation</b></p> <p><b>DUE:</b>  <a href="#">Proj 11: Animatic</a></p>
13	<p>Review: Animatic w/ Sound</p> <p>Work on Final Project</p>	<p><b>FINAL PROJECT</b></p> <p><b>DUE:</b></p>

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		<b>Proj 12: Animatic w/ Sound and Progress on Design/Animation</b>
14	<b><u>NO CLASS: Thurs, Nov 27</u></b>  Review: Final Project Progress  Work on Final project	<b>FINAL PROJECT</b>  <b>DUE:</b> FINAL PROJECT PROGRESS
15	Review: Final Project Progress  Work on Final project	<b>FINAL PROJECT</b>  <b>DUE:</b> FINAL PROJECT PROGRESS
16	<b><u>FINAL PROJECTS DUE</u></b> <b><u>Tuesday, Dec 9</u></b>	<b><u>DUE (12/9):</u></b> <b><u>FINAL PROJECT</u></b>

**REQUIRED TEXTBOOKS AND SOFTWARE:**

1. Richard Williams, *“The Animator’s Survival Kit”*
2. Lynda.com (FREE access to UF students)
3. Adobe After Effects CC
4. Adobe Photoshop CC
5. Two-Monitor setup for software instruction (OLINE students only)

**RECOMMENDED MATERIALS:**

1. Eadweard Muybridge, *“The Human Figure in Motion”*
2. Intuos Pen tablet (or similar)

**COURSE FEES:**

Course fees are assessed for certain courses to offset the cost of materials or supply items consumed in the course of instruction. A list of [approved courses and fees](#) is published in the Schedule of Courses each semester. (UF-3.0374 Regulations of the University of Florida).

Material and supply and equipment use fee information is available from the academic departments or from the schedule of courses (Florida Statutes 1009.24). The total course fee for this class is **\$ 42.26**

The total course fee for each course is listed on the UF Schedule of Courses. (<https://registrar.ufl.edu/soc/>).

**EVALUATION OF GRADES**

Assignment	Percentage of Grade
<b>Attendance and Participation</b> – Students are expected to actively participate in class discussions, both in class as well as in class online forums outside class meetings.	20%
<b>ASSIGNMENTS</b> – Weekly Assignments including individual and group projects.	50%

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<b>QUIZZES</b> – A series of quizzes will be held during the semester to reinforce learning.	10%
<b>FINAL PROJECT</b> - It is expected that in this final project, students employ the principles and techniques they have learned during the semester.	20%

### GRADING SCALE:

Letter Grade	% Equivalency	GPA Equivalency
A	94 – 100%	4.0
A-	90 – 93%	3.67
B+	87 – 89%	3.33
B	84 – 86%	3.00
B-	80 – 83%	2.67
C+	77 – 79%	2.33
C	74 – 76%	2.00
C-	70 – 73%	1.67
D+	67 – 69%	1.33
D	64 – 66%	1.00
D-	60 – 63%	.67
E, I, NG, S-U, WF		0.00

More information on grades and grading policies is here:

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

### COURSE POLICIES:

#### PARTICIPATION / ATTENDANCE

We value participation more than mere attendance. Each Instructor is responsible for communicating the specific details of what percentage of your grade (if any) will be assigned to participation, and how class participation will be measured and graded. Real Time [RT] interaction with your peers and the Instructor will empower you to greater achievement.

#### MAKE-UP POLICY

- At the sole discretion of the instructor, Exams may or may not be taken late. Documented Emergencies or medical situations may be the only accepted reasons for an excused absence on the day of an exam.
- Any assignment turned in past the due date may lose up to 10% of the total point value of the assignment for each class day it is late.

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>

#### COURSE TECHNOLOGY

The students will be required to have access to, and use a personal computer with the access to the Internet. Word editing software will be required for written assignments.

#### COURSE COMMUNICATIONS

Students can communicate directly with the Instructor regarding the course material through the course management system (CANVAS). All students **must** use professional email etiquette and send emails between 9AM-8PM.

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### VIDEO LECTURE CAPTURE

High-quality video lecture capture of this course is available only for enrolled students. These video captures are edited and posted within 24-48 hours of the class meeting for the benefit of the Your Own Time [YOT] students and to offer the potential for review by on-campus and Real Time [RT] online students. For the on-campus and RT students, watching lectures in lieu of attending and participating in class is NOT acceptable.

Your Instructor will provide you with this semester's login information during the first week of class. It is not permissible to share or distribute video login information to anyone other than officially enrolled students of this course. Lecture videos can be found at <https://vimeo.com/digitalworlds>.

## UF POLICIES:

### UNIVERSITY HONESTY POLICY

UF students are bound by The Honor Pledge that states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The [Honor Code](#) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

### CLASS DEMEANOR

Students are expected to arrive to class on time and behave in a manner that is respectful to the instructor and to fellow students. Please avoid the use of cell phones and restrict eating to outside of the classroom. Opinions held by other students should be respected in discussion, and conversations that do not contribute to the discussion should be held at minimum, if at all.

### STUDENTS REQUIRING ACCOMMODATIONS

Students with disabilities requesting accommodations should first register with the [Disability Resource Center](#) (352-392-8565) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### NETIQUETTE COMMUNICATION COURTESY

All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats, more information can be found at: <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

### ONLINE COURSE EVALUATIONS

Students are expected to provide feedback on the quality of instruction in this course by completing [online evaluations](#). 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 [evaluation results](#).

## CAMPUS RESOURCES

### HEALTH AND WELLNESS

U Matter, We Care

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If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) or 352 392- 1575 so that a team member can reach out to the student.

Counseling and Wellness Center

<http://www.counseling.ufl.edu/cwc/Default.aspx>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department, 392-1111 (or 9-1-1 for emergencies). <http://www.police.ufl.edu/>

### ACADEMIC RESOURCES

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning- [support@ufl.edu](mailto:support@ufl.edu).

<https://lss.at.ufl.edu/help.shtml>.

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling. <http://www.crc.ufl.edu/>

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

<http://teachingcenter.ufl.edu/>

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

<http://writing.ufl.edu/writing-studio/>

Student Complaints Campus:

[https://www.dso.ufl.edu/documents/UF\\_Complaints\\_policy.pdf](https://www.dso.ufl.edu/documents/UF_Complaints_policy.pdf)

On-Line Students Complaints:

<http://www.distance.ufl.edu/student-complaint-process>

*Disclaimer: This syllabus represents the instructor's current plans and objectives. As we go through the semester, those plans may need to change to enhance the class learning opportunity. Such changes, communicated clearly, are not unusual and should be expected.*