

ANI 321 - Animation Mechanics

syllabus

DEPAUL
CDM

Animation Mechanics

Spring 2020

T, Th 10:10 am - 11:40 am

Online Zoom Meetings - following the link

Instructor: Brian Ferguson

ANI 321

Office: CDM 461

Email: brian.ferguson@depaul.edu (best way to reach me)

phone: (312) 362-1422

Office/Advising hours:

W: 9 am - 12:00 pm, 1:00pm - 4:00pm

Course Description

Students in this course will rigorously investigate the foundational aspects of animation through traditional and digital methods. Basic principles, including timing, spacing and the abstraction of movement, will be analyzed and questioned through experimentation. Students will experience how the process of making work can be used to generate emergent ideas, and be challenged to push the art form beyond the accepted conventions.

This class will focus on the abstraction and caricature of how the world works. We'll use simple hand-drawn animation in TVPaint to explore the methods developed by traditional and experimental animators. Each class will follow a similar schedule:

- Critique of homework assignment
- Discussion of readings, viewings and concepts/techniques
- In-class exercises exploring concepts/techniques
- Assignment of homework assignment, which will incorporate concepts/techniques explored in class

The animation concepts, techniques and exercises during this quarter will cover the following mechanics:

Timing and spacing	Posing	Walks
Arcs	Anticipation	Expressive walks
Cushioning	Jump	Sneaks
Pendulum motion	Follow through	Vibrations
Bouncing ball	Overlapping action	Winged flight
Center of gravity	Drag	Takes/accents
Straight ahead	Exaggerating weight	Fire
Pose-to-pose	Lifting	Smoke
Wave motion	Exaggerating impact	Water
Fluid motion	Moving holds	Explosions
Staging	Comedic timing	Creative breakdowns

Each topic will begin with a discussion and demonstration. Then everyone will work through the process in class. After this we'll look under the hood to see how each principle works and how to make adjustments, and then try it out.

The reason we're using hand-drawn animation is because it's the fastest way to visualize the concepts while allowing for easy adjustments. We're not focusing on the drawing (stick-figures will work), but on the principles that can be applied across all animation methods and media.

Course Objectives

- Hands-on, thorough knowledge of the animation foundational principles, including timing and spacing, staging, weight, anticipation, observation, squash and stretch, and arcs.
- Familiarity with basic animation processes, including straight-ahead, pose-to-pose, extremes and in-betweens, morphing, ease out and ease in.
- Experience with the timing and spacing of effects animation.

Software

This class will mostly involve drawn animation in TVPaint. If you're unfamiliar with TVP you should go to <https://www.tvpaint.com/tutorials>

Bibliography

Required Texts:

- ***The Animator's Survival Kit*** (ASK), Second Edition, by Richard Williams. Faber, 2009.
- ***Timing for Animation***, Second Edition, by Harold Whitaker and John Halas. Focal Press, 2009.

Suggested Text:

- ***Tezuka School of Animation 1: Learning the Basics***, Tezuka Productions. Watson-Guptill, 2003.
- ***Elemental Magic***, by Joseph Gilland. Focal Press, 2009.
- ***The Illusion of Life***, by Frank Thomas and Ollie Johnston. Disney Editions, 1995.

Online Videos

We are lucky to have the entire **Richard Williams Animation Masterclass** videos available for you to watch online. This is an incredible resource that passes down the craft developed during the golden age of Disney and Warner Brothers, and you will be expected to watch these videos outside of class to prepare for lectures.

<http://coltube.cdm.depaul.edu/>

Attendance

- 0-2 absences = no effect on your final grade
- 3 absences = -10% of your final grade
- 4 absences = -20% of your final grade
- 5 absences = failing grade for the course (F)

The student is responsible for any lectures or assignments missed. If an assignment is due a week that you are absent, it is your responsibility to make sure it still arrives on time. This is for your benefit. A good portion of our class time will be spent doing hands on tutorials, screening films, and critiquing work. Lecture notes will not make up for these missed learning experiences.

Class Work

This class is project-based and work-intensive. Your grade will be based on in-class and homework projects. All assignments and grades will be listed on our D2L site: [https:// d2l.depaul.edu](https://d2l.depaul.edu)

Critiques

Unless I tell you otherwise, assigned work must be completed and submitted through D2L 20 minutes BEFORE class starts. Handing in something unfinished is always better than nothing at all. Attendance at critiques is important for feedback, so your project grade will be lowered if you aren't there, whether you've handed the project in or not:

Missing critique: project grade lowered by half a grade, **even if project submitted on time.**

Project not submitted in time for critique: project grade lowered 1 full grade, and an additional grade for each additional class until submitted

Final project not submitted in time for critique: lowered 2 full grades

All assignments will be posted on our D2L site: [https:// d2l.depaul.edu](https://d2l.depaul.edu)

Resubmissions For Regrading

If a project is submitted **on time**, you have **four weeks** to resubmit for a revised grade. You need to email me to tell me that you resubmitted. You're limited to two resubmissions of each project. If a project is submitted late you waive your right to resubmit.

In-Progress Grades

Many projects are done in stages. They will be critiqued for feedback to help you with the next stage of the project. In-progress stages are graded pass/fail. If you submit an acceptable attempt at the stage on time you get one point. If you don't submit a stage before we move to the next stage you receive zero. In-progress stages cannot be resubmitted, and won't be accepted after the following stage.

Grading

8-10%	In-class work, in-progress work, pass/fail assignments	A = 4.0
		A- = 3.67
70-72%	Out-of-class projects	B+ = 3.34
20-22%	Final project	B = 3.0
		B- = 2.67
		C+ = 2.34
	A indicates excellence,	C = 2.0
	B indicates good work,	C- = 1.67
	C indicates acceptable work,	D+ = 1.34
	D work is unsatisfactory in some respects,	D = 1
	F is unacceptable work.	F = 0

No incompletes will be given without documented proof of circumstances beyond your control.

Academic Integrity

Work done for this course must adhere to the DePaul University Academic Integrity Policy, which you can review in the *Student Handbook* or by visiting

<http://studentaffairs.depaul.edu/homehandbook.html>

Unless specified by the instructor, any project that uses artwork created by someone else will receive a failing grade, and in some cases will result in an automatic failing grade for the course.

Facebook, etc.

Don't use facebook, games or email during lectures and critiques. It's distracting and impolite. If this happens we may eject you from the meeting.

Schedule

Most classes follow the same schedule. We start by critiquing the previous assignment. Then we'll discuss the next topic and watch animations that show it in depth. You will do an in-class version of the assignment which we'll then view and critique. We'll then discuss the larger project, which in most cases you'll have 1 week to complete. The final project is in stages, and is due at the final critique. This plan may change in response to the needs of the class (you).

Schedule
(subject to change)

week	Tue	Thu	class
1	3/31		<ul style="list-style-type: none"> • pendulum • bouncing ball
		4/2	<ul style="list-style-type: none"> • 2 bouncing balls • rotating irregular object
2	4/7		<ul style="list-style-type: none"> • wave action
		4/9	<ul style="list-style-type: none"> • jump • fluid animation
3	4/14		<ul style="list-style-type: none"> • jump with drag object
		4/16	<ul style="list-style-type: none"> • weight lifter • simple vibration
4	4/21		<ul style="list-style-type: none"> • moving holds
		4/23	<ul style="list-style-type: none"> • hammer and anvil • exaggeration of impact
5	4/28		<ul style="list-style-type: none"> • the Williams passing position walk method
		4/30	<ul style="list-style-type: none"> • expressing moods through walks

week	Tue	Thu	class
6	5/5		<ul style="list-style-type: none"> • sneaks
		5/7	<ul style="list-style-type: none"> • front walks • perspective
7	5/12		<ul style="list-style-type: none"> • side-to-side vibration method
		5/14	<ul style="list-style-type: none"> • winged flight • takes
8	5/19		<ul style="list-style-type: none"> • explosions and energy
		5/21	<ul style="list-style-type: none"> • explosion and smoke • final project animatic
9	5/26		<ul style="list-style-type: none"> • creative breakdowns
		5/28	<ul style="list-style-type: none"> • final project
10	6/2		<ul style="list-style-type: none"> • in-progress final project
		6/4	<ul style="list-style-type: none"> • water and splashes
11	6/9		<ul style="list-style-type: none"> • no class • finals in session
		6/11 final	critique of animation final assignment - final critique, by students and teacher

Final Exam

Date: Thursday, June 11th, 2020,

Time: from 8:30 AM to 10:45 AM

Location: Zoom Meeting

Your exam is on June 11th, 2020, from 8:30 AM to 10:45 AM