CG Character Animation
syllabus

DEPAUL CDM

spring 2017
M, W 10:10pm - 11:40pm
CDM 527

Instructor: Brian Ferguson

ANI 300
ANI 430

Office: 461
Email. bfergus3@cdm.depaul.edu (best way to reach me)
phone: (312) 362-1422
Office hours:
  M: 9 am - 10:00 am, 1:00pm - 3:00pm
  W: 9 am - 10:00 am, 1:00pm - 3:00pm

Course Description

This course explores the art and techniques for character performance in 3D. Students will study and employ fundamental principles for character animation beginning with the essentials of blocking and Inbetweening, and continuing with the core mechanics including walk cycles, expressions, and lip sync. Students are required to animate weekly shots culminating in a final lip synced character performance.

Prerequisites   ANI 231 or ANI 405

Course Objectives

After completing this course, students will have:

1. An extensive knowledge of Maya's animation tools.
2. A broad understanding of all animation styles and techniques, and how they apply to and can aid animation in 3D.
3. A solid base in animation fundamentals.
4. Professional demo reel quality work.

Texts and Materials   **Required Texts**
"The Animator's Survival Kit"
by Richard Williams, Publisher, Faber and Faber Inc. 2001

Recommended Texts
"Stop Staring"
by Jason Osipa

Attendance

Students are expected to attend every class. We cover an enormous amount of material in every class, and missing even one can be a huge setback. Any student missing 3 classes or more will be given a grade of "F" for the semester.

 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.

You may not miss the midterm or final class date. Doing so will equal an automatic two letter grade reduction of your final grade. If for some reason you cannot make one of these dates you must contact your instructor BEFORE the class that you must miss. Excuses given after the fact will not be accepted.

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

Participation

One of the best ways to learn in a classroom environment is through *active* participation in discussions and critiques. In general, we will be following a pattern of creating animation and then discussing it in critique in the following week. When I open up the floor for you to speak, please make the effort to voice your honest and constructive opinion. This will help you learn from your mistakes and progress with your animation skills. It will also prepare you for the professional arena.

Class Work

Assignments
- Must be handed in on time. Late assignments will be accepted with teacher discretion only. On time means submitted through COLWeb one hour BEFORE class on the day the assignment is due. Students who use class time to finish assignments the day they are due will forfeit the right to hand in that assignment. Class time is for working with the material at hand, not finishing late assignments.
- Late work:
    - Late work will not be accepted unless approved of PRIOR to the class in which it is due or accompanied by a valid medical excuse.
    - You are allotted one "freebie" per term that allows you to turn ONE assignment late for full credit (up until the 10th week of the term). You only get one of these per term. All other late assignments are forfeited.
- Written Assignments: Must be typed.
- Digital Assignments: All assignments handed in digitally must be in the following format (please note upper and lower case usage)
    - lastnameFirstname_projectname.extension
    - example: jonesJosh_projectOne.mb

* Special Accommodations: If you have any special considerations please see the instructor.

* BACK UP YOUR WORK: Failure of computer software and or Hardware will not be accepted as an extenuating circumstance for late projects or incomplete grades so back up your work daily.

Critiques   Unless I tell you otherwise, assigned work must be completed and submitted through COLweb one hour BEFORE class starts. This will keep us from wasting valuable class time. In most cases (I'll let you know the exceptions) I request that you use **QuickTime** format unless discussed with me previously. AVI's are difficult to watch frame by frame (something we will be doing a lot of). **Handing in something unfinished is always better than nothing at all.** Due to the large size of our class, and the limited class time, not everyone's work will get a full review during class. If you'd like more feedback, arrange to discuss your work with me during my office hours. We will view and discuss everyone's final project during the last class.

Grading   Assignments   80% of grade
                 <u>Final Project   20% of grade</u>
                 Total   100%

	A = 100-93	A- = 92-90	
B+ = 89-88	B = 87-83	B- = 82-80	
C+ = 79-78	C = 77-73	C- = 72-70	
D+ = 69-68	D = 67-63	D- = 62-60	F = 59-0

Your grade will depend on the following criteria:

- **Meeting Project Deadlines:** It is vital to have your work available for critique. Work unavailable for critique will be considered late and will not be accepted unless you are using your one "freebie."
- Creativity and personal input into execution of project
- Coming prepared to class, including assigned reading and assignments
- Showing in-progress work, which can benefit from suggestions, rather than presenting entirely new work at critiques
- Effective visually aesthetic solutions to all problems assigned
- Taking initiative to work outside of class and research
- Hard work and sweat
- Participation in critiques and discussions

Cell Phones   Use of cell phones in the class and the lab is prohibited. Please turn your phone off before entering class. Mistakes will happen (to me too), but repeated failure to turn your phone off will result in a lowered grade for the class. All phone conversations should be conducted outside the class – don't disturb those working in the lab and put others in an uncomfortable situation.

Headphones   Whether working with sound in your project, or simply listening to music while working, you need to be considerate of others and wear headphones. Be aware that if the volume is high enough, others can still hear what you're listening to despite the headphones. Inconsiderate behavior will result in a lowered grade.

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

Plagiarism   The university and school policy on plagiarism can be summarized as follows: Students in this course, as well as all other courses in which independent research or writing play a vital part in the course requirements, should be aware of the strong sanctions that can be imposed against someone guilty of plagiarism. If proven, a charge of plagiarism could result in an automatic F in the course and possible expulsion. The strongest of sanctions will be imposed on anyone who submits as his/her own work a report, examination paper, computer file, lab report, or other assignment which has been prepared by someone else. If you have any questions or doubts about what plagiarism entails or how to properly acknowledge source materials be sure to consult the instructor.

Materials and Supplies   All assignments in this class will be transmitted digitally online through COLWeb unless otherwise noted.

Any assignment handed in late or when not present in class may be put on a CDROM, DVD, or flash drive and delivered to the 4th floor desk of CDM to be put in my mailbox.

All CDROM's and DVD's must be labeled clearly with the following information:
- -Your name
- -The name of the assignment
- -The class number and name you are submitting the assignment for
- -The term (ex. Fall 2014)

Schedule
(subject to change)

Week 1- Review syllabus, discuss grading, and what's expected while in class. We will revisit fundamental animation concepts, and terms, including; keys, breakdowns, inbetweens, timing charts, weight, spacing, and arcs.

We will then launch into character, and what the fundamental things are that we are to think about and identify in distinguishing one character from all the rest.

We'll also discuss the aesthetics of a good pose.

Assignment: We'll be researching characters, with the "Character Bones" assignment.

Week 2- Review of inbetween assignment from the first week. We will then continue the discussion on drawing for animation from the perspective of staging and dynamics of the whole composition. We will also look at practical ways to plan a scene. So much time is saved with good planning. Also, this is a class that focuses on performance. What does that mean when staging a scene?   With good staging you set yourself up for a more visible, clearer, and therefore stronger performance.   But performance isn't just an external thing.   A convincing performance comes when you can get the viewer to connect with the character. Things that distract from that connection make the performance weaker. For instance, a strong character glowering at someone becomes a little less strong when they don't keep a rock-solid gaze.   If they start blinking, or glancing off, however briefly, their resolve doesn't seem so deep. A character that goes a little too far in their extreme for expression might come off as affected and insincere.

Assignment: Flour sack: Animate a flour sack performing an action that clearly shows emotion, purpose and thought in the character.

Week 3- Review of flour sack assignment from the previous week. We will then discuss the start of the process of animating a scene with personality.   This means being able to register a change in emotion and thought. The focus will be the laying down of the foundation of what is the essence of the scene by drawing out story poses in thumbnail form.

Assignment: Box.   A character sees a box, opens it and reacts.

Week 4- Review refined work from previous week. Next step in the process of animating a scene with personality is blocking out the main elements of the performance. This week's discussion is regarding walking with purpose and specific character. The physicality of a character's whole body will convey huge volumes of that character's thoughts and emotions before even addressing facial expression.
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Assignment: Walk with purpose

Week 5- Review walk with purpose.   The next refinement in animating a performance is breaking down the blocked-in actions, and once that part is working, to inbetween the keys and breakdowns. Inbetweens and breakdowns should maintain both the structure of the character's form and the flow and intention of the character's motion.
We'll also look at dialogue and lip sync in a scene

Assignment: Facial exercise scene with audio. Do thumbnails to audio file, and test them to see if the scene is working.   Then do a blocking pass.
Graduate students do breakdowns and design extremes that go beyond the keys.

Week 6- Review of the blocking pass at the facial exercise audio assignment from last week. This week's lecture is about anticipation through the perspective of moving from one distinct emotion or thought to another.

Assignment: Animate and finish the facial exercise with audio scene. Also, choose an audio file for a scene with dialogue between two characters.

Week 7- Review of 1 character audio scene with emotional transition animation from last week.
Assignment: Two character dialogue scene - thumbnails, storytelling poses, and breakdowns.

Week 8- This week's discussion will be about performance. Subtle vs broad acting will be examined, touching on some of the distinctions and values of each.

Assignment: Continuation, refinement and finish of the two character dialogue exercise.

Week 9- Physicality of broad animation. Why do broad animation? Where is it appropriate?   How to do broad animation, and to what extent? What makes something funny?

Assignment: start of the final project: choosing an audio file from which to work. This week the story poses should also be well worked out, as making changes later is highly wasteful and costly in terms of time. These should be shot and playable with the audio file as a movie file.
Graduate students will animate the performance as interaction between two on-screen characters

Assignment: blocking pass at final scene.   This is building on the story poses which have already been established as optimal--not needing to be changed.   They will give a good sense of how the performance has impact. This will also be shot and joined with the audio file as a movie file.

Week 10- We'll discuss the progress on the scenes for the final project.   It will be open discussion with the class, for practice at experiencing a "sweatbox" environment. In this arena one can often hear several varied opinions, and then need to choose which remarks resonate with their own purpose. They must also be able to account for the opinion of those in authority when weighing their options.

Assignment: refinements on final scene

Week 11- Class workshop.   Continuation of refinements on final scene. Last chance for feedback before final.

Week 12- Animation final.   The assignment will be due.

week	Mon	Wed	class	assignment
1	3/27		**Lecture:** "Character Bones"	**For Wednesday's class:** Character observation: "Character Bones Assignment"
		3/29	The aesthetics of a good pose Working effectively with a rig	*Read ASK "Spacing" pg. 84-99.* *Read ASK "Anticipation" pg. 273-284 and "Reaction" pg. 294-296.* **For Monday's class:** Rendered Emotion Poses
2	4/3		**Review Poses** **Lecture:** Review of pose-to-pose and straight ahead animation styles. The 3D animation process.	**For Wednesday's class:** Big Step video reference
		4/5	The Body as a Unit Moving Line of Action Soft and Hard accents. Inverse Kinematics vs. forward Kinematics.	**Big Step Exercise:** block poses for Big Step animation
3	4/10		**Critique Keys and Extremes** **Lecture:** The art of Inbetweening. Spacing, slow in/slow out, breakdown poses, moving on arcs, overlapping action.	**Big Step Exercise continued:** Do breakdowns and inbetween Big Step animation from last week. *Read ASK "flexibility" pg. 227-245 and "overlapping action" pg. 249-251.*
		4/12	**Critique Big Step final animation** **Lecture:** Blocking out a complex shot	**For next week:** Pro Blocking

week	Mon	Wed	class	assignment
4	4/17		**Critique Pro Blocking** **Lecture:** Physics study vs. Character study Animation Observation	*Read ASK "The Walk Cycle" pg. 102-124.*
4		4/19	**Lecture**: The walk cycle. Giving walks character! Establishing weight.	**For Monday's class:** Block out two character walks "Scenes From The Boardwalk"
5	4/24		critique blocking of "Scenes From The Boardwalk"	**For Wednesday's class**: break down two character walks. (Scenes from the Boardwalk)
5		4/26		**For next class**: Complete two character walks assignment. "Scenes From The Boardwalk"
6	5/1		**Critique character walk cycles**	*Read ASK "Dialogue" pg. 304-313* **For Wednesday's class:** find audio file to animate headshot
6		5/3	**Lecture:** Character expression. Eyes, eyebrows, and blinks. Changing expression Creating character through expression	**For next week:** thumbnail out storyboard of thought progression. Present the storyboard thumbnails as animatic to the audio file
7	5/8		**Lecture:** Continue with expression. Quick n' Dirty lip sync.	**Due next week:** Head shot animation. Must be lit and rendered as a quicktime movie for next week.
7		5/10		**For next class: F**ind a sound clip for final project. Thumbnail out a storyboard including all key poses for the action. Shoot it as an animatic with sound.

week	Mon	Wed	class	assignment
8	5/15		**Critique head shot animations.** **Introduce Final Project**	Lay out key poses and extremes for your shot in Maya. Submit animation as a playblast **with sound**.
		5/17	**Lecture:** Giving your characters business- context, subtext and layered performance Performance in animation: Realism, exaggeration, over-acting	*Read ASK pg. 217-227*
9	5/22		**critique final blocking** **Lecture: Bringing more life into characters.** A to X to B	*Read ASK pg. 217-227*
		5/24	**critique breakdowns** "High brow" lip sync.	**For next class:** Add breakdowns and begin inbetweening on your shot
10	5/29 **memorial day**		**memorial day (no class)**	
		5/31	**critique inbetweening** **last chance for direct feedback on final project**	**For next class**: Final animation is due
11	6/5		**finals week (no class)**	
		6/7 **final**	**critique of animation final assignment**	**- final critique, by students and teacher.**

Date and time of the final exam: Wednesday, June 7th, 2017,
from 8:30 AM to 10:45 AM

location: regular classroom (CDM 527)

Your exam is on
Wednesday, June 7th, 2017
from 8:30 AM to 10:45 AM