San José State University
Design Department - College of Humanities and Arts
**Animation and Illustration program**

# ANI 128b Digital Animation I
# Fall 2018

**Instructor:** Raquel Coelho

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**Office Hours:** Thursdays and Thursdays – 11:00 am to 12:00 (ART 223 or ART 224)

**Class Days/Time:** Tuesdays and Thursdays 8:00am to 10:50am

**Classroom:** ART 224 (Mac Lab)

**Course WebPage**

Course materials such as syllabus, handouts, notes, assignment instructions, etc. can be found on the Canvas Course website. You are responsible for regularly checking our class page on Canvas to learn of any updates. In addition plesae bookmark our course resources site:

**https://ani128b.wordpress.com/**

## Course Description

In this class we will apply the traditional principles of animation to assignments for intermediate level focusing on character animation. We will also work on improving the workfow of creating a shot, with emphasis on achieving a strong blocking more effciently. Techniques for polishing the animation will also be addressed. In addition to body mechanics scenes, students will collect and study scenes from feature flm animation, and will work on short studies focusing on specifc problem areas of character animation.

### Course Learning Outcomes

By the end of this class students should be able to:

- Understand well the Maya workfow, and how to take a shot from design to fnal phase

- Block a shot more quickly and effciently and polish a shot using the principles of traditional animation

- Animate broad action with solid body mechanics, appropriate for a intermediate level

- Know how to apply the traditional principles of animation in order to produce believable movement

- Use strong storytelling and character development in their animated scenes

- create believable characters that appear to have thoughts and emotions of their own

## Course Requirements and Assignments

Assignments will consist of weekly "shot pick apart" assignments, poses and short studies. In addition, each student will work on group or individual scenes (3 for the entire semester). All poses, short studies and scenes will be assemble as a class reel movie fle at the end of the semester for grades. Expect a minimum of 9 hours working on assignments everyweek.

## Pre requisite for enrollement

You have to have successfully pass the following courses:
ANI 51b and ANI 128a Digital Animation I

# University Policies

General Expectations, Rights and Responsibilities of the Student
See University Policy S90–5 at http://www.sjsu.edu/senate/docs/S90-5.pdf. More detailed information on a variety of related topics is available in the SJSU catalog, at http://info.sjsu.edu/web-dbgen/narr/catalog/rec-12234.12506.html.

## Dropping and Adding

Students are responsible for understanding the policies and procedures about add/drop, grade forgiveness, etc.  Refer to the current semester's Catalog Policies section at http://info.sjsu.edu/static/catalog/policies.html.  Add/drop deadlines can be found on the current academic year calendars document on the Academic Calendars webpage at http://www.sjsu.edu/provost/services/academic_calendars/.  The Late Drop Policy is available at http://www.sjsu.edu/aars/policies/latedrops/policy/. Students should be aware of the current deadlines and penalties for dropping classes.
Information about the latest changes and news is available at the Advising Hub at http://www.sjsu.edu/advising/.

Consent for Recording of Class and Public Sharing of Instructor Material
University Policy S12-7

## Academic integrity

University Academic Integrity Policy S07-2 at http://www.sjsu.edu/senate/docs/S07-2.pdf requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the office of Student Conduct and Ethical Development. The Student Conduct and Ethical Development website is available at http://www.sjsu.edu/studentconduct/.

## Campus Policy in Compliance with the American Disabilities Act

If you need course adaptations or accommodations because of a disability, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Presidential Directive 97-03 at http://www.sjsu.edu/president/docs/directives/PD_1997-03.pdf requires that students with disabilities requesting accommodations must register with the Accessible Education Center (AEC) at http://www.sjsu.edu/aec to establish a record of their disability.

## Accommodation to Students' Religious Holidays

See University Policy S14-7 at http://www.sjsu.edu/senate/docs/S14-7.pdf.

## Student Technology Resources

Computer labs for student use are available in the Animation and Illustration program computer lab, in room ART 224. A wide variety of audio-visual equipment is available for student checkout from Media Services located in IRC 112. These items include DV and HD digital camcorders; digital still cameras; video, slide and overhead projectors; DVD, CD, and audiotape players; sound systems, wireless microphones, projection screens and projectors.

## SJSU Peer Connections

Visit Peer Connections website at http://peerconnections.sjsu.edu for more information.

## SJSU Writing Center

Please visit the Writing Center website at http://www.sjsu.edu/writingcenter.

## SJSU Counseling Services

The SJSU Counseling Services is located on the corner of 7th Street and San Fernando Street, in Room 201, Administration Building. Professional psychologists, social workers, and counselors are available to provide consultations on issues of student mental health, campus climate or psychological and academic issues on an individual, couple, or group basis. To schedule an appointment or learn more information, visit Counseling Services website at http://www.sjsu.edu/counseling.

# What to Expect

Plan to work on Maya a minimum of one hour per day (3 hours per day would be ideal).  In the days you are done with your assignment use the time to revise the interface concepts discussed in class. Maya also has some simple tutorials that can be really helfpul as a complement. Working **at least** one hour per day will establish a good rhythm and will make the learning process fun and much less frustrating.

We recomend that you schedule time for practicing Maya and stick to it. Do not limit yourself to do the assignments - read the resources and practice, like you would do with a musical instrument, sometimes even repeating the same task many times.

Look for help online or with your friends. Try to plan with class peers to get together in the lab for studying - this way you can help one another.

If you encounter problems, try to trouble shoot, thinking of possible reasons for things to be not working. If after 10 minutes trouble shooting you don't get results, call or email friends, or look online - there's plenty of Maya forums and maybe someone out there has had exactly the same issue as you. Basically, don't suffer alone: there's a lot of people out there trying to figure the same stuff as you.

# Types of Assignments

There are 5 types of Assignments:

1. SCENE ASSIGNMENTS - hands-on using a computer

2. SKETCHBOOK ASSIGNMENTS - Drawing on your sketchbook

3. QUICK STUDIES - short animation hands on practice shots, focusing on one specific problem/issue/skill

4. POSES - there will be weekly pose assignments to be done using a 3D character.

5. READINGS and consulting resources.

# Rigged Characters

**PROPS**
Please use our assets library for your prop needs.
The address of the library ai.sjsu.edu/assets

**CHARACTERS**
Listed bellow are the characters allowed in this class. Please make sure to always read all the documentation of the character you are downloading, watch the videos etc. Some of the characters are very complex, and have many options for Ik/FK, orientation of head, neck and writs, etc. Expect to spend at least 6 hours getting to know your character and understand all the options of the rig.

**Malcolm:**
http://www.animschool.com/DownloadOffer.aspx
**Ray:**
http://www.cgtarian.com/character-ray/download-character-ray.html
**Josh Sobel rigs (he has many and they are all good):**
http://www.joshsobelrigs.com/rigs
**Rocket girl:**
http://www.vmcomix.com/2017/10/rocket-girl-rig.html
**Mery**
http://www.cgmeetup.net/home/mery-rig-free-maya-character-rig-female-character-rig/
**Hare:**
http://www.cgmeetup.net/home/hare-rig-free-maya-rig-cartoon-character-rig/
**Vilma:**
http://shop.boutique23.com/characters/20-vilma.html
**Luna:**
http://thinkinganimation.com/new-luna-rig-free/

# Class Supplies and Support Sites

## Support sites

**(please bookmark them in your browser):**

https://ani128b.wordpress.com/

https://area.autodesk.com/

## Required supplies

- A USB fash drive or external drive for storing DATA; (a minimum of 8 GB recommended)

- Sketch book and pencils for drawing.

- tape (scotch tape to tape acetate to Thursitors)

- Maya is available in all computers in the animation lab on campus.

- You will be required to shoot video reference for some of the assignments. Please be prepared to do so, making sure you have some kind of device to record video. This device could be a smart phone, mini-Dv cam, a webcam or a digital camera that can shoot video. If you don't have one, think of someone that can help you with shooting video reference for class.

# Software

-Download **Filmic Pro** (or similar) for your smart phone. This software will allow you to shoot video at 24fps which is the frame rate required for this class.
https://itunes.apple.com/us/app/filmic-pro/id436577167?mt=8

- The latest version of **Maya** is available in all computers in the animation lab on campus. For this class, we are going to be mostly using Maya 2017/2018. Please remember that as a student you can get Maya free of charge, if you go to the autodesk site. If you have an older version of Maya in your computer, please upload the latest one from the autodesk site. But plesae make sure your computer has the system requirements required.

- **Adobe creative** suite and **Microsoft Office or Open Office.**
You will need the ability to perform a simple film editing on your shots and to design textures for your characters and props. Also you will need a good text editor. Please download Microsoft Office suite and Adobe Creative Suite and have it installed in your personal computer. It is free for SJSU students:

http://its.sjsu.edu/services/software/

# Required Books

## Required text/readings:

**The Animator's Survival kit**
By Richard Williams
Published by Faber and Faber
ISBN 0-571-20228-4
ISBN 0-571-21268-9

**Acting and Performance for Animation**
by Derek Hayes and Chris Webster
ISBN-13: 978-0240812397
ISBN-10: 0240812395

## OPTIONAL BUT HIGHLY RECOMMENDED:

**Impro: Improvisation and the Theater**
By Keith Johnstone
Published by Routledge
ISBN-10: 0878301178
ISBN-13: 978-0878301171

**Impro for Storytellers**
by Keith Johnstone
Published by Routledge
ISBN-10: 0878301054
ISBN-13: 978-0878301058

Please purchase them ASAP.

# Lab Rules

Failure to comply with the following rules will result in a one week expulsion from the lab:

1. Food is prohibited in the computer lab

2. Beverages may be kept only on the shelf in the rear of the lab

3. Only students registered in digital classes or BFA are allowed in the lab

4. No internet browsing is allowed during class time. That includes social network sites, any kind of chat or instant messages, news, youtube or any other site at all. Students caught browsing the internet during class will be promptly removed from the lab.

5. A notebook and taking notes is mandatory during all lectures or when teacher is explaining a topic or giving assignment guidelines.

6. The lab is for digital class related work only (No painting, charcoal rendering, sculpting, massaging, etc...)

7. No inappropriate imagery on the computers nor dry erase board

8. Headphones only; no sounds audible to other students allowed

9. Do not disconnect, attach, rearrange, or install anything on the computer systems (USB and external drives are permitted)

10. The lab doors must remain closed and locked at all times - do not prop the door open!

11. Cel phones should be turned off in the lab

# Grades

Grades will refect a student's overall engagement with the course material from throughout the term, as determined by factors such as the quality and creativity of assignment work, class attendance, class participation, progress and effort. Students are responsible for maintaining an updated record of all completed assignments.

Project 1 = 20 points
Project 2 = 20 points
Project 3 = 20 points
Final Individual class reel: 30 points
Participation: 10 points
Total = 100 points

Grading Percentage Breakdown:

94% and above = A
93% - 90% = A-
89% - 87% = B+
86% - 84% = B
83% - 80% = B-
79% - 77% = C+
76% - 74% = C
73% - 70% = C-
69% - 67% = D+
66% - 64% = D
63% - 60% = D-
below 60% = F

Please note:
A = Excellent or Superior; or top 10% (93 to 100) = 4.0
B = Above Average; or second 10% (83-92) = 3.0
C = Average; or third 10% (77-82) = 2.0
D = Below average, minimum passing grade (69-76); or fourth 10% = 1.00
F = Failure or Exceptionally Poor; or bottom 60% (0-68) = 0.00

# Attendance

## Attendance

Students are expected to attend class regularly. Lateness of over 15 minutes counts as an absence. Students with 3 or more consecutive non-justified absences will most likely fail the class – in three weeks we will cover a lot of ground and if you miss three consecutive weeks of classes it will be really hard to catch up later. Please send me an email (preferably in advance) if you are unable to attend class.

NOTE that University policy F69-24 at http://www.sjsu.edu/senate/docs/F69-24.pdf states that "Students should attend all meetings of their class

OBS: Student swill only be granted an incomplete grade if they are going through exceptional situations that required them to miss a majority of classes, or important class milestones, for example experiencing a compelling family emergency and/or life crisis. If you receive an incomplete you have to complete the work on your own and have one year to submit all fnal materials for consideration or your grade reverts to an FG.

# Assignment's Guidelines

## PRESENTATION AND FORMAT

All animation scenes should start, from blocking, with a set composition including a camera with aim, and correct aspect ratio. Please consider your composition carefully, and make sure the camera angle and staging is adequate to the scene you have in mind. From day one I want to see playblast movies from the correct camera angle.

All Maya fnal assignments (including poses, quick studies and animations) should be rendered in the due date in HD 720 aspect ratio. They should include shadows and be well presented, with the character in high res (smooth skin) and with appropriated lighting. Please note: WIP passes do not need to be fully rendered (such as blocking and refning passes). But please always fully render your fnal passes. All final animations should be fully rendered in the correct aspect ratio, and with shadows for their due dates.

## PROJECTS, FILE ORGANIZATION AND NAMING CONVENTION

Please use maya to create a project for each animation project you will be working on. Your fles will be organized within the folders created by Maya. When working on the lab, just copy your project directory to the computer in the lab, open Maya and "set project" to your folder. Work on your scene, and copy the project back to you fash or external drive. Keep your fles organized and name them with your frstNameLastname. Use numbers to save different versions of your animation – this way you can go back to a previous version if one version gets corrupted, preventing you from loosing work. The best way to do that is using the automatic "incremental save" in Maya.

# Assignment Guidelines

## BACK UP YOUR WORK

Back up often. You should have always a copy of your projects in your fash or external drive, and in your own desktop or laptop computer. If you have some extra cash, you may want to invest on a dedicate external drive for backing up your scenes. It's never a bad idea to be on the safe side with your data!

## DEADLINES

Deadlines for all assignments will be strictly observed. Try your best to complete projects within the deadline. Assignments are planning with a specifc deadline in mind for a reason. Please keep the deadlines in mind when organizing your homework schedule. This class requires a minimum or 10 hours a week dedicated to homework. Any less than that will hurt the quality of your work. You do need to put in the hours! In some weeks, expect to put MORE than 10 hours for completion of all homework.

## WORK COLLABORATIVELY

Animation is a very collaborative feld. Even if you are a shy person, try to reach out for your classmates. Ask questions in class, connect with your classmates and ask them to give feedback on your work, or to help you when you are stuck. Help others when you see they need help. Doing this together will be more fun, and everybody will learn a lot more.

# Weekly Schedule

# Group Sequence

First project is a group sequence with a character searching, or hunting, or being chased by somebody (which can be an animal, another person, or something like lava, fire, ghosts etc). Most likely we will never see what or who is chasing your character, or maybe at some point in the sequence we will see it.. i'll leave that up to you.

The idea here is to convey the story in the strongest and most engaging way possible. It is important to consider your camera angles very carefully, and make sure there's motivation - in the story - for the changes in camera angle from one shot to the next. The audience needs to feel connected to the character and invested on the situation - basically, your sequence needs to grab the viewer.

It is also important to have a solid character, and even with different animators we still need to feel that he or she is the same person with the same personality.

This sequence should be one shot per person, each shot should be in between 5 and 8 seconds long. It doesn't need to be a complete story, in fact what we are looking for is a sequence, just like a sequence on a real film - probably something happened before and something will happen after your sequence, but what we see is a slice of a bigger film. We do want to have that cinematic quality of film, so please, research camera angles and when you should use what.

Acting needs to be solid! Lots of reference and lots of thinking on what you character should be doing. Ok to use a few face expressions as well.

# Tuesday 8/21

IN CLASS:

1 . INTRODUCTION
Introduction To ANI 128b Digital Animation I

## ASSIGNMENTS                                          Due on Thurs 8/23

POSE: Someone sneaking and spying on someone else

SHOT PICK APART: Someone hiding or escaping from somebody else.
Analyze the body positions and timing. Count how many  frames in the
holds and in the transitions. Draw poses on your sketch book.

SKETCHBOOK ASSIGNMENT: Draw people who live with you or close
by you. 3 drawings minimum.

READING: Read **the whole section (the 3 blog postings)** of "Cinematrog-
raphy" and watch all videos in that section in our class website:
https://ani128b.wordpress.com/category/cinematography/

# Thursday 8/23

IN CLASS:

1. Review shot pick apart

2. Review poses

## ASSIGNMENTS                     Due on Tues 8/28

**THE HUNT (Due 9/25, work accordingly)**
GROUP PROJECT! - Groups (3-5 animators per group).
Create a sequence for a hunt scene. Your sequence can have the hunt itself
or shots leading up to the hunt... You should convey story and character traits
through body language only – no dialogue, please. This is a short group se-
quence, one shot only per group member. It's not a short story, just 3 or 4 shots
of a sequence. We need to feel
something happened before the shots, and we need to feel something is hap-
pening after. No guns please!!!! Hunters use spears, knives, hatchets, bow and
arrow their own hands or similar. Think of obstacles on the way of this hunter,
or places where he can hide: trees, rocks, caves, bushes, ruines of old temples
etc... Possible scenarios:
- native american indian;
- a viking hunt;
- brazilian natives in the amazon jungle;
- hunting in the ice (alaska or other super cold place);
- hunting in mongolia
- any other native group of humans from asia, africa or other place.

EACH SCENE SHOULD BE NO LONGER THAN 150 FRAMES

**FOR NEXT CLASS:**
RIG STUDY: Get familiar with the rig you will use; watch videos, read the doc-
umentation, learn how to setup the picker. Try to do the quick study using the
same character.
a) background story for the scene. Character description for your characters
b) thumbnails describing the action on your scene (FOR THE WHOLE STORY)
b) video reference (FOR EACH SHOT)
c) planning for main poses including frame number FOR EACH SHOT; draw
your panels on the correct aspect ratio
(HD) and work carefully creating the best composition for each shot.
d) animatic with the whole story panels timed (EACH INDIVIDUAL SHOT
STITCHED TOGETHER IN THE ANIMATIC).

# Tuesday 8/28

IN CLASS:

1. Review Group work

2. If rig was modified, or there are plans for modifying it, review Rig and plans.

3. Review cinematography and camera angle concepts

# ASSIGNMENTS                                    Due on Thursday 8/30

POSE: Someone SCARED

SHOT PICK APART: Study a shot with someone chasing someone.

SCENE: Work on any revisions need on your group work

SKETCHBOOK ASSIGNMENT: Draw kids. Minimum 5 sketches.

READING: Read **the whole section (the 4 blog postings)** of "Planning" and watch all videos in that section in our class website: https://ani128b.wordpress.com/category/planning/

ASSIGNMENTS

IN CLASS:

1. REVIEW LAST CLASS ASSIGNMENTS
2. discuss planning methods and different practices from different students

## ASSIGNMENTS                    Due on Tuesday 9/04

QUICK STUDY: Arm overlap, including hands and fngers. Move the arms and make sure there's overlap between each section of the arm and hands. Make sure to animate the overlaping action all the way to the joints of the fingers. Animate the shoulder first, then overlap the rest of the arm. FK arms please.

SCENE: Project 01 "THE HUNT" :
Solid blocking in copied pairs;
EACH SCENE SHOULD BE NO LONGER THAN 150 FRAMES

READING: Read **the whole section (the 4 blog postings)** of "Blocking" and watch all videos in that section in our class web-site:https://ani128b.wordpress.com/category/blocking/

READING: from "Acting and Performance for Animation" read the whole "Introduction" section"

# Tuesday 9/04

IN CLASS:

1. REVIEW LAST CLASS ASSIGNMENTS

2. discuss blocking techniques and work flow preferences

Resources:

https://www.youtube.com/watch?v=GTQAOPhQLV4

https://www.youtube.com/watch?v=iHDtWbFLf_w

## ASSIGNMENTS                    Due on Thursday 9/06

POSE: Someone EXTREMELY HAPPY, EXULTANT

SHOT PICK APART: Someone falling, or tripping, or both.

SKETCHBOOK ASSIGNMENT: Draw people working, preferably physical types of jobs, such as construction, or load & unloading trucks etc.

SCENE: Revise blocking if needed, while the notes are still fresh in your mind;

# Thursday 9/06

IN CLASS:

Review work and discuss spine flexibility. Look at different types of spine rig (IK, FK and combination) and how to go about animating the spine.

Resources:

IK and FK spine:

https://www.youtube.com/watch?v=rSCvH7d3XNE

https://www.youtube.com/watch?v=Hw1_U7Zr6c8

## ASSIGNMENTS                                Due on Tuesday 9/11

QUICK STUDY: Looking back. What happens to the spine when a character looks back? What parts of the spine your character uses? How about the neck? How much rotation in each part? Do the COG moves as well? Can you add and arc in the head movement?

SCENE: Project 01: THE HUNT

Last revision on blocking, then go on to frst pass animation (frst pass refining)

READING: read the whole section on "Polishing" in our class site (1 blog posting):

https://ani128b.wordpress.com/category/polishing/

READING: from "Acting and Performance for Animation" read the whole Chapter 1: Aspects of Acting for Animation (very important!)

# Tuesday 9/11

IN CLASS:

1. Review assignments

2. Demo on how to change Malcolm.

## ASSIGNMENTS                    Due on Thurs 9/24

SCENE: Revise blocking if needed; then go on to frst pass animation (frst pass refining). Start by tracing arcs, loosening up the COG and adding flexibility to the spine, head/neck and arms.

POSE: Someone VERY PROUD OR EVEN OBNOSCIOUS

SHOT PICK APART: This is a study on Body mechanics shots (parkour, chases, runs, etc) ; Look online for other student work (not SJSU student) featuring cool body mecanics actions animated in 2D or in 3D. List 5 to 10 things you like about the shot, and would like to achieve in your own animation.

SKETCHBOOK: Draw your feet in 5 different angles and positions, trying to simplify the lines and shapes. If you don't know how to simplify, please consult Wayne Gilbert's book "Simplified Planning Animation"

# Thursday 9/13

IN CLASS:

1. Discuss "Life after Blocking" (text is in our class site. Students should have read it this week at home)
2. Discuss how hands work,  how fingers bend, and how overlapp should be carried all the way to the last joint of the fingers in good polishing.

## ASSIGNMENTS                    Due on Tuesday 9/18

SCENE: Project 01: Polish your shot. Take it as far as you can. Spend sometime polishing wrists and fingers, adding overlapp when needed. Make sure should and hips are animated before polishing the rest of the arm. Cleanup any pose that looks forced, unnatural, broken or off-model.

QUICK STUDY: Close up of a hand pick up the handle of the frying pan. Attention to each fnger! Details! Make the connection real. Shoot reference before doing the shot.

READING: from "Acting and Performance for Animation" read the whole Chapter 2: Types of Performance

# Tuesday 9/18

IN CLASS:

1. Review first pass of polishing. Discuss polishing strategies and work flow to get the shot and character looking fluent and alive.

## ASSIGNMENTS                    Due on  Thurs 9/20

POSE: Someone FEELING SMALL AND/OR AFRAID OF SOMETHING OR SOMEONE

SHOT PICK APART: a character dancing (3d animation)

SKETCHBOOK: Draw your hand in 5 different angles and positions, trying to simplify the lines and shapes. If you don't know how to simplify, please consult Wayne Gilbert's book "Simplified Planning Animation"

# Dance Shot

The Dance shot will not give you exactly a demo reel piece but it will train you to really understand three very importante things in animation: weight shifts, arcs and overlapping action (flexibility) For this assignment to be effective, pick a scene where the steps are clear (not too fast, or not too crazy) and the dancer is gracious and fluent (lots of arcs and flexibility).

Pick 3 scenes for reference, and in class i will help you to choose the more suitable one.

FINAL SHOT DUE ON 10/30

Frame range: No longer than 150 frames.

# ASSIGNMENTS

Due  Tuesday 9/25

SCENE: Project 01: **THE HUNT DUE**
Project 02 will be kicked off in class
**Project 01: DANCING (kick off)**

Deadlines:

DUE NEXT WEEK
1) Research about different styles of Dancing. Look into musi-
cals, videos of dancing competitions and research a
variety of styles (Ballet, modern dance, famenco, folk dances,
tap dance etc)

2) Choose your dance routine and pick your video reference; 1
character ONLY; dance should be big and bold –
avoid dance steps where everything happen in the same place.
American broadway style and modern dance are
good examples of what will work best in animation.

SKETCHBOOK: Draw people dancing (different styles, or many
poses on the same style) Minimum 5 sketches.

READING: from "Acting and Performance for Animation" read
the whole Chapter 4: Character and Personality

# Tuesday 9/25

IN CLASS: Review Assignments from last week.

## ASSIGNMENTS                    Due  Thursday 9/27

TEXT to STUDY: LIFE AFTER BLOCKING
what type of tangents should you use?
how to tackle polishing and what should i do frst?
what animation principles should i focusing on?
how to handle holds and transitions?

POSE: Someone DANCING with attitude

SHOT PICK APART: off balance. What happens when a character is off balance? Pick the main frames where the body is off balance, trace the center of gravity is and show how the weight of the character is off.

# Thursday 9/27

## ASSIGNMENTS

Due on Thurs 10/02

ANIMATION QUICK STUDY: start with two feet on the ground. Raise one of the legs as high as you can (whithout making the character look weird) then put the feet back on the ground. Make the necessary repositioning of the COG, spine and head so that the character is never off balance.

SCENE:
1) Study the hell out of your video reference!!!
2) thumbnail your shot. You don't have to follow exactly the video, you can create your own coreography by editing together the bits your like the most in different videos. Write down frame numbers and all extreme poses and breakdowns
4) plan your shot using the correct aspect ratio. Spend time working the best composition for your shot.
5) extract the audio from your video reference - you will need the audio to block your shot later on.
Bring your planning/video reference/thumbnails/ ideas for review

REMEMBER THAT YOUR SHOT SHOULD BE NO LONGER THAN 150 FRAMES!

SKETCHBOOK: Draw people dancing (different styles, or many poses on the same style) Minimum 5 sketches.

# Tuesday 10/02

IN CLASS:
Review Assignments

## ASSIGNMENTS  Due on Thursday 10/04

POSE: Someone DESPERATED

SHOT PICK APART: The coolest moving holds you can fnd. The
ones that really have an effect on the story. How
many frames? What parts move?

ANIMATION QUICK STUDY: overshoot to cushion transitions.
pointing finger gesture with one of the arms, cushion the transi-
tion with a overshoot. try with IK arms, and with FK. 5.
A) FK arms
B) with IK arms
* need to do both

SCENE: Prepare your maya scene for the dance  shot. Import
the audio, prepare your character and set. If you are planning to
modify your character (textures, costume, colors etc) do it now.

# Thursday 10/04

IN CLASS:
Review and discuss assignments

## ASSIGNMENTS
Due on Tuesday 10/09

SCENE: Blocking your dance. Make sure to include hand poses and eye line. Attention to position of COG and feet; attention to weight shifts and center of gravity.

You will not have a chance to re-block this forever. So the first pass blocking better be very solid!! work on creating poses that are really solid! make sure the body doesn't have anything that looks broken or weird. The body in your reference doesn't have the same proportions as your character, but ultimately, nobody will look at your reference, so make sure the poses work FOR YOUR CHARACTER - even if you have to modify what you see in your video reference. Make sure the poses sync with the music.

Do not turn in an incomplete blocking! Block your whole scene.

MAX 150 FRAMES

ASSIGNMENTS

IN CLASS:

HANDS ON IN CLASS:
BASIC WALK (ADDING DETAIL TO LOWER  BODY)
(Walk cycle part 2)

TOPICS:
Peeling off the heel from the floor, overlapping on toes, how to polish a

## ASSIGNMENTS
Due on  Thursday 10/11

POSE: Sleeping deeply or Laying down unconscious after a fainting event (sofa? Chair? Think of a great place to
faint or to sleep)

SHOT PICK APART: Transitions and holds in a stylized shot of your choice. Please count frames and find out: How many frames for each transition? How many frames for the holds? How much movement there is in each hold? Do you see arcs on the transitions? Smears? What is the spacing in the transitions? Sketch posed and anotate the frame numbers on your sketch book.

ANIMATION QUICK STUDY: Create a 40 frames moving hold for some-one who is standing in a cool pose

# Thursday 10/11

IN CLASS:

HANDS ON IN CLASS:

BASIC WALK (ADDING ANIMATION ON SPINE, HEAD AND ARMS)
TOPICS: Upper body animation on a walk.

## ASSIGNMENTS                                    Due on  Tuesday10/16

SCENE: POLISH First pass - triple check your weight shifts and center of gravity/balance. Make sure feet and hands are flexible. Trace arcs. Cushion transitions. Make sure no body part is locked. Make the movement gracious by using arcs and overlap. Animate fngers. Add blinks and basic face expressions. Work on the lighting for your shot. Add any BG elements that you still need to add. Maybe a BG painting?

SKETCHBOOK: Draw character and poses from imagination. 5 sketches minimum.


READING: from "Acting and Performance for Animation" read the whole Chapter 5: Principles of Performance

## ASSIGNMENTS                    Due on  Thursday 10/18

POSE: Spanish reference, toreros (Bull fighters), flamengo dancers or tango dancers and musicians. Try to capture that beautiful spanish flavor in your pose?

QUICK STUDY: ANIMATION QUICK STUDY: Arm transition with and easy (instead of overshoot).  you can use the same scene you have used for the overshoot quick study, but this time, cushion your transition with an easy in.

# Thursday 10/18

## ASSIGNMENTS                     Due on  Tuesday 10/23

SCENE: **S**econd pass polishing, try to take as close to final as possible

SKETCHBOOK: Draw dances and performers from India in active poses (look at pictures for reference). 5 sketches minimum.

READING: from "Acting and Performance for Animation" read the whole Chapter 6 : Making a Performance

ASSIGNMENTS

# Tuesday 10/23

## ASSIGNMENTS                    Due on Thursday 10/25

**Dance Scene due next week. Focus on finishing your shot.**

SHOT PICK APART:
Find the coolest game cycles on the internet. Bring 2 examples to show to class.

POSE
Cool rock start pose, leaning against a wall or seating on chair

# Thursday 10/25

## ASSIGNMENTS                                    Due on  Tues 10/30

Finish your dance shot with a high level of polishing.

SKETCHBOOK: Draw people from African tribes doing something active: working, hunting, having fun. 5 sketches minimum.

IN CLASS:
**PROJECT 03 Kick off:**
Game Cycles
For grades: Final project DUE 11/20

You will work on a small collection of game cycles for your demo reel. Required: three different locomotion loops and one move triggered by a button press/direction change. Choose a character, and define the parameters of your cycle, following the guidelines bellow.
Due on Finals

## ASSIGNMENTS                Due on Thursday Nov 1st

Define the parameters for your next game cycle:

Who is your character?

What type of game?

What is interesting and original about your idea? Or, what you can do to make your idea interesting and original?

What cycles you are planning to work on?
Since it's a collection, think of something that will look good in your demo reel.

# Game Cycles

**What Type of Game?**

       3-d Platformer (Ratchet and Clank, Mario Galaxy)
       3-d Action/Adventure (Legend of Zelda:Breath of the Wild)
       2 ½-d Platformer (Ori and the Blind Forest, Inside, Unravel)
       Isometric/birds-eye view (League of Legends/Dota/Transistor)
       Fighting game (Super Smash Brothers, Street Fighter)

**What Style of Animation?**

       Bouncy/stylized (Ratchet and Clank)
       Realistic/Mo-Cap (Uncharted)
       More unique indie game (Journey, Bound)

**Types of Cycles:**

| Moveset loops | Button-Press Moves and loops |
|---|---|
| o Walk | o Jump |
| o Run | o Double-jump |
| o Sprint | o running jump |
| o Stealth | o pushing loop |
| o Injured | o Mantling loop (holding onto an edge) |
| o Combat-ready | o Mantle-hand loop (holding onto an edge) |
| o Relaxed | o Climb loop |
| | o Climbing jump |

# Game Cycles

| **Direction-change Moves/Transitions** | **Combat animation** |
|---|---|
| o   Running 180–degree turn | o   Draw weapon |
| o   Stealthy 180-degree turn | o   Sheath weapon |
| o   Walk-to-sprint | o   Attack |
| o   Sprint-to-stop | o   Jump attack |
|  | o   3-swipe combo attack |
| **Personality Idles** | o   Combat idle |
| o   Should be a breathing loop that reflects a specific type of game/game character | o   Combative taunting |
|  | o   Hit Reactions |
| o   Should have an idle-break that plays after 2-3 loops | o   Dodge |
|  | o   Death animations |
| o   Could show different states in your idle loops as well: normal idle, aggressive idle, alert idle, injured idle, etc. | o   Blocks/Parries |
|  | o   Enemy hit reacts |
|  | o   Enemy attack |
|  | o   Enemy death |

**Go the extra mile:**

After you have two loops and a button-press-action feel free to add more to the moveset, or even animate a non-player-character, enemy, or mount (horse,dragon,etc.) for your main character.

# Thursday 11/01

IN CLASS:

1. Review Game cycle proposals ;
Discuss cycles in place X moving forward;
Show how to cycle curves in Maya.
2. Keep deadline in mind and work accordingly.
This project is  on DUE 11/20

## ASSIGNMENTS                                Due on  Tuesday 11/06

Work on your two first Game Cycles (Cycles_01 and 02).
I want to see a very good blocking and, if possible, a first pass of polish-
ing.

POSE: Someone is ACTING LIKE A MONKEY (have fun! Make it funny!)

SHOT PICK APART: a great story moment with very little movement on
the characters (one of two poses max) but hight or intense emotion

SKETCHBOOK: Draw people doing something active (playing, running
etc) in a park or doing something active on campus (breakdancers in
front of MLK library, people playing on the grass, etc). 5 sketches mini-
mum.

READING: from "Acting and Performance for Animation" read the whole
Chapter 7: Scene composition

# Tuesday 11/06

IN CLASS:

1. Review Assignments from last week

## ASSIGNMENTS                    Due on  Thurs 11/26

SCENE: Further polishing on your game cycles 01 and 02. Try to finalize it.

POSE: Dramatic pose from theater,  or old film

QUICK STUDY: spine flexibility. picking somthing on the floor. Have your character leaning down and if he will pick something up. Avoid putting 100% of the rotation on the COG. Instead, split the rotation through the spine. Animate the different sections fo the spine+neck and head in succession (overlapping action) in order to make the spine feel flexible

# Thursday 11/08

IN CLASS:

1. Review second pass of blocking;
2. Explain what we will need for the final class reel:
Reel format and requirements
Title card
Which assignments to add
Class reel is due on finals: 12/17 (Thursday) 8:30 to 9:30am

## ASSIGNMENTS                          Due on Thurs 11/26

SCENE: Keep polishing cycles 01 and 02. Start on Game Cycle 03 (it can be, for example, a button push action, a death animation or another locomotion cycle): Complete blocking and, if possible, first pass polishing.

SKETCHBOOK: Draw your friends on hallways or classrooms of the 2nd floor Art building. 5 sketches minimum.

READING: from "Acting and Performance for Animation" read the whole Chapter 8: Working with Actors (very important!)

# Tuesday 11/13

IN CLASS:

1. Review Cycles.

## ASSIGNMENTS

Due on  Thursday 11/15

SHOT PICK APART: find a shot that showcases the unique personality of the character using a simple routine action (for example, brush teeth, talk on the phone, seating , eating etc)

SCENE: Finish cycles 1 and 2. Polish cycle 03.

QUICK STUDY: you will animate a head turn and:
a) add arc
b) first version with a overshoot cushion;
b) create a second version with an easy-in cushion instead of overshoot.

# Thursday 11/15

IN CLASS:

1. Review Cycles.

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## ASSIGNMENTS                    Due on Tuesday 11/20

SCENE:  Finish polishing your cycle 03. Complete blocking and a first pass of polishing

SKETCHBOOK: Draw people doing everyday grooming activities: brushing teeth, brushing hair, shaving, trimming nails.  4 sketches minimum. From imagination or reference.

READING: from "Acting and Performance for Animation" read the whole Chapter 3: Format, Genre and Audience

# Thurs 11/20

CYCLES ARE DUE FOR GRADES. SCREEN, GRADE AND REVIEW ALL CYCLES.

## ASSIGNMENTS                                    Due on Thurs 12/10

**No assignments for thanksgiving week.**
**If you have the time and want to keep going, feel free to start our next assignment**

## Weds 11/22 to 11/25
## Thanksgiving holiday

NO CLASSES, no homework.
ENJOY YOUR HOLIDAY!

UNIQUE WAYS

## ASSIGNMENTS
Due on  Tues 11/29

SCENE: Finding uniqueness in day to day actions. In this assignment we are looking for unique ways to do day to day actions like seating in a chair, brushing teeth or brushing hair, laying down by the pool or beach, etc. I don't want you to try to be funny, or to force a joke into your scene. The idea is to observe - really observe - the way you and/or your friends or family members do simple everyday things, and try to find unique ways that people do things. This last shot needs to be done by FINALS so, you will need to work with the speed of industry. Here's the way to think about it:

3 hours - Figuring out what you will animate and thumbnailing your scene DUE 12/03
3 hours - video reference and planning on paper DUE ON 12/03
10 hours - blocking (you will need to nail the blocking on the first pass)
20 hours - polishing.

Try to keep track of the time you are spending for each task and work efficiently!

Shot should be no longer than 100 frames

# Thursday 11/29

## ASSIGNMENTS

WIP Due on Tues 12/03

SCENE: Unique ways to do things - planning **DUE TODAY!!!**

blocking (you will need to nail the blocking on the first pass) Due on Tuesday 12/03.

If you feel confident in your blocking, go ahead and start polishing your scene.

UNIQUE WAYS

## ASSIGNMENTS          WIP Due on  Thursday 12/06

SCENE: Polishing your "Unique Ways Shot"

FINALS: Prepare your old shots for finals. Work on your final class reel.

# Thursday 12/06

## ASSIGNMENTS                    Due on  Tues 12/18 (Finals)

SCENE: Final Polishing pass on your "Unique Ways Shot"

FINALS: Prepare your old shots for finals. Work on your final class reel.

# FINAL CLASS REEL

Due today 12/18

1. Assignments that should be in your final class reel:

    1. title card with your name, course number, semester and year

    2. all of your poses (2 seconds each)

    3. all of your quick studies

    4. your shot for Project 01_ the Hunt

    5. Project 02 - dance

    6. project 03 - game cycles

    7. Project 01 -  full sequence (including all shots)

2. A PDF portfolio with all your sketch assignments

# LIST OF ALL POSES AND QUICK STUDY ASSIGNMENTS