

ANI 231-402: 3D ANIMATION

Fall Quarter 2019-2020

MW 3:10PM - 4:40PM

W/September 11, 2019 through M/November 18, 2019

CDM 658

Instructor: Mary K Omelina

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Office Hours:

W 4:45pm – 5:30pm CDM 722

W 9:00pm-10:30pm CDM 722

COURSE SUMMARY: In this course, students will be introduced to animation in 3D through the use of traditional animation principles. Topics will include: animation fundamentals, keyframing, splining, animated cameras, rendering, and an introduction to basic rigging. Emphasis will be placed on using the computer as a tool to create animation for film and games. **PREREQUISITE(S):** ANI 230

LEARNING OUTCOMES:

- Students will be able to analyze the effectiveness of animated sequences, citing strengths and making recommendations for improvement.
- Students will be able to create animated sequences and craft basic lighting schemes in Maya; compile rendered output and export HD movies using Adobe Premiere.
- Students will be able to rig simple mechanical builds, and apply basic rigging techniques to characters for ease of use, according to current industry standards.
- Students will be able to produce a final animation project utilizing contemporary animation techniques.

Type of Instruction: Lab; Lecture

Course Management system: D2L

Software: Maya 2019

Important dates: <https://academics.depaul.edu/calendar/Pages/default.aspx>

Textbooks and Printed Resources (Recommended)

The Animators Survival Kit - Richard Williams, Publisher: Faber and Faber Inc. 2001

Prerequisites

Successful completion of ANI 230. ANI 230 may not be taken simultaneously.

CHANGES TO SYLLABUS

This syllabus is subject to change as necessary during the quarter. If a change occurs, it will be addressed during class and posted under Announcements on D2L.

CLASS PARTICIPATION

Participation in critiques and class discussion is highly encouraged. Negative class participation (looking at your phone, excessive talking, sleeping) may affect your final grade.

FINAL PROJECT

Instead of a final exam, we will look at our final project on the day of the scheduled exam.

You may not miss the final class date. If attendance is not possible, you must contact your instructor before the final. Excuses given after the fact will not be accepted.

ATTENDANCE:

Excused absences: If you are marked absent more than three (3) times, you must provide an excuse from the Dean of Students Office. Failure to do so will result in a reduced final grade for each absence in excess of three (3).

It is entirely the student's responsibility to address this situation via email with the instructor and propose a program and timetable for make-up work.

It is not necessary to email the instructor when you anticipate that you will be absent (or late) up to three (3) absences.

The student is responsible for any lectures or assignments missed. All materials related to each class session will be posted on D2L.

If an assignment is due a week that you are absent, it is your responsibility to make sure it still arrives on time for in class critique.

If an assignment is not ready for submission by the due date, you must submit a text file in the submission folder on D2L indicating when you will submit the missing assignment.

No incompletes will be given without documented proof of circumstances beyond your control. If you arrive late for class, it's your responsibility to make sure that you have not been marked absent **BEFORE YOU LEAVE THE CLASSROOM, followed up with an email that same day.**

GRADING

Your grades are based on completing the assignments on time and the quality of your work. Negative class participation and/or excessive absences may result in lowering your final grade.

A = Excellent
B = Very Good
C = Good
D = Acceptable
F = Unacceptable

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.

15 pts - 3 Bouncing Ball Animations; Lit & Rendered MP4 movie files (5 points each)
10 pts - Jumping Animation; Lit & Rendered MP4 movie file
10 pts - Lower Body Walking Animation (Maya file)
10 pts - Simple Rig; Playblast (Maya file & Playblast)
20 pts - Flexibility & Animated Constraints; Lit & Rendered MP4 movie file
35 pts - Final Project; Lit & Rendered MP4 movie file
100 total points

ASSIGNMENTS must be completed by the due date, usually at the beginning of class unless I tell you otherwise. Late work will not be accepted without consent of the instructor and is subject to grade penalty. Don't wait until the last minute to attempt to submit your assignment. Turning in something unfinished is always better than nothing at all

All class materials, assignment guidelines and submissions, and grades will be managed on D2L. Unless I tell you otherwise, assigned work must be completed and submitted on D2L BEFORE class starts.

You may revise or even completely redo any assignments you wish. In order to qualify for this privilege, you must have turned something in that is at least partially complete. Empty submission folders are not covered under this "redo" policy. Turn in what you have on time or lose the privilege to "redo" it.

NAMING CONVENTION: Assignments must be in the following format:

LastnameFirstname_projectnameNumber.extension

example: OmelinaMary_AwesomeProject01.mb

***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.

HOW TO SUCCEED IN THIS CLASS

1. PAY ATTENTION IN CLASS.

Being able and ready to pay attention and participate in class. It is unacceptable to check e-mail, browse or social network while class is in session. It's not only rude, but distracting. Nothing that is distracting to you, your classmates, or the instructor is allowed.

If you aren't paying attention - you will miss things! The people who get the most confused or do not complete the assignments properly are almost always the people not paying attention in class.

2. Use lab computers during class for ANI 230 work only.

3. SAVE OFTEN.

Learn to save "increments." If you make a change – save it. If you've been working for a while – even a short while – SAVE YOUR FILE.

4. NEVER WORK DIRECTLY ON A FLASH DRIVE OR EXTERNAL HDD.

Never. Drag your files to your desktop and work there. Then drag your files to your flash/external. Then disconnect.

5. NEVER LAUNCH A MAYA FILE BY DOUBLE CLICKING ON IT.

That's fine with some files but not with Maya files.

6. DOWNLOAD ART FILES from D2L rather than Opening them.

Documents are fine to open and read online but when I provide files for your work you need to download them and save them to your computer (recommend the desktop).

7. NEVER RUN MORE THAN ONE INSTANCE OF MAYA AT ONCE.

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://academicintegrity.depaul.edu/>

DO NOT SHARE DIGITAL FILES OR PASS THEM BACK AND FORTH UNDER ANY CIRCUMSTANCES. This is strictly forbidden. All digital assignments must have been generated completely by you, unless I expressly tell you otherwise. If you need help you must seek out help in person and **UNDER NO CIRCUMSTANCES** are you to email or otherwise transfer your own working files to anyone except the instructor.

MATERIALS AND SUPPLIES:

We will be using Maya for the duration of the class. It is recommended that you install the latest version of Maya at home if you are so able. You may not be able to access the provided files with older versions of Maya. It's your responsibility to troubleshoot any installation issues directly with Autodesk.

You need to join Autodesk Education Community to access their free software.

CLASS MATERIALS:

Maya software (use lab computers and/or free license installed on home system, Win or Mac)
Flash drive or removable external

WEEKLY SCHEDULE (subject to change):

WEEK 1 9/11 | INTRO TO 3D ANIMATION BASICS

Timing & Spacing

Squash & Stretch

Arcs

Ease in / Ease Out

Playblast

Homework: Animate 2 bouncing balls in separate Maya files, with an emphasis on notable different characteristics for each ball, focusing on weight and mass. Pay attention to Timing; Spacing; Squash & Stretch; Arcs; Easing in & out.

WEEK 2 9/16 & 9/18 | ANTICIPATION; RENDERING

Anticipation

Working in Maya Projects; Shifting between Maya Projects

Camera, Lighting, Rendering

Adobe Premiere – compiling and rendering an animation

Homework: Polish ball animations 1 & 2. Animate a 3rd ball - adding anticipation. Set up a camera and a basic lighting scheme and render all 3 balls to individual frames. Use Adobe Premiere to compile the rendered frames and export MP4 movie files (After Effects is also fine) Submit 3 Maya files and 3 MP4 movie file.

Week 3 9/23 & 9/25 | CHARACTER JUMP

Critique Bouncing Balls

Squash & Stretch of hinged joints

Homework: Animate a simple character action sequence (jump). Light & render.

Submit Maya file and MP4 movie file.

Week 4 9/30 & 10/2 | INTRO TO WALKS

Critique Jumps

Progressive walking vs cycles in place

Homework: Animate a lower body walk.

Submit Maya file.

Week 5 10/7 & 10/9 | RIGGING

Rig and animate a stacking machine using joints & IK; constraints; and controls.

Submit Maya file & Playblast.

Week 6 10/14 & 10/16 | RIGGING

Set up and animate a character using props.

Submit Maya file & Playblast.

WEEK 7 10/21 & 10/22 | INTERMEDIATE CHARACTER ANIMATION

Successive breaking of joints

Flexibility

Animating w/ props

Homework: Focusing on character flexibility, use animated constraints to have the character pick up an object and use it to hit something or otherwise make contact. Created Key Poses and Breakdowns to achieve powerful timing and graceful fluidity. Light and Render your animation.

Submit Maya file and MP4 movie file.

WEEK 8 10/28 & 10/30 | FINAL PROJECT PLANNING; LAYOUT & BLOCKING ANIMATION

WIC & Homework: Plan your final animation. Layout your scene (building additional scene elements and props) and begin blocking your animation (key poses)

WEEK 9 11/4 & 11/6 | FINAL PROJECT BLOCKING KEY POSES AND BREAKDOWNS

WIC & Homework: Work on your final. Finish blocking. Complete key poses. Add breakdown poses.

WEEK 10 11/11 & 11/13 | FINAL PROJECT CLEANING UP AND TROUBLESHOOTING YOUR ANIMATIONS

Homework: Work on your final. Add in-betweens. Adjust & refine curve interpolation & tangents. Final polish. Light & Render your scene.

Submit MP4 file.

FINAL EXAM 11/18

Your final (presentation of final project) is on Monday 11/18 @ 3:10PM.

PRESENTATIONS OF FINAL PROJECTS

ATTENDANCE MANDATORY

Failure to attend will significantly impact your final grade.

DEPAUL POLICIES

Online Course Evaluations

Evaluations are a way for students to provide valuable feedback regarding their instructor and the course. Detailed feedback will enable the instructor to continuously tailor teaching methods and course content to meet the learning goals of the course and the academic needs of the students. They are a requirement of the course and are key to continue to provide you with the highest quality of teaching. The evaluations are anonymous; the instructor and administration do not track who entered what responses. A program is used to check if the student completed the evaluations, but the evaluation is completely separate from the student's identity. Since 100% participation is our goal, students are sent periodic reminders over three weeks. Students do not receive reminders once they complete the evaluation. Students complete the evaluation online in CampusConnect.

Academic Integrity and Plagiarism

This course will be subject to the university's academic integrity policy. More information can be found at <http://academicintegrity.depaul.edu/>. If you have any questions be sure to consult with your professor.

Academic Policies

All students are required to manage their class schedules each term in accordance with the deadlines for enrolling and withdrawing as indicated in the University Academic Calendar. Information on enrollment, withdrawal, grading and incompletes can be found at: cdm.depaul.edu/enrollment.

Students with Disabilities

Students who feel they may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. All discussions will remain confidential.

To ensure that you receive the most appropriate accommodation based on your needs, contact the instructor as early as possible in the quarter (preferably within the first week of class), and make sure that you have contacted the Center for Students with Disabilities (CSD) at: csd@depaul.edu.

Lewis Center 1420, 25 East Jackson Blvd.

Phone number: (312)362-8002 Fax: (312)362-6544

TTY: (773)325.7296

Withdrawal

Students who withdraw from the course do so by using the Campus Connection system (<http://campusconnect.depaul.edu>). Withdrawals processed via this system are effective the day on which they are made. Simply ceasing to attend, or notifying the instructor, or nonpayment of tuition, does not constitute an official withdrawal from class and will result in academic as well as financial penalty.

Retroactive Withdrawal

This policy exists to assist students for whom extenuating circumstances prevented them from meeting the withdrawal deadline. During their college career students may be allowed one medical/personal administrative withdrawal and one college office administrative withdrawal, each for one or more courses in a single term. Repeated requests will not be considered.

Submitting an appeal for retroactive withdrawal does not guarantee approval.

College office appeals for CDM students must be submitted online via MyCDM. The deadlines for submitting appeals are as follows: Autumn Quarter: Last day of the last final exam of the subsequent winter quarter Winter Quarter: Last day of the last final exam of the subsequent spring quarter Spring Quarter: Last day of the last final exam of the subsequent autumn quarter Summer Terms: Last day of the last final exam of the subsequent autumn quarter

Excused Absence

In order to petition for an excused absence, students who miss class due to illness or significant personal circumstances should complete the Absence Notification process through the Dean of Students office. The form can be accessed at <http://studentaffairs.depaul.edu/dos/forms.html>. Students must submit supporting documentation alongside the form. The professor reserves the sole right whether to offer an excused absence and/or academic accommodations for an excused absence.

Incomplete

An incomplete grade is a special, temporary grade that may be assigned by an instructor when unforeseeable circumstances prevent a student from completing course requirements by the end of the term and when otherwise the student had a record of satisfactory progress in the course. CDM policy requires the student to initiate the request for incomplete grade before the end of the term in which the course is taken. Prior to submitting the incomplete request, the student must discuss the circumstances with the instructor. Students may initiate the incomplete request process in MyCDM.

All incomplete requests must be approved by the instructor of the course and a CDM Associate Dean. Only exceptional cases will receive such approval.

If approved, students are required to complete all remaining course requirement independently in consultation with the instructor by the deadline indicated on the incomplete request form.

By default, an incomplete grade will automatically change to a grade of F after two quarters have elapsed (excluding summer) unless another grade is recorded by the instructor.

An incomplete grade does NOT grant the student permission to attend the same course in a future quarter.