

SUL ROSS STATE UNIVERSITY ARTC 3340 Advanced Animation

Fall 2026 Monday/Wednesday 6:00 – 8:50 pm Office hours: MWF 11:00 am – 1:00 pm	Carolina “Cat” Weaver Adjunct Professor p. 956-566-9541 cweaver4@sulross.edu
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Course Description

In this course students will create gameplay character animations using multiple characters to demonstrate the ability to animate multiple body types. We will create a full animation set for a character of the students' choice, and then they will be asked to create another set for a character of a differing body type and silhouette. The class will be tailored to the interest of each student and could include video game engine implementations and/or rendering systems.

To you, the student: The skills you learn in this class are intended to introduce and reinforce animation principles. This course includes intensive studies in body mechanics for both the stylistic and realistic animator. At the end, you will create a full realized knowledge of animation history and present your own animation knowledge.

Materials Required

- 1) A working e-mail account. **You are required to check your Sul Ross email account regularly.**
- 2) A working Blackboard account.
- 3) Writing utensil and paper for notetaking
- 4) A computer to access and utilize Maya 2024. As this program is heavy, I recommend PCs and laptops that fit the specifications on the Autodesk website.
<https://www.autodesk.com/support/technical/article/caas/sfdcarticles/sfdcarticles/System-Requirements-for-Autodesk-Maya-2024.html>
- 5) Access to recording devices (phone is good) and basic editing software (recommended: Davinci Resolve, Free)
<https://www.blackmagicdesign.com/products/davinciresolve>
- 6) Access to Autodesk Maya 2024 (Higher versions are available but have licensing issues)
<https://www.autodesk.com/products/maya/overview>
- 7) Access to SyncSketch (Paid subscription is advised, but free version is available)
<https://syncsketch.com/>
- 8) Access to Unreal Engine 5 (Free; any version is available)
<https://www.unrealengine.com/unreal-engine-5>

Recommended Text *(available at Amazon)*

- 1) Richard Williams, *The Animator's Survival Kit*, 2001
<https://www.amazon.com/Animators-Survival-Kit-Principles-Classical/dp/086547897X>

MARKETABLE SKILLS

Strong oral and written communication skills.

Strong analytical skills.

Strong teamwork and collaboration skills

Through a combination of technical coursework and studio-based projects, i.e., animated sequences and pipeline development, students will gain the opportunity to explore and develop all three marketable skills. Specifically, students will learn how to analyze visual references, mechanics of motion, and software workflows, communicating their findings through technical documentation and artist statements. They will also be encouraged to support their creative choices orally through industry-standard classroom critiques and final project pitches. Collaborative studio projects will provide the opportunity for animators to problem-solve complex rendering or rigging issues and work within a simulated production pipeline, developing strong teamwork skills.

Student Learning Outcomes *The graduating student will demonstrate:*

SLO 1: Students will develop the ability to express themselves creatively through appropriate 3D animation and technical art design.

SLO 2: Students will develop visual research, technical problem-solving, and critical thinking skills, effectively communicating complex digital workflows both orally and in writing.

SLO 3: Students will demonstrate effective project organization, pipeline collaboration, and leadership skills within a studio-based environment, supported by constructive peer critique and technical documentation.

Course Objectives

- Articulate a working vocabulary of 3D animation pipelines, technical workflows, and digital cinematography.
- Demonstrate intermediate-level mastery of visual reference analysis through reference, visual storytelling, and animation history.
- Demonstrate an understanding of the 12 principles of animation, with a specific focus on 3D blocking and camera staging.
- Develop foundational mastery of animating 3D characters or assets to convey believable weight, mechanics, and dynamic motion.
- Demonstrate foundational mastery of diagnosing technical errors (e.g., in the graph editor, rigging, or rendering) and determining potential solutions.

- Demonstrate understanding of the function of visual design elements (lighting, composition, and texturing) in enhancing narrative action.

Course Requirements

Attendance & Participation: I expect you to come to class and to participate fully. This includes participation in discussion and analysis as well as classroom activities. After two (2) unexcused absences, your overall course grade will go down by one full letter grade for each unexcused absence.

The following is the Absence Policy, from the Sul Ross State University 2025 - 2026 Course Catalogue:

“Regular class attendance is important to the attainment of the educational objectives of the University. Each instructor will keep class attendance records, and the instructor's policy on class attendance will be explained at the beginning of the semester or term.

The instructor will drop a student from a course when the student has a total of nine (9) absences.

An absence is defined as non-attendance in fifty minutes of class; for example, non-attendance in a one and one-half hour class will constitute one and one-half absences and non-attendance in a three-hour class will constitute three absences. An absence because of participation in an official University activity is considered to be an authorized absence.”

Excused Absences: Excused absences from class include: a university event for which you are required to attend, religious holidays, an illness (an email summarizing the situation must be submitted to the instructor), a death in the family (an email summarizing the situation must be submitted to the instructor), or court dates (an email summarizing the situation must be submitted to the instructor). If you miss a project deadline or presentation due to illness you must provide an email summarizing the situation and it must be submitted to the instructor verifying dates of treatment and the time period during which you were unable to meet academic responsibilities. **All other absences will be marked as unexcused.**

Assigned Reading & Reference Gathering: Animators must constantly study motion, anatomy, and software techniques, so get used to analyzing visual media. All assigned reading or video reference material for this class is required.

Reference Analysis & Animation Practice: We will analyze video reference, game mechanics, and work on blocking dynamic 3D scenes in class. You are free to use any approved 3D rigs, but they must be capable of complex mechanics (walk/run/sprint, jumps, 3-hit combos, and emotes). Base rigs and assets must be sourced, checked for rigging issues, and imported/referenced. I HIGHLY recommend checking with me about any paid rigs. I've bought some duds and can steer you to better ones.

Viewing & History Summary: I will be assigning viewings of specific animation breakdowns, game sequences, and historical milestones. During Wednesday classes, you are required to attend my "History Summary" presentations. Animation history is both fun and critical to knowing where the industry is going.

Animation Practice & Studio Culture: In this class, you will practice your animation skills through in-class blocking exercises and the creation of two complete Game Sets. Critique will be used and given throughout the entire class. I will be reviewing how to receive and give critique. All affirmations, encouragements, and exhortations are to be given to help the artist improve. Critique that is harsh, delivered poorly, or otherwise inappropriate will be considered null. If not corrected, I will have a one-on-one conversation with you.

Final Tech Check: We will have a full screening of your Final Spline passes on 11/16. All animators must have their sequence ready for playback (no broken rigs or missing textures) to ensure a smooth final polish.

Demo Reel & Art Report: Your final project for this class is to finalize your two 3D Animated Game Sets (Character 1 and Character 2) into a cohesive Demo Reel. You will iterate on these throughout the semester. The Demo Reel Final grade will include all polish added to completed game animations after the game set was completed. Demo Reels should also include past work that fits the industry standard and individual's skill level.

Additionally, submit the following for the Art Report

1. **Research:** Submitted a research document of five viable, academic sources as a PDF, including but not limited to: articles, research papers, publications, interviews (filmed or otherwise), YouTube videos, photographs, second-hand accounts, etc. All sources must directly address the artist/media being presented. MLA format is preferred. Note that ALL references will be checked.
2. **Presentation:** Submitted a presentation on the artist/media researched. The presentation style can be (but is not limited to):
 - PowerPoint presentation in the style of "History Summaries" (10-15 minutes long, well-documented and presented presentation including video/real life references)
 - 3-4 page hand-written research paper (MLA style, introduction, thesis, interpretation, historical connection, personal reflection)
 - 1-1 conversation with the teacher (10-15 minutes long, scheduled, heavy reflection)
 - Historical recreation (a recreation of the media, can be included in the assigned projects, heavy reflection)
 - Any other creative connection (approval is required before starting)Must be presented to the professor prior to the start of the art report. All media research should be public presentation appropriate.

3. **Reflection:** Submitted and/or presented a personal reflection on how the artist/media influenced you, including but not limited to:
 1. How it impacted you as a younger child
 2. How it impacted you now
 3. Where you engaged with it for the first time
 4. What your perception of the media/artist is, personally and historically
 5. When it is relevant today or in history
 6. Why it is relevant today or in history
 7. What media references the artist/media
4. **Bonus:** Add a picture of yourself at the age when you first experienced the art you are presenting.

Late Work: We all get behind or overwhelmed sometimes. If you anticipate being late on an assignment, please inform me before the assignment due date. I am less inclined to help you if you wait to contact me until after the deadline has passed. I urge you all to take charge of your schedule and assignments early in the semester, and plan accordingly.

Academic Integrity: The University has a Code of Academic Integrity, which prohibits, among other things, cheating on exams, plagiarizing papers or portions of papers, submitting the same art project for credit in two courses without authorization, buying any work that is not your own, submitting fraudulent documents, forging signatures, and using unauthorized AI (including on “History Summaries”). This class abides by that code.

Grading

- 60% - All Animation Art Assignments (12 in total)
- 30% - Art Report (including attendance and participation)
- 20% - Final Demo Reel

There are 110 points in total. Your final grade is then converted per the Sul Ross Grading Criteria.

Grading Criteria:

A = Exceptional. Demonstrates mastery of material beyond expectation. Professional quality of work. Highest level of scholarship.

B = Above average. Demonstrates mastery of material. High level of scholarship.

C = Average. Demonstrates proficiency with material. Work is of amateur quality. Ordinary level of scholarship.

D = Below Average. Work shows errors, careless mistakes, or is just plain wrong. Poor scholarship

F – Failure. Material incomplete. Work grossly negligent or incomplete. No evidence of scholarship present.

Students with Disabilities

Sul Ross State University is committed to equal access in compliance with the Americans With Disabilities Act of 1973. It is the student's responsibility to initiate a request for accessibility services. Students seeking accessibility services must contact Ronnie Harris in Counseling and Accessibility Services, Ferguson Hall, Room 112. The mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832. Telephone: [432-837-8203](tel:432-837-8203). E-mail: ronnie.harris@sulross.edu

Class Dates: Assignments and Deadlines

Note that these dates and the details of each class are subject to change at the instructor's discretion

Note: Characters will be differentiated by using CH1 (Character 1) and CH2 (Character 2)

DAY	DATE	In-class topics/exercises	Homework
Monday	8/23	- Introductions - Review student's character rig selections. - Discussion: Who is your character? - Begin character walk, run, sprint	Begin CH1 Walk, Run, Sprint
Wednesday	8/26	- DUE: CH1 Walk, Run, Sprint 1st Pass - History Summaries - Review students' walk cycles	Finalize CH1 Walk, Run, Sprint
Monday	8/31	- DUE: Ch1 Walk, Run, Sprint - Final Review of Ch1 Walk, Run, Sprint - Discussion: What makes a good idle? What is an idle variant? - Animation Layers - Begin choosing Ch1 Idle Pose	Begin CH1 Idle Animation and Idle Variant
Wednesday	9/2	- DUE: CH1 Idle and Idle Variant First Pass - History Summaries - Review Students' Idle and Variant animations - Discussion: Blending Between Animations	Finalize CH1 Idle Animation and Variant Begin Ch1 Jump Animation
Monday	9/7	NO CLASS MEETING	

Wednesday	9/9	DUE: CH1 Idle Animation and Var + Jump Blocking - History Summaries - Final Notes for Ch1 Idle and Var - Breaking up animations for Engine for Jumps	Finalize CH1 Jump Animation
Monday	9/14	DUE: CH1 Jump Animation - Final review on jumps - Discussion: 3 hit combos - Begin ideas on 3 hit combo	CH1: 3 hit combo rough blocking
Wednesday	9/16	DUE: CH1 3 hit combo idea pass - History Summaries - Review Idea passes/layout - Continue to work on 3 hit combo	Ch1 3 hit combo blocking+/spline1
Monday	9/21	DUE: CH1 3 hit combo blocking+/spline1 - Review 3HCs - Work on 3HCs	Ch1 3HC polish pass
Wednesday	9/23	DUE: Final 3HC - History Summaries - Give final notes on 3hc - Discussion on deaths and emotes - Begin either death or emote	CH1 Death/Emote Idea/Rough Block
Monday	9/28	DUE: CH1 Death/Emote rough block - Review Emote/Death Rough block - Continue on death/emote	Ch1 Death/Emote Blocking+/Spline 1
Wednesday	9/30	DUE: CH1 Death/Emote Blocking+/Spline 1 - History Summaries - Review shots - In class work time	Ch1 Death/Emote Final Polish
Monday	10/5	DUE: CH1 Death/Emote - Begin Discussing Character Introductions for Character 2 - Begin WRS for CH2	CH2 Walk Run Sprint First Pass
Wednesday	10/7	DUE: CH2 Walk, Run,Sprint First Pass - History Summaries - Notes on Walk, Run, Sprint - Continue Working on WRS	CH2 Walk, Run, Sprint Polish

Monday	10/12	DUE: CH2 Walk, Run, Sprint Polish Pass - Review WRS - Begin CH2 Idle and Variant	CH2 Idle and Variant 1st Pass
Wednesday	10/14	DUE: Idle and Var 1st Pass - History Summaries - Review Idle and Variant - Continue working on Idle and Variant	CH2 Idle and Variant Polish Pass
Monday	10/19	DUE: CH2 Idle and Variant Polish Pass - Notes - Begin Animating CH2 Jump	CH2 Jump first pass
Wednesday	10/21	DUE: CH2 Jump First Pass - History Summaries - Review Jump First Pass - Continue work on Ch2 Jump	CH2 Jump Polish Pass
Monday	10/26	DUE: CH2 Jump Polish Pass - Review Jumps - Begin Ideating CH2 3 hit combo	CH2 3 Hit Combo Idea Pass/Blocking
Wednesday	10/28	DUE: CH2 3HC Blocking Pass - History Summaries - Review 3HC - Continue working on 3HC	CH2 3HC Blocking +/- Spline 1 Pass
Monday	11/2	DUE: CH2 3HC Blocking +/-Spline Pass - Review 3HC - Continue working on 3HC	CH2 3 Hit Combo Polish Pass
Wednesday	11/4	DUE: CH2 3HC Polish Pass - History Summaries - Review 3HC - Begin Ideation on Emote/Death	CH2 Emote/Death Idea/Blocking Pass
Monday	11/9	DUE: Emote/Death Blocking Pass - Review Death/Emote - Continue Emote/Death	CH2 Emote/Death Blocking +/- Spline 1
Wednesday	11/11	DUE: Emote/Death Blocking+ - History Summaries - Review Emote/ Death - Continue Emote/Death	CH2 Emote/Death Polish Pass
Monday	11/16	DUE: Emote/Death Animation - Polish Notes on Emote/Death - Explain options for final	Final Idea Pass

Wednesday	11/18	DUE: Final Idea Pass - History Summaries - Review Idea Passes	Final Rough Blocking Pass
Monday	11/23	DUE: Final Rough Blocking Pass - Review Blocking Passes - Continue Work on Final	Final Blocking+ Pass Go Home!!!
Wednesday	11/25	NO CLASS MEETING	
Monday	11/30	DUE: Final Blocking+ Pass - Review Finals Blocking Pass - Art Report Presentations	Final Spline Pass
Wednesday	12/2	DUE: Final Spline Pass - History Summaries - Review Spline Pass - Announce Demo Reel - Art Report Presentations	Final Polish Pass Demo Reel
Monday	12/7	DUE: Final Polish Pass - Review Polish Pass - Look at Demo Reel if desired - Art Report Presentations	Demo Reel Additional Polish on previously submitted shots
Wednesday	12/9	DUE: Demo Reel DUE: Art Report	Additional Polish on previously submitted shots
EOS - Monday	12/14	End of Semester	Grades Due 12/14