CENTER COMMUNICATION TECHNOLOGY – 3D Modeling & Animation 2
COURSE DESCRIPTION AND EXPECTATIONS
Instructor: Mr. Esparza
Credit: 10 Semester Hours for one year
ACC Credit: Concurrent enrollment (2nd semester)
Prerequisite: 3D modeling & Animation 1
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COURSE DESCRIPTION

This course is the Advance level in the 3D strand. Advance 3d software, graphic editing software, video editing software, video effect software, planning software, and blogging tools will be used to teach the class. Topics include: Character modeling, Rigging, texturing, lighting, storytelling, team collaboration, project planning, animation and design principles. Students will learn new skills and begin creating projects that will demonstrate their knowledge skills in the course content of the class. Students will be given the opportunity often to reflect on their work and demonstrate their understanding of key concepts in 3D. SkillsUSA will be integrated into the lesson plans to facilitate collaboration and career readiness skills.

MATERIALS

Many of the classroom lessons are video tutorials. Therefore, students are required to have their own **headphones** everyday in class. Not having headphones will prevent students from doing their reflective responses and having full access to the class tutorials. Coming without headphones will keep students from doing the assignment and will cause them to get behind with their class assignments. (I will have headphones available for sale or daily rent if a student desires to use my headphone)
Headphone must be obtained by **August. 30th, 2021.**

FEES

There is a **$40** fee for this class. This fee pays for software, and school supplies. Please give the money to Mr. Esparza by **Friday September 3, 2021.** Checks should be made payable to **Thomas Jefferson High School**. Credit card payment can be made at the Treasures office or the TJ website using My Schoolbucks link. This fee may have been paid at the time of registration.

ACC Concurrent Enrollment (Tentative)

This class qualifies as a 3 credit college class through Denver Community College. There is no cost to the students for this class, but students must pass with a minimum grade of a C.

CLASS RULES AND PROCEDURES FOR CLASS AND REMOTE

Please refer to the attached CCT Magnet class rules for details of the behavior and procedures that will be followed in class. You may also refer to the teacher website for documentation jesparza.tjspartans.org

MAKE-UP and Incomplete WORK

Excused or Unexcused Absence: Student will be allowed to make up work for full credit as long as the work is done within 2 weeks of due date, excluding assessments and reflection assignments.
Incomplete Work: I realize there will be times when unforeseen circumstances (particularly with computers) make it difficult for work to be completed on time. After the due date, work will still be accepted up to 2 weeks for full credit. If more time is needed, Students need to work out a plan with the teacher.
Open Lab: The Lab for 1st semester will only be open during instructional class time. The lab is not available after school.

GRADING and POSTING of GRADES
Grading will be based upon assignments, reflection writing projects, assessments, and participation. More points will be given to assessments and projects that demonstrate skills. There may be a group project where individuals will be responsible for their share of the group project. There will also be a team grade. Your grade is cumulative for one semester. Progress grade is sent home each week, For Athletic eligibility, assignments due by Thursday of each week will be posted for sports eligibility. Grades are pulled from the grade book every Monday to determine eligibility.

GRADING SCALE

90-92.9%= A-	93-100% = A	
80-82.9&=B-	83-86.9=B	87-89% = B+
70-72.9%=C-	73-76.9%=C	77-79% = C+
60-62.9%=D-	63-66.9=D	67-69% = D+ Below 60% = F

COURSE CONTENT
Course content will include, but is not limited to:

A   3D Animation and Rigging
   a. Polygonal geometric modeling of characters
   b. Character rigging of models
   c. Advance MoGraph and dynamics
   d. Deformers
   e. Applying the principles of animation

B   Creating 3D with Industry Standard Software (Advance techniques)
   a. Character modeling
   b. Using advance feature for animation
   c. Advance rendering option

C   Compositing in Video Editing Software
   a. Storyboarding
   b. Story scripting
   c. Importing 3d files
   d. Editing clips
   e. Adding text
   f. Adding sound
   g. Transitions

D   Demonstrate Technology Professional Skills
   a. Collaborate with others to design a website with a team of 2-3 students
   b. Develop task management chart to monitor progress- Managing time
   c. Develop task management for share distribution of work task.
   d. Demonstrate the ability to present project to a group of others.
   e. Facilitate a way to network via technology with teammate to encourage communication.
   f. Look for solutions and stay positive when troubleshoot problems.
   g. Think outside the box- Be innovation and creative when problem solving.
   h. SKillsUSA Essential Framework

E   Career Awareness
   a. Post secondary school opportunities
   b. Career opportunities research
   c. Career Essentials- Career Readiness skills

ASSIGNMENTS:
Participation: Being in class on time, student engagement (no internet surfing), keep class rules
Daily Assignments: Watch or read tutorial, complete skill building assignments, turn in assignment
Project-Assessments: Projects & quizzes will be given to demonstrate skill sets learned in daily assignments.
Reflection: Writing reflections of your work will be given throughout the semester.
Outside Class Time: Three SkillsUSA meetings or program involvement will be required 1st semester.
Semester Project: There will be a 4-6 weeks project at the end of each semester- assessment grade
SkillsUSA: Participate in local competition with collaborative teams is **mandatory**
Students will participate in the SkillsUSA in house competition in Feb 2022 with a team member. Three additional meetings or program involvement will be required outside of class time semester 1. Semester 2 will require 2 meetings. The top 3 team finalist will qualify to attend the Colorado State Competition and Conference in Colorado Springs in April (3 days and 2 nights)

ACC Requirements: Concurrent Enrollment- (Tentative)
Course Description:

> **Encompasses all major aspects of creating 3D characters using animation software. Using developed characters, the student will learn how to animate for personality.**
>
> **Prerequisite(s) or Co requisite(s):**
>
> None

Student Learning Outcomes:

1. Debate the basics of animation theory and how it applies to the production process.
2. Explain and discuss character animation techniques.
3. Create traditional animation using light tables.
4. Determine and import source materials from various software applications.
5. Apply the concept of keyframe based animation within the software.
6. Assess real-world lighting techniques to create a realistic environment for animation within the software.
7. Construct realistic movement controls within the software.
8. Create realistic surface properties within the software to enhance the final animation.
9. Appraise final output destined for multiple mediums.
10. Editorialize the creation process in such a way that he/she can work as part of a larger team to expand the overall creative possibilities.
11. Create a character model from sketches or other related source material to create a mesh model using the software.