STRANDS AND STANDARDS

3D ANIMATION 2

Learning that works for Utah
CTE®

Course Description

3D Animation 2 will expand on the foundations gained in 3D Animation 1 using 3D graphic software to produce 3D models and animations. This course will take students through the entire animation process including planning, storyboarding, development, testing and client project-based work. 3D Animation 2 will help students understand how to research and solve real world animation needs, refine their 2D and 3D animation skills, and develop a body of work for a professional portfolio. This is mainly a project-based course.

Intended Grade Level	10-12
Units of Credit	0.5 or 1.0
Core Code	35-02-00-00-076
Concurrent Enrollment Core Code	35-02-00-13-076
Prerequisite	3D Animation 1
Skill Certification Test Number	8192
Test Weight	0.5
License Area of Concentration	CTE and/or Secondary Education 6-12
Required Endorsement(s)	
Endorsement 1	Multimedia
Endorsement 2	N/A
Endorsement 3	N/A

STRAND 1
Students will show greater understanding of the 12 Principles of Animation.

Standard 1
Analyze and implement the 12 Principles of Animation.
- Squash and Stretch
- Anticipation
- Staging
- Straight Ahead and Pose to Pose
- Follow Through and Overlapping Action
- Slow In and Slow Out
- Arcs
- Secondary Action
- Timing
- Exaggeration
- Appeal
- Solid Drawing

Performance Skills
In-depth knowledge of the 12 Principles of Animation and how it applies to work.

STRAND 2
Students will understand and practice <u>pre-production</u> as it relates to the animation pipeline.

Standard 1
Storyboarding (animatic)

Standard 2
Concept Art
- Characters
- Set
- Props

Standard 3
Record Intitial Dialog

STRAND 3
Students will understand <u>production</u> as it relates to the animation pipeline.

Standard 1
Modeling

Standard 2
Texture
Material
UV

Standard 3
Rigging
Animation
- Keyframe and Inbetweens
- Timeline
- Graph/animation editor

Blocking

Standard 4
Lighting

Standard 5
Camera Movements (Dolly, Truck, Pan, Tilt, Roll, Pedestal)
Camera Shots (Medium, Wide, Worm's Eye, etc.)
Aspect Ratio

STRAND 4
Students will understand <u>post-production</u> as it relates to the animation pipeline.

Standard 1
Rendering
Color Correction / Compositing

Standard 2
Editing

Standard 3
Marketing
- Budget – Major film studios spend 50 % on marketing and 50% on production on most film releases.

Performance Skills
Create a project that utilizes the entire animation pipeline (pre-production, production, and post-production).

STRAND 5
Students will implement advanced animation techniques.

Standard 1
Students will create and animate a simple rigged character.
- IK / FK
- Joints
- Controls
- Parent/Child relationships (Hierarchy)
- Vertex animation (Blend shapes / morph targets)

Standard 2
Students will continue to strengthen their skills in cycle animations.

Standard 3
Students will create path animations.
- Assign objects and/or cameras to follow curve/spline.

Standard 4
Students will Implement the use of particles and simulations.

Performance Skills
Create a project that includes a student created rigged character with cycle and path animations.

STRAND 6
Students will create an interactive digital media/animation portfolio for digital delivery which showcases a student's projects, work, and skills. Projects included can be created individually or as a team member.

Standard 1
Plan an interactive portfolio of interactive media projects completed in all digital media and animation courses.
- Use the process for planning and designing interactive projects
- Include examples of the whole planning, design, creation, and publishing process

Standard 2
Create a menu-driven digital portfolio including the following elements with strict adherence to copyright and fair use guidelines:
- Add: Project Designs (storyboards and concept drawings)
- Include: Animations, Audio, 2D Graphics, 3D Graphics, and Video
- Include finished projects (individual and/or group)
- Add other awards, contest projects, etc. (optional)
- Include your resume

STRAND 7
Students will participate in a work-based learning experience and/or student competition.

Standard 1
Participate in a work-based learning experience. (Optional)
- Take a field trip to an animation business
- Do a job shadow for someone in the animation career
- Listen to an industry or post-secondary guest speaker
- Work for an animation company

Standard 2
Participate in a digital media student competition. (Optional)
- Enter a school or school digital media contest
- Prepare and submit an entry for the **Digital Media Arts Festival**
- Enter and compete in a CTSO competition in an animation area

Performance Skills
Overall: Students will use the Strands & Standards in this course to create an interactive project and final portfolio.

Workplace Skills

Workplace Skills taught:

- Communication
- Teamwork
- Dependability
- Legal requirements / expectations

Skill Certificate Test Points by Strand

Test Name	Test #	Number of Test Points by Strand										Total Points	Total Questions
		1	2	3	4	5	6	7	8	9	10		