

Glendale Unified School District

High School

December 12, 2017

Department: Career Technical Education

Course Title: Computer Animation 5-6

Course Code: 2128V/2129V

Grade Level(s): 10-12

School(s)

Course Offered: Clark Magnet High School

Course Credits: 10

Recommended

Prerequisite: Computer Animation 1-2
Computer Animation 3-4

Recommended

Textbook: The Illusion of Life, Frank Thomas and Ollie Johnston (Authors) Hyperion Books ISBN: 978-0786860708
The Animator's Survival Kit, Richard Williams (Author) Faber and Faber Ltd. 0-571-20228

Course Overview: Computer Animation 5-6 is the capstone course for the Arts, Media & Entertainment Industry sector, under Design, Visual and Media Arts pathway. Computer Animation 5-6 provides students with a complete understanding of the technological and creative aspects of commercial animation, as well as how the industry functions in an in-depth and easy-to-follow format. Students are provided with a complete guide to immersion in the field, from beginning each animation project through completion, integration, and marketing. Simulated design teams have the opportunity to learn all aspects of team building, including the creative, business, and technological components required. Students learn about team dynamics and their role within an Animation company and team; they learn about the global economy and the supply chain in regards to how it affects the production of animated content both in traditional media and online applications. The expected outcome of this class is that all students will have a broad understanding of how a typical Animation company operates, and how animation is produced from concept to marketing.

First Semester

1. Unit 1: My Role on the Team (2 weeks)

- A. Design, Visual, and Media Arts Anchor Standard 6.3, 10.6
Advanced Animation Pathway Standard A1.0, A1.1, A2.3, A 4.0, A4.6
Common Core Standards: CCSS LS 11-12.6, LS 1.B
- B. This unit introduces students to the concept of team project production work and how each member of the team, assigned a specific role based upon their personal skills and strengths, provides essential elements and skills that make the completion of large-scale projects (such as the design of a TV show or Feature Film) possible. In addition to the various roles found within a typical Animation company, students also learn about Hard Skills and Soft Skills and how Hard Skills, though crucial in getting a job, are only half of the skill base that people need to get and, more importantly, keep a job and work effectively within a team. Students use a personal assessment tool to identify personal strengths and weaknesses related to learning and work environments using vocabulary common to Animation Industry environments. Students learn about the 12 basic animation principles, as well as basic film language and industry standards for script writing and animation industry pipelines for film and television productions. Students explore and discuss methods of communication and scheduling for animation production teams.

This unit is also an introduction to Life Drawing, which is required in any professional and post secondary Portfolio. It also broadens the student's ability to build the necessary artistic skills for a future animation career. In this project we will explore posing and anatomy, as well as animation concept such as Line of Action, Squash and Stretch, and recognizing a character's Balancing Point.

Assignment 1: Students will complete a multicultural self-assessment in order to explore their own beliefs. Students will then use the results of their surveys in order to explore how their own beliefs and potential biases can potentially serve them and hinder them in the workplace. Students will present their findings as well as their strengths, and what they can offer in a team environment.

Assignment 2: Students explore the value of cultural differences while they create a Cultural Awareness PowerPoint (Multicultural Expo Google Presentation) designed to research cultural differences typically found within the workplace, then present their findings to the class. This is a team-project consisting of multiple slides and concepts thus forcing students to designate a Project Manager who will then delegate each presentation concept to each team member. Students work together to complete the presentation, then present their findings orally and visually to the class.

2. Unit 2: Script Writing and Breakdown *(2 weeks)*
 - A. Design, Visual, and Media Art Anchor Standard 6.3, 10.6
Advanced Animation Pathway Standards A1.0, A1.1, A2.7, A3.2 A4.6, A7.1, A7.2, B6.1, B6.5,
Common Core Standards: CCSS LS 11-12.6, LS 1.B, W3-6
 - B. Script writing and breakdown is the most important area of study and the foundation of everything that follows within the pathway. The unit approaches Scriptwriting and storyboarding from the viewpoint of how it affects the animation employee and the consumer in an animated entertainment operation. It is covered in two components. The first component covers the types of common story structures and how to utilize them. Students will use industry standard resources and tools. script breakdown is the second component of this unit. It covers the creation of a production pipeline based on the content of the script written by the students themselves.

3. Unit 3: Computerized Entertainment and Classification *(2 weeks)*
 - A. Design, Visual, and Media Art Anchor Standard 6.3, 10.6
Advanced Animation Pathway Standards A1.0, A1.1, A2.7, A3.2 A4.6, A7.1, A7.2, B6.1, B6.5,
Common Core Standards:
CCSS LS 11-12.6, LS 1.B
 - B. This unit explores how entertainment is classified by genre and theme. It also explores how this information is used to sell an animated project. Finally, the life-cycle of entertainment products is explored from experimental media, to mainstream media. Students learn about the historical cycle of media, both information and entertainment, and how that cycle, though following the same pattern, has accelerated nearly exponentially since the last half of the 20th century. Students' research, compares, and categorizes the correct genre of popular animation, then analyze examples of different animation genres.

Assignment 1: Individually, students will write one page screenplay of a genre of popular animation. Students will then break down the script into production pipeline elements to hand off to different specialists in the production process.
Presentation.

Assignment 2: Using the previous assignment, students will create a series of designs that are to be used in the production. The goal of the designs is to provide for the animators background artists prop designers and voice actors, complete designs of all elements of the production that the animators and storyboard artists will need to complete the production.

Assignment 3: Students learn to storyboard their script using standard film language to tell an effective story. Students will then provide voice acting and sound effects and time the storyboard to create an industry standard animatic.

Assignment 4: Students will look up two to three scholarly articles regarding the cognitive benefits and potential psychological consequences of watching animation. Using their research, students will write a two to three page argumentative essay taking a stance either for or against animation content. Students must discuss both, the benefits and consequences of watching animation in order to strengthen their arguments. Students will write their argumentative essay in MLA format and must cite their sources using parenthetical citations and bibliography page (bibliography is not a part of their two to three pages).

Assignment 5: Students will present their argument from the previous assignment to the class. Students will complete a 3-5 minute presentation highlighting the key points to their arguments. Students may use visual aids during their presentation.

4. Unit 4: Evolution of Animation (2 weeks)

A. Design, Visual, and Media Art Anchor Standard 2.4, 2.5, 10.3,
Advanced Animation Pathway Standards A1.0, A1.1, A2.7, A3.2 A4.6,
Common Core Standards: CCSS LS 11-12.6, LS 1.B

B. This unit explores the reason how people created animation through history. Students are presented with evidence that shows how humankind's natural need for allegorical story has led to the development of continually more advanced and complex animation throughout history, and that it continues today. Students learn about the evolution of governmental regulation of the entertainment industry due to changing societal attitudes regarding visual violence and sexual content and racial mores and how this regulation has affected the production of entertainment media over the past two decades.

Assignment 1: Students will look up two to three scholarly articles regarding the cognitive benefits and potential psychological consequences of watching animation. Using their research, students will write a two to three page argumentative essay taking a stance either for or against animation content. Students must discuss both, the benefits and consequences of watching animation in order to strengthen their arguments. Students will write their argumentative essay in MLA format and must cite their sources using parenthetical citations and bibliography page (bibliography is not a part of their two to three pages).

Assignment 2: Students will present their argument from the previous assignment to the class. Students will complete a 3-5 minute presentation highlighting the key points to their arguments. Students may use visual aids during their presentation.

Assignment 3: Using Storyboard Pro, students animate emotionally resonant scenes with each of their characters in the previous lessons storyboard. These activities further exemplify the emotional qualities that constitute an animated show or movie, and how to creatively use film language and acting to create a meaningful experience for the audience.

5. Unit 5: Studio Practices and Styles (2 weeks)

A. Design, Visual, and Media Art Anchor Standard 2.4, 2.5, 10.3, Advanced Animation Pathway Standards A1.0, A1.1, A2.7, A3.2 A4.6, Common Core Standards: CCSS CCR RST 3,4, 7,9 RI 3-7

B. In this unit, students are exposed to the various animation studios and their concomitant styles and subject matter. Students learn about each of the animation industry's primary employer's production pipelines are constructed, and how those components work together to make animated content possible.

Assignment 1: Students select two animation companies to compare. Students will discuss various components to each company's platform along with the pros and cons to each company's animation design and storytelling styles. Students will use their comparisons in a brief 3-5 minute class presentation. Students may use PowerPoint, Google Slide, Prezi or poster as a visual aid in their presentations.

Assignment 2: Students animate quick character studies in the style of a chosen studio and specific director. Finally, students analyze their own animation created and then enhanced in Activities 6-3, then critique those of five other students within the class.

Assignment 3: Students will use their peer critiques from the previous assignment to make improvements to their animation. Students will present their animation and explain the improvements they made to their animation to the class.

6. Unit 6: Perspective, Scene Design, and Basic Animation (11 weeks)

A. Design, Visual, and Media Art Anchor Standard 2.5, 5.2, 7.5, Advanced Animation Pathway Standards A1.0, A1.1, A2.7, A3.2 A4.6, A7.1, A7.2 Common Core Standards: CCSS CCR RST 3,4, 7,9 RI 3-7

B. Students will demonstrate and practice the use of industry programs and techniques, facilities and equipment. Students will identify and learn how to tell

a visual story using standard film language (i.e. Shot design) in order to effectively communicate with an audience. Students will also learn advanced perspective character and prop design. Students are evaluated through teacher observations of projects in progress. Students will be assessed through, lab work, multimedia presentations, discussion, and participation.

This unit provides a comprehensive instruction in the application of visual elements to communicate with an audience. *Every 2-3 weeks* a different graphic storytelling tool/technique/method will be covered, such as Character Design and Model sheet construction, Scene Planning, Prop Design, Scene Blocking and Production Efficiency. A combination of teacher lecture, textbooks, student participation lab, and multimedia technology are used. Students will be assessed through tests, Project work, multimedia presentations, discussion, and participation.

Second Semester

7. Unit 7: Collision Theory and Logic, Life Drawing and Animation History (2 weeks)

A. Design, Visual, and Media Arts

Anchor Standard 6.3, 10.6

Advanced Animation Pathway

Standard A1.0, A1.1, A2.3, A 4.0, A4.6

Common Core Standards: CCSS LS 11-12.6, LS 1.B

- B. This unit is a further implementation of Life Drawing, which is required in any professional and post-secondary Portfolio. It also broadens the student's ability to build the necessary artistic skills for a future animation career. In this project we will explore posing and anatomy, as well as animation concept such as Line of Action, Squash and Stretch, and recognizing a characters Balancing Point. In this unit, students are introduced to basic animation physics and how our understanding of them, while not constrained at all to those we experience in the natural world, nonetheless influences those physics. Students learn how animators create virtual environments that behave physically in the same way that the real environment is expected to behave, but break down when needed for either humor or suspension of disbelief in a heroic manner and how both contribute to compelling storytelling.

Assignment 1: Students will look up two to three scholarly articles regarding the cognitive benefits and potential psychological consequences of watching animation. Using their research, students will write a two to three page argumentative essay taking a stance either for or against animation content. Students must discuss both, the benefits and consequences of watching animation in order to strengthen their arguments. Students will write their argumentative essay in MLA format and must cite their sources using

parenthetical citations and bibliography page (bibliography is not a part of their two to three pages).

Assignment 2: Students will present their argument from the previous assignment to the class. Students will complete a 3-5 minute presentation highlighting the key points to their arguments. Students may use visual aids during their presentation.

Assignment 3: Using Storyboard Pro, students animate emotionally resonant scenes with each of their characters in the previous lessons storyboard. These activities further exemplify the emotional qualities that constitute an animated show or movie, and how to creatively use film language and acting to create a meaningful experience for the audience.

Assignment 1: Students learn to animate a basic gag (joke). Students practice applying logic and collision theory in cartoon story design. Students learn how to size a background scene to fit the frame of a show or movie.

Assignment 2: Students will use their peer critiques from the previous assignment to make improvements to their animations. Students will present their animations and explain the improvements they made to their animations to the class.

8. Unit 8: Timing Animation, and Animatic (10 weeks)

- A. Design, Visual, and Media Art Anchor Standard 6.3, 10.6
Advanced Animation Pathway Standard A1.0, A1.1, A2.3, A2.4, A2.6, A7.0,
Common Core Standards: CCSS CCR RST 3,4, 7,9 RI 3-7
- B. This unit is an introduction to Animatic timing, Animation and Animation Timing as well as voice acting and lip synch. Students will produce a timed animatic with voice recordings they themselves or their friends do, and a couple of short animated scenes. Students are also exposed to the various animation studios and their concomitant styles and subject matter. Students learn about how each of the animation industry's primary employer's production pipelines are constructed, and how those components work together to make animated content possible.

Assignment 1: Using traditional animation practices, students animate the previously created storyboard. This assignment illustrates the amount of work involved in creating the kinds of animation students have come to expect from the shows and movies they purchase.

Assignment 2: Students will research the differences between two-dimensional and three-dimensional virtual world rendering and how interaction within these two environments differs. In groups, students will create a PowerPoint, Google Slide or Prezi presentation about these differences and how they affect overall

viewer satisfaction and storytelling dynamics. Students will also discuss their previous assignment and how much work is involved in the animation that is expected from animation studios today.

Assignment 3: Students will use their peer critiques from the previous assignment to make improvements to their animation. Students will present their animation and explain the improvements they made to their animation to the class.

9. Unit 9: Animation and fan Culture (2 weeks)

A. Design, Visual, and Media Art
Anchor Standard 6.3, 10.6
Advanced Animation Pathway
Standard A1.0, A1.1, 3.1, 3.3, 3.4, 3.6 3.9 , and 11.5
Common Core Standards: CCSS CCR SL 1-6, RI 1-4,7

B. In this unit, students learn that an animated product must have some element that engages players and keeps them interested. They also learn about the importance of character immersion in keeping audience interest high. Students also learn although immersion has obvious positive aspects in making a project watchable and profitable, immersion also has the negative side effect of viewers into addictive consumption. This chapter also dives-into the many meanings of the word "fan" and that, though a commonly used word, is actually one that is very difficult to define and describe. Finally, social benefits to fan communities are explored along with the issues involved in maintaining an online community.

Assignment 1: In groups, students will research addictive viewing behavior and the negative effects of addictive viewing behavior. Students will use their research to create a public service announcement (PSA) warning consumers about the negative effects of addictive viewing behavior and show it to the class. Students may record their PSA and play it for the class or, present their PSA live to the class.

Assignment 2: Students will research the social benefits along with potential harm that may come from online fan communities. Students will cite points for each argument from 3 different sources. Students will then be divided into teams for a class debate with one team supporting online fan communities and the other team will oppose online fan communities. Students will then switch teams so, each student gets to argue for and against online fan communities.

Assignment 3: Students extend learning on animated content to include skills on call aspects of storytelling cinematography acting and emotional music cueing. Students analyze their own animations, and then critique those of five other students within the class.

10. Unit 10: Reverse Engineering and Professional Reviews (2 weeks)

A. Design, Visual, and Media Art

Anchor Standard 6.3, 10.6

Advanced Animation Pathway

Standard A1.0, A1.1, 3.1, 3.3, 3.4, 3.6 3.9, 11.5

Common Core Standards: CCSS CCR RI 2-4, L 4-6, RI 1-4

- B. This unit explores how Animation companies evaluate the overall quality of the shows that they produce, as well as those that are produced by their competitors. Students learn how companies regularly reverse-engineer shows within genres for which they wish to create new projects. Students also learn about how copyright laws are used to protect the intellectual property (the shows and characters) that Animation companies create. Finally, students learn about the skills that Animation Company's look-for when hiring people who can critique the shows that they produce as well as those of their competitors, and why this critiquing helps keep the company competitive.

Assignment 1: Students will take the role of an animation company's research team. Students will critique a TV show or movie of their choice. Students will then present their critiques to the class using screen shots from their selected project.

Assignment 2: Students will research the lawsuit Universal v. Nintendo where, Universal felt that the Nintendo game Donkey Kong was too similar to their movie, King Kong. Students will write a reflection paper (1-2 pages) discussing their viewpoints on the lawsuit. Students must cite their sources using parenthetical citations and a Bibliography page.

Assignment 3: Students learn the basic skills needed to create an animation. Students learn how to set the action point and hot spot for the animations they create. Finally, students make an intelligent judgment about whether the animated project succeeded or failed in its objectives.

11. Unit 11: Global Economy and Supply Chain (3 weeks)

A. Design, Visual, and Media Art

Anchor Standard 6.3, 10.6

Advanced Animation Pathway

Standard A1.0, A1.1, 3.1, 3.3, 3.4, 3.6 3.9, 11.5

Common Core Standards: CCSS CCR SL 2.6, L 4-6, RI 1-4,

- B. In this unit, students learn that a great number of people are involved in getting a game from an original concept to a finished product that may be sold to the video gaming market. Students learn how the concept of Specialization of Labor ultimately developed into the modern supply chain and how, at each stage of the supply chain, value is added to make the product sell and the company more

profitable. The complexity of the global market and supply chain is explored as well as how students fit into that chain now and in the future.

Assignment 1: Students will research Plato's theory of Specialization of Labor and why companies believe Specialization of Labor can lead to increased productivity. Students will complete a class activity where students will work in groups of three. Each group gets one stapler and one pile of paper. The task is to collate five pieces of paper and staple the five pieces together for a booklet. The goal is to see how many booklets can be produced in two minutes. After two minutes, students will count how many booklets each group has produced. Students will then complete the same activity by themselves. Using this activity, students will discuss the economic significance of specialization and division of labor. Students will write a brief reflection (1-2 pages) using their research and the class activity. Students must cite their sources using parenthetical citations and a Bibliography page.

Assignment 2: Students build a rhythm game, then tune the game to match game play with game sounds. Students design and build a custom user interface. Students explain acceptable use of royalty-free and copyrighted materials. Students test and analyze the game built to determine the value of key elements in the video game, then make an intelligent judgment about whether the game succeeded or failed in its objectives.

Final Exam Details: Students will research careers in Animation. They will search job sites and the union to get the detailed requirements to become an animation professional. Students will select a specific job listing from a company of their interest, then students will research the requirements of their respective job listing/company including: preferred skills, what college degrees would be required, what type of experience they need to have, and the costs associated with getting the required credentials versus the amount they will be making.

Using their three best pieces of work from previous assignments, students will also create a portfolio (using screenshots, photographs of projects, etc.) they can use in an interview. Students will use their findings from the research they conduct to make their portfolios cater to the specific company to which they plan on applying. They will present this to the class in a five to ten minute presentation, as if they would to their prospective employers. Fellow students will evaluate the presentation with a rubric provided by the teacher that aligns with rubrics used in real-life interviews.