



El Camino College
COURSE OUTLINE OF RECORD – Official

Subject:	ART
Course Number:	245A
Descriptive Title:	Intermediate Web Animation and Games
Division:	Fine Arts
Department:	Art
Course Disciplines:	Multimedia
Catalog Description:	This course provides students with continued studies at the intermediate level in creating two-dimensional animations and interactive games for the Web and mobile devices. Emphasis is placed on increasing proficiency in animation techniques, game design, and programming.
Prerequisite:	Art 145 with a minimum grade of C
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	2
Hours Laboratory (per week):	3
Outside Study Hours:	4
Total Course Hours:	90
Course Units:	3
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	Proposed
Transfer UC:	Yes
Effective Date:	Proposed
General Education ECC:	
Term:	
Other:	
CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	

<p>Student Learning Outcomes:</p>	<p>SLO #1 Animation & Interactive User Experience (UX) Software Students will use Adobe Animate, HTML5 Canvas, CreateJS and P5.JS libraries to develop advanced web animation and game design concepts, such as collision detection, dragging movie clips, and score keeping.</p> <p>SLO #2 Programming Students will have understanding of the structure and syntax of JavaScript programming language, will be able to apply it to creation of web animation & games.</p> <p>SLO #3 Problem-Solving Students will break complex problems into smaller, more manageable chunks, and apply analytical problem-solving skills to creation of interactive media and game design.</p>
<p>Course Objectives:</p>	<ol style="list-style-type: none"> 1. Apply interactive components to video presentations. 2. Demonstrate use of JavaScript and interactive user experience (ux) software to create original 2D web animation. 3. Demonstrate advanced use of interactive animation and interactive user experience software to create an interactive presentation. 4. Demonstrate the ability to output the files for internet access using FTP software. 5. Demonstrate the ability to debug JavaScript in different browsers. 6. Analyze and assess the use of web animations, interactive online media, as well as interactive games, magazines, books, and products. 7. Produce a portfolio showcasing semester work at the intermediate level.
<p>Major Topics:</p>	<p>I. Programming Concepts: Javascript (2 hours, lecture)</p> <ol style="list-style-type: none"> A. What is JavaScript? Relationship between JavaScript and HTML canvas B. Basic datatypes, variables, objects and mathematical expressions C. Functions, conditional statements, arrays D. Debugging code <p>II. Programming Concepts: Javascript (4 hours, lab)</p> <ol style="list-style-type: none"> A. What is JavaScript? Relationship between JavaScript and HTML canvas B. Basic datatypes, variables, objects and mathematical expressions C. Functions, conditional statements, arrays D. Debugging code <p>III. JavaScript Libraries: Practical Applications (4 hours, lecture)</p> <ol style="list-style-type: none"> A. What are JavaScript libraries? B. Library choices C. Applying libraries to game design and web animation projects

IV. JavaScript Libraries: Practical Applications (7 hours, lab)

- A. JavaScript libraries?
- B. Library choices
- C. Applying libraries to game design and web animation projects

V. Creating original animations for the web: Animated movies online (14 hours, lecture)

- A. Image sequencing
- B. Storytelling
- C. Storyboards for effective project planning
- D. Color for the web
- E. Original computer graphics
- F. Digitizing images, sound, and video for optimum online usage
- G. Create JS vs P5 JS

VI. Creating original animations for the web: Animated movies online (20 hours, lab)

- A. Image sequencing
- B. Storytelling
- C. Storyboards for effective project planning
- D. Color for the web
- E. Original computer graphics
- F. Digitizing images, sound, and video for optimum online usage
- G. Create JS vs P5 JS

VII. Interactivity and Games: Advanced JavaScript (11 hours, lecture)

- A. Interactivity with HTML5 videos
- B. Media Player Libraries
- C. HTML 5 animation

VIII. Interactivity and Games: Advanced JavaScript (14 hours, lab)

- A. interactivity with HTML5 videos
- B. Media Player Libraries
- C. HTML 5 animation

IX. Aesthetic and Expressive Content (1 hour, lecture)

- A. Concept analysis and criticism
- B. Technique analysis and criticism
- C. Color, sound, and graphic enhancement

X. Aesthetic and Expressive Content (3 hours, lab)

- A. Concept analysis and criticism
- B. Technique analysis and criticism
- C. Color, sound, and graphic enhancement

XI. Testing, Troubleshooting, and Critique (4 hours, lecture)

	<p>A. Locating and fixing problems B. Peer to peer input and review C. Analysis and critique</p> <p>XII. Testing, Troubleshooting, and Critique (6 hours, lab)</p> <p>A. Locating and fixing problems B. Peer to peer input and review C. Analysis and critique</p>
Total Lecture Hours:	36
Total Laboratory Hours:	54
Total Hours:	90
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Create an interactive game utilizing complex interactivity concepts, such as scoring, collision detection, and levels. Export in appropriate media format and embed into a web page.
Critical Thinking Assignment 1:	Creating an Interactive Game. Project goal is to use advanced scripting technique to create a unique game/user experience. The game will be published online for worldwide distribution. Project includes development of concepts, creation of storyboards and tight execution of an interactive mockup, and presentation of game to class.
Critical Thinking Assignment 2:	Analyzing a Prototype: Analyze a previously designed prototype Game Design project. Create a flow-chart outlining the interactive paths. Identify how improvements can be made.
Other Evaluation Methods:	Class Performance, Completion, Multiple Choice, Quizzes, True/False
If Other:	Art and design projects Technical procedure demonstrations
Instructional Methods:	Demonstration, Discussion, Lab, Lecture, Multimedia presentations, Other (specify)
If other:	Internet Presentation/Resources
Work Outside of Class:	Other (specify), Problem solving activity, Skill practice
If Other:	Work on projects
Up-To-Date Representative Textbooks:	Online course materials to match the software taught such as Lynda.com training or Adobe Learn website.
Alternative Textbooks:	
Required Supplementary Readings:	
Other Required Materials:	Headphones
Requisite	Prerequisite

Category	sequential
Requisite course:	Art 145
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	<p>Prior design and production of a digital 2D Animation project. ART 145 -</p> <p>Demonstrate use of graphic and interactive user experience (ux) software to create original 2D web animation.</p> <p>Experience creating an interactive digital project. ART 145 -</p> <p>Demonstrate use of interactive animation and interactive user experience software to create an interactive presentation.</p>
Requisite Skill:	
Requisite Skill and Matching skill(s): Bold the requisite skill(s). if applicable	
Requisite course:	
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Enrollment Limitations and Category:	
Enrollment Limitations Impact:	
Course Created by:	Joyce Dallal
Date:	11/5/21
Board Approved:	6/20/2022