eDynamicLearning
— CAREER & ELECTIVE COURSES —

Course Title: Game Design for Chromebooks 1b

State: TX
State Course Title: Video Game Design
State Course Code: 130.93
State Standards: Career and Technical Education
Date of Standards: 2017

TEKS	Course Title. (a or b), if applicable, e.g. Game Design 1a	Unit Name(s)	Lesson(s) Numbers
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:			
(A) identify and demonstrate positive work behaviors and personal qualities needed to be employable;	Game Design for Chromebooks 1b: From Prototype to Product	Unit 8: What's Next?	Lesson 2
(B) demonstrate skills related to seeking and applying for employment;	Game Design for Chromebooks 1b: From Prototype to Product	Unit 8: What's Next?	Lesson 3
(C) create a career portfolio to document information such as work experiences, licenses, certifications, and work *samples; and*	Game Design for Chromebooks 1b: From Prototype to Product	Unit 8: What's Next?	Lesson 3
(D) demonstrate skills in evaluating and comparing employment opportunities.	Game Design for Chromebooks 1a: Introduction	Unit 3: Working in Game Development	Lesson 2
(2) The student applies academic knowledge and skills in video game design projects. The student is expected to:			
(A) apply English language arts knowledge by demonstrating skills such as correct use of content, technical concepts, vocabulary, grammar, punctuation, and terminology to write and edit a variety of documents; and	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(B) apply mathematics knowledge and skills such as using whole numbers, decimals, fractions, and knowledge of arithmetic operations.	Game Design for Chromebook 1b: From Prototype to Product	Unit 3: Immersive Game Design	Lesson 3
(3) The student understands professional communications strategies. The student is expected to:			
(A) adapt language for audience, purpose, situation, and intent;	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(B) organize oral and written information;	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2

(C) interpret and communicate information;	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(D) apply active listening skills; and	Game Design for Chromebooks 1b: From Prototype to Product	Unit 8: What's Next?	Lesson 2
(E) communicate with diverse individuals.	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(4) The student understands and employs problem-solving methods and conflict-management skills. The student is expected to:			
(A) employ critical-thinking skills independently and in groups; and	Game Design for Chromebooks 1b: From Prototype to Product	Unit 5: Level Structure and Design	Activity 3
(B) employ interpersonal skills in groups to solve problems.	Game Design for Chromebooks 1b: From Prototype to Product	Unit 5: Level Structure and Design	Activity 3
(5) The student applies cyber safety procedures. The student is expected to implement personal and professional safety rules and regulations.	Game Design for Chromebook 1b: From Prototype to Product	Unit 6: Building an Audience	Lesson 4
(6) The student applies leadership characteristics to student leadership and professional development activities. The student is expected to:			
(A) demonstrate leadership skills; and	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(B) participate in a group setting.	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Activity 2
(7) The student applies ethical decision making and understands and complies with laws regarding use of technology in video game design. The student is expected to:			
(A) exhibit ethical conduct related to interacting with others such as maintaining client confidentiality and privacy of sensitive content and providing proper credit for ideas;	Game Design for Chromebook 1b: From Prototype to Production	Unit 5: Level Structure and Design	Lesson 4
(B) discuss and apply copyright laws;	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Activity 1
(C) model respect of intellectual property;	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Lesson 2
(D) demonstrate proper etiquette and knowledge of acceptable use policies; and	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Lesson 2
(E) analyze the impact of the video game design industry on society.	Game Design for Chromebook 1b: From Prototype to Product	Unit 6: Building an Audience	Lesson 4

(8) The student applies technical skills for efficiency. The student is expected to employ planning and time-management skills to complete work tasks.	Game Design for Chromebook 1b: From Prototype to Production	Unit 8: What's Next?	Activity 2
(9) The student develops an understanding of video game design. The student is expected to:			
(A) demonstrate knowledge and appropriate use of computer operating systems;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Activity 2
(B) demonstrate appropriate use of hardware components, software programs, and storage devices;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lesson 4
(C) demonstrate knowledge of sound editing;	Game Design for Chromebooks 1a: Introduction	Unit 6: Audio, Music and Character Design	Lessons 1, 2
(D) demonstrate knowledge of file formats and cross-platform compatibility;	Game Design for Chromebooks 1a: Introduction	Unit 6: Audio, Music and Character Design	Lessons 1, 2
(E) acquire and exchange information in a variety of electronic file sharing formats; and	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(F) evaluate visual information by recognizing the use of principles and elements of design.	Game Design for Chromebook 1b: From Prototype to Production	Unit 3: Immersive Game Design	Lesson 1
(10) The student employs an appropriate design process to create and modify solutions to problems. The student is expected to:			
(A) combine graphics, images, and sound;	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Lesson 4
(B) apply principles of design;	Game Design for Chromebook 1b: From Prototype to Product	Unit 3: Immersive Game Design	Lesson 3
(C) develop and reference technical documentation; and	Game Design for Chromebooks 1a: Introduction	Unit 3: Working in Game Development	Activity 1
(D) edit products.	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lesson 4
(11) The student researches the history and evolution of video game design. The student is expected to:			
(A) explain the history of video game design;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lesson 1
(B) describe how changing technology is affecting the industry;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lessons 1, 2

(C) analyze the use of symbols in video game design of diverse cultures;	Game Design for Chromebook 1b: From Prototype to Product	Unit 6: Building an Audience	Lesson 4
(D) compare current video game design technologies with historical technologies;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lessons 1, 2
(E) compare various styles of video game design; and	Game Design for Chromebooks 1b: From Prototype to Product	Unit 6: Building an Audience	Activity 3
(F) explore emerging and innovative video game design technologies and software.	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lessons 1, 2
(12) The student understands and applies video game design principles, elements, and techniques. The student is expected to:			
(A) employ audience identification, script writing, character design, storyboarding, and audio and delivery formats;	Game Design for Chromebooks 1a: Introduction	Unit 3: Working in Game Development	Lesson 3
(B) describe and use motion paths, scripting, programming, and interactivity;	Game Design for Chromebook 1b: From Prototype to Product	Unit 2: A Deeper Dive Into Character Design	Lesson 1
(C) describe lighting and perspective; and	Game Design for Chromebooks 1a: Introduction	Unit 2: Setting the Scene	Lesson 1
(D) describe and use production processes such as titles, credits, and special effects.	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Activity 2
(13) The student evaluates a product using critical-thinking skills. The student is expected to evaluate products and product quality against established criteria and rubrics.	Game Design for Chromebook 1a: Introduction	Unit 4: Game Types and Tools	Activity 1
(14) The student presents oral or written evaluations of video game design projects. The student is expected to:			
(A) identify the intended audience;	Game Design for Chromebooks 1b: From Prototype to Product	Unit 6: Building an Audience	Activity 3
(B) describe aesthetics;	Game Design for Chromebook 1b: From Prototype to Product	Unit 3: Immersive Game Design	Lessons 1-4
(C) explain the storyline;	Game Design for Chromebooks 1a: Introduction	Unit 5: Tell A Captivating Story	Lessons 1-4
(D) summarize subject matter; and	Game Design for Chromebooks 1a: Introduction	Unit 5: Tell A Captivating Story	Activity 1
(E) discuss the use of sound.	Game Design for Chromebook 1b: From Prototype to Product	Unit 3: Immersive Game Design	Lesson 2

(15) The student creates video game design projects. The student is expected to use a variety of techniques and software programs.	Game Design for Chromebook 1b: From Prototype to Product	Unit 2: A Deeper Dive Into Character Design	Activity 1
(16) The student differentiates current programming languages. The student is expected to:			
(A) discuss the use of computer programming languages in other fields of study; and	Game Design for Chromebooks 1a: Introduction	Unit 5: Tell A Captivating Story	Lesson 3
(B) demonstrate knowledge of specific programming terminology and concepts.	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
17) The student applies problem-solving strategies. The student is expected to apply design specifications, step-wise refinement, or algorithm development.	Game Design for Chromebooks 1a: Introduction	Unit 3: working in Game Development	Activity 2
(18) The student develops coding with correct and efficient use of expressions. The student is expected to use user-defined functions; proper operator precedence; and sequential, conditional, and repetitive control structures.	Game Design for Chromebooks 1a: Introduction	Unit 5: Tell A Captivating Story	Lesson 3
(19) The student applies constructive criticism to products. The student is expected to seek and respond to advice from peers and professionals in delineating technological tasks.	Game Design for Chromebook 1b: From Prototype to Product	Unit 2: A Deeper Dive Into Character Design	Activity 1
(20) The student uses research skills and electronic communication, with appropriate supervision, to create new knowledge. The student is expected to:			
(A) participate with electronic communities as a learner, initiator, contributor, and teacher or mentor;	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(B) extend the learning environment beyond the school walls with digital products created to increase teaching and learning in the foundation and enrichment curricula; and	Game Design for Chromebooks 1a: Introduction	Unit 8: Building Your First Prototype	Lesson 2
(C) participate in relevant, meaningful activities in the larger community and society to create electronic projects.	Game Design for Chromebook 1b: From Prototype to Product	Unit 2: A Deeper Dive Into Character Design	Lesson 5
(21) The student uses technology applications to facilitate evaluation of communication processes and products. The student is expected to:			
(A) write technology specifications for planning/evaluation rubrics documenting variables, prompts, and programming code internally and externally; and	Game Design for Chromebooks 1b: From Prototype to Product	Unit 5: Level Structure and Design	Activity 3
(B) debug and solve problems using reference materials and effective strategies.	Game Design for Chromebook 1b: From Prototype to Product	Unit 5: Level Structure and Design	Lesson 6
(22) The student understands technology concepts, systems, and operations as they apply to game programming. The student is expected to:			
(A) identify basic game components, including the game engine, game play subsystems, data structures, models, and interfaces;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lesson 4

(B) generate random numbers in a program;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lesson 4
(C) create a program implementing conditional statements;	Game Design for Chromebook 1b: From Prototype to Product	Unit 1: Building Our World	Lesson 2
(D) develop an appropriate data model;	Game Design for Chromebook 1b: From Prototype to Product	Unit 4: Create Your Own Assets	Lesson 1
(E) demonstrate an understanding of and apply object-oriented game programming;	Game Design for Chromebooks 1a: Introduction	Unit 5: Tell A Captivating Story	Lesson 3
(F) demonstrate an understanding of game programming essentials, including event-driven programming, communicating with messages, and device management;	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Lessons 3, 4
(G) demonstrate an understanding of the role of game events, the animation loop, and game timing;	Game Design for Chromebook 1a: Introduction	Unit 2: Setting the Scene	Lesson 3
(H) demonstrate an understanding of the role of game engines;	Game Design for Chromebooks 1a: Introduction	Unit 1: What Makes a Game?	Lesson 4
(I) apply basic game screen design and layout, including visual controls, user interfaces, menus, and options;	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Lesson 4
(J) use game control design to understand, access, and control input devices;	Game Design for Chromebooks 1a: Introduction	Unit 5: Tell A Captivating Story	Lesson 3
(K) demonstrate an understanding of and apply game animation, including the principles of animation and frame-based animation;	Game Design for Chromebook 1b: From Prototype to Production	Unit 2: A Deeper Dive Into Character Design	Lesson 1
(L) demonstrate an understanding of game events, including listeners, triggers, and timed events;	Game Design for Chromebooks 1a: Introduction	Unit 2: Setting the Scene	Lesson 2
(M) demonstrate an understanding of and implement collision detection, including models and sprite collisions;	Game Design for Chromebooks 1a: Introduction	Unit 7: Creating a Game World	Lessons 3, 4
(N) demonstrate an understanding of player progression, including leveling, linear progression, and maintaining high score data; and	Game Design for Chromebook 1b: From Prototype to Product	Unit 2: A Deeper Dive Into Character Design	Lesson 4
(O) demonstrate an understanding of algorithmic decision making.	Game Design for Chromebooks 1a: Introduction	Unit 5: Tell A Captivating Story	Lesson 2