

Middle School Game Design 1b: Creating a Game

Course Details

Course Code: 17010000 (6th Graders); 27010000 (7th and 8th Graders)

Subject: Exploratory

Recommended Grade Levels: 6-8

Prerequisite: Middle School Game Design 1b: Creating a Game

Duration: Semester

Class Times: This course has scheduled instructional meetings. Information on scheduled meetings for each course is communicated by the teacher. Recordings of these meetings will be available for students unable to attend. Students should expect to spend 7-9 hours a week working on this course independently, in addition to any live meetings, and are expected to meet the deadlines posted in the course pacing guide.

Required Course Materials: Video recording device, art supplies, pen and paper, Word processing software; <u>Scratch</u> (login required, Scratch is a free coding community for kids.) <u>Lunapic</u>, <u>Leshy SFMaker</u>, a friend or family member

Optional: drawing software

Course Description

Building upon the prior prerequisite course, students will further advance their knowledge of game design by taking this course. Delving into the development process, students will create details and add component pieces in a game while learning to prototype, troubleshoot, and test. Additionally, exploring how to critique a game and advertise it will strengthen the student's ability to create a fully functioning game from start to finish.

Scope and Sequence

Unit 1: Get Building!

- Describe the three main phases of the game development process
- Make, refine, and implement a checklist plan for the development of a game
- Use programming knowledge of conditional statements and loops to develop a functioning game
- Design backdrops and trigger them appropriately

Unit 2: Kick It Up a Notch

- Use backdrops to implement level changes
- Create an enemy sprite to add difficulty to the game
- Define various terms related to improving the game
- Produce a list of enhancements that could be implemented in the next unit

Unit 3: Give Your Game Some Swagger

- Make a paper prototype of your game
- Choose two lanes of possible improvements
- Understand and apply the troubleshooting process
- Implement four improvements in your game

Unit 4: Cater to Your User

- Discuss the basic elements of a user interface
- Explain how games can be made more user-friendly
- Design a wireframe layout
- Create user interface elements in Scratch

Unit 5: Squash the Bugs!

- Identify the stages of testing
- Write and implement a test plan
- Critique games in a constructive way
- Categorize, prioritize, and implement critiques on your game

Unit 6: The Finish Line

- Understand the options and limitations of Scratch publishing
- Describe other game engines and platforms used in game design
- Explore jobs inside and outside the gaming industry
- Relate game design to the fashion, simulation, architecture, movies, TV, and military industries

Students will be sent a full list of assignments and their due dates at the beginning of the course.

Course Grades

The final grade in this course results from the following: Coursework: 100%

VirtualSC Details

Information on VirtualSC student guidelines, policies and technology requirements can be found in the <u>VirtualSC Student Support Portal (opens in a new window)</u>.