

Middle School Game Design 1B: Creating a Game Course Syllabus

What you will learn in this course

Middle School Game Design 1B: Creating a Game

Building on the prior prerequisite course, you will further advance your knowledge of game design! Diving into the development process, you will create details and add component pieces to a game while learning to prototype, troubleshoot, and test. Additionally, you will explore critiquing and advertising a game, strengthening your ability to create a fully functioning game from start to finish.

Unit 1: Get Building!

You built your game design skills and Scratch techniques in the first part of this course. By the end, you wrote your game design document. Now you are ready to start developing that game! First, let's give your game some movement controls, a start level, a way to keep track of lives, and a game over backdrop.

What will you learn in this unit?

- 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!

Good to see that you've come back to finish what you started! To make your game even more fun to play, we are going to ramp up the difficulty by adding more levels and creating an enemy sprite that's out to destroy the player character. If the player can make it all the way through your levels, they will get to see the winning screen you create. But the fun doesn't stop there! After your basic game is working, it's time to brainstorm ways you can make it even better.

What will you learn in this unit?

- 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

Middle School Game Design 1B Midterm Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from the first two units in this course. (Note: You will be able to open this exam only one time.)

Unit 3: Give Your Game Some Swagger!

Once a game has reached the Minimum Viable Product stage it *can* be played, but it also has plenty of ways it can be enhanced! You can implement all kinds of improvements to make the game more immersive, realistic, aesthetically pleasing, and sticky. There are so many things you can do, it might be hard to decide just *what* you want to do. There are some techniques that will help you get focused on making some goals for your game improvements. And once you decide *what* you want to do, you get to head for the fun part—*doing* it! Afterwards, you'll make sure your program is bug-free by applying some troubleshooting steps.

What will you learn in this unit?

- 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: The Finish Line!

The game design process is not finished once your game is developed. The fun continues through the post-production phase with testing and critiquing your game. It's important to remove all the pesky bugs that you can. We want the finished game to run smoothly and fulfill all the requirements. So, get ready to refine your game, add finishing touches, and then advertise it so that people want to play it. You're almost ready to cross the finish line!

What will you learn in this unit?

- Write and implement a test plan
- Identify the stages of testing
- Critique other people's games in a constructive way
- Categorize, prioritize, and implement critiques on your game
- Understand how to advertise your finished game in the Scratch community

Middle School Game Design 1B Final Exam

- Review information acquired and mastered from this course up to this point.
- Take a course exam based on material from all units in this course. (Note: You will be able to open this exam only one time.)