



Intro to Game Design: GameMaker Studio

Course Syllabus and Parent Lesson Planner

Course Orientation:

Description:

In this course, there are 8 modules that cover everything from the introduction of game design to being able to make a game all by yourself using GameMaker Studio.

- Module 1 covers the introduction and basics of Game Design.
- Module 2 covers all the GameMaker resources.
- Module 3 discusses how to make rooms and design levels in GameMaker.
- Module 4 covers the coding basics used in GameMaker.
- Module 5 teaches you how to code the player in GameMaker Studio.
- Module 6 teaches you how to code the score, lives, and energy.
- Module 7 shows you how to code the enemy in GameMaker Studio.
- Module 8 goes over Animations and Applications in GameMaker Studio.

This course, upon completion, will give you the skills necessary to have a basic understanding of Game Design, as well as, an understanding of how to use GameMaker Studio.

Course Length: As an elective course, we recommend one or two modules / week. Therefore, we feel that this course should take approximately 8 weeks to complete all modules/quizzes, and leave time to study, and take, the final exam. (See Lesson Plan below)

Course Pre-Requisites (if applicable):

This course does not require any pre-requisite courses.

Course Requirements:

Computer/tablet/smart phone – Students must have access to a computer/tablet/smart phone with internet access and an internet browser. Simply STEM has been successfully tested using Internet Explorer, Firefox, Chrome, and Safari. In addition, we have tested many versions of smart phone/tablet browsers as well.



Course Requirements (continued):

Internet Access – Although results may vary, based on connection type and speeds, we have tested our online videos on DSL, Satellite, Cable, and cellular connections. Our courses cannot be download and require internet access to view them.

Course Software Requirements:

GameMaker Studio - <http://www.yoyogames.com/get>

For a free download you must register with YoYo Games. Thank you!

Course Grading:

Simply STEM requires all students to pass a quiz following each module with a score of 80% or higher. The student can retake the module if they aren't able to complete the quiz with a passing score. Typically, module quizzes will be 10 questions long. There is a final exam at the end of each course, which is a compilation of all the module quiz questions. The amount of questions for final exams vary. Students are required to pass the final exam with a passing score of 70% to complete the course. Grades can be viewed by viewing the completed courses in the Course Library or by viewing courses still being taken from the dashboard 'In Progress' tab.

Detailed student transcripts and course reports can be provided to you by simply requesting them from our Simply STEM support team at studentsupport@techknowcoa.com



Please find a list of acceptable file upload types below. If your course requires a different file type or your files will exceed the 250 MB limit, please contact us and we will assist you in setting up a Google Drive folder for project file uploads.

.pdf – Document Format	.jpg – Picture Format
.doc – Document Format	.jpeg – Picture Format
.txt – Document Format	.png – Picture Format
.rtf – Document Format	.gif – Picture Format
.pages – Mac Document Format	.bmp – Picture Format
.wav – Audio Format	.htm – Web Format
.mp3 – Audio Format	.html – Web Format
.xls – Excel Spreadsheet Format	.ppt – PowerPoint Format
.xlsx – Excel Spreadsheet Format	.pptx – PowerPoint Format
.numbers – Mac Spreadsheet Format	.mov – Video Format
.avi – Video Format	.psd – Photoshop Format
.wmv – Video Format	.flv – Video Format
.m4v – Video Format	.key – Software Format
.mp4 – Video Format	.3gp – Multimedia Format
.mpg – Video Format	.mpeg – Video Format



Lesson Plan:

Module 1 – Introduction/Basics	Week 1
Module 1 – Quiz	Week 1
Module 2 – GameMaker Resources	Week 2
Module 2 – Quiz	Week 2
Module 3 – Rooms and Level Design	Week 3
Module 3 – Quiz	Week 3
Module 4 – Coding Basics	Week 4
Module 4 – Quiz	Week 4
Module 5 – Coding the Player	Week 5
Module 5 – Quiz	Week 5
Module 6 – Coding the Score, Lives, and Energy	Week 6
Module 6 – Quiz	Week 6
Module 7 – Coding the Enemy	Week 7
Module 7 – Quiz	Week 7
Module 8 – Animations and Applications	Week 8
Module 8 – Quiz	Week 8
Study for Final Exam	Week 8 – (1-2 Hours)
Final Exam	Week 8 – 1 Hour

