Computer Programming & Game Design I
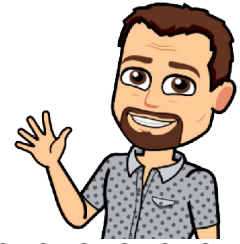
Mr. Parslow
Room D91
Email: tom.parslow@cjuhsd.net
Website: tparslow.weebly.com
Twitter: @tparslow75

Video games are everywhere!! They're the games we play on our consoles sitting in our bedrooms or living rooms at home or at a friend's house. They are the games we download onto our computers and laptops from a variety of popular sites. And of course, they are the games we play on our smartphones and other mobile devices. There's a lot that goes into the planning, building, and testing of these games. And that's what this class is all about! So whether you are someone interested in becoming a video game designer or you are just interested in the process of building something from the ground up, you'll get to see and experience the entire process of building a video game from start to finish!

This is the first course you take in the Video Game Design Pathway here at Los Osos High School. The course introduces students to the entire process of how a video game is conceived, how it is put together, and how it is published using industry leading software (the latest version of Unity3D). During the first semester, students are introduced to the game design process (and principles associated with it), elements of game play, and the items needed for successful management of the game design project. Students are also introduced to the Unity3D Editor and the various tools that can be used in creating their games with this powerful game engine. Students will be exposed to basic C# programming language need in creating scripts and scenes. During the second semester, students will use their knowledge of objects and environments for their video games. After working with a number of video tutorials of partially completed games (as well as games from scratch), teams of students will plan, assemble, and market a custom video game.

Textbook/Curriculum - There is no textbook for this class. For our curriculum, we will be using a variety of online resources.   These online resources will be available for viewing on my website (tparslow.weebly.com) should you need to make up work or if you want to go back and review concepts that have been learned in class.

What You Need For This Class - (1) Pen or Pencil (for notes and quizzes), (2) small folder for holding on to your Cornell Notes and Scoring Rubrics you receive back from me, (3) a personal Gmail Account (if you already have one, you can use that one), and (4) headphones (optional if you don't want to use the headphones provided in the computer lab).

Not Needed But Could Be Very Helpful - Downloading the Unity Game Engine at home.

A Good Class to Take Next Year If You Are Still At Los Osos - Computer Prog. & Game Design II (creating graphics for your games; learning more advanced topics in building your games), AP Computer Science Principles (in that you can build a game as part of your AP Score), or AP Computer Science A (programming and design using the Java language).

Course Goals

Upon completing the Computer Programming & Game Design I course, you will be able to successfully complete the following:

1. Provide an overview of the game creation process, various game genres, and elements of game play.
2. Develop critical thinking and problem solving skills needed in creating and designing video games.
3. Create proposals for building game types (including storyboards, narrative creation, interactive storytelling, etc.).
4. Learn the process of building games using industry leading software (Unity 3D Game Engine).
5. Recognize the need for game documentation requirements and explore concepts in scripting.
6. Work with various development tools in Unity including (but not limited to): tools in building the environment, working with lighting, working with cameras, collision detection, activating game objects, working with physics, and animator controllers.
7. Creation of the game's interface in adding items such as skins, terrain, character controls, and skyboxes.
8. Work with C# programming language in creating scripts, IF statements, loops, functions, and classes.
9. Build a simple working game from start to finish in helping to understand the build process in creating video games using Unity 3D.

Grade Makeup

A standard grading scale will be used for the overall grade. Please note that I do not "round up" grades with 6-week progress checks. I will only round up grades at semester with a number of factors being considered (i.e. final project grade, attendance, etc.). Expect temporary grades to be updated on School Loop every week to two weeks. Parent contact may be made if grades fall below a 70% at any time during the grading period.

1. Employability Skills (25%) - In-class Practice activities, unused restroom passes (see below), Daily Boot Ups, Freedom Friday projects, being on time, being a part of classroom discussions
2. Lesson Assessments (30%) - Your creative side really shines here! These are real-world type projects that build around the topics you just learned (which includes video game practice tutorials, 3D objects, and any video game projects).
3. Quizzes (30%) - Expect a quiz at the end of each unit (or "level" as they are called in this class) on vocabulary, principles of game design, keyboard shortcuts, and use of Unity software tools.
4. Final Exam/Project (15%) - Will incorporate all the major areas we covered in the Unity Game Engine (1st Sem Exam, 2nd Sem Project).

Other Things To Keep in Mind:

Restroom Passes - Any unused ones = extra credit (you get 3 every six-week grading period); going over means negative points (deduction from participation points for each one over); so use them wisely!

Freedom Fridays - 20% of our class time will be spent working on projects YOU want to work on. Pick a tutorial to recreate. Learn how to add sounds to a game in Unity. Build a 3D object in Autodesk Maya. Build a website with Adobe Dreamweaver. You choose!

Make Up Work - You are allowed as many days your absences are excused (must be an excused absence per the school) in making up work you miss. You will receive a 10% penalty each day your work is late (after the 5th day, you can only receive half credit). An assignment can only be made up in the 6-week grading period it took place (and will not be accepted afterwards). I'll be here after school on select days if you want to come in and work (however always check with me first). I will also announce some Saturdays you can come in as well.

Using the Unity Software - Remember that the games you create in this class are for educational purposes only (meaning you are OK to use any assets in your games that were not originally created by you). Outside of this, however, you are not allowed to distribute and/or sell your games while using assets you did not create. Also because you are a student, you can download Unity at home for free. This may, however, depend on how strong/fast your computer is. But this could make your life easier in working at home and not having to make up work at school. Details on how to download to come...

What If I'm "Not Getting It"? - If you are struggling in any way throughout this class (low quiz scores, not understanding the concepts, etc.), please do not hesitate to ask me for help! If we can't get you the help then, we'll arrange a time to get you the help. Your classmates can sometimes be very helpful as well! But if you don't talk to me in asking for help, then I might not always know the struggles you are going through.

Computer Lab/Course Expectations

Computer Lab Etiquette - You must comply with all rules stated on the Los Osos High School Usage Contract (seperate handout) regarding use of equipment, internet access, downloading, etc. See contract for stated consequences on breaking any of these rules.

No Food, Drinks, or Gum - Bottled Drinks OK

Electronic Devices- Cell phones and other electronic devices will be allowed in class at the teacher's discretion. Any electronic devices that become a distraction may end up in my "Phone Prison". If the problem persists, they may end up in the admin office.

Tardy Policy - Continued tardies at a job would get you fired! While I cannot fire you, being late to my class may bring on a number of consequences (detention slips & deduction in "Employability Skills" points). You need to be in my class by the tardy bell or you are late.

Trust - What I look forward to most in this class is seeing what each and every one of you is capable of creating. But plagiarism & cheating crosses the line! Please help each other out throughout this class...I encourage it. But I want to see your work and not someone elses. First offense may result in a automatic zero & parent contact; future offenses may result in the same plus a referral to admin.