Graphics for Game Development
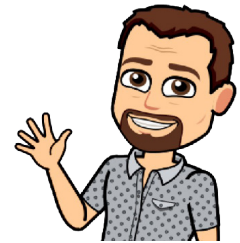
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Designs are everywhere! They are on the clothes we wear, the movie posters we see outside a theater, and even represented as logos on our favorite smartphone apps. It's no secret that graphics are also a big part of video games today as well! 2D Objects, 3D Objects, and even Artificial Intelligence (AI) are making games more realistic and appealing for it's users.

This is the first course in the Video Game Design Pathway here at Colony High School. This is a beginning level course focusing on the fundamentals of graphics design and the use of industry-based software to create graphics for gaming platforms. In the first semester, you will learn how to create and edit both bitmap and vector images and illustrations for a variety of video game assets using both Adobe Photoshop and Adobe Illustrator. In the first part of the second semester, you will begin working with a video game engine (Unity) in laying out both 2D and 3D graphics into the video game scene (the coding for these video games will not take place until the Year 2 course in the pathway: Computer Programming & Game Design). The remainder of the semester will focus on the creation of a variety of 3D objects (characters, buildings, etc.) using Autodesk Maya.

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, and (3) a personal Gmail Account (if you already have one, you can use that one).

Not Needed But Could Be Very Helpful - Our school is in the process of trying to get each student a license for Adobe Photoshop and Illustrator that they can use at home (to be announced). If this happens and you have a computer at home, it would be highly advised to download these programs (so you can work on assignments at home if needed). Both Autodesk Maya and Unity can already be downloaded for free (directions on how to do this are on my website).

Course Goals

Upon completing the Graphics for Game Development course, you will be able to successfully complete the following:

1. Identify numerous variables (including typography, color schemes and theory, negative spacing, and placement/ alignment of items) that play a part in having an effective graphic to the viewer.
2. Discuss the differences in working with bitmap versus vector images and how they play a role in deciding on color modes and resolution.
3. Understand the importance of copyright laws in being respectful of the artists' original works.
4. Plan out a project design based on a number of factors including (but not limited to) the clients' needs, purpose, intent of use, and expected audience response.
5. Use numerous Adobe Photoshop tools to digitally manipulate images into designs for use in video games.
6. Use numerous Adobe Illustrator tools to create and manipulate vector-based images and drawings for use in video games.
7. Use the Unity Game Engine in creating the environment for a video game including (but not limited to) transforming objects, laying out assets from the Unity Asset Store, terrain, and skyboxes.
8. Use both Adobe Illustrator and Photoshop together in creating a variety of digital designs for numerous objects and assets inside the video game scene using the Unity Game Engine.
9. Use Autodesk Maya in creating and editing 3D objects including (but not limited to) the development of characters, texture mapping, lighting techniques, 3D scene layouts, and camera shots.
10. Create an outline portfolio of various projects (from Photoshop, Illustrator, Unity, and Autodesk Maya) including a visual of the project, an artist statement, and the image specs.
11. View other student portfolios and offer constructive criticism to help with the development of their skills as graphic designers.

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 1-2 weeks. Parent contact will be made if grades fall below a 70% at any time during the grading period.

1. <u>Employability Skills (20%)</u> - 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. <u>Lesson Assessments (30%)</u> - Your creative side really shines here! These are real-world type projects that build around the topics you just learned (which includes both the grade on using Photoshop as well as your Artist Statement write ups).
3. <u>Midterm Project (15%)</u> - Project will incorporate all tasks learned in the first half of the semester
4. <u>Quizzes (20%)</u> - Expect a quiz at the end of each unit on vocabulary, principles of graphic design, keyboard shortcuts, and use of Photoshop/Illustrator/Autodesk Maya software tools.
5. <u>Final Project (15%)</u> - Will incorporate all the major areas we covered in Photoshop/Illustrator (1st Sem) & Autodesk Maya/Unity (2nd Sem)

Other Things To Keep in Mind:

<u>Restroom Passes</u> - Any unused ones = extra credit (you get 3 every six-week grading period); going over means negative points; so use them wisely!

<u>Freedom Fridays</u> - 20% of our class time will be spent working on Photoshop projects YOU want to work on. Pick a tutorial to recreate. Make a collage. Create a poster. Build a 3D object. You choose!

<u>Make Up Work</u> - 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). Please use 4th Period Titan Time to come in and make up work if you are falling behind (please make sure you see me for a Passport). During first semester only, I'll be here after school on select days (if you want to come in and work). Check with me first. I will also have some STEP Saturdays you can come in as well (to be announced).

<u>What If I'm "Not Getting It"?</u> - 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! I'm always available during Titan Time. If we can't get you the help then, we'll arrange a time to get you the help. But if you don't talk to me, then I might not always know you need the help. If you want to be successful, you have to make the steps towards it; success doesn't just get handed to you!

Computer Lab/Course Expectations

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

<u>No Food, Drinks, or Gum</u> - Bottled Drinks OK

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

<u>Tardy Policy</u> - 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.

<u>Trust</u> - 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.