CS 308 - Game Design & Development
Spring 2018
Boyer 14
Tuesday 7:10 - 9:50

| Instructor: | Mr. Michael Engel |
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| Email: | mengel@colonialsd.org |
| Office Hours: | By Appointment |

| Course Description: | This introduction to computer game development is designed for students with a background in programming. The focus of the course is on game play, design process, and programming for a two-dimensional environment. |
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| Course Objectives: | An elective course in the Computer Science/Mathematics Department, Introduction to Game Programming will introduce students to the concepts and techniques in designing and producing games in the JavaScript language. |
| Pre-requisites: | CS 202 or equivalent |
| Textbook(s): | Required Textbooks: None |
| Software: | Text Editor and Browser |
| Other Resources: | 1. http://cs.mickeyengel.com - Instructor Site |
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| Course Requirements: | Typical class preparation will include researching the upcoming topic. Research will include reading notes, examining code samples, textbook reading and other online sources.<br><br>Classes will often begin with a brief lecture and question and answer session regarding the assigned topic and a possible quiz on said topic. A majority of class time will be spent doing practice problems and implementing the current topic.<br><br>There will be several programming assignments to be turned in that will account for a portion of your grade. All assignments will be turned in electronically and should follow these guidelines:<br>1. All files should be placed in a single folder named *LastName_ProjectName*. For example, my submission for project 2 would be Engel_Project2.<br>2. There should be a read me file in the folder containing comments that discusses your process. This might include trials, successes, failures, algorithms, etc.<br><br>Programs will not be accepted late.<br><br>Additionally, each student will be required to complete a comprehensive final project. The final project should encompass many of the topics covered in class and should include something outside of the class scope that you learn on your own. This project will be due on the last day of class and will be presented to the class during the final exam. |
| Course Policies: | 1. All Arcadia policies concerning academic honesty will be enforced<br>2. Make arrangements with fellow students to get the notes and assignments if you miss a class. Also, please contact me by email to notify me of your absence prior to the class.<br>3. Cell phones and pagers must be turned to a silent mode.<br>4. Internet chat or other non class use of the computers is prohibited. |
| Grading Policy: | Projects: 100% |

## Class Schedule
The following schedule is tentative and subject to change.

| Date | Topic | Assigned Reading | Due |
|---|---|---|---|
| 1/16 | Introduction to JavaScript | | |
| 1/23 | Objects in JavaScript | | |
| 1/30 | Introduction to Canvas | | JavaScript Text Game (10%) |
| 2/6 | Animation and Graphics | | |
| 2/13* | Animation Alphas | | |
| 2/20 | User Control/Input | | Animation (20%) |
| 2/27 | Movement and Classes | for next week, find a sprite that is animated in all four directions.  When pressing the up key, have him move up, with a parallaxing background that moves down.  Do not let the character pass the mid way point of the height of the screen. Both the character and the backgrounds should be in OOP.   Also,prepare an image of an object that you would want your character to avoid or collect. | |
| 3/6 | Collisions | | |
| 3/13 | NO CLASS - SPRING BREAK | | |
| 3/20 | Sound and Scoring | | |
| 3/27* | Addicting Game Alphas | | |
| 4/3 | Titles & Timers | | Addicting Game (30%) |
| 4/10 | Levels/Scenes | | |
| 4/17 | Files | | |
| 4/24 | Final Game Alphas | | |
| 5/1 | FINAL EXAM | | Final Game (40%) |