Computer Game Platform Analysis
GAME330 – Fall 2018 – T 4:30 pm to 7:10 pm – AD 1018

Instructor: Rob Dieterich
Email: rdieteri@gmu.edu
Office: AD 2021
Office Hours*: Tuesday 1 pm – 2:45 pm

* Other times by appointment. The best way to reach the instructor is via email.

Mason Mission Statement
Mission-Who we are and why we do what we do
A public, comprehensive research university established by the Commonwealth of Virginia in the National Capital Region, we are an innovative and inclusive academic community committed to creating a more just, free, and prosperous world.

Mason Game Design Mission Statement
The Mission of the Computer Game Design Program at George Mason University is to prepare students for employment and further study in the computer game design and development field, doing so with a curriculum designed to reflect the gaming industry’s demand for an academically rigorous technical program coupled with an understanding of the artistic and creative elements of the evolving field of study.

Catalog Description
Current and prototype consumer gaming platforms and consoles. Analysis will include conversion, transposition, and porting game media among most commercially produced platforms for analysis and comparisons.

Course Overview
In this course, you will gain a deeper understanding of the various platforms available for consumer games. Through research and hands-on projects, you will learn how to distinguish features of various platforms in terms of their capabilities, markets, publishers, and the consumer culture that surround them. You will also gain a working knowledge of the Unity game engine as required to complete many of this course’s projects.

Students of this course are REQUIRED to sign up for GAME331 (1 credit lab).
Student Learning Objectives
Upon completion of this course, students will:

- Be able to correctly identify the functionality of various hardware components and how they can affect a game’s design
- Be able to design a game that considers the limitations of a given platform
- Be able to identify the companies that operate on a given platform
- Be able to consider a given platform’s audience in the design of their games
- Be capable of scripting simple game mechanics using C# in the Unity engine
- Have worked in a team to complete multiple game and research projects

Required Texts
There’s no required text for this course. Necessary materials will be distributed online if applicable.

Required Software
Students will be required to have existing knowledge of the following software to the extent that they can efficiently develop games and game assets.

Unity game engine V. 2017.x: http://www.unity3d.com
Art asset creating software such as Adobe Photoshop and/or Illustrator.
Sound design/creation software such as Audacity.
Writing and presentation software such as that found in MS Office (Word, Powerpoint, Excel, etc.) or on Google Drive.

Course Structure
This course is centered around in lectures and in-class exercises as well as several projects that you will be assigned over the course of the semester. These projects range in type from game design documentation to researched presentations to game prototypes. Most of the projects involve group work. In general, groups will be randomly assigned so you get practice working with various people and skillsets. For the final project, you will be allowed to choose your group.

The companion GAME331 lab course will run you through a collection of original Unity exercises designed to acquaint you with a variety of game development topics in a hands-on manner. The lab assignments are individually graded and are independent of the GAME330 projects. In other words, you do not need to be in the same section of GAME331 as you are in GAME330. Lab assignments are designed to be worked on during the class period in which they were assigned and will be due at the end of the day they were assigned.

Grading & Assessment Overview
Your grade in this course will be based on the following factors:

20% GAME331 Lab Assignments (9 lab assignments)
<table>
<thead>
<tr>
<th>Percentage</th>
<th>Assignment Description</th>
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</thead>
<tbody>
<tr>
<td>10%</td>
<td>Esoteric Hardware Game Design One-Pager (Individual assignment)</td>
</tr>
<tr>
<td>10%</td>
<td>Engine Capability Research Project (Group research project, presented in-class)</td>
</tr>
<tr>
<td>20%</td>
<td>Midterm Project (Group project including documentation and a working prototype)</td>
</tr>
<tr>
<td>10%</td>
<td>Platform and Publisher Research Project (Group research project, presented in-class)</td>
</tr>
<tr>
<td>25%</td>
<td>Final Project (Group project including documentation and a working prototype)</td>
</tr>
<tr>
<td>5%</td>
<td>Attendance*</td>
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</tbody>
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* Note that, if you are having trouble in class, need an extension on a given assignment, or circumstances outside of class are affecting your ability to do the work, talk with me about it sooner than later. In general, we can work something out.

Letter grades are assigned according to the following scale:

- A: 90% - 100%
- B: 80% - 89%
- C: 70% - 79%
- D: 60% - 69%
- F: 0% - 59%

**Academic Honesty**

For complete information about the University’s policies on academic honesty, please see: [http://www.gmu.edu/cte/Teaching/Getting_Started/Designing_Syllabus/academic_honesty.html](http://www.gmu.edu/cte/Teaching/Getting_Started/Designing_Syllabus/academic_honesty.html)

**GMU Honor Code**

[http://www.gmu.edu/catalog/apolicies/index.html#Anchor12](http://www.gmu.edu/catalog/apolicies/index.html#Anchor12)

Honor Code: To promote a stronger sense of mutual responsibility, respect, trust, and fairness among all members of the George Mason University community and with the desire for greater academic and personal achievement, we, the student members of the university community, have set forth this honor code: Student members of the George Mason University community pledge not to cheat, plagiarize, steal, or lie in matters related to academic work.

**Additional Resources**

GMU Student information and resources: [http://www.gmu.edu/mlstudents/](http://www.gmu.edu/mlstudents/)

The University Libraries maintain info guides for various majors. You can find links to various game design resources on the Computer Game Art & Design info guide: [http://infoguides.gmu.edu/games](http://infoguides.gmu.edu/games)
If you are a student with a disability and you need academic accommodations, please see me and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through that office. Students must inform the instructor at the beginning of the semester, and the specific accommodation will be arranged through the Disability Resource Center.

Disclaimer
In this class, I reserve the right to show a broad range of course materials, some of which assume the audience to be adult in age and demeanor. Should you at any time in the course of the class feel offended by something you have seen or heard, we would appreciate you staying to be part of a dialogue. If you feel that you cannot stay, remove yourself from the classroom as discretely as possible. You may be asked to report on your response.

Privacy
Students must use their MasonLIVE email account to receive important University information, including messages related to this class. See http://masonlive.gmu.edu for more information.

Course Schedule
The following is a list of important due dates for this course. Assignments are generally due at the end of the day (11:59 PM).

9/3    Esoteric Hardware One-Pager DUE
9/10   Engine Capability Research Project DUE
9/17   Engine Capability Research Presented In-Class
9/24   Midterm Project Concept Doc DUE
10/1   Midterm Project Checkpoint Build DUE
10/15  Midterm Project DUE
10/16  Midterm Projects Presented In-Class
10/29  Platform and Publisher Research Project DUE
10/30  Platform and Publisher Research Presented In-Class
11/12  Final Project Concept Doc DUE
11/19  Final Project First Playable DUE
11/26  Final Project Vertical Slice (Alpha) DUE
12/3   Final Project Beta DUE
12/11  Final Project DUE
12/12  Final Projects Presented In-Class (during our Final Exam slot, 4:30 pm – 7:15 pm)