Games Design and Development

Welcome to COMP3218
Games Matter

“Life is more fun if you play games.”
Roald Dahl, My Uncle Oswald

“Games lubricate the body and the mind.”
Benjamin Franklin

“Reality is broken. Game designers can fix it.”
Jane McGonigal

Computer Games are our medium, our culture, our means of expression. They matter because they reflect us.
“Over the centuries, mankind has tried many ways of combating the forces of evil... prayer, fasting, good works and so on.

Terry Pratchett
“Over the centuries, mankind has tried many ways of combating the forces of evil... prayer, fasting, good works and so on. Up until Doom, no one seemed to have thought about the double-barrel shotgun. Eat leaden death, demon...”

Terry Pratchett
We believe that everyone, no matter what gender, sexual orientation, ethnicity, religion or disability has the right to play games, criticize games and make games without getting harassed or threatened. It is the diversity of our community that allows games to flourish.

If you see threats of violence or harm in comments on Steam, YouTube, Twitch, Twitter, Facebook or reddit, please take a minute to report them on the respective sites.

If you see hateful, harassing speech, take a public stand against it and make the gaming community a more enjoyable space to be in.

Because Games Matter!
Who Are We?
Who Are We?

David Millard

@hoosfoos | davidmillard.org | dem@soton.ac.uk
Who Are We?

adge chapman

Adriane.Chapman@soton.ac.uk
Tom Blount

@Tom_Blount | tb12g09@ecs.soton.ac.uk
Structure

- We have two objectives:
  1) To make you think more deeply about games
  2) To give you direct experience of making games

- So the course is based around three Unity game development activities done in pairs

- Each lasts four/three/three weeks

- Different pairing for each activity

- Each finishes with an Expo where you show your games to each other and other students
How Will You Be Assessed?

For each Expo:

- You submit a 1 page document answering key questions about your game
  - Related to the ideas and theories from the course
  - We discuss your answers with you at the Expo

- You submit the game itself – as a runnable game, and as a project

- We mark the submission as one, you will get
  - a private mark
  - public feedback in the form of a Let’s Play video
  - Search for COMP3218 on YouTube for previous years’

- There is no exam. 100% of marks come from the 3 games. Marks are shared equally between your pair.
### Marks Breakdown

<table>
<thead>
<tr>
<th>Component</th>
<th>Quality</th>
<th>Brief</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expo 1</td>
<td>34%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expo 2</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expo 3</td>
<td>33%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Game 1:** 40%
- **Game 2:** 30%
- **Game 3:** 30%

*Portal*
<table>
<thead>
<tr>
<th>Week</th>
<th><strong>Lectures (Mon 2-4)</strong></th>
<th><strong>Lab (Tue 12-2pm)</strong></th>
<th>Person</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intro to the Course and Unity</td>
<td>No lab</td>
<td>all</td>
</tr>
<tr>
<td>2</td>
<td>Game Structures and Elements</td>
<td>Unity Workshop</td>
<td>age</td>
</tr>
<tr>
<td>3</td>
<td>Mechanics, Dynamics, and Interactions</td>
<td>Unity Workshop</td>
<td>age</td>
</tr>
<tr>
<td>4</td>
<td>Level Design and Tutorials</td>
<td>Sprint Workshop</td>
<td>tb</td>
</tr>
<tr>
<td>5</td>
<td>Difficulty, Complexity and Flow</td>
<td>Sprint Workshop</td>
<td>dem</td>
</tr>
<tr>
<td>6</td>
<td>Interactivity, Agency and Non-linear Narratives</td>
<td><strong>Expo 1</strong></td>
<td>dem</td>
</tr>
<tr>
<td>7</td>
<td>Writing for Games: Form and Technique</td>
<td>Sprint Workshop</td>
<td>tb</td>
</tr>
<tr>
<td>8</td>
<td>Game Narrative Design and Poetics</td>
<td>Sprint Workshop</td>
<td>dem</td>
</tr>
<tr>
<td>9</td>
<td>Gaming off the Screen</td>
<td><strong>Expo 2</strong></td>
<td>dem</td>
</tr>
<tr>
<td>10</td>
<td>Adaptivity and Procedural Generation</td>
<td>Sprint Workshop</td>
<td>age</td>
</tr>
<tr>
<td>11</td>
<td>The Games Industry</td>
<td>Sprint Workshop</td>
<td>all</td>
</tr>
<tr>
<td>12</td>
<td>No lecture</td>
<td><strong>Expo 3</strong></td>
<td></td>
</tr>
</tbody>
</table>
In this course we want you to use Unity 5

- Cross-platform Game Engine
- 2d and 3d support
- Scripts written in C# and JavaScript
- Download Unity 5 from [www.unity3d.com](http://www.unity3d.com)
  - Free Personal Edition is sufficient
- Great Tutorials at [www.unity3d.com/learn](http://www.unity3d.com/learn)
Alternatives to Unity

- **General Platforms**
  - Unreal Engine (suite of game dev tools)
  - Gamemaker (drag + drop with simple scripts)

- **Genre Specific**
  - Twine (web-based tool for creating IF)
  - Inform 7 (natural language tool for IF)
  - AGS (tools to create graphic adventure games)
  - RPGmaker (tools to create 2d (J)RPGs)

- For this course please use Unity – it’s a powerful, flexible and popular engine – knowing it will only do you good!
Tuesday 1200-1400, building 25/1009

80 Machines with Unity (2 per pair)
- Welcome to bring your own machine
- Unity personal license is free

There are three types of lab event:
1. **Unity Workshop** – work through a Unity Tutorial
2. **Sprint Workshop** – work with partner on your game
3. **Expo** – show off your games to each other

Relatively unstructured but demonstrators will be there to answer questions and help where possible
Space Shooter

Zombie Conga
COMP3218: Game Design and Development (2017-2018)

The module for those interested in game development. An opportunity to consolidate and improve your portfolio, or to explore concepts of design, or to learn some of the cutting edge development techniques.

For canonical information, check out the syllabus: SYLLABUS!!!

If you have any questions, please contact Dave Millard.

[edit] Previous Let's Plays

- 2016/17 Let's Plays
- 2015/16 Let's Plays

[edit] Summary

- Lectures: learn about game design theory
- Labs: learn about development in a framework
- Coursework: create 3 game prototypes
- Assessment: demonstrate your prototypes at a class expo
- Feedback: Let's Plays and Expo

https://secure.ecs.soton.ac.uk/module/COMP3218/
Books + Resources

- Course Text: Game Design Workshop
- Available online as a PDF* or through the library

* Google is your friend
Online Resources

- YouTube channel on all aspects of game design
- James Portnow and Daniel Floyd
- Links to relevant episodes on our website

www.extra-credits.net
www.youtube.com/user/ExtraCreditz

- Free online version of Game Developer Magazine
- Lots of info on the games industry
- Case studies of real problems tackled in real games

www.gamasutra.com
Creating Games is fun and absorbing

DON’T SPEND TOO MUCH TIME ON IT!

Expectation is 8 hours a week (including lectures!) ≈ 40 hours of dev time per Expo

The goal of each Expo is not a complete game – there are no marks for scale!

Work on creating a small playable prototype that fulfills the brief
Creating Games is fun and absorbing

DON’T FORGET THE GOAL!

This is not about creating random games

For each Expo you will be expected to demonstrate a **specific thing**

- 60% of the mark is for this!

A good game will get a bad mark if it does not fulfil the brief!
Extra Credits – Ludus Florentis

https://www.youtube.com/watch?v=dGJCTOs bqNI
Discussion: Are Games Art?
Paper Prototyping Exercises

- In Pairs and on Paper
- Consider Tic-Tac-Toe (Noughts and Crosses)
- The Brief, either:
  - Extend the game to 3 players
  - OR add element of chance to the game
- Spend:
  - 20 min design
  - 5 min playtesting another pair’s game
  - 20 min discussion
What is your new mechanic?

What is the impact of the new mechanic(s)

- Time to play?
- Complexity?
- New strategies?
- More fun?
What is Tic-Tac-Toe Anyway?

- What are the existing **Core Dynamics**
- MDA Framework
  - Mechanics *produce*...
  - Dynamics *invoke*...
  - Aesthetics