CMPS 80K

Foundations of Interactive Game Design

Lecture

T Th 1pm-2:45pm BE 152

Lab

T Th 3pm-4:45pm Soc Sci 1 135 (PC side)

Instructor

Nathan Whitehead
nwhitehe@ucsc.edu
Office: BE 259A
Office hours:
> T 11am-noon
> Th noon-1pm
> In lab

Class Text

Tracy Fullerton, *Game Design Workshop: A Playcentric Approach to Creating Innovative Games, 2nd ed.,* 2008. [Any edition should be fine].

Optional Texts

Brenda Brathwaite, *Challenges for Game Designers*, 2008.
Raph Koster, *A Theory of Fun for Game Design*, 2nd ed., 2013.

Websites

All assignments will be turned in using eCommons. You are required to keep track of when assignments are due and turn them in on time. Late assignments will get 10% penalty per day late.

You will be using Piazza as the class discussion forum. You are required to sign up for Piazza to receive announcements and updates. Updates posted on Piazza override original instructions on eCommons. For example, assignment clarifications or additional instructions may be posted on Piazza; you are responsible for following the updates and new instructions.

Goals

In this class you will learn how to think critically about games and apply what you learn as you construct a novel game. Making games is getting easier and easier thanks to modern tools such as GameMaker and engines such as Unity. This means that the barrier to creation is lower than it has ever been. This has resulted in an explosion of games for new audiences, new methods of distribution, more "indie" games, and hightened expectations. To stand out, game creators need to be able to explain what makes their game interesting in 30 seconds and demonstrate these gameplay features in 3 minutes. These are the kinds of games you'll be creating in this course.

Creating games is perhaps the most powerful way of understanding how games work at a deep level. This is obviously true for the technological side. You'll learn about processes like collision detection, conditional evaluation, and variables as you create your working game. It is also true for the conceptual side. Designing a game requires thought about rules, mechanics, and art, and requires skill in combining elements to let the audience play in a simulated world.

You will work in teams of 2 to create a novel game using GameMaker. The main requirement for your game is that it uses mechanics in a new way. This can be accomplished in different ways. First, you can do something innovative with mechanics themselves. For example, you can take a game mechanic that is common in many games as a minor element and repurpose it as the main gameplay element. Or if you have a good idea you can invent a completely novel game mechanic and explore how a game can use it. Alternately, you can take an existing mechanic and use it in a new context or interpretation.

Game Project

(60% of grade)

- Team selection (2%)
  - Work in teams of 2, assigned by instructor based on skills survey done first lecture
  - Turn in form with team name, meeting times and locations, contact info., background bios
- Project concept (5%)
  - Written document describing game concept along with brief description of prototype or storyboard
- Prototype/storyboard (5%)
  - Non-digital physical prototype (e.g. blocks, clay, construction paper, maps, etc.)
  - OR large format storyboard with 20 cells showing full experience of gameplay
- Design document (10%)
  - 1-3 pages text document describing game
  - 1-2 pages of sketches or diagrams
  - Work breakdown
- Computational prototype (10%)
  - Working demonstration of game mechanic and game world in GameMaker
- Progress report (3%)
  - Oral presentations on progress, deviations from schedule
  - Descriptions of changes to scope from original design document
- Playtestable game (5%)
  - Version of game that is playable by other students
  - Peer graded based on state of completion, instructions provided, player experience
- Completed project (15%)
  - Finished game turned in
  - Includes manual
- Final game presentation (5%)
  - In-class demonstration of finished game

Game analysis

(24% of grade)
- One page (400 words) paper on any game you want, include 3 mechanics of the game. (4%)
- Three page (2000 words) paper comparing 3 games from one genre, game series, or theme. (12%)
- Two oral field reports (5 minutes each) on games you investigate, one page of handwritten notes, 3 screenshots in a slideshow each. (8%)

Class participation

(10% of grade)
- In-class activities. Activities for each day may or may not be recorded, lowest score dropped.
- In-class discussion of *Game Studies* journal articles.

Tutorials

- Two GameMaker tutorial assignments (3% each)

Academic Integrity

Of course, academic integrity is expected of all students. Signing a name not your own on work turned in is academic dishonesty and will be reported to your college for disciplinary action. All answers on quizzes should come from your memory of course material. All ideas and writing in the game analysis essays should be yours unless credited to others (and properly cited). All project work presented as yours should be carried out by you. And so on.

Accomodations

If you qualify for classroom accommodations because of a disability, please submit your Accommodation Authorization from the Disability Resource Center (DRC) to the professor during his office hours in a timely manner, preferably within the first two weeks of the quarter. Contact DRC at 459-2089 V, 459-4806 TTY, http://drc.ucsc.edu/.

Illness or Emergency

The UCSC health center does not provide medical excuses. In recognition of this, you should simply email your instructor before any lecture or lab meeting that you are too ill to attend. Every student, regardless of illness, will have their in-class quiz with the lowest grade dropped from the grading process. If you miss more than one quiz/activity due to illness, please contact the instructor. Similarly, if an assignment will be unavoidably late due to illness, please contact the instructor. The same policies apply for family emergencies, transportation failures, and so on.

Team Problems

If you are having issues with your project partner, please let the instructor know as soon as possible. Learning about working together as a team is an important part of this course — and learning isn't always easy. In general, the following policies apply.

First, if partners want to swap in the first few weeks of the project, that's fine as long as everyone is happy with the swap (requires everyone involved posting to Piazza announcing the swap and their agreement).

Second, if teams want to break up in the first few weeks (without a mutually agreed swap that ends up with two-person teams) there needs to be a clear reason. For example, one team member refusing to do their share of the work, even after direct discussion of the issue. Whatever the reason is, it needs to be established to the satisfaction of the instructor, presumably through meeting with the instructor at office hours or during lab time. When a team breaks up for this kind of clear reason, the former team members can join existing teams (though three-person teams are held to higher standards), form new two-person teams, or in rare cases do a solo project (with lower expectations).

Third, after the first few weeks, teams are fixed (unless one member drops the class, leaves school, etc). However, if your partner is not pulling their weight, you should still let the instructor know. We may be able to meet with you to intervene, and we may also be able to do differential grading (which will not be possible if you complain after the project is done).