Video Games and Education Syllabus

MSTU 4039.001

Jessica Hammer

Course Overview

This course is called *Video Games in Education*, taught by Jessica Hammer. We will meet every Monday from 3pm until 4:40pm. You should be taking this course if you are interested in making thoughtful games, playing games thoughtfully, or evaluating the social, cultural and educational impact of games.

This course has two main goals.

First, this course will provide you with the tools you'll need to understand, analyze and build games. These tools aren't technical in nature; if you want a programming course you should look elsewhere! Instead, this class will focus on gaining an understanding of rules, interactivity, play, social interaction, and all the other factors that go into making an innovative game – and making it fun to play. You will learn the basic language of games: game play and game design. You wouldn't try to analyze a sonnet, or compose one, without knowing how to read or write! Well, we'll be learning how to read (play) games and write (design) games, so that you can analyze or compose games on your own.

Second, this course will provide you with an overview of educational theories that relate to games. We will be taking three main theoretical perspectives to games and play during this class: cognitive, social and persuasive. While this class cannot provide an exhaustive investigation of all of educational theory, we will explore the way that these three frameworks allow us to design educational games that go beyond "drill and kill." Whether you want to explore the applications of existing games to learning, or create learning games of your own, this class will let you engage with games in all their richness and complexity.

However, a note on the educational philosophy of this course: we will focus on games and play as opportunities for *learning* – something which can happen in or out of the classroom – rather than teaching. While we'll be discussing classroom-based games, content delivery and standards will not be the only measures of success in an educational game that we'll use. Instead, we'll be using definitions of education that include learning social and leadership skills, developing awareness of new knowledge domains, building inquiry tools, and practicing independent problem-solving skills. Come with an open mind about what learning means!

Finally, be prepared: this will be a difficult and time-consuming class. If you want to learn how to play games, you must be prepared to put in the time to play a variety of games and to reflect on your play experiences. If you want to learn how to design games, you must be prepared to work with an iterative design process, to take the time to play-test, and to re-work ideas that just aren't fun. On the bright side, play is both entertaining and social. All of the assignments involve group work, and you're encouraged to involve

friends and family in your new gaming life. Hopefully, the hard work of this class will also be hard fun!

Administrivia

To be prepared for this course, you will need to do a couple of things:

- Visit the course website on Classweb. All handouts and other materials will be available there.

- Acquire the course textbooks. (See the section on readings below.) If you're short on cash, the reading assignments from *The Game Design Reader* are fairly short and can easily be done in the library or the EGGPLANT lab. However, I would recommend that you all buy a copy of the Gee book, which is relatively cheap and worth reading in full.

- Get hold of some games! You're welcome to use any games you own, borrow, buy or share as research material for the class. A wide selection of games (both digital and non-digital) are available for use in the EGGPLANT lab, 50A Thorndike. Finally, you may wish to join a game rental service such as Gamefly, or look for games online at Funagain which has quite good prices.

Workload and Grading

Grades are calculated for this course as follows:

Game design assignments		70%
Iterative (2)	Group	25% each
Lightning (2)	Solo	10% each
Play analyses	Group	10%
Digital design proposal	Solo	20%

One grade will be calculated for each group project, based on the quality of work submitted. Most members should expect to receive the same grade as the group. However, your grade may go up or down compared to the group's grade depending on your group participation. At the end of each project, every student will complete a brief evaluation of every member of their own group (including themselves). I will use these evaluations to modify individual grades as necessary.

Individual grades will be assigned for the design proposal and lighting designs, much as in your other classes.

Finally, your final grade may go up or down as much as a full grade based on your class participation. Class participation means doing the readings and any specific play assignments; participating in class discussions; and providing other groups with concrete and useful critique during in-class design workshops.

Each of these assignments will be explained in more detail below.

Iterative Game Design Assignments

You will design two games during this class, working in small groups. By "design" I mean that you will create a set of rules for players, rules that invite fruitful interactivity and interesting play. I do not mean visual design, programming, or content creation; in fact, your games must be **non-digital**. The goal of these exercises is to teach you how to make a good, playable game. That is hard enough to do without worrying about how to program in Java or researching the Byzantine Empire!

For each game, you will be submitting four things: a game, a paper on the game's relationship to educational theory, a process document and a group evaluation document. All of these materials will be created *by your group*. Your group will have to decide how to divide up the work for each project you undertake.

> *Game Design*
> You will need to hand in the rules of your game, written clearly enough for a stranger to pick them up and play. You will also need to hand in any materials that are needed to play the game, unless those materials are ubiquitous (such as playing cards or dice).
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> The game will be graded on two factors: originality and playability. Is your game original or derivative? Have you thought about the mechanic, or is it borrowed from Trivial Pursuit? Is your game fun to play? Does one player always win? How does your game push the boundaries of play?
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> *Educational Theory*
> You will submit a three-to-five page paper explaining how your game invokes the educational or psychological theories we have investigated during the course. Your paper may critique or agree with these theories, but it should address them in some way, while using specific elements of your game design to do so.
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> Your educational theory paper will be graded on two factors: use of educational theory and connection to your game's design. Did you use the theories we've investigated in class, or other theories you find interesting? Does your game invoke these theories in a sophisticated way? Does the paper make explicit the connections between knowledge and play under the models you've tried to invoke? Does the paper address the real-world circumstances in which your game might prove to be more (or less!) educational?
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> *Process Document*
> You will write a two-to-three page paper describing the process of your game design and development. Where did you begin with your design? What changes did you make as you went along? What did you learn from your play-testing?

This document will be graded on evidence of an iterative design process, and on the improvement that your game made from its initial to its final version.

Group Evaluations
This is the only document that you will write and submit as an individual. In a paragraph (at most!), evaluate the contributions of each group member, including yourself. This is to let me know whether all team members are pulling their weight, so that I can adjust grades accordingly. You will not be otherwise graded on these evaluations.

You will be expected to demonstrate each game in class on the days where "Game Workshop" is listed as an in-class activity. Be prepared to have volunteers play your game, and participate in group feedback and critique!

Lightning Game Design Assignments

A lightning design assignment works much the same way as an iterative game design assignment, but has a much shorter time-frame and includes fewer submission requirements.

There will be two lightning game assignments during this course. For each assignment, you will have twenty-four hours from receiving the assignment (by email, at a time of your choice) to complete a first draft of a game. You may include any theoretical or process notes that you think I will need to understand how your game functions, but the game should stand alone. You will submit only your rules and any necessary materials to me.

Lightning designs will be graded on four factors: originality and playability, as described for the iterative assignments above; address to premise, meaning how it supports the communicative core of the assignment; and risk-taking. These assignments are designed to push you to the edge of your creative capacity!

Play Analyses

Along with each of the iterative game designs, your group will be expected to hand in five play analyses, for a total of ten analyses during the whole class. These games must be chosen from the list distributed along with this syllabus. In each unit, you must play at least one digital and one non-digital game, and no two games in a particular unit should come from the same list.

You may divide up the required gameplay in any way you please, but your group must meet to discuss the play analyses that you will turn in.

- One paragraph describing a moment, experience, rule or character that you thought was important to the game. What did you think mattered? Why did you

think so? How did the rules, characters or moments in question function? Be critical and specific. Don't hesitate to draw on your own experience during play, but do try to generalize from that experience as well!

- One paragraph about whether you think this game has, or could have, educational potential, and under what circumstances.
- One paragraph about how this game inspired you, positively or negatively, as a game designer.

You *do not* need to describe how the game works; I am familiar with all the games on the list. These analyses are meant to be critical, not just descriptive.

Note that there will likely be games that you have played before on the lists we distribute. I strongly encourage you to play games that you have never played before, as broadening your game experience can only make you a better designer.

If you would like to play a game that isn't on the list, please run it by me so that I can either approve the game or help you find another option.

Digital Game Proposal

As your final project for this class, you will propose a digital educational game that addresses an area you are particularly interested in. Your proposal should clearly explain what educational issue you want to address, who your target audience is, how your game will be distributed, and what educational theory it is grounded in. Additionally, you must include a description of the game's design, so that I can understand not only what you want to achieve, but how you think you might achieve it.

Sample documents will be handed out later in the semester to help you learn how to write a digital game proposal.

Readings, Playings and Discussion

Readings will be assigned each week, either from the course textbooks or online. You are expected to finish the reading before class each week, and come prepared to discuss it with your classmates.

You will also be assigned play assignments as part of the course. You must play these games for a certain length of time, play a certain number of games, or complete a certain number of levels. Your group may write gameplay analyses on these games. You are also expected to come to class prepared to discuss these games in detail with your classmates.

In addition, your active participation in class discussion, particularly game critiques, is an important part of this class. Come prepared to share your ideas – we want to hear what you have to say!

Readings

There are two required books for this class: *The Game Design Reader,* edited by Katie Salen and Eric Zimmerman, and *What Video Games Have To Teach Us About Learning And Literacy*, by Jim Gee. Copies of both books will be available in the EGGPLANT game research lab, located at 50A Thorndike. In addition, the books are available from Amazon and from the TC bookstore. All other readings will be available online.

In addition, I suggest that you follow at least one online gaming website to read about news in the game field. The ones I recommend are as follows:

- Games, Design, Art, Culture (http://www.costik.com/weblog/), the game-related weblog of Greg Costikyan, respected designer of digital and non-digital games
- The Escapist (http://www.escapistmagazine.com), an online magazine with an interesting new take on games each week
- Terranova (http://terranova.blogs.com), a group blog about massively multi-player games and virtual worlds
- Water Cooler Games (http://www.watercoolergames.com/), a site logging development of games in spheres outside the purely entertaining

Of course, there are plenty of other game sites out there, and if you find one that you prefer, please follow that instead! However, be sure to choose one that includes *reflection* about games, not just news. Reading about the release of the hottest new games is not going to help with this class; thinking about games critically and carefully will.

Course Policies

Collaboration policy
For the games and the play analyses, all members of the group are expected to participate equally in the work. Collaborate as much as you like; you can't go wrong! However, groups should be cautious of borrowing their game mechanics too closely from familiar games. Just as a writing class wouldn't let you copy from Hemingway, this class discourages games which are too similar to Monopoly, Scrabble or other popular pastimes. Don't worry, though – I'll let you know if your game is inadvertently plagiarizing in plenty of time to revise it!

The only assignments which should be completed individually are:
- the group evaluations, which are private and should be submitted by email directly to me
- the lightning designs, which may be completed individually or as teams of two
- the digital game proposal, which will be completed individually as a final project

Disabilities policy
The College will make reasonable accommodations for persons with documented disabilities. Students are encouraged to contact the Office of Access and Services for

Individuals with Disabilities for information about registration (166 Thorndike Hall). Services are available only to students who are registered and submit appropriate documentation. As your instructor, I am happy to discuss specific needs with you as well.

(Can you tell this is official university policy language? So let me rephrase: let me know what you need, and I will do everything I can to help you succeed in this course.)

Lateness policy
All assignments must be handed in at the beginning of the class in which they are due. There will be no extensions given on any assignments except in extreme extenuating circumstances.

In addition, groups are expected to have playable drafts of their games for the workshop classes. Every group's game will be shown in class as part of a game workshop, whether or not it is complete. Failure to bring a draft to the workshop will be penalized, as you will not have an opportunity to critique and discuss your game with the whole class.

For your information, the following is the University policy regarding incompletes:

> The grade of Incomplete is to be assigned only when the course attendance requirement has been met but, for reasons satisfactory to the instructor, the granting of a final grade has been postponed because certain course assignments are outstanding. If the outstanding assignments are completed within one calendar year from the date of the close of term in which the grade of Incomplete was received and a final grade submitted, the final grade will be recorded on the permanent transcript, replacing the grade of Incomplete, with a transcript notation indicating the date that the grade of Incomplete was replaced by a final grade.
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> If the outstanding work is not completed within one calendar year from the date of the close of term in which the grade of Incomplete was received, the grade will remain as a permanent Incomplete on the transcript. In such instances, if the course is a required course or part of an approved program of study, students will be required to re-enroll in the course including repayment of all tuition and fee charges for the new registration and satisfactorily complete all course requirements. If the required course is not offered in subsequent terms, the student should speak with the faculty advisor or Program Coordinator about their options for fulfilling the degree requirement. Doctoral students with six or more credits with grades of Incomplete included on their program of study will not be allowed to sit for the certification exam

I warn you that I will be hesitant to grant incompletes, or to allow extensions past the last day of class for anything short of an emergency.

Two credit policy
Students who take this class for two credits must participate in two game assignments and write ten play analyses, ***or*** complete one game assignment, five play analyses, two

lightning designs and the final project. Two-credit students must also complete all readings and play assignments.

Students taking the course for fewer than three credits will still be judged by the same standards as students taking the course for full credit. You will have fewer assignments to complete, but I expect that you will participate fully in each assignment as well as in **all** class discussions.

Contact Information

The best way to reach me is by email: my email address is jh2354@columbia.edu. I will do my best to answer course-related email within 24 hours on weekdays and 48 hours on weekends.

The second-best way to reach me is to come to my office hours. I will be available after class to answer questions. I will also hold office hours on Mondays from 1pm to 3pm in the EGGPLANT Game Research Lab, 50A Thorndike.

Finally, if you can't come to office hours, I can make appointments to meet with individual students. Please make an appointment by email, or by speaking to me after class.