

Games and Simulations in Education – ETT 592

Course Description

An exploration of the broad and emerging field of “Game Studies” including implications of digital games and simulations in education, how players learn from games and simulations, as well as related psychological, social, and cultural issues.

Prerequisites

ETT 429 (or consent of instructor). The purpose of this prerequisite is to assure that you have basic computer proficiency and some minimal experience reviewing and evaluating educational software.

Course Content

1. Theoretical and practical application of games and simulations to education.
2. Psychology of games, simulations, and learning.
3. Principles of learning from games and the implications for education.
4. Evaluation of games and simulations for learning
5. Design of games and simulations for learning, theoretical and practical.
6. Cultural, social, and ethical issues related to games, simulations, and learning

Course Objectives

Students will be able to:

1. Discuss and apply the literature regarding games and simulation in education.
2. Demonstrate an understanding of the learning psychology issues related to learning from games and simulations including attention, motivation, engagement, and personal and cognitive development.
3. Demonstrate an understanding of the cultural, social, and ethical issues related to games and simulations including social interaction, peer relationships, cultural movements, crime, and violence.
4. Evaluate games and simulations for educational potential based on accepted and emerging research models.
5. Discuss strategies for transferring consumer game or simulation-based learning principles to content-based educational software.
6. Discuss strategies for transferring game or simulation based learning principles to non-digital educational experiences.
7. Reflect on educational implications such as learning, engagement, challenge, control, and motivation.
8. Demonstrate an understanding of the process of game and simulation development from a commercial perspective.
9. Relate games/simulations and their implications to education in all settings including home, P-12, higher education, technical studies, and corporate environments.

Course Requirements

More specific information regarding these requirements will be discussed in class, however, here is a summary:

1. *Small projects (10%)*

You will create small products based on activities conducted in class. The results of these activities will often be presented and discussed in class, with the presentation as part of the grade. These projects will become part of the class portfolio.

2. *Reflective Reading Responses (30%)*

You will be required to read weekly. Readings will include the primary text, approximately one assigned article per week, and approximately six self-chosen articles during the semester. Reading reflections will be documented on Blogger and shared with the class during

discussion.

3. *Reflective Game Play*(20%)

In groups of two or more, you will choose a single game to play during the semester. Two hours per week of reflective game play outside of class will be required. If you finish the game, your group may select another. Game play reflections should focus on the major themes we identify should be connected to readings (especially Gee) and will be posted to Blogger. “Metagame” discussion amongst group members (on Blogger) is required.

3. *Major Project* (40%)

Beginning the fifth session of class, you will design and execute a project consistent with the themes identified in the class. Ideally, the product will address a real need (yours or someone else's), rather than being just another class project. If you can identify no real need, or you have difficulty selecting a topic, I may be able to help you find a project within the College of Education. You are NOT required to develop a game, though you may do so. Other examples of projects include designs of educational games, integration of a commercial game into a traditional educational setting, game evaluation tools, research projects, and literature reviews on game/simulation related topics in the students context (business, K12, higher ed, etc.).

Course Grades

Grading will be based on the full participation in the collective construction of knowledge, meaningful contributions to discussions in all formats, and adherence to the course requirements. All written material (design and production documents) is expected to reflect graduate level writing. I will review your final project with you during each class session after the fourth to gauge your progress and offer assistance.

Graduate Level Grade Definitions

A = outstanding work, you've pushed the envelope for yourself

B = fully acceptable work, but most likely not your best

C = deficient work, below standard, reflecting lack of effort

D = unacceptable for graduate credit

Incompletes can NOT be given except in circumstances demonstrably beyond your control by department policy.

Project Grading Criteria

Grading Criteria/Rubrics will be provided to as you begin to design your projects.

Feedback

My expectation is that every class member will produce outstanding work. Deficient, even just acceptable work should not occur in a class like this. I expect to provide regular feedback to you as your work progresses. There should be no surprises or disappointments at final grade time. At the same time, I need your honest feedback as well. I can only help you to attain your own goals if I know what is or is not working. Never hesitate to ask. I will do everything possible to make this an enjoyable and valuable experience for you.

Course Materials and References

Required Text:

Gee, J. P. (2003). *What video games have to teach us about learning and literacy* (1st ed.). New York : Palgrave Macmillan.

Recommended:

Prensky, Marc. (2001). *Digital game-base learning*. New York: McGraw-Hill.

Novak, Jeannie. (2005). *Game Development Essentials: An Introduction*. New York: Thomson Delmar Learning.

Wikispaces and Blogger

This and other important documents will be posted on the course wiki (<http://ett592.wikispace.com/>). The course calendar will also be updated regularly, please check at least weekly for updates and announcements.

This course relies heavily on your reflective interaction with course materials including games, readings, activities, and discussions. Your reflection will be facilitated using an electronic journaling system, a weblog or “blog.” We will be using Blogger for this purpose.

More on Wikispaces and Blogger below.

Guidance for weekly reflection will be posted on the course wiki, including links to everyone's weblog. This is my first extensive experience integrating a wiki and weblogs, if this proves ineffective for our purposes, we certainly may fall back on BlackBoard or some other combination of technologies.

Instructor Caveat

I will facilitate *our* learning this semester by guiding the learning activities, discussions, and calling upon others' expertise. If you need more or less or have a better idea, please feel free to share. Things may not always be as smooth as we all might like, please join me in being flexible.

Attendance

Promptness and attendance at each class session, is extremely important. If necessary, students may miss up to two class sessions without suffering any grade penalty by completing make-up activities. Prior notice of absence is required except in emergency circumstances for make-up purposes. Excessive, persistent tardiness is not only rude, but not fair to the class and therefore will not be tolerated.

Course Schedule

Given the nature of this course, an exact timetable is difficult to specify. However, we will start with Gee and some foundational and theoretical issues before moving into teaching and application and finally to projects.

Tentative Course Schedule

Date	Topics/Activities	Assignments Due
Unit 1: Defining the Field		
August 28 th	Course Introduction The history of digital games activity Introduction of Readings for week: Gee, Squire Game Selection Breakdown of Game Activity	
September 4 th	Labor Day: No Class	
September 11 th	Reflective Game Activity RGA Discussion Reading Discussion Defining the field activity and presentations	Squire Reading Read "Gredler" Optional Reading: Gee Chapters 1& 2 Reading Reflections Choose Game for Reflective Game Play/Reflection
Unit 2: Games and Thinking		
September 18 th	Reflective Game Activity RGA Discussion Reading Discussion	Read Gee Chapter 3 Read "Motivation" Reading Reflections Game Play/Reflection
September 25 th	Reflective Game Activity RGA Discussion Reading Discussion Presentation of Student Selections	Read "Flow" Paper Read "Student Selection" Reading Reflections Game Play/Reflection
Unit 3: Games and Teaching and Learning		
October 2 nd	Reflective Game Activity: Games RGA Discussion Reading Discussion Evaluation Activity	Read Gee Chapter 4 Read "Applications" Paper Reading Reflections Game Play/Reflection
October 9 th	Reflective Game Activity: Simulations Guest Speaker: Simulations RGA Discussion Reading Discussion	Read "Aldrich Chapter" Read "Student Selection"

October 16 th	Reflective Game Activity: Virtual Worlds Guest Speaker: Second Life Building in Second Life Discuss Project	Read Gee Chapter 5 Read Quest Atlantis or “MMORPG”
Unit 4: Games and Society		
October 23 rd	Reflective Game Activity RGA Discussion Reading Discussion	Read Gee Chapter 6 Read “Student Selection”
October 30 th	No Class Project Work Time	Read Gee Chapter 7 Project Ideas Due
November 6 th	Reflective Game Activity: Corporate Training Student Selection Theme Groups Theme Group Presentation	Read Gee Chapter 7 Read Beck and Wade Chapter Read “Student Selection”
November 13 th	Lloyd Rieber Presentation	Read Gee Chapter 8
Unit 5: Game Development, Research, and Evaluation		
November 20 th	Reflective Game Activity Modding Activity RGA Discussion Game Programming/Game Engines Reading discussion Project Consultations	Read “Modding” Project Work
November 27 th	Portable Gaming Activity Game Research and Evaluation Open reflection Plans for future studies	Read “Research”
December 4 th	TBD	
December 11 th	Project Presentations	

**More on
Wikispaces and Blogger**

The course wiki is located at <http://ett592.wikispaces.com>. This is a private wiki, available only to those who are invited (class members). Accounts have been created for class members and have been associated with the course wiki. The wiki should serve as a source of information and a stepping off point for activities while your blog will serve as the tool for facilitation of most of your reflection. Your weblog has a unique address and has also been created for you. We will discuss details in class. Record your login information as well as your blog address. Blogs are NOT private. Write reflections based on your readings and gaming experiences considering that blogs are available to anyone with an Internet connection. You may, however, alter the settings (user name, display name, title, etc) of the blog so that it does not in any way identify you personally.

Official Business

Winter Weather, Travel, and Class Cancellations

To learn about official NIU status, a weather status line is available:

752-OPEN (752-6736) or 1-888-4NIU-OPEN (1-888-464-8673) toll-free. Unless the university closes officially, you may assume that I will be here for class when scheduled. If something were to necessitate my canceling class on a date not announced in advance and not part of an official closing, the IT office will make every effort to contact you by email as early in the day as possible.

Disabilities Accommodation

Northern Illinois University abides by section 504 of the Rehabilitation Act of 1973, which stipulates that no student shall be denied the benefits on an education solely by reason of a handicap. Disabilities covered by law include, but are not limited to learning disabilities and hearing, sight or mobility impairments. If you have a disability that may have some impact on your work in this class and for which you may require accommodations, please discuss your needs with me so that such accommodations may be arranged.