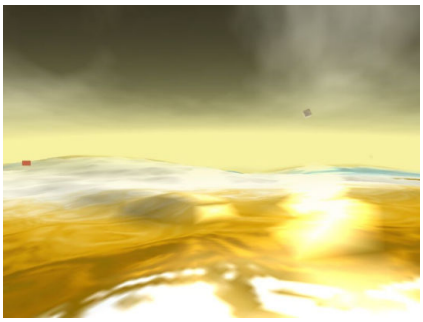
Miami University: Game Design



Course: IMS455 Game Design	
Term: Fall, 2009	**Meeting Time**: M/W 12:30 – 2 pm
	Location:
Instructor: Lindsay D. Grace	
Office Phone:	Email:LGRace@muohio.edu
Office Address: Hiestandt 206	
Office Hours: Thursday 2-5 pm and by appoointment	
Support Site: http://Miami.LGrace.com	

Course Overview:

This course develops theoretical foundations, methods and skills in building gaming environments. It serves as both a survey in game design and a practical introduction to computer game production. Students will design and develop a game of their choosing under the general supervision and guidance of the instructor.

Game design sits in that ephemeral space between the practical sciences and the imaginative arts. As such expect both sides of your brain to be taxed as we discuss and develop computer games. Good game designs intersect computer science, psychology, art and a little bit of magic.

Depending on the prior training and experience of class members, emphasis will be placed on 3D game development or the design and communication of a complete game.

Learning Outcomes

Upon successful completion of this course, students should be able to:

- Appropriately articulate game designs informed by theories of entertainment and engagement
- Realize game designs in digital and non digital prototypes
- Identify and use appropriate technology for the construction of a digital prototype
- Research and evaluate designs based on author stated objectives and a design's ability to engage its intended audience
- Employ and understand the standard processes for creatively solving challenges in entertainment software design
- Contextualize current and historical play trends to inform future designs
- Consider the effects of demographics, psychographics and techno graphics on the reception and success of entertainment software
- Employ the processes of game design and production to create a small-scale game or vertical slice
- Work within a design team to create an engaging entertainment product

- Apply fundamentals of interaction design to perpetuate engagement of an audience
- Appreciate the effects of non-traditional interfaces on a gameplay experiences
- Appreciate the range of entertainment software, including art games, educational games, and traditional commercial titles
- Identify historically significant game designs and game theorists

Required Textbook:

No text is required for this course, instead we will be drawing on historical and contemporary resources in game design theory and practical game building.

Resources will be provided in class and when appropriate, through the following websites:

- http://Miami.LGrace.com
- Blackboard

Required playing:

In lieu of substantial reading, students will be required to play a game readily available on the web. Most games must be played on a Windows XP or newer machine. Students are encouraged to play the required games in groups. Much like a film course requires viewing; this course requires "playing." Even if you have played the required games, you must play them again for the class. In-class discussion and reading should help re-contextualize your game playing experience.

Please review the provided list of games to play. It is best to give yourself plenty of time to setup each game.

Suggested Texts:

If you are particularly eager to develop your library of game design related reading, I would suggest the following texts:

Rules of Play, Katie Salen and Eric Zimmerman, MIT Press

Rollings and Adams on Game Design, Andrew Rollings and Ernest Adams, New Riders Press

Expectations:

This is not a computer science course. No student will be expected to program. As the title of the course implies, all students will be expected to design and develop their skills in their chosen area of expertise. Students are expected to be creative designers.

Students should take this opportunity to develop their portfolios within their majors. A graphic design student could take the opportunity to develop engaging print material in the design of their paper prototypes, while a computer science student could take the opportunity to practice graphics programming.

As with most education, this course is about finding opportunities, taking them and learning from the experience.

Assignments:

30% Mini Game Design Documents (M GD-D): The design document is one of the game designer's most fundamental tools. As such, students will be expected to create three small game design documents in the class. Game Design documents take many shapes, from encyclopedic volumes to simple outlines. We will bias toward clearly written, simply outlines. Please review the soon to be supplied primer on Game Design Documents for more details.

Each game design document will be scored by the instructor, and at least 2 students in the class.

20% Paper Prototype: A paper prototype is a low cost design tool for evaluating the potential of a digital game design. You will complete one paper prototype for this course.

30% Playable Prototype: After receiving feedback on 3 game designs documents, producing at least one non-digital prototype and learning about game design for 10+ weeks you will produce a digital game. The means of production are entirely up to the student. If you have programming experience and earning more programming experience benefits your education, please program. If you would prefer not to program, there are several tools available for click and drag production of games. Depending on the type of game you would like to produce a vertical slice, might be appropriate. Game designs can include modifications to existing games, but please clear your plans with the instructor before you commit to your plan. Some modifications may not be substantial enough to warrant full credit.

10% Participation: Participation is evaluated by a student's in-class communication, teamwork and attendance. Students will accrue a weekly score of high participation (asks thoughtful questions, attempts to answer other student questions, offers new references), average participation (responds when asked, occasional seeks new knowledge in class) or no participation (are you "in the class"?). These scores will be averaged to calculate a final participation score.

10% Peer Evaluations: Students will provide peer feedback on assignments through a standardized form offering quantitative and qualitative feedback about their design. Design evaluation will be provided to the authors of the evaluated work. Students are expected to communicate clearly and honestly. To preserve anonymity reviewers must supply their reviews in an envelope with their name on it. Once the instructor reviews the log, it will be removed from the envelope and forwarded.

Please review the supplied individual assignment grading rubrics for more details on how your works is graded.

Estimated Homework Hours:

Between, designing, reading and playing games expect at least 3-6 hours a week. Depending on your abilities and the nature of the game your team chooses to create, this class may take more time.

Score Breakdown:

Mini Game Design Document	30% total (10% each)
Paper Prototype: (midterm project)	20%
Playable Prototype (final project):	30%
Review of Peer Student Work:	10%
Participation:	10%

Score Bonuses:

The student group with the **best final game design and implementation** in the course will receive an automatic "A" for the course. The final evaluation will be judged by a variety of players.

Each of the highest rated game designs document assignments will receive 5% bonus toward their final grade. There will be one best of show per assignment, for a total of 15% total grade bonuses. This is similar to a time trial sprint bonus.

Extra Credit Policy: Generally there will be no extra credit.

Point Score range	Final Letter Grade
93 and above	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
64-66	D
Below 64	F

Course Schedule (subject to change)

	Topic(s)	Due
Aug. 24th **Week 1:**	Introduction **Game Studies:** Definitions and Framing Games	• Huizingha - Homo Ludens (Introduction: pages 1 -25) • Zimmerman - What is a Game (Chapter 1)?
Sept. 31st **Week 2:**	**Game Studies:** Basic History Contemporary Production Models	• Zimmerman - Why Do People Play Games (Chapter 2)?
Sept. 7th **Week 3:**	**Game Studies:** Game Design and Culture **Labor Day – Sept 7 – no class**	• Salen and Zimmerman: Meaningful Play – (Chapter 3) Zimmerman- The Game Design Sequence (Chapter 5)
Sept. 14th **Week 4:**	**Game Design Theory:** Defining Fun & Constructing Play	• **Due: Mini Design Doc 1 & Two Minute (Max) Presentation** Rollings and Adams: Gameplay (Chapter 7)
Sept. 21st **Week 5:**	**Game Design Theory**: Defining Fun & Constructing Play	• **Due: Review of Mini Design 1**
Sept. 28th **Week 6:**	**Game Design Theory**: Gameplay	• Rollings and Adams: Commercial Game Design Process (Chapter 2)
Oct. 5th **Week 7:**	**Game Design Theory**: **Situation and Storytelling**	• Freeman - Excerpts from Creating Emotion in Games • **Due: Mini Design Doc 2 and 1 Minute Presentation**
Oct. 12th **Week 8:**	**Game Production**: Storytelling	• **Due: Review of Game Design Doc 2** **No reading – work on your paper prototype**
Oct. 19th **Week 9:**	Interface	• **Due: Individual paper prototype / non-digital design – we will play in class.**
Oct 26th **Week 10:**	Game Learning	• **Reading: Game Audience and the Chasm**
Nov 2nd **Week 11:**	Alternate play	• **Due: Design Doc 3 and 1 Minute presentation**
Nov 9th **Week 12:**	Production: Game Building Technologies	• All: **How to Prototype a Game in 7 Days** • Dev track: **Overview of Game Building Tools** or Art track: **The Game Development Pipeline**
Nov 16th **Week 13:**	Production: Game Building Lab	"Delta" • Reading: Letter from EA Spouse

Nov 23rd **Week 14:**	Production: Game Assets	Thanksgiving Break
Nov 30th **Week 15:**	Production and Evaluation	"Delta"
Dec 7th **Week 16:**	User Study lab and game presentations	**Due 5 Minute (max) Game Demo** Salen & Zimmerman: The Future of Games (Chapter 22) Classes end
Dec 14th **Week 17:**	Finals Week	**Final game due** at exam period– feel free to hand them in earlier ☺

Course Policies

All students must adhere to the guidelines set forth by the Miami University handbook.

All assignments are due at the beginning of the class. Assignments are typically shared in class, so failure to complete your assignments effects the entire class.

Students should always keep a backup copy of their work.

Late Assignments

No late assignments will be accepted. In this course, assignments build on the previous. Failure to complete prior assignments will make each subsequent assignment more difficult. It is in your best interest to complete each assignment on time and to the best of your ability. Always hand in what you have, even if it does not work. **Partial credit is better than no credit at all.**

Attendance / Absences:

Students are expected to attend each class and arrive on time. Any student arriving late for an exam or quiz may not be given a chance to complete it.

Late assignments are not accepted unless they result from an excused absence. Excused absences are limited to documented medical emergencies and events for which the instructor has given approval. All students are expected to communicate planned or unplanned absence to the instructor's email as soon as possible.

Any student accruing more than a 20% unexcused absence rate will receive a full grade deduction. If, for example, a class meets 10 times during a semester, the student's third absence will result in a best potential grade of "B." A student who accrues 30% or more unexcused absences will fail the course.

Makeup exams and acceptance of late assignments will only be granted in the following

circumstances; Medical excuse, emergencies (as understood by Miami University Administration), campus-sponsored activities.

All planned absences should be clearly explained in an email sent to the instructor before the student misses the class. The instructor will reply indicating whether or not the absence is excused.

All issues of attendance and tardiness will be handled as school policy dictates and at the discretion of the instructor.

Correspondence:

All students are expected to check their Miami University supplied email daily, or forward email to an account they do check daily. The instructor's email address is LGrace@muohio.edu. Correspondence can also be sent at http://Miami.LGrace.com.

In Class Conduct:

In-class web surfing, email, electronic chat, text messaging, or related behavior is prohibited during class meetings.

Please be attentive to people comments and engage yourself in class.

We will likely play a few games in class. Please participate when asked, and stop playing when instructed to do so. Most games will be made available for students after class if they are interested in playing them further.

If you are uncomfortable with the behavior, language, content, or the classroom environment please address the instructor personally or through email at your earliest opportunity. The world of game design includes a variety of "hot button" topics, open discussion of these topics may contribute greatly to your education. The classroom environment should remain an open, engaging environment in which all students are encouraged to learn.

No recording (audio or visual) of this class may be made without the prior written consent of the instructor.

Statement of Community and Non-Discrimination: Miami University is committed to fostering a supportive learning environment for all students irrespective of individual differences in gender, race, national origin, religion, handicapping condition, sexual preference or age. Students should expect, and help create, a learning environment free from all forms of prejudice. If disrespectful behaviors occur in class, please seek the assistance of your instructor or the IMS director.

Disability Support

Students who have any disability, either permanent or temporary, which might affect their ability to perform in this class, are encouraged to inform me immediately." (If a student self-identifies, please contact the Rinella Learning Center (9-8741). Website: http://www.units.muohio.edu/saf/lrn/

Cheating and Plagiarism:

Any student that cheats or plagiarizes will be reported to the academic standards committee and may be dismissed from the course. A student may be considered in violation of cheating and plagiarism policy if they present the work of others as their own, even if the work is provided through multiple online and print resources. Much like a writing course, students involved in developing, programming and related activities should attribute their work by stating the resource from which the work was derived. This is common practice in industry. Examples of such attribution are provided below:

```
/*  Derived from Craig Reynold's Boids Flocking Behavior as specified on pp.
48-52 of Great Game Algorithms, ISBN 1233131321  */
```

```
At the start of your game: This game is a modified version of the Zorkster
computer game released by Sarah Smith.  The images and storyline were
changed; all other content was authored by Sarah Smith.
```

All homework is to be completed independently (except when told otherwise). Any student who is caught or suspected of working in conjunction with any other student will be penalized. Using lines of code borrowed from any source other than the prescribed book for this course will be considered plagiarism unless the student clearly credits their source. Do not use websites, message boards, chat rooms, or other related resources to solve homework problems with attributing your source.