Miami University: Game Design

Course: IMS445 Game Design

Term: Fall, 2011	**Meeting Time**: T/TH 9:30-10:45 AM
	Location: Benton 9
Instructor: Lindsay D. Grace	
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Office Hours: Tuesday-Thursday 11-12:30 am and by appointment	
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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.   Students will work in game studio modeled teams.

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 (including considerations for usability, accessibility, and ergonomic principles)
- Contextualize current and historical play trends to inform future designs
- Analyze the effects of demographics, psychographics and technographics 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
- Analyze the range of entertainment software, including art games, educational games, and traditional commercial titles
- Identify historically significant game designs, designers, and game theorists

Prerequisite Courses:

While there are no official prerequisite courses for IMS445, students are highly encouraged to complete IMS211 and IMS212. It is also expected that students have some experience in a game-making or game-art technology. Our school offers courses in 3D modeling, sound and music, game programming and interaction design. Students who are self-trained or have had training in these topics from other institutions are certainly encouraged to take IMS445.

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.

Many of the required games are available in the Kling Library Game Lab.

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 Document: The design document is one of the game designer's most important tools. As such, students will be expected to create one 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 of approximately 5 pages. Please review the supplied primer on Game Design Documents for more details.

Each game design document will be *scored by the instructor and voted upon by the entire class and others*. At least **two of the most feasible and popular game designs will be executed as playable prototypes in the course**.

20% Playable Prototype (Beta): The final project in the course is a playable prototype. Depending on the type of game you would like to produce the game may be implemented as a vertical slice or a more complete experience. The minimum experience must be at least 10 minutes of game play (all cut scenes, menus, etc excluded).

All prototype plans must be approved by the instructor. This is a group grade, given to the entire group – but "distributed" to each individual by the group.

30% Playable Prototype (Final): After receiving feedback about your design from the beta, you will be expected to revise or further develop your game. This is a group grade, given to the entire group – but "distributed" to each individual by group consensus.

5% 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.

5% Game Pitch Portfolio: Since teams will be somewhat self organized, each member of the class will be required to create a simply game design, development, art or management portfolio by the third week of class. The portfolios will be collected and distributed electronically to other members of the course. You may choose to create a PDF of sample work with a cover "resume", a website that links to work samples, or whatever approach best demonstrates how you can benefit a team. For those of you interested in breaking into the industry, this is a good chance to start your portfolio.

10% "Annual" review summary: Students will write a conscice document outlining their individual achievements during the semester. This document will articulate what the student has learned since the start of the semester. Depending on the student's role in the design and implementation team, this document may include a list of technologies practiced, design methods explored or soft skills executed. This document will be written similarly to employee's annual review.

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%
Playable Prototype(Final):	30%
Playable Prototype(Beta):	20%
"Annual" Review(final):	10%
Game Portfolio:	5%
Participation:	5%

Score Bonuses:

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

The top 3 rated game design documents will receive a 5% bonus toward their final grade.

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
Week 1: 8/23 -8/25	**Introduction to Game Design and Development as Formal Process**	*Careers in the Industry*- Chapter 1 and 2: File pages 26-42 (PP-5-20)
Week 2: 8/30 – 9/1	**Game Design Fundamentals** Who Does What? Writing and Sketching– Concept Docs	*Game Design Fundamentals* – Chapter 2: File pages 1-38, (pp36-72) Review Sample Game Design Documents
Week 3: 9/6 – 9/8	**Game-Making: Tools of the "Trade"** Art, Dev, Prototype, Audio	*Inside the Fun Factory* – Chapter 4: File Pages 1-18(pp 49-66) 9/8: Digital **Game Portfolio Due**
Week 4: 9/13 – 9/15	**Prototyping – Varied Design Patterns** *9/15: Prototype Lab – Review project pitches*	Required Play (see list distributed to class)
Week 5: 9/20 – 9/22	*9-20: Team forming and required play*	9-22: **Individual Mini Game Design Doc** with **Elevator Pitch Presentation**
Week 6: 9/27 – 9/29	Games as formal play - Play, Engagement, Player audience	*Immersion, Engagement, Presence*-Chapter 3: file pages 1-17, (pp 67-83) The Gamer Generation
Week 7: 10/4 – 10/6	Games as Rule systems - Defining rules – balancing the rails with the roam	Breaking Immersion in Games pages -1-4 *10/4: Mini Game Design Doc (rewrite if desired)*
Week 8: 10/11 – 10/13	**Gameplay Conventions and Standards: mortality, collecting, etc**	Postmortems: As Provided (based on student selected projects)
Week 9: 10/18 – 10/20	Interface	The pleasures of immersion and engagement: schemas, scripts and the fifth business (1-12) Excerpt: Game Interface Design (Cengage)
Week 10: 10/25 – 10/27	Storytelling	Selected Pages: Lee Sheldon and David Freeman
Week 11: 11/1 – 11/3	Storytelling Conventions and the non-conventional	Selected charts: Lee Sheldon et al
Week 12: 11/8 – 11/10	Games as Cultural Artifacts	Playable Prototype **BETA Due** – 5 Minute Digital Game demo
Week 13: 11/15 – 11/17	Games as Cultural Artifacts: Taboo Play	Taboo Game Design (shameless self promo)
Week 14: 11/22- 11/24		Thanksgiving Break
Week 15: 11/29 – 12/1	Final Prep – Work Week	Work Week
Week 16: 12/6-12/8	User Study lab and game presentations	Annual Review Due Individual meetings with instructor
Finals week: 12/15	Finals Week	**Final game due** 12/15/11 at 10:15am- final presentations during exam period

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.