



**The Illinois Institute of Art®
Chicago**

Course Title: Game Prototyping

Course Number and Section: GAD420

Term: Fall

Year: 2007

Number of Contact Hours: 6

Time: 8:00 am Tuesday and Thursday

Place: 180 N. Wabash

Instructor: Lindsay D. Grace

Office Phone / E-mail: lgrace@aii.edu

Website: <http://aii.lgrace.com>

Office Hours: As needed

Course Description:

In this class students will create and produce a game prototype demonstrating game design principles acquired in preceding courses. The culmination of course work results in students fine tuning their design, production and collecting skills as well as scripting and storyboarding.

Credit Value: 4 QHC

Course Length: 11 Weeks

Contact Hours: 66 (22 lecture, 44 lab approximate)

Prerequisites: GAD408, MAA320

Textbook:

There is no text, however required reading is posted at <http://aii.lgrace.com>. It is the student's responsibility to keep track of required reading.

Required Materials

- USB thumb drive or portable hard drive (for daily work)
- Recordable CDs for turning in digital assignments (3-4)
- Sketchbook, drawing pencils and drawing supplies
- Access to a PC formatted computer (no Macs)

Technology:

***Team chosen programming game programming environment
Choices include: BlitzBasic, DarkBASIC, Torque, et al**

Course Competencies:

1. Create a game back story, character biographies and a concept bible.
2. Demonstrate critical thinking and creative writing skills in the production of a standardized document describing the game in detail (a game design document).
3. Exercise planning and organizational skills in the production of a written and oral description of the scope and sequence of the game development cycle.
4. Create and document marketing plan for an interactive concept and design.
5. Write proposal for the development of the game.
6. Critically evaluate video games.
7. Discuss and evaluate the strengths and weakness of various games and draw market relevant conclusions for the production of the student project.
8. Observe and document code errors in video games.
9. Identify program problem issues.
10. Create playable demo grade games
11. Produce a computer game prototype using appropriate interactive computer gaming or multimedia software.
12. Apply scripting and programming techniques for optimized play of the tool used
13. Analyze project art needs and control all files and assets.
14. Collect, create, synthesize and optimize audio, video and graphic elements for the production of the game.
15. Participate as a member of a team, collaborating with other artists and team members.
16. Develop characters that are appropriate for the game.

Methods of Instruction: Lab and lecture

Methods of assessment:

Participation: 10%

Projects:

Final Project: 30%

Interim (early version) Design Project: 20%

Exams and Quizzes:

Midterm Exam (week 5): 10%

Quizzes / Class Assignments / Homework 30%

Evaluation will be based on the following:

- Knowledge of Subject
- Originality/Creativity
- Presentation/Delivery
- Integration with competencies

Game Art and Design Program Goals:

- Prepare students for successful employment, both short and long term.
- Instill in them the technical skills necessary for entry-level employment
- Aesthetic and creative awareness for meaningful communication
- Ability to self-teach toward staying proficient in the ever changing technological landscape leading toward a lifelong career.

- Equip students for entry-level jobs
- Give students a solid foundation based on the 12 principles of animation
- Develop strong visual/creative problem solving skills based on traditional drawing skills.
- Promote student professional demeanor, provide students with an understanding of the animation market, and identify and practice characteristics of professional conduct.

Weekly Schedule*

Unless otherwise noted, all assignments will be demonstrated at the start of class on the day they are due.

Instructor reserves the right to change the schedule as needed.

Week 01:

Course Overview

- Brainstorm ideas for final project, develop treatment
- Begin working on Game Prototype Proposal

Lecture: Intro to the use of Prototypes.
Review of effective games and prototypes.

Lab: Begin working on Production Timeline

- o Assignment1: Production Timeline
- o Assignment2: Environment, Character, and prop concept drawings.

Week 02:

Creative Design

Critique in class: All Drawings. Compromise an art style for the project.

In class: Development of game prototype ideas and initial design of game play.

Lecture:
-Creating the Design Document
-Digital Painting and the Use of drawing tablets

Lab: Begin work on Design Document and digital renders.

Assignment: Digital Paintings, Design Document Draft

Week 03:

Game Engines: Choosing and Critiquing

Lecture: Intro to game engines

Lab: Interface Design

Assignment: Interface Design

Assignment: Choose Engine

Week 04:

Check Point and Review: Design Documentation and Art Direction

Lecture: Present and review all documentation and art completed in weeks 1-3

Lab: Begin Modeling and laying out Level Designs in Unreal.

Assignment: Level Designs and Model 1/2 assets

Week 05: Art Pipeline

Gather texture library:compose a texture style and color pallet.

Lab: Continue modeling (final ½ assets)

Assignment: Compile complete texture library

Week 06: Textures and Models

Lab: Add texture to finished models.

Assignment: Completed Texturing and UV layouts for finished models

Week 07: Prototype Pipeline: Adding Art Assets

Lecture: The porting of Art Assets into your engine

In class: Begin porting Art assets into your Level(s)

Assignment: Port finished artwork into Unreal

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| Week 08: | Interim Review: Review Port |
|-----------------|------------------------------------|

Review: Finished Unreal ports.

Lecture: Physics

Lab: begin working the addition of physics into the Unreal level.

Assignment: Add physics to your world

Week 09: The Environment: Lighting and other Visual Cues

Lab: Begin Adding environment cues to your game

Assignment: Complete lighting et al in your game

Week 10: Quality Assurance: Methodology

Lecture: QA testing

Lab: Play test the Unreal Level

Assignment: Fix any discovered problems

Week 11: Prototype Completion:

Lab: complete prototype.

Grading System:

| Point Score range | 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+ |
| 63-66 | D |
| 60-62 | D- |
| Below 60 | F |
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Course Requirements and Policies

All students must adhere to the guidelines set forth by the Illinois Institute of Art's student handbook.

All assignments are due at the beginning of the class unless otherwise indicated. Completed group assignments will be presented to the class and a printed copy of assignment (e.g. copy of presentation, lists, etc) will be provided to instructor. When the assignment involved source code, students will demonstrate code in front of the entire class, then provide an appropriately labeled set of files on the common drive.

Students should always keep a backup copy of their work.

No late assignments will be accepted. In this course, each assignment will build on the previous. Failure to complete the prior week's assignment will make each subsequent week harder. 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 may not be given a chance to complete the exam.

Makeup exams and acceptance of late assignments will only be granted in the following circumstances; Medical excuse, emergencies, campus-sponsored activities.

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

Cheating and Plagiarism:

Any student that cheats or plagiarizes will be reported to the academic standards committee and may be dismissed from the course.

If you use another person's code, please indicate it clearly by included comments that indicate where someone else's code begins and ends.

You may use websites, message boards, chat rooms, or other related resources to solve homework problems as long as you clearly indicate your contribution to the final product.

*Schedule subject to change at the instructor's discretion.

Once you have read the syllabus, please sign the following and provide it the instructor.

I have read the entire syllabus carefully and understand the attendance policies and class policies concerning assignments. I understand that the class runs for six hours each week and I am personally responsible to be present for each session from start to finish. I am now informed that both late arrivals and early exits are noted in the attendance log.

Name (Print) _____

Signature _____

Phone Number _____

Current Email _____