Topics in Games Development

ECE 495/595 & CS 491/591

Spring 2008

Instructors:
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TTh 9:30-10:45
ME 300

Overview:

Video games have become one of the dominant forms of entertainment in our times, pulling audiences away from their TV sets and movies and, according to the games industry, even making more money than feature films. Sometimes referred to as the "third screen," these games encompass works made for video game consoles, computers, mobile devices and the Internet. While enormously popular as a form of entertainment, video games are also an effective vehicle for education, training, information, promotion and advertising.

Content:

This topics class will explore the entire process of developing and producing video games. Via lectures, readings, hands on experience, and the participation of outside speakers from the game community students will gain insight into the various elements that go into the making of a video game. The first weeks of the course will focus on the development process, with each student creating a concept for a video game. Students will also choose a game and analyze it, using the concepts discussed during class and in the textbook. Later in the semester, students will form interdisciplinary teams which will each produce a working game using the XNA game engine. Teams will write midterm progress reports on their projects and a final report. The semester will culminate with demonstrations of the games to the instructors, fellow students and professionals from the field.

Partial list of topics to be covered:
- The fundamental characteristics of games
- Gameplay
- The target audience
- The role of the player
- Characters in games
- The function of narrative in games
- Systems of rewards and penalties
- Interface and navigation
- Overview of computer graphics
- Game engine software architectures
- Creation of art for games

Prerequisites:
Senior or graduate standing in science, engineering, media arts, art, music, management, health sciences, or other related field.

Textbook:
- Required: *Game Design and Development: Fundamentals of Game Design*, by Ernest Adams and Andrew Rollings, Pearson/Prentice Hall, 2007
- A more detailed list of reference texts will be provided.

List serve and websites:
- Class list serve: game_tech@mail.cs.unm.edu
- Info about using the list serve: http://mail.cs.unm.edu/cgi-bin/mailman/listinfo/game_tech
- Portion of Ed Angel's website, where class information will be posted: www.cs.unm.edu/~angel/GAME
- Curtis Bennett's XNA website: http://xnaprogramming.info

Grading:
Quizzes on readings and class participation -- 5%
Individual game proposals -- 10%
Analysis of a game -- 15%
First Game proposal – 15%
Midterm reports -- 20%
Final report and presentation -- 35%

Note: an internal team evaluation method will be used as part of the grade for the final report and presentation.

Policy on late papers:
No late papers will be accepted after the due date except in cases where the student has sought permission from instructors **in advance** of the due date. Extensions will be granted solely at the discretion of the instructors.