Syllabus CS 481/681

- The engineering, science, and art in creating advanced computer games. Design and implementation of game components in producing usable and engaging computer games.

- Prerequisite: CS381

- Sushil J. Louis (Ph.d. 1993 Indiana University)

- Co-evolution in Games

- Download ECSLENT
  http://lagoon.cse.unr.edu/~lagoon/index.php/ECSLENT

Office Hours

- 10 – 11 MTW

- SEM 233 or SEM211

- Appointment: sushil@cse.unr.edu

- Look at http://www.cse.unr.edu/~sushil/calendar/

- Ensure I put YOUR appointment in my calendar

Textbook

- There is no required textbook :-(

- Sorry but there is no textbook on how to design games. It is an art.

- Read everything you can get your hands on

- I will require your reading several articles on the web. First article:

  - http://www.gamasutra.com/view/feature/4017/10_game_design_process_pitfalls.php

Short Objective: Learn by Doing

- Build two games

- Learn from first

- Build playable second game that you can add to your resume

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- Grad Students build multiple levels. Hopefully do a game that connects to their research

Grading

- First Project: 15 %
    - Brainstorm a concept (1%)
    - Document it, build a paper/ppt/visio.. prototype (4%)
    - Build it (10%)
- Final Project: 60%
    - Concept (5%)
    - Document, build prototype, test (10%)
    - Build it (45%) !!!!

Grading cont'd

- Project web page (4%)

- Project code repo (4%)

- Project downloadable installer (4%)

- Readings (4%)

- Class participation (4%)

- Game Video and Posters (5%)

Guest lectures, joint lectures

- We will hold joint classes with Journalism
    - Not 400 level, not programmers
    - Good ideas, good communicators, and good design
- We will have outside game designers lecture
- We will have space in DeLaMere

Teams and teamwork

- Accredited CSE programs must teach:
    - (4) an ability to function effectively on multi-disciplinary teams
    - (7) an ability to communicate effectively with a range of audiences.
- You will be expected to work in a team with students from journalism. Required!
- Game programmers, more than most other engineers, have to learn to work with artists, musicians, journalists, others

Topics

- Environment

- Education (K12)

- Mars

First Assignment

- Evaluate CityRain
  - Art
  - Sound
  - Animation
  - Gameplay
  - Physics
  - Artificial Intelligence
- Programming Effort

Class Meeting on Jan 24

- DeLaMere 3rd floor. Outside Bryant reading room
- BE THERE

Tools

- ECSLENT: ecsl.cse.unr.edu

  - Multi-platform, full support, python. Use it please.

- Unity: unity3d.com

  - Multi-platform, C#, Boo, Javascript, iphone, android, web, …

- XNA

  - Windows only. If you already know it.

- Flash

  - 2D, runs on web, quick