**5912 Syllabus**

**Short Description**

This is a project-oriented course on Game Design and Game Programming. Students will work in teams to design, implement and test a three-dimensional game with interactivity, animation, sound, constraints, and networking capabilities. We assume the student is already a graphics expert and we will cover the software engineering and control/state aspects of developing a high-end video game.

**Course Objectives**

The aim of this course is for students to:

* Master synthesizing and applying prior knowledge to designing and implementing solutions to open-ended computational problems while considering multiple realistic constraints.
* Be competent in evaluating design alternatives.
* Be competent with software design and development practices and standards.
* Be familiar with researching and evaluating computing tools and practices for solving given problems.
* Be competent with deadline driven projects in a team setting.
* Be competent with issues of project management, such as teamwork, project scheduling, individual and group time management.
* Be competent with presenting work to a group of peers.
* Be competent with techniques for effective written communication for a range of purposes.
* Be familiar with analyzing professional issues, including ethical, legal and security issues, related to computing projects.
* Master the development of a complete and functional computer game including elements of computer graphics, artificial intelligence, sound, networking, input controllers, and GUI's.

**Prerequisites**

CSE 3541, Fluency in C# or C++ and component-based or object-oriented software development. Recommended: CSE 781 and/or CSE 5542.

**Textbooks**

* *No required texts*

## Topics

This is a capstone course, so we try to avoid lecturing and provide a platform for you to show us what you can do. As such there will be no lecture material other than some basics to get you going the first week or two of classes.

**Team Work**

Each team member must do equal work across the entire set of projects. If a team member is not doing equal work it is the responsibility of the other members to let me know that a problem exists. Most often we can head off problems before it is too late.

If there is evidence that a team member is not providing the same level of effort or does not have the same level of involvement or understanding of the system as the rest of the team, different grades may be assigned. On the other hand, if one person opts to do most of the work, there is no guarantee that he or she will receive a better grade. Indeed, if he or she hindered the experience of others in the group, a lower grade may be assigned to that person.

**Basic Grading Scheme**

* *See Grading Plan on the course homepage*

**Late Policy**

For project grading, you will be evaluated based off of the content of your project at end of every Timebox. Effectively this means no late work will be accepted.

**Disability Statement**

Any student who feels he/she may need an accommodation based on the impact of a disability should contact the instructor privately to discuss their specific needs. The Office for Disability Services at 614-292-3307 in 150 Pomerene Hall will help in coordinating reasonable accommodations for students with documented disabilities.

**Academic Misconduct**

Making any use of any work (code, design, documentation), or any part of work done by others (current or in the past) is a violation of course rules. If you have any concerns about whether something you are considering doing is appropriate, ask first! All academic misconduct will be dealt with according to university procedures.

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