CSE 481D Capstone Software Design: Games

Credits

5.0 (3 hrs lecture, 2 hrs+ meeting times)

Lead Instructor

John Zahorjan

Textbook

None

Course Description

Students work in teams to design and implement a software project involving multiple areas of the CSE curriculum. Emphasis is placed on the development process itself, rather than on the product.

Prerequisites

CSE 331 or CSE 341; CSE 326 or CSE 332; CSE 351 or CSE 378; substantial programming experience such as CSE 451 or CSE 457.

CE Major Status

Selected Elective

Course Objectives

To learn about the software design process through hands-on development of a software product. To experience working in larger teams than you have had to deal with previously in our curriculum. To experience building sophisticated applications by making use of real-world tools, rather than trying to build everything from scratch. To gain experience dealing with the performance demands of high-performance, real-time, distributed applications. To have some fun (by building a game). To develop a portfolio documenting your efforts that could be useful in looking for a job.
**ABET Outcomes**

(a) an ability to apply knowledge of mathematics, science, and engineering  
(b) an ability to design and conduct experiments, as well as to analyze and interpret data  
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability  
(d) an ability to function on multi-disciplinary teams  
(e) an ability to identify, formulate, and solve engineering problems  
(f) an understanding of professional and ethical responsibility  
(g) an ability to communicate effectively  
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context  
(i) a recognition of the need for, and an ability to engage in life-long learning  
(j) knowledge of contemporary issues  
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice

**Course Topics**

- software development in teams
- basics of games design and development
- most student time is spent in the development process, and performing critiques of it.