

---

## 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.