

SG450 Game Development

Instructor	Course Dates
Tom Sinclair	05/30/2007 - 08/01/2007

Classroom Hours	Office Hours
Independent Study	W Noon – 4 PM (all others by appt.)

Course Description

This class introduces students to an interactive model for game software development. Students will implement the logic and GUI for a software product. They will use industry standard programming practices, including class libraries, frameworks, and API documentation. Upon completion of this course, students should know how to work on a team level with other developers to create a gaming software product.

Course Outcomes

The course outcomes are the goals of instruction. These outcomes identify the knowledge, skills, and attitudes a student should have upon completing this course.

Knowledge

1. Evaluate industry standard programming practices and the latest technologies used to create game design documents.

Skills

1. Generate all necessary technical documents for a game production project.
2. Apply the latest methodologies and technologies to deliver documents, diagrams, and pseudo-code in a game production project.

Attitudes

1. Appreciate the various aspects and challenges associated with working on a game production project.

Course Prerequisites

SG430

Class Breakdown

Lecture Hours:	36
Lab Hours:	18
Total Hours:	54

Credit Hours

The credit hours below must be copied verbatim from the course catalog.

CO/IL = 4.5 Credit Hours

CA = 4.0 Credit Hours

Course Texts

Game Architecture and Design, Andrew Rollings & Dave Morris. New Riders Publishing, 2004. ISBN 0-7357-1363-4

Teaching Strategies

The teaching strategies for this course include facilitated discussion (with visuals as needed), demonstration, class discussion, hands-on guided practice, and feedback.

Grading

Key Graded Assignment: Game Design Research**	20%
Key Graded Assignment: Game Development Project	30%
Quizzes	20%
In-Class and Out-of-Class Activities	15%
Attendance	15%

At the end of each course, each student is assigned a final grade as follows:

Grade	Quality Points	Point Range	Interpretation
A	4.0	93-100	Excellent
A-	3.7	90-92	
B+	3.3	87-89	
B	3.0	83-86	Above average
B-	2.7	80-82	
C+	2.3	77-79	
C	2.0	73-76	Average
C-	1.7	70-72	
D+	1.3	66-69	
D	1.0	60-65	Below average
F	0.0	59 & below	Failure
I	0.0		Incomplete

Course Completion Requirements

Students must achieve a passing grade of D or above by completing all required examinations, submitting all required lab exercises and projects, and meeting the standards of the school attendance policy.

Attendance and Classroom Policies

Students are expected to adhere to the attendance and tardiness policies stated in the current catalog.

Food and Drinks: NO food or drinks allowed near the computers.

Music: NO music with explicit lyrics will be played out loud in class regardless of the class opinion. NO exemptions will be made. Headphones will be allowed in class during lab time but must be removed during lectures.

Cell Phones: Cell Phones are not to be used during class time. Be sure your cell phone is set on SILENT or OFF. It is your responsibility to ensure that your phone does not disrupt the class.

Westwood Students Only: The Denver South Campus classrooms and labs are for the use of Westwood students ONLY. Please do not invite friends or family who are not students here to use the classroom or lab facilities. Anyone who would like to visit the campus must sign in at the Front Desk.

Lab Supervision: If the lab is locked or currently unsupervised, please go to the Front Desk to sign-in and leave your student ID. If there is no one available to supervise the lab, it may not be possible for you to use the lab until there is a lab supervisor.

Internet Use: The Internet connection is provided for work related to your classes at Westwood College. It is not for personal use. Viewing inappropriate sites in a Westwood College classroom or lab is forbidden and could result in sanctions, up to and including expulsion.

Drug Free Schools Act: Westwood forbids the use, possession, distribution, or sale of drugs or alcohol by students, faculty, or staff anywhere on the College's property or at College sponsored events off campus. Anyone in violation of state, federal or local regulations with respect to illegal drugs or alcohol may be subject to both criminal prosecution and campus disciplinary action. Students who are suspected of being under the influence of drugs or alcohol on campus will be sent home in a taxi and face an automatic suspension.

Attendance: If you miss more than 10% of this course, you will receive a written warning. If you miss more than 20% of this course, you will be dropped from the class.

Due Dates: Assignments are due on the date specified by the instructor. Any assignments turned in after that date will receive a grade of 0 (zero). If you are not finished by the date due, hand in what you have to receive partial credit.

Course Topics

Week 1:

- Introduction to Game Architecture and Design
- Initial Concept
- Core Design

Week 2:

- Gameplay
- Detailed Design
- Game Balance

Week 3:

- Look and Feel
- Wrapping Up
- The Future of Game Design

Week 4:

- Team Building and Management
- Use of Technology and Building Blocks
- Initial Architecture Design & Development

Week 5:

- The Run-Up to Release
- The Future of Game Development
- Class Project - Design of UML user cases and diagrams

Week 6:

- Class Project - Design and implementation of UML Activity diagrams
- Class Project - Defining Entities and Events
- Class Project - Design and implementation of UML Class Diagrams

Week 7:

- Class Project - Design and Implementation of UML State Transition Diagrams
- Class Project - Design and Implementation of UML Sequence Diagrams
- Class Project - Project Review

Week 8:

- Class Project - Project Review and Pseudo-code Implementation

Week 9:

- Class Project - Project Review and Pseudo-code Implementation