SG430 Game Porting Basics

Instructor	Course Dates
Tom Sinclair	*10/10/2006 – 12/14/2006*

Classroom Hours	Office Hours
MT 2P – 4:50P	*W Noon to 4P*

Course Description

This course introduces students to the methods, tools, and processes involved in porting software from PCs to other devices. Topics include the study of best practices for creating a portable code base, cost/benefit analysis of portability and its reusability implications, study of porting methods, and the hardware and software challenges to porting code successfully. Upon completion of this course, students should be able to produce a schedule for porting a game, and will have ported a game to another device.

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. Define the techniques used for cross-platform development.
2. Examine the various software and hardware issues associated with game porting.

Skills

1. Identify when porting techniques and methodologies should be applied.
2. Apply porting techniques and methodologies such as abstraction, commonality, limitations, modularization, granularity, separation, isolation, debugging, and predictability to the game development process.

Attitudes

1. Appreciate the challenges of working with cross-platform game development.

Course Prerequisites

SG300, SG360

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

Cross-Platform Game Programming, Steven Goodwin. Charles River Media, 2005. ISBN 1-58450-379-3

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: Cross Platform Game Development Project	40%
Key Graded Assignment: Cross Platform Game Dev. Research Paper**	20%
Quizzes	10%
In-Class and Out-of-Class Activities	10%
Attendance	20%

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. This course consists of 54 in-class hours. Students that miss more than 10% of class time (5.4 hrs.) will be issued a written warning in the form of a SAR. Students that miss more than 20% of class time (10.8 hrs.) will be dropped from the course.

Supplmental materials for this course can be found on the Web at:

http://homepage.mac.com/tsinclair/SG430/SG430.html

Students are expected to manage their time sufficiently well to meet the assignment deadlines set by the instructor. **Work is due on the day assigned. If it is late, you will receive a grade of zero for that assignment. Therefore, even if you aren't done, hand in what you have on the due date.**

All written assignments (unless otherwise specified) must be provided in PDF format with your name included in the name of the file (ex. Dbarco3DGames.pdf). Assignments not meeting either or both of these requirements will be discarded.

Course Topics

Week 1:
- Overview of game software portability
- Introduction to cross-platform development
- Cross-Platform Development Issues

Week 2:
- Memory and The CPU

Week 3:
- Storage
- Debugging

Week 4:
- System I/O
- The Audio System

Week 5:
- The Graphics Engine
- Networking Programming

Week 6:
- General issues in cross-platform development
- Pocket PC Emulator Programming

Week 7-9:

Class Project Work

The above course guide may be changed at the discretion of the instructor to fit the needs of the class. In addition, students will also be responsible for the content of any supplemental materials provided by the instructor unless otherwise stated.

I, _____, have received and read the course syllabus and understand those policies outlined in it.

_____

signature