MASTER SYLLABI

7/1/03

MINNESOTA SCHOOL OF BUSINESS
GLOBE COLLEGE
TECHNICAL COURSE SYLLABUS

COURSE NUMBER: **GD250**
COURSE LENGTH: 12 WEEKS
PREREQUISITES: SD235

COURSE TITLE: GAME DEVELOPMENT USING DIRECTX I
CREDIT HOURS: 3
CONTACT HOURS: 50 (LECTURE 10/ LAB 40)

TEXT: AN INTRODUCTION TO COMPUTER GAME PROGRAMMINGWINT DIRECTS 8.0, Ian Parberry, Wordware Publishing
ISBN: 1-55622-810-4

COURSE DESCRIPTION: The course will give students an overview of the use of DirectX 8.0 in games programming. The language used will be C++, but it will be applicable to many other programming languages.

OBJECTIVES: Upon completion of this course, the student will be able to:

1. Create a primary surface in direct draw and display a background image.
2. Implement page flipping to create a smooth transition between frames.
3. Utilize the timer class to regulate the speed of animation.
4. Utilize clipping and transparent blitting to enhance sprite animation.
5. Create a game shell around a game engine.
6. Sequence Direct sound for playing and mixing sounds.
7. Create controls for user input devices.
8. Implement basic Artificial Intelligence (AI) in a game.

COURSE OUTLINE:

	Topics & Class Activities	**Required Reading**
Week 1		
	Introduction to DirectX 8.0	
	Install Ned's Turkey Farm	
	Install DirectX & MS VC++ 6.0	
	Library & project setup, Demo 0	
	Creating Win Main, Setup Direct draw	
	Load bitmap reader & graphics	
	Explore basic operation of DirectX	
Week 2		
	Demo 1	
	Why flip pages	
	Secondary surfaces	
Week 3		
	Animation (full Screen) demo 1	
	The timer	
	Modified timer	
Week 4		
	Sprite animation, sprites	
	Object classes	
	File modifications to dllsetup.cpp & main.cpp	,demo pages 80-83

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Topics & Class Activities **Required Reading**

Week 5

Sprite clipping

Week 6

Parallax Scrolling, Using viewpoint manager
Object manager, pseudorandom Numbers
File Changes

Week 7

Implementation of basic Artificial Intelligence (AI)
File modifications

Week 8

The Game Shell, phase manager
Sound manager

Week 9

Input device control
Button manager
Input manager
Joystick control & Manager

Week 10

Projects

Week 11

Projects

Week 12

Presentation of Project

INSTRUCTIONAL METHODS: Class sessions will consist of instructor lectures, demonstrations, hands-on exercises, and assigned projects. Students will be assigned reading from required texts and instructor provided handouts.

EVALUATION METHODS:
All Projects and Assignments are due on the date specified. Any late submissions will not be marked.

Written projects / reports	300
Classroom exercises	200
Final Project / Exam	300
Participation	200
	1000 Points

The final grade for the course is based on an accumulation of points in each of the above areas and weighted accordingly. A total of 1000 points are possible. These points are based on the following percentages:

100-90%	A
89-80%	B
79-70%	C
69-60%	D
59% and lower	N/C