

**CMPS 327
INTRODUCTION TO
VIDEO GAME DESIGN & DEVELOPMENT
FALL 2009**

Instructor:

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Objective:

To gain an understanding of the fundamental concepts of 2D video game design & development. These concepts include game design (both large and small scale), the development and use of a game engine, the use of video game development software, and programming issues unique to video games.

Texts:

Required: Beginning DirectX9.
Wendy Jones.
Thomson Course Technology. ISBN 1-59200-349-4.

Optional: Game Design (2e).
Bob Bates.
Thomson Course Technology. ISBN 1-59200-493-8.

Software:

Game Maker 7.0 by Mark Overmars
Download at <http://www.yoyogames.com/gamemaker/>
Registration fee is \$20
The web site has lots of tutorials & documentation

References:

I've got over 100 gaming books. Please feel free to come by and check them out (both figuratively and literally).

Topics Covered:

- Game design
- Game development
- C++ game engine using DirectX9
- Game Maker software
- Programming issues in game development
- Game art

Learning Outcomes of this Course:

Upon successful completion of this course, students will have the ability to:

- Develop the design for a two dimensional games (one individual and one group game)
- Implement the design using the GameMaker development tool
- Understand and be able to apply the graphics functions of Microsoft's DirectX 9 graphics package
- Understand 3 dimensional graphics (i.e., 3D basics, scaling, rotating, and translating)
- Understand and apply the fundamental techniques used to create and manipulate polygon meshes in DirectX 9
- Understand and apply the fundamental techniques used to create and manipulate texture maps in DirectX 9
- Understand and apply the fundamental techniques used to create and manipulate lighting in DirectX 9
- Understand the concepts and use of the DirectInput and DirectSound components of DirectX 9
- Develop the ability to modify existing code samples to demonstrate understanding of DirectX 9 applied in a C++ environment
- Work in small teams to design and implement a game using GameMaker
- Present the completed games (both group and individual) to the class and answer questions

Grading:

Components

Assignments, status reports, peer evaluations, attendance, & other things	33%
Individual Project 1 (Game Maker)	33%
Group Project (Game Maker)	33%

Grade Scale

90 – 100	A,	80 – 89	B
70 – 79	C,	60 – 69	D
< 60	F		

Policies:

- ⇒ There will be a 10% penalty per day for missing due dates and/or assignments. This includes weekends and holidays.
- ⇒ There will be no curving of grades.
- ⇒ There is a one-week “statute of limitations” on all assignments and tests. That means that after one week from the date the assignment/test is returned you can no longer request a review of the grade. NOTE: The clock starts ticking when I return the material, not when you get it.
- ⇒ Incompletes are given only in the event of extreme extenuating circumstances.
- ⇒ The use of any material of a profane, sexual, or violent nature will be dealt with harshly. The minimum penalty is a zero on the assignment/program and the offense could result in an F in the course.