

UNIVERSITY OF MARY HARDIN-BAYLOR
COMPUTER SCIENCE CLASS SYLLABUS
Fall, 2008

GENERAL INFORMATION

Course Number:	CISC 4347
Course Title:	Graphics programming
Number of Credits:	3
Location of Class:	Davidson Building, Room 122
Meeting Time:	8:00 A.M. – 9:30 P.M. T,TH
Professor:	Dr. Edwin Armstrong.
Office:	Room 106 Davidson Building
Office Hours:	See Professor's schedule posted in Davidson
Office Phone:	(254) 295-5418
Email:	earmstrong@umhb.edu
Class web-page:	tinyRealm.com

I. Course Description:

With the wide adoption of Graphical User Interfaces, basic Computer Graphic skills have become fundamental to the Computer Scientist. Computer Graphics includes knowledge from a wide variety of disciplines. This course will cover the basic algorithms, techniques, principles for design, use and understanding of graphical display. We will implement both two-dimensional and three-dimensional renderings of mathematical and scientific data (such as fractals), as well as photo-realistic objects. Assignments will be given out in class and posted on the CISC4347 web-page:

Web-link: <http://tinyRealm.com/>

II. Text book:

Introduction to 3D Game Programming with DirectX 10 (Paperback)

Author: Frank Luna

ISBN #: 978-1598220537 Publisher: Wordware Publishing

Edition: 1st Copyright Year: 2008

III. Preparation and Course content:

This is an introductory course in Computer Graphics, using the C++ language and DirectX. The student is not required to have had any Graphical programming experience in the past, but should have had a structured language like, PASCAL, C, C++, or JAVA. Some of the covered topics will be:

1. Overview of Graphical Systems and Terminology
2. Attributes and use of output primitive
3. Introduction of DirectX
4. Drawing Objects
5. Pointers
6. Viewing
7. Color and Lighting
8. Blending, Antialiasing, and special effects.
9. Drawing Pixels, Bitmaps, Fonts and Images.

IV. Course Goals:

Achieve self-understanding and the ability to effectively integrate Biblical and moral principles into the world of business and science.

Develop computer science skills necessary to pursue excellence and effectiveness within the field of computing.

Have a balance between the theoretical and the practical; a theoretical foundation of the hardware and software aspects of computer science, as well as the practical application and knowledge of current practice.

V. Course Objectives:

The student will:

1. Learn the basic terminology, principles and methods of Computer Graphics.
2. Develop skills in the use of Computer Graphics as a Computer Science tool.
3. Gain confidence in solving a variety of Computer Graphics problems.
4. Be introduced to windowing graphics and the OpenGL and DirectX graphical languages.

VI. Course Requirements and Grading:

1. Homework: Approximately 10 lab assignments will be given (80%).
2. Midterm: (%15)
3. Final exam: During Final exam week, (15%)
4. Class participation: (%10)

*** Extra labs might be assigned to replace mid-term and/or final.

VII. Late Work:

Labs and homework will normally be due on Fridays. Late work may incur a grade reduction as follows:

Turned in next class period; no penalty

Up to two weeks late; 90% is the best score possible.

Later than two weeks; 70% is the best score possible.

VIII. Grading Scale:

Letter Grade Percentage

A	90-100
B	80-89
C	70-79
D	60-69
F	59 or less
