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Fall 2005

CEG 476/676 Computer Graphics

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Course Syllabus

CEG-476/676**Computer Graphics I****Fall '05**

Course # 10820, Units: 4, Lectures: 4:10 - 5:25, M, W, 204 Faucett Hall
Instructor: A. Goshtasby, Office Location: 341 RC, Phone: 937-775-5170
E-mail: agoshtas@cs.wright.edu, Office Hours: M,W 1-3 PM, or by appointment.

Prerequisite: CS400, MTH253 or MTH255

Textbook:

Computer Graphics with Open GL, 3rd Edition
Donald Hearn and M. Pauline Baker
Prentice Hall, 2004

Purpose of Course:

To learn techniques for constructing 2-D and 3-D objects and manipulating and rendering the objects.

Contents:

1. Introductions
2. Geometric primitives
3. Attributes of geometric primitives
4. Antialiasing techniques
5. Homogeneous coordinate system
6. 2-D and 3-D model transformations
7. Structures and hierarchical modeling
8. 2-D and 3-D viewing transformations
9. Input devices and interactive techniques
10. Visible surface detection methods

Learning Goals:

The objective of this course are to learn the fundamentals of 2-D and 3-D object construction, to learn algorithms that transform 2-D and 3-D objects, and practice some of the concepts through implementation.

Assignments:

There will be three programming assignments and a final project. An assignment will typically require 15 to 20 hours of work and the final project will require from 30 to 40 hours of work.

Grading:

Programming Assignments will worth 40%, Midterm Exam will worth 25%, and Final Project will

worth 30% of the total grade. Class participation will count the remaining 5%. Grades will be assigned as follows. A: [91 .. 100], B: [81.. 90], C: [71 .. 80], D: [61 .. 70], E: [0 .. 60].

Policies:

Materials covered in class will closely follow the textbook. Late assignment programs will be accepted but with one point deduction per a late day.

Calendar:

Assignments 1, 2, and 3 will be handed out on 9/19, 9/28 and 10/10, and will be due 9/28, 10/10, and 10/19, respectively, at 4:00 PM. The assignments are intended to practice some of the materials learnt in class. The assignments can be completed individually or with a partner. Final project will be handed out on 10/24 and will be due 11/10, 5:00 PM. Midterm Exam will be on 11/02, 4:10 - 5:25PM.