CS657 – COMPUTER GRAPHICS

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Course Description – This is an introduction course to Computer Graphics concepts, algorithms, and systems. Its content includes introduction to graphics systems and models, graphics architectures and programming, input and interaction, geometric objects and transformations, viewing, shading, discrete techniques, implementation of a render, hierarchical and object-oriented modeling, curves and surfaces, procedural methods, visualization. There is an emphasis on OpenGL graphics programming projects.

Grading – Homework (50%), Exam 1 (10%), Exam 2 (10%), Term Project (20%), Class Participation (10%)

There will be a total of 100 points. The grade assign is based on the following:

A: 90 -100 points
B+: 80 – 89 points
B: 70 - 79 points
C+: 65 - 69 points
C: 60 – 64 points
D: 50 – 59 points
F: 0 - 49 points

Course Website –

Submit the homework solution in Microsoft Word format to http://moodle.njit.edu/ before the deadline. Absolutely, no late submission is accepted. Write the answers in your own words individually. Any plagiarism will post a "ZERO" score or cause a "FAIL" grade.

Textbooks -

1. E. Angel, *Interactive Computer Graphics: A Top-down Approach Using OpenGL*, Fifth Edition, Addison-Wesley, 2009, ISBN-10: 0321535863.
2. E. Angel, *OpenGL: A Primer*, Third Edition, Addison-Wesley, 2008, ISBN-10: 0321398114.

References -

1. D.F. Rogers and J.A. Adams, ***Mathematical Elements for Computer Graphics***, Second Edition, McGraw Hill, 1990.

2. F.S. Hill and S.M. Kelley, ***Computer Graphics Using OpenGL***, Third Edition, Pearson Prentice Hall, 2007.

Academic Honor Code -

The NJIT academic honor code (http://www.njit.edu/academics/honorcode.php)applies in full to this class. Note in particular that copying programs, in full or in part, is forbidden. You may discuss ideas and concepts with your fellow students, but you may NOT copy any code.