

Computer Graphics using OpenGL

introduction

Naeem Iqbal Ch

Computer Graphics using OpenGL

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Text: Computer Graphics
using OpenGL, F.S. Hill, Jr.

Grading:

Assignments: 10

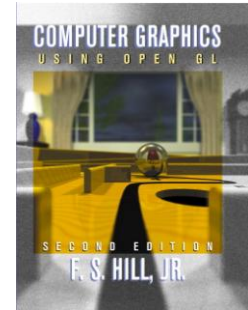
Quiz : 10

Others(Attendance) 5

Midterm: 25

Final: 50

Presentation 25 marks (No presentation No internal marks)



What is this course about?

- to learn essential computer graphics concepts
- to learn how to write computer graphics applications in OpenGL.

Prerequisites

You will get the most out of this course if you:

- have C or C++ programming experience (essential for completing home works!)
- No prior knowledge of graphics is assumed

Required Textbooks

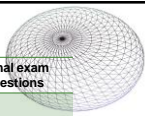
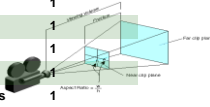
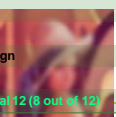
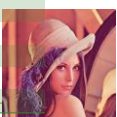
- **Computer Graphics Using OpenGL**, by Francis S. Hill, Jr., 2 edition ,Prentice Hall, ISBN: 0023548568
- **OpenGL Programming Guide**, Fifth edition: The Official Guide to Learning OpenGL, version 2, by Woo et al., Addison Wesley, ISBN: 0201604582

Required Software

- **Microsoft Visual C++ 6**
- **OpenGL files**
- All software that you write for your home works will have to compile under **Microsoft Visual C++ 6**

Course outline

Chapter	Topic	Final exam questions
1	Introduction	1
2	Starting drawing	1
3	More drawing tools	1
4	Vectors tools for graphics	1
5	Transformation of objects	1
6	Modeling Shapes with polygonal Meshes	1
7	3D viewing	1
8	Rendering Faces for visual Realism	1
9	Approaches to infinity	1
10	Tools for Raster Display	1
11	Curves and surface Design	1
12	Color theory	1
Total 12 (8 out of 12)		

What is Computer Graphics?

Computers...
accept, process, transform and present information.

Computer Graphics...
involves technology to accept, process, transform and present information in a visual form.

Ok but... what is the course really about?

Graphics algorithms
Graphics data structures
Color and human vision
Graphical interface design and programming
Modeling, Animation, Rendering

What its not about?

Photoshop, AutoCAD, Maya, Renderman, Graphics APIs.

...**WOW**, programming in OpenGL and computer science!!