

Course Name: Computer Graphics	Course Code: ITSE3112
Pre-Requisite: Introduction to Programming	Credit Hours: 3
Passing Grade: C	Level: Year 3
No. Of Theory & Practical Hours : 2 : 2	
Goal: To implement the concept of computer graphics , modeling and animation techniques	
Objectives: The course should enable the student to : 1. Apply the principles of 2D and 3D computer graphics 2. Use Graphic programming functions. 3. Use a Graphic tool to practice 2D and 3D Modeling and Animation.	
Outcomes At the end of this course, students should be able to:	Method
1. Explain hardware components and software application of computer Graphics system and technologies of interactive devices.	Theory
2. Describe the range of tools used to support the development of graphical systems.	Theory
3. Apply algorithms and techniques for generating 2D Attributes	Theory & Practical
4. Analyze the production of primitive graphical objects on a raster display.	Theory & Practical
5. Design graphics using 2D, 3D, graphics-arts and animations.	Theory & Practical
6. Apply transformations on objects in the plane using suitable matrices.	Theory & Practical
7. Apply transformations on objects using functions and procedures.	Practical
8. Explain the concept of world-coordinate-system and its relationship to windows, view ports and clipping.	Theory
9. Implement the concept of clipping.	Theory & Practical
10. Use a tool for 3D Modeling and Animation.	Practical

Hardware / Software Tools: Visual Studio, OpenGL, 3DMAX, 3D Canvas
Text Book: 1.Hearn and Baker, <i>Computer Graphics with OpenGL</i> , Prentice Hall.
Reference Book: 1. Shreiner. D ,Woo. M. OpenGL(R) Programming Guide .New York : Addison-Wesley 2- L. Murdock. K. 3D Max Bible. Portland: Wiley