Course Code: 540205	Marks: 80	Credits: 3	Class Hours: 90
Course Title:	**Computer Graphics**		

Graphics hardware: display and input devices; raster graphics concept: architecture, algorithms and other image synthesis methods; design of interactive graphic conversations; architecture of display devices and connectivity to a computer; scan conversion algorithms for line, circle and ellipse drawing; implementation of graphics concepts of two-dimensional and three-dimensional viewing, clipping and transformations; hidden line elimination algorithms; three-dimensional object representations: polygon surface, B-Spline curves and surfaces, BSP trees, Octrees, Fractal-Geometry methods; visible surface detection methods: Z-buffer method, ray casting method; illumination models; surface rendering methods: polygon rendering, ray tracing, terrain visualization with height mapping, modeling surface details with texture mapping; color models; computer animation.

Reference Books:

1) Roy A. Plastock and Gordon Kalley, *Schaum's Outline of Theory and Problems of Computer Graphics*, published by McGraw-Hill, 2nd Edition.
2) Foley and VanDam, *Computer Graphics Principles and Practice*, Published by Pearson, 2nd Edition.
3) Schaum's Outline series, Computer graphics
4) Steven and Harrington, Computer graphics: a programming approach.