

LESSON PLAN:		
Discipline: IT	Semester: 5th	Name of the Teaching Faculty: Ms.Supriya Mishra
Subject: Computer Graphics & Multimedia	No. Of classes allotted per week : 4 periods per week (Mon, Tues, Thurs& Fri – 1 period each)	Semester: From Date: 01-08-2023 To 30-11-2023
WEEK	CLASS DAY	THEORY /PRACTICAL TOPICS
1st	01-08-2023	Introduction to Computer Graphics & Syllabus Discussion
	03-08-2023	What is Graphics? 1. Applications of Computer Graphics & Multimedia 1.1 Computer graphics in CAD 1.2 Presentation Graphics 1.3 Computer Art 1.4 Entertainment
	04-08-2023	1.5 Education & Training 1.6 Visualization 1.7 Image Processing 1.8 Graphic User Interface 1.9 Multimedia Concepts
2nd	07-08-2023	Recap & Discussion of Important Questions of Chapter 1 2. Overview of Graphics System 2.1 Graphics System 2.2 Raster Scan Display
	08-08-2023	2.3 Random Scan Display Diff b/w Raster and Random Scan Display
	10-08-2023	2.4 Graphics Input Devices 2.5 Graphics Software.
	11-08-2023	Recap & Discussion of Important Questions of Chapter 2 3. Graphics Output primitive 3.1 Points & Lines 3.2 DDA Line Drawing Algorithm
3rd	14-08-2023	3.3 Bresenham's Line drawing Algorithm
	17-08-2023	3.4 Mid Point Circle algorithm
	18-08-2023	3.5 Filled Area Primitives 3.6 Boundary fill algorithm and Flood fill algorithm
4th	21-08-2023	Recap & Discussion of Important Questions of Chapter 3 4. Two Dimensional Geometric Transformations 4.1 Translation 4.2 Rotation
	22-08-2023	4.3 Scaling 4.4 Reflection
	24-08-2023	4.5 Shear 4.6 Matrix representation and Homogenous coordinate system 4.7 Composite transformation
	25-08-2023	Recap & Discussion of Important Questions of Chapter 4 5. Two Dimensional Viewing 5.1 Viewing pipeline

		5.2 Viewing coordinate reference frame
5th	28-08-2023	5.3 Window to view port coordinate transformation
	29-08-2023	5.4 Line clipping concept 5.5 Polygon clipping concept Recap & Discussion of Important Questions of Chapter 5
	31-08-2023	6. Three Dimensional Object Representations 6.1 Polygon surface 6.2 Polygon table 6.3 Plane equation
	01-09-2023	Class Test-1 (Tentative) Assignment-1
6th	04-09-2023	6.4 Polygon mesh 6.5 Quadric surfaces 6.6 Sphere, Ellipsoid
	05-09-2023	6.7 Spline representation
	07-09-2023	6.8 Bezier curves & Surfaces
	08-09-2023	6.9 B-Spline curves & surfaces Recap & Discussion of Important Questions of Chapter 6
7th	11-09-2023	7. Three Dimensional Geometric & Modeling Transformations 7.1 Translation 7.2 Rotation
	12-09-2023	7.3 Scaling 7.4 Reflection
	14-09-2023	7.5 Shear
	15-09-2023	7.6 Composite transformation 7.7 Modeling & Coordinate transformation.
8th	18-09-2023	Diff b/w 2d & 3d transformations Recap & Discussion of Important Questions of Chapter 7
	21-09-2023	8. Three Dimensional Viewing 8.1 Viewing pipeline
	22-09-2023	8.2 Viewing coordinates
9th	25-09-2023	8.3 Parallel projection 8.4 Perspective projection
	26-09-2023	Diff b/w 2d & 3d viewing 8.5 Concept of 3D clipping.
	28-09-2023	Recap & Discussion of Important Questions of Chapter 8 9. Illumination Model & Surface Rendering Methods 9.1 Different light sources used in 3D modeling Diff b/w illumination model & surface rendering
10th	03-10-2023	9.2 Basic Illumination model 9.3 Ambient light 9.4 Diffuse reflection 9.5 Specular reflection Recap & Discussion of Important Questions of Chapter 9
	05-10-2023	10. Introduction to Digital Audio

		10.1 Basics of Acoustics, Psychoacoustics
	06-10-2023	10.2 Musical sound and noise, elementary sound system
11th	09-10-2023	Internal Assessment (To be decided by Institution)
	10-10-2023	
	12-10-2023	
	13-10-2023	10.3 Microphones, Amplifiers, 10.3 Digital audio formats Diff b/w Lossy& lossless compression.
12th	16-10-2023	10.4 Audio compression (LPC)
	17-10-2023	10.4 Audio compression (Sub Band Encoding)
	19-10-2023	Diff b/w LPC and SBE Flowcharts(LPC and SBE) Recap & Discussion of Important Questions of Chapter 10
	20-10-2023	11. Introduction to Digital Image 11.1 Vector and raster Graphics 11.2 Digital representation of image, colour, 16 bit, 24 bit colour depth
13th	23-10-2023	Puja Holiday
	24-10-2023	
	26-10-2023	
	27-10-2023	
14th	30-10-2023	11.3 Colour Characteristics-Hue, saturation, Luminance 11.4 Colour Palette
	31-10-2023	11.5 Image formats-JPEG, TIFF, BMP, GIFF)
	02-11-2023	Class Test-2 (Tentative) Assignment-2
	03-11-2023	11.6 Image evaluation
15th	06-11-2023	11.7Layers
	07-11-2023	11.8 Filters 11.9 Image manipulation-scaling, cropping, rotation
	09-11-2023	Recap & Discussion of Important Questions of Chapter 11
	10-11-2023	12. Introduction to Video 12.1 Video in Multimedia 12.2 Basics of Motion-Video
16th	13-11-2023	12.3 Sources of Motion-Video
	14-11-2023	12.4 Video formats, lines, frames, fields
	16-11-2023	12.5 TV Broadcast standards-PAL, NTSC, SECAM
	17-11-2023	12.6 MPEG Compression
17th	20-11-2023	Recap & Discussion of Important Questions of Chapter 12
	21-11-2023	Discussion of Important Questions of Chapters 1,2,3
	23-11-2023	Discussion of Important Questions of Chapters 4,5,6
	24-11-2023	Discussion of Important Questions of Chapters 7,8, 9
18th	28-11-2023	Discussion of Important Questions of Chapters 10,11,12
	30-11-2023	Last Date for submission of Notes by students