

## Lesson Plan July 2018

Name: Bhanu Pratap

Class: BCA 5th Sem

Paper code: 17MCS23C2

Subject: Computer Graphics

13 July to 21 July	Brief Introduction of Syllabus, various prescribed books, methodology and approach towards the subject computer graphics and its applications, Graphics Primitives: Introduction to computer graphics Basics of Graphics systems, Concept of images ,interactive graphics, bitmap images dynamic images Application of CG
23 July to 28 July	Overview of graphics systems, Video-display devices, Random Scan Systems Raster-Scan Systems, Graphics Input Devices, Graphics output Devices
30 July to 4 Aug	Graphics monitors, CRT and Beam Penetration Method, Graphics workstations. Output Primitives: Points and lines, line drawing algorithms, DDA Algorithm. Bresenham Line Drawing Algorithm.
6 Aug to 11 Aug	Bresenham Line Drawing Algorithm using examples. mid-point circle algorithm. Ellipse algorithms. Filled area primitives: Scan line polygon fill algorithm. Boundary fill Algorithm Flood- fill algorithms.
13 Aug to 18 Aug	UNIT-II 2-D Geometrical Transforms: Introduction of Transformation. Translation and its example and metrics representation. Rotation and its examples and matrices representation. Scaling, matrices representation of Reflection & shearing transformation.
20 Aug to 25 Aug	Matrix representations and homogeneous coordinates of transformation composite transforms, Transformations between coordinate systems, 2-D Viewing: The viewing pipeline, viewing coordinate reference frame.
27 Aug to 1 Sep	Window to view- port coordinate transformation, 2-D Viewing functions Cohen-Sutherland Algorithm, Cohen-Sutherland Line clipping Algorithm, Cohen-Sutherland Line clipping Algorithm examples
3 Sep to 8 Sep	Cyrus-beck line clipping algorithms, Cyrus-beck line clipping algorithms examples Sutherland –Hodgeman polygon clipping algorithm, Sutherland –Hodgeman polygon clipping algorithm examples, Revision and solve student problems from Unit-II
10 Sep to 15 Sep	UNIT-III 3-D Object Representation: Introduction of Polygon surfaces, Quadric surfaces, spline representations, spline representation examples, Hermite curve.
17 Sep to 22 Sep	Hermite curve, Hermite curve examples, Bezier curve, Properties of Bezier curve Representation of Bezier curve, Matrices of Bezier curve, Bezier curve examples.
24 Sep to 29 Sep	Introduction of B-Spline curves, Properties of B-Spline curves, Matrices representation of B-Spline curves, Examples of B-Spline curves, Bezier and B-Spline surfaces Revision and Solve student problem from Unit-III
1 Oct to 6 Oct	Basic illumination models, polygon-rendering methods. Shading models for polygons. Constant shading. interpolated shading, shading examples
8 Oct to 13 Oct	polygon mesh shading texture mapping. Shadows, scan line generation ,shadow volumes. transparency refractive and non refractive ,interobject reflections. Revision and Solve student problem from Illumination and shading. Test of Unit-III
15 Oct to 20 Oct	Unit-3, D Geometric Transformations, Introduction of 3D-Transformation, 3-D Translation its example and matrices representations, 3-D Rotations its example and matrices representations, 3-D Scaling its example and matrices representations, 3-D Reflection and its example and matrices representations
22 Oct to 27 Oct	3-D Shearing and its example and matrices representations, 3-D Composit Transformation, 3-D Viewing: Viewing pipeline Introduction Viewing Coordinates View volume and general projection transforms
29 Oct to 3 Nov & 5 Nov	View volume and general projection transforms, Parallel and Prespective transformation, transformation & clipping. Revision of Unit-IV .Test of Unit IV
6 Nov to 13 Nov	( Vacation )

## Lesson Plan July 2018

Name: Bhanu Pratap

Class: B.Sc 5th Sem

Subject code: 5.1 & 5.2

Subject: DBMS&IWT

13 July to 21 July	UNIT-I Basic Concepts – Data, Information, Records and files. Traditional file – based Systems-File Based Approach-Limitations of File Based Approach
23 July to 28 July	, Database Approach-Characteristics of Database Approach, Database Management System (DBMS), Components of DBMS Environment, DBMS Functions, Advantages and Disadvantages of DBMS
30 July to 4 Aug	. Classification of Database Management System. Roles in the Database Environment - Data and Database Administrator
6 Aug to 11 Aug	UNIT – II Centralized and Client Server architecture to DBMS. Database System Architecture – Three Levels of Architecture, External, Conceptual and Internal Levels, Schemas
13 Aug to 18 Aug	, Mappings and Instances. Data Independence – Logical and Physical Data Independence. Data Models: Records- based Data Models, Object-based Data Models,
20 Aug to 25 Aug	Physical Data Models and Conceptual Modeling. Hierarchical, network and relational model Entity-Relationship Model – Entity Types, Entity Sets, Attributes and keys, Relationship,
27 Aug to 1 Sep	relationship sets, Role name & recursive relationship and structural constraints, Conceptual design using E-R Diagrams. Relational Data Model:-Introduction, Properties of Relations,
3 Sep to 8 Sep	Keys, Integrity Constraints over Relations, Views. Relational Database Design: Functional Dependencies, Normalization 1st to 3rd Normal Form, BCNF, Lossless Join and Dependency preserving decomposition.
10 Sep to 15 Sep	UNIT – IV SQL: Types & components of SQL, Data Definition and data types, Data definition commands, Data manipulation commands, Data Control Commands Specifying Constraints(Primary Constraint,. Foreign key, Unique.
17 Sep to 22 Sep	in SQL, Schema, Basic Queries in SQL, Insert, Delete and Update operations. Inbuilt Date, String functions. Commit, Rollback, Save points. Views: Introduction, Advantages of creating views, Features, Destroying/ Altering table & Views.
24 Sep to 29 Sep	Introduction to Internet, Benefits of Internet, WWW, Hardware and software requirement for internet, internet protocols, applications of internet,
1 Oct to 6 Oct	Internet Tools- Telnet, FTP, Gopher, Archie, Veronica, Mosaic, WAIS, IRC, Online Chatting, Messaging, and Conferencing Concepts, resources of internet.
8 Oct to 13 Oct	E-Mail mailing lists, Internet addressing, internet service provider (ISP), internet in India- Shell account, TCP/IP account, Home page and Web Site, internet accessing, internet terminology
15 Oct to 20 Oct	internet security problems and solutions. Overview of Intranet and its applications, Web Browsers, Search Engines, Categories of Search Engines, Searching Criterion, Surfing the Net, Hypertext Transfer Protocol (HTTP), URL
22 Oct to 27 Oct	HTML: Internet Language, Understanding HTML, Create a Web Page, Linking to other Web Pages, Publishing HTML Pages, Text Alignment and Lists, Text Formatting Fonts Control, E-mail Links and link within a Page, HTML Forms.
29 Oct to 3 Nov & 5 Nov	Creating Web Page Graphics, Putting Graphics on a Web Page, Custom Backgrounds and Colors, Creating Animated Graphics., Web Page Design and layout, Advanced Layout with Tables, Using Style Sheets.
6 Nov to 13 Nov	( Vacation )

## Lesson Plan July 2018

Name: Bhanu Pratap

Class: MCA 3rd Sem

Subject code: 17MCA33C1

Subject: Computer Graphics

21 July and 23 July to 28 July	Overview of Graphics System: Computer Graphics and Its Types; Application of Computer Graphics; Video Display Devices: CRT, Raster Scan Systems,
30 July to 4 Aug	Random Scan System; Color CRT Monitors, Refresh CRT and Interlacing; DVST, Emissive and Non- Emissive Display devices
6 Aug to 11 Aug	Hard copy devices; Graphics Software Standards; Color Models: RGB, CMY, HLS; Color and Gray Scale Levels.
13 Aug to 18 Aug	UNIT-II Scan Conversion: Scan Converting a Point, Line, Circle and Ellipse; Anti-aliasing.
20 Aug to 25 Aug	Two-Dimensional Geometric Transformations: Basic Transformations (Translation, Rotation, Scaling), Test of Unit I.
27 Aug to 1 Sep	Matrix Representations and Homogeneous Coordinates, Composite Transformations, Reflection and Shearing.
3 Sep to 8 Sep	UNIT-III Polygon Filling: Scan-Line Polygon Fill Algorithm, Inside-Outside tests, Boundary-Fill Algorithm, Flood Fill Algorithm, Cell Array
10 Sep to 15 Sep	Character Generation. Two-Dimensional Viewing: The Viewing Pipeline, Window to View port coordinates Transformation.
17 Sep to 22 Sep	Test of Unit II, Clipping Operations, Point Clipping, Line Clipping, Polygon Clipping for Convex and Concave polygons
24 Sep to 29 Sep	Text Clipping, Clipping Examples, Exterior Clipping.
1 Oct to 6 Oct	Three-Dimensional Concepts: Three Dimensional Display Methods: Parallel Projection and Perspective Projection
8 Oct to 13 Oct	3D Transformations; Bezier Curves vs. B-Spline Curves; Shading methods: Flat Shading,
15 Oct to 20 Oct	Gouraud Shading, Phong Shading.
22 Oct to 27 Oct	Animation: Design of Animation Sequence; Classification of Animation; Components of Multimedia;
29 Oct to 3 Nov & 5 Nov	Authoring Process and Tools. Case Study: A graphics software:- MatLab, Uses of MatLab in Graphics Application,
6 Nov to 13 Nov	( Vacation )
14 Nov to 17 Nov	Features of MatLab, Generalize application by using MatLab.
19 Nov to 21 Nov	Generalize application by using MatLab.