

# ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES(A)

**Permanently Affiliated to Andhra University ,Accredited by NBA & NAAC with ‘A’ Grade**

**Sangivalasa-531162, Bheemunipatnam Mandal, Visakhapatnam Dt.**

Phone: 08933- 225084,226395

**DEPARTMENT OF CSE**

Computer Graphics

COURSE PLAN (2019-20 SEM-I)

|  |  |  |  |  |  |  |  |
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| Subject code | Name of the subject | Class | Name of the faculty / Designation | No. Of students | Total periods per semester(76) | | |
| Lectures(L) | Tutorials(T) | |
| CSE313 | Computer Graphics | III/IV SEM-I (CSE-C) | Assistant Professor |  | 71 | | 5 |

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| **DAY** | **DATE** | **No .of hrs** |  | **TOPIC** |
|  | 17/06/2019 | 1 | **UNIT-I** | Introduction to CG, CO’s |
|  | 19/06/2019 | 1 | Introduction and its Applications, Video Display Devices – CRT |
|  | 21/06/2019 | 1 | Raster & Random Scan displays, Beam penetration |
|  | 22/06/2019 | 2 | Shadow mask methods ,DVST, Plasma panel, other monitors, Flat panel display |
|  | 24/06/2019 | 1 | 3D views, Raster scan systems |
|  | 26/06/2019 | 1 | Random Scan systems Hard Copy Devices & Graphics Software |
|  | 28/06/2019 | 1 | **Tutorial -1** |
|  | 29/06/2019 | 2 | Graphics Monitors and Workstations & Input Devices |
|  | 01/07/2019 | 1 | **UNIT-II** | Points and Lines & Line Drawing Algorithms – DDA |
|  | 03/07/2019 | 1 | DDA problems solving |
|  | 05/07/2019 | 1 | Breseham’s line algorithm (m>1) |
|  | 06/07/2019 | 2 | Breseham’s line algorithm (m>1) |
|  | 08/07/2019 | 1 | Loading the frame buffer & Line functions |
|  | 10/07/2019 | 1 | Midpoint circle algorithm & solving example |
|  | 12/07/2019 | 1 | Midpoint circle algorithm & solving example |
|  | 13/07/2019 | 2 | Ellipse generating algorithm & solving example |
|  | 15/07/2019 | 1 | Tutorial-2 |
|  | 17/07/2019 | 1 | Other curves, parallel algorithms, curve functions |
|  | 19/07/2019 | 1 | Filled area primitives – scan line, Inside outside test |
|  | 20/07/2019 | 2 | Boundary fill, flood fill |
|  | 22/07/2019 | 1 | Cell array, character generation |
|  | 24/07/2019 | 1 | Line attributes, Curve attributes, color & gray scales |
|  | 26/07/2019 | 1 | Area fill & Character attributes |
|  | 27/07/2019 | 2 | Marker attributes ,Bundled attributes, Inquiry functions |
|  | 29/07/2019 | 1 | Anti-aliasing |

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|  | 31/07/2019 | 1 | **UNIT-II** | Basic transformations- introduction |
|  | 02/08/2019 | 1 | Matrix representations, |
|  | 03/08/2019 | 2 | Other transformations ,Composite transformations, |
|  | 05/08/2019 | 1 | Composite transformations, |
|  | 07/08/2019 | 1 | Problems |
|  | 14/08/2019 | 1 | Mid paper discussion & distribution |
|  | 16/08/2019 | 1 | Transformations between coordinate system & solving problems |
|  | 17/08/2019 | 1 | Affine transformations, Functions |
|  | 19/08/2019 | 1 | Viewing pipeline & coordinate transformations |
|  | 21/08/2019 | 1 | Viewing functions,clipping operations |
|  | 24/08/2019 | 2 | clipping operations |
|  | 26/08/2019 | 1 | Polygon clipping |
|  | 28/08/2019 | 1 | Polygon clipping |
|  | 30/08/2019 | 1 | Other clipping-curve, exterior, text, |
|  | 31/08/2019 | 2 | Structure Concepts ,Editing Structures |
|  | 04/09/2019 | 1 | Tutorial-3 |
|  | 06/09/2019 | 1 | **UNIT-IV** | Three dimensional display methods & graphic packages, |
|  |
|  | 07/09/2019 | 2 | Curved lines and curved surfaces, blobby objects, Spline representations |
|  | 09/09/2019 | 1 | Bezire curves and surfaces |
|  | 11/09/2019 | 1 | Bezire curves and surfaces |
|  | 13/09/2019 | 1 | B-Spline curves and surfaces Translation & Scaling, |
|  | 14/09/2019 | 2 | Rotation, Other transformations |
|  | 16/09/2019 | 1 | Transformation functions and modeling packages |
|  | 18/09/2019 | 1 | Tutorial-4 |
|  | 20/09/2019 | 1 |  | Viewing pipeline & coordinates |
|  | 21/09/2019 | 2 | Projections |
|  | 23/09/2019 | 1 | **UNIT-V** | View volumes and general projection transformations |
|  | 25/09/2019 | 1 | View volumes and general projection transformations |
|  | 27/09/2019 | 1 | Clipping, Hardware Implementations & Modeling Packages, 3D Viewing |
|  | 28/09/2019 | 2 | Classification of visible-surface detection algorithms, Depth buffer method |
|  | 30/09/2019 | 1 | Back face method |
|  | 04/10/2019 | 1 | Scan line method. |
|  | 05/10/2019 | 1 | Tutorial-5 |

Signature of H.O.D Signature of the Faculty member

Date: Date: