



**Rajiv Gandhi University of Knowledge Technologies Nuzvid**  
**Department of Mechanical Engineering**

**TEACHING PLAN**

**Subject: Engineering Graphics & Computer Drafting**

**Academic Year: 2022-2023**

**Code: 20ME1214**

**L-T-P-C: 1-0-3-2.5**

**Course: B. Tech**

**Year: I**

**Semester: I**

**Sub. Coordinator: Dr. S A Basha**

**Designation: Assistant Professor (C)**

**Campus: Nuzvid**

**E mail: [basha@rguktn.ac.in](mailto:basha@rguktn.ac.in)/[iitkgp.basha@gmail.com](mailto:iitkgp.basha@gmail.com)**

**Phone: 9885412137**

**Syllabus**

**Course Content:**

**Unit - I**

**(6 Contact hours)**

Introduction to Engineering drawing – Tools and Standards, Geometric Constructions, Scales, Conics and Special Curves - ellipse, parabola, hyperbola, cycloids, Involutess.

**Unit - II**

**(6 Contact hours)**

Introduction to Orthographic Projections, Projections of Points, Projection of Lines.

**Unit - III**

**(7 Contact hours)**

Projection of Planes, Projections of Solids cube, prism, pyramid, cylinder, cone and sphere.

**Unit - IV**

**(5 Contact hours)**

Sections of Solids - cube, prism, pyramid, cylinder, cone and sphere. Development of Surfaces – Parallel line method and Radial line method.

**Unit - V**

**(6 Contact hours)**

Computer Aided Design – Introduction to AutoCAD, Co-ordinate System (UCS) and their Commands, Basic Commands of Drawing and Editing, Dimensioning and Text.

**Unit – VI**

**(6Contact hours)**

Drawing practice with AutoCAD – Creating 2D Drawings of Objects from Isometric views, Creating Isometric views form Orthographic views and. Introductions to 3D drawings.

**Learning Resources**

**Text Book:**

1. N.D. Bhatt and V.M. Panchal, “Engineering Drawing”, Charotar Publications, 2014.

**Reference Books:**

1. K. Venugopal , “Engineering drawing” New Age International Publishers, New Delhi, 2004.

2. N.S. Parthasarathy and Vela Murali , “Engineering Drawing”, Oxford University Press, 2011.

**Web content**

<https://nptel.ac.in/courses/112/103/112103019/>

<https://www.iitg.ac.in/rkbc/me111.htm>

**Video lectures**

<https://nptel.ac.in/courses/112/105/112105294/>

<https://www.youtube.com/watch?v=ANEvQyt3PnU>

**For Theory Courses only:**

Course Nature		Theory		
Assessment Method				
Assessment Tool	Practice charts (Average of min 8 charts)	Monthly tests	End Semester Test	Total
Weightage (%)	20%	20%	60%	100%



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**Engineering Graphics & Computer Drafting**

Unit	Time	Topics
Unit 1	October 18, 2022	Introduction to Engineering drawing
	October 25, 2022	Tools and Standards, Geometric Constructions, Scales
	November 1, 2022	Conics and Special Curves - ellipse, parabola, hyperbola.
	November 8, 2022	Cycloids, Involutives.
Unit 2	November 15, 2022	Introduction to Orthographic Projections, Projections of Points,
	November 22, 2022	Projection of Lines
Unit 3	November 29, 2022	Projection of Planes, Projections of Solids cube, prism,
	December 6, 2022	Projections of Solids pyramid, cylinder, cone and sphere.
Unit 4	December 13, 2022	Projections of Solids cone and sphere.
	December 20, 2022	Sections of Solids - cube, prism, pyramid, cylinder, cone and sphere.
	December 27, 2022	Development of Surfaces – Parallel line method and Radial line method.
Unit 5	January 3, 2023	Computer Aided Design – Introduction to AutoCAD, Co-ordinate System (UCS) and their Commands,
	January 24, 2023	Basic Commands of Drawing and Editing, Dimensioning and Text.
Unit 6	January 31, 2023	Drawing practice with AutoCAD – Creating 2D Drawings of Objects from Isometric views,
	February 7, 2023	Creating Isometric views from Orthographic views and . Introductions to 3D drawings.

**Note: Syllabus for monthly tests.**

Monthly Test 1: Unit 1

Monthly Test 2: Unit 2 and 3

Monthly Test 3: Unit 4