

20CE3351- COMPUTER AIDED DRAWING

Offering Branches	CE		
Course Category:	Professional core	Credits:	1.5
Course Type:	Laboratory	Lecture-Tutorial-Practical:	0-0-3
Prerequisites:	Nil	Continuous Evaluation:	15
		Semester End Evaluation:	35
		Total Marks:	50

Course Outcomes

Upon successful completion of the course, the student will be able to:

CO1	Understand the advantages of using CAD in comparison with conventional method.	K2
CO2	Draw and interpret CAD drawings using drawing, editing and viewing in CAD software.	K4
CO3	Create 2-D views and wire frame modelling	K6
CO4	Create 3-D views from 2-D views	K6

Contribution of Course Outcomes towards achievement of Program Outcomes

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3		3	3	3	2			2		2	2	3	2
CO2	3		3	3	3	3			3		3	3	3	3
CO3	3		3	3	3	3			3		3	3	3	3
CO4	3		3	3	3	3			3		3	3	3	3
Avg.	3		3	3	3	3			3		3	3	3	3

1- Low

2-Medium

3-High

Course Content

Experiment No.1	Concept of AutoCAD, Tool bars in CAD software, coordinate system, snap, grid, and ortho mode (Absolute, Relative and Polar), setting of units and layout.	CO1 CO2 CO3 CO4
Experiment No.2	Drawing commands – point, line, arc, circle, ellipse and Editing commands – scale, erase, copy, stretch, lengthen and explode.	
Experiment No.3	Develop drawings with Dimensioning, hatching and placing text in drawing area	
Experiment No.4	Create layers within a drawing	
Experiment No.5	Creating 2-D views	
Experiment No.6	Creating curves, extrude features, chamfer, fillet etc.,	
Experiment No.7	View point coordinates and view(s) displayed, examples to exercise different options like save restore and delete	
Experiment No.8	Prepare 3-D drawings using 3-D commands (Cylinder, cone, wedge, sphere etc...)	
Experiment No.9	Preparing 3-D view of existing 2-D views	
Experiment No.10	Performing rendering on 3-D drawing	

Learning Resources

Text Books	1. AutoCAD for Engineering Drawing Made Easy by P. NageswaraRao; Tata McGraw Hill, New Delhi.
Reference Books	1. Instruction Manual of the software used (AutoCAD)
e-Resources& other digital material	1. https://nptel.ac.in/courses 2. http://jntuk-coeerd.in/