"PVC" NSSK GOVT POLYTECHNIC BILASPUR
PLANNED THEORY SYLLABUS COVERAGE

Department: Mechanical Engg.				Subject: Engineering Graphics – I		
Sem. & Branch: 1ST / Mech. Engg.				Duration: 3 Year		
Syllabus coverage		Total periods:-56			Practrical : Yes	
SR. NO	Period no /hrs	UNIT/ Chapter	Details	Instruction Reference	Additional study	Remarks
1	05 hrs	UNIT 1	1.Draw horizontal, Vertical, 30 degrees, 45 degrees, 60 and 75 degrees lines, different types of lines,dimensioning styles using Tee and Set squares/drafter. 2.Write alphabets and numerical in 7:4 scale (Vertical only) (do this exercise in sketch book). (Sheets: 01 No)	1. Bureau of Indian Standards. Engineering Drawing Practice for Schools and Colleges 2. Bhatt, N. D. Engineering Drawing. Charotar Publishing House, Anand, Gujrat 2010	1. Dhawan; R. K. Engineering Drawing. S. Chand and Company, New Delhi 2. Autodesk. AutoCAD User Guide. Autodesk Press, USA, 2015	
2	06 hrs		Draw some problems on Engineering Plain and Diagonal scale. (Sheet: 02 No)			
3	08 hrs	UNIT 2	Draw some problems on orthographic projections using first angle method of projection having plain and slanting, cylindrical surfaces, ribs and slots.(Sheets: 3 No)			
4	08 hrs	UNIT 3	Draw some problems on Isometric view of simple objects having plain and slanting and cylindrical surface (e.g. Cube, Cone and cylinder etc.) by using natural scale. (Sheets: 02 No)			
5	06 hrs	UNIT 4	Draw free hand sketches/ conventional representation of machine elements in sketch book such as thread profiles, nuts, bolts, studs, set screws, washers, Locking arrangements. (Sheets: 02 No)			
6	05 hrs	UNIT 4	Problem based Learning: Given the orthographic views of at least three objects with few missing lines,the student will try to imagine the corresponding objects, complete the views and draw these views in sketch book. (Sheets: 01 No)			
7	06 hrs		1. Draw basic 2D entities like: Rectangle, Rhombus,Polygon using AutoCAD (Print out should be a part of progressive assessment) 2.Draw basic 2D entities like: Circles, Arcs, circular using AutoCAD (Printout should be a part of progressive assessment).(Sheets 01 No)			
8	08 hrs	UNIT 5&6	1. Draw basic 2D entities like: Circular and rectangular array using AutoCAD (Printout should be a part of progressive assessment) 2.Draw blocks of 2D entities comprises of Rectangle,Rhombus, Polygon,Circles, Arcs, circular and rectangular array, blocks using AutoCAD (Print out should be a part of progressive assessment).(Sheets: 01 No)			
9	06 hrs		Draw basic branch specific components in 2D using AutoCAD (Print out should be a part of term work). (Sheets: 02 No)			
10	06 hrs		Draw complex branch specific components in 2D using AutoCAD (Print should be a part of progressive assessment).(Sheets: 02 No)			

Approved 07/08/2023	Sign HOD/JOC