

# GUJARAT TECHNOLOGICAL UNIVERSITY

## B.E Semester: 3 Mechatronics Engineering

Subject Code 132001

Subject Name INDUSTRIAL DRAFTING

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Sr.No	Course content
1.	Classification of drawings: machine drawing, production drawing, part drawing, assembly drawing etc.
2.	Conventional representation for materials such as metals, wood, cement etc .and machine components such as gears, shafts, splined shafts, bearings etc.
3.	Intersection of surfaces: Prism to prism, cylinder to cylinder, cylinder to prism, cone to cylinder, cylinder to cone
4.	Orthographic reading: Missing line and views
5.	Sectional Views: Section plane line, types for sectional views such as full, half, partial, revolved, removed etc. with the conventions
6.	Screw threads: profile of standard screw threads used for fasteners and power transmission screws, types of threads, conventional representation of external and internal threads with and without sections
7.	Screw fasteners: Bolts with nut and washer, studs, foundation bolts, locking arrangements of nuts
8.	Keys & Rigid joints: types of keys, cotter joints such as socket & spigot , gib & cotter, sleeve joint, knuckle joint etc.
9.	Surface roughness: machining symbols, indication for roughness on production drawing etc.
10.	Limits fits & tolerances: Introduction, indication for limits, fits and tolerances on production drawings, symbol for perpendicularity, cylindricity, concentricity etc., datum feature
11.	Computer graphics: introduction to computer aided drawing, basics of computer graphics for preparation of drawing.

### Reference Books:

1. Machine Drawing by N D Bhatt ,Charotar Publishing House
2. Engineering Drawing by N D Bhatt ,Charotar Publishing House
3. Machine Drawing by K L Narayana, P Kannaiah,K Venkata Reddy, Wiley Eastern Publishing House
4. Computer aided drafting and design by Voisinet,McGraw Hill Book Co.