

**GUJARAT TECHNOLOGICAL UNIVERSITY (GTU)**

I - SEMESTER

**Course Title: ENGINEERING DRAWING - I**

(Course Code: 1313404)

<b>Diploma Programme in which this course is offered</b>	<b>Semester in which offered</b>
Mechanical (Manufacturing Technology)	First Semester

<b>Module.</b>	<b>Topics</b>	<b>Hours</b>
Module 1	<b>Engineering script</b> 1.1 Need for legible lettering and numbering in drawing 1.2 Selection of suitable size of letters & numbers as per SP46	2 h
Module 2	<b>Geometric construction</b> 2.1 Practice on free hand sketching 2.2 Types of lines 2.3 Arc joints	3 h
Module 3	<b>Isometric views &amp; Orthographic projection</b> 3.1 First angle projection and Third angle projection 3.2 Positioning of views in First angle and Third angle 3.3 Exercise on First angle and Third angle projection 3.4 Isometric projection	8 h
Module 4	<b>Sectional views</b> 4.1 Need for drawing sectional views –Explanation of cutting plane and its representation- Principle of selection of cutting plane 4.2 Meaning of Full section, Half section, Revolved section, Removed section, Thin section 4.3 Conventional practice of showing sections of different materials as per SP 46 4.4 Exercises in drawing sectional views	8 h
Module 5	<b>Dimensioning</b> 5.1 Importance of Dimensioning 5.2 Elements of Dimensioning and general rules of Dimensioning as per SP46 5.3 Parallel Dimensioning and Chain Dimensioning 5.4 Rectangle coordinates and Polar coordinates 5.5 Exercises on Dimensioning	5 h
Module 6	<b>Screw threads</b> 6.1 ISO metric threads – BSW threads – Trapezoidal threads	3 h
Module 7	<b>Understanding: Shop floor Drawing / Instructions</b> 7.1 Practice of Reading shop floor drawings	7 h