

## ENGINEERING GRAPHICS

ME-250

L: 0 T: 0 P: 4 Cr: 2

### COURSE OUTCOMES

1. Student will able to understand basics of drawing and design of engineering components
2. Student will able to understand scaling of designs
3. Student will able to understand the different view of any object
4. Student will able to understand detail construction of any object
5. Student will able to understand sheet metal work

### SYLLABUS

#### Unit I

**ORTHOGRAPHIC PROJECTION:** Conversion of pictorial/ isometric views into orthographic views of machine block. Identification of surface in orthographic views. Some practice on auto-Cad package.

#### Unit II

**ISOMETRIC PROJECTION:** Isometric scale, isometric projection of solids, missing line and missing views. Isometric view of simple objects when their orthographic views are given. Preparation of isometric views using Auto-Cad package.

#### Unit III

**SECTIONING:** Conventional representation in section of engineering materials. Methods of sectioning, sectional views of machine components, brackets, bushed bearing and foot step bearing. Unit IV FASTENERS: Sketches of different types of threads, permanent fasteners (riveted and welded joints), temporary fasteners (nut and bolt assembly, studs, keys. etc.)

#### Unit V

**BUILDING DRAWINGS:** Symbols of electrical and sanitary items. Terminology used in building drawing, plan and elevation of 2/3- rooms building using Auto-CAD package, from corrosion, refractories, their manufacturer and properties: neutral, acid and basic refractors; glass its types and manufacture.

#### Text Books:

1. A.N. Siddiqui, Z.A. Khan and Mukhtar, Engineering Graphics with Primer on Autocad

#### Reference Books:

1. N.D. Bhutt, Engineering Drawing