

Course Number and Name													
BME3L1 – MACHINE DRAWING													
Credits and Contact Hours													
3&60													
Course Coordinator's Name													
Mr.R.Hariharan													
Text Books and References													
<b>TEXT BOOKS:</b>													
1. Gopala Krishnan, Machine Drawing- Subash publishers, 2001.													
2. Bhatt, N.D. Machine Drawing- Charotar publishing House, 2000.													
<b>REFERENCES:</b>													
1. Narayana.K.L. Machine Drawing- New age publisher, 2006.													
Course Description													
To make the students understand and interpret drawings of machine Componentsso as to prepare assembly drawings.													
To familiarize the students with Indian Standards on drawing practices and standard components.													
Prerequisites							Co-requisites						
ENGINEERING GRAPHICS							Nil						
required, elective, or selected elective (as per Table 5-1)													
Required													
Course Outcomes (COs)													
CO1	Students will get good interpretation of machine components												
CO2	Students will understand standardization of drawings .												
CO3	Student will understand the Indian and International standard components.												
CO4	Student will able create drawings to industrial standard.												
CO5	Learn what tolerance and fits and assembly												
CO6	Learn the difference between free sketching and machine drawing												
Student Outcomes (SOs) from Criterion 3 covered by this Course													
COs/SOs	a	b	c	d	e	f	g	h	i	j	k	l	
CO1	H	M	H			L	L	L	L	L	L		
CO2	H	M	H			L	L	L	L				
CO3	H	M	H			L	L	L	L				
CO4	H	M	H			L	L	L	L				
CO5	H	M	H			L	L	L	L				
CO6	H	M	H			L	L	L	L				

## List of Topics Covered

Indian standard code (BIS) of practice for engineering drawing-General principle of presentation, Conventional representation of threaded parts, Springs, Gear and common features, Abbreviations and symbols use in technical drawings.

Tolerance- Types-Symbols used and representation on the drawing - Fit types, Selection for different application- Allowance, Interchangeability. Surface finish- Relation to the manufacturing processes- Types of representation on the drawing- Welding symbols.

### **Preparation of working drawing for given machine components:**

Bolts, Screws, Studs, Nuts, Keys and Key-ways.

### **Preparation of simple assembly drawings:**

Different types of cotter and knuckle joints.

### **Preparation of simple assembly drawing for following machine with part drawings given:**

Screw jack, Plummer block, Connecting rod, Machine vice, Tail stock of lathe, Tool head of shaper, fuel injection pump for single cylinder engine, Stop valve.