

19ME105

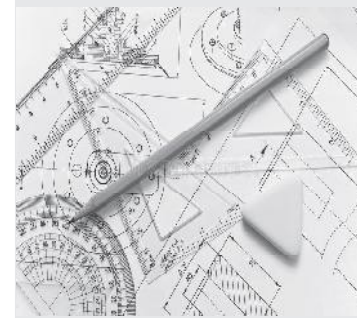
ENGINEERING DRAWING

Hours Per Week :

L	T	P	C
0	0	4	2

Total Hours :

L	T	P	WA/RA	SSH/HSH	CS	SA	S	BS
-	-	60	5	40	5	8	5	5



Source :

<https://thumbs.dreamstime.com/b/close-up-engineering-drawing-12170917.jpg>

COURSE DESCRIPTION AND OBJECTIVES:

Main objective of the course is to enable the students for making technical drawings of different engineering objects, to equip with knowledge and skills on visualization of machine components and objects, and to impart knowledge and skills to the students in CAD involving graphics and machine drawing.

COURSE OUTCOMES:

Upon completion of the course, student will able to achieve the following outcomes:

COs	Course Outcomes	POs
1	Draw orthographic projections of lines, planes and solids.	1,2,3,11,12
2	Construct isometric scale, isometric projections and views.	1,2,3,11,12
3	Draw sections of solids including cylinders, cones, prisms and pyramids.	1,2,3,11,12
4	Students' ability to produce engineered drawing of any newly designed object will be improved.	1,2,3,4
5	Students will develop good communication skills and team work.	12

SKILLS:

- ✓ Understand projections of lines, planes, and solids.
- ✓ Draw sections of solids including cylinders, cones, prisms, and pyramids.
- ✓ Read any Engineering drawing.
- ✓ Understand different types of scales,
- ✓ Drawing of missing view.

LABORATORY EXPERIMENTS

LIST OF EXPERIMENTS

TOTAL HOURS-60

1. Introduction of drawing instruments and their uses, lettering.
2. Drawing of planar scales and diagonal scales.
3. Drawing of orthographic projections.
4. Drawing of first and third angle projections.
5. Projections of points in second and third and fourth quadrants.
6. Projections of lines incline to H.P. and V.P.
7. Projections of points on an auxiliary planes.
8. Projections of lines on an auxiliary planes.
9. Projections of planes on an auxiliary planes.
10. Projections of oblique planes.
11. Projections of plane surface parallel to one plane and perpendicular to other two.
12. Projections of plane surface perpendicular to one plane and inclined to other two.
13. Projections of solids in simple positions.
14. Projections of solids when axis inclined to one of the reference and parallel to others.
15. Projections of planes when axis inclined to V.P. and parallel to H.P.
16. Projections of planes when axis inclined to H.P. and parallel to V.P.
17. Projections of planes when axis inclined to H.P. and V.P.
18. Projections of solids by using change of positions methods.
19. Projections of solids by using auxiliary plane methods.
20. Isometric drawing of objects.
21. Isometric projections of geometrical solids.
22. Development of pyramid.
23. Development of cone.
24. Insertion of two prisms.
25. Development of machine views.
26. Preparations of manual drawings with dimensions from models.
27. Drawing of ellipse.
28. Drawing of parabola.
29. Drawing of hyperbola.
30. Sectional drawing of simple machine parts.
31. Drawing of section views.
32. Practical examinations.

TEXT BOOK :

1. Bhat N. D. 2010, "Elementary Engineering Drawing". Charotar Publishing House Pvt. Ltd., Anand.

REFERENCE BOOKS :

1. Bhatt N. D and Panchal V. M. 2013, "Machine Drawing". Charotar Publishing House Pvt. Ltd., Anand.
2. Narayana K. L and Kannaiah P. 2010, "Machine Drawing". Scitech Publications (India) Pvt. Ltd., Chennai.