

II Year I Semester

L T P C

Code: 20ME3102

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COMPUTER AIDED ENGINEERING DRAWING LAB

Course objectives:

1. To make the student well versed with advanced concepts in engineering drawing.
2. To impart knowledge about standard principles of orthographic projection of objects.
3. To make the student capable of drawing sectional views and pictorial views of solids.
4. To enhance the student's knowledge and skills in engineering drawing and to introduces drafting packages and commands for computer aided drawing and modeling

Module: 1

(To be drawn on the drawing sheet)

1. Curves: Cycloid, Epicycloid, Hypocycloid, Involute.
2. Sections of solids: Sections and Sectional views of Right Regular Solids Prism, Cylinder, Pyramid, Cone Auxiliary views.
3. Development of solids: Development of Surfaces of Right Regular Solids Prism, Cylinder, Pyramid, Cone and their parts.

Module: 2

(To be drawn using the Computer)

1. Conversion of Isometric Views to Orthographic Views
2. Conversion of Orthographic Views to Isometric Views
3. Sectional Views: Conversion of pictorial views into orthographic projections, of simple machine parts with section.

Text books:

1. Engineering Drawing N.D. Bhatt / Charotar
2. Engineering Drawing / N. S. Parthasarathy and Vela Murali/ Oxford

Reference books:

1. Engineering Drawing / Basant Agrawal and Mc Agrawal/ McGraw Hill
2. Engineering Drawing/ M. B. Shah, B.C. Rane / Pearson.
3. Computer Aided Engineering Drawing – K Balaveera Reddy et al – CBS Publishers

Virtual Lab Links:

- http://vlabs.iitb.ac.in/vlabs-dev/labs/mit_bootcamp/egraphics_lab/labs/exp1/index.php
- <https://www.autodesk.in/products/autocad-web-app/overview>

Course Outcomes:

At the end of the course, the student will be able to:

CO1 Understand the concept of sectioning, development and their application

CO2 Apply of curves to applicable engineering problems.

CO3 Prepare working drawings to communicate the ideas and information.

CO4 Read, understand and interpret and draw engineering drawings using AutoCAD.