



Gyanmanjari Institute of Technology (GMIT)

Mechanical Engineering Department

TSEP Course Content

Name of Course : Advance Engineering Drawing

Course Objective:

The students of mechanical engineering programme are mainly involved in drafting, manufacturing, inspection and planning activities (such as preparing process plans, preparing bill of materials, etc.) at industries. For all such activities, reference document is the drawing of components/assemblies to be manufactured. In this context, it is of utmost priority to prepare, read and interpret these drawings correctly for production of components and assemblies accurately and precisely. The industrial practices of drafting are also important for the students to make them aware of drafting practices, symbols, codes, norms and standards generally used in industries. Development of sketching ability also strengthens effective engineering communication & presentation.

Syllabus

Sr.No.	Contents	Hrs.
1.	Surface Development Importance of development of surfaces. Drawing of development of surfaces of prism, pyramid, cylinder and cone – independent, sectioned and combination.	6
2.	Intersection and penetration Importance and field use. Intersection curve for Intersection / penetration of i. Prism into prism. ii. Cylinder into cylinder. iii. Cylinder into prism. iv. Cone into cylinder	6
3.	Detail and assembly Importance and difference of these drawings. Detail drawing from given assembly. Assembly drawings from given details. Preparing bill of material (part list).	6
4.	Drafting Symbol Machining symbol and its interpretation. Other drafting symbols like threading, pipe fitting, dowels, pins, ribs, bearings, etc.	2
Total Hrs.		20

Coordinator details and timing:

Course Duration	20 Hrs.
Course Coordinator	Prof. Niraj Patel
Batch Size	Whole class
Course Fee	NIL
Targeted Audience	First year Mechanical Students

Resource requirement:

Infrastructure requirement	Class room with projector
Hardware / Software	NIL
Consumable	NIL
Special Equipment	NIL

Assessment criteria

Sr. No.	Criteria	Marks
1	Sketch book	20
2	MCQ test	20
3	Drawing exam	30
4	Model	NIL
5	Mini project	NIL
Passing criteria: More than 50% marks in all component		

Course Outcome:

- Importance of development of surfaces and field use.
- Drawing of development of surfaces of prism, pyramid, cylinder and cone independent, sectioned and combination.
- Importance of intersection and penetration of solids and field use.
- Intersection curve for Intersection /penetration of :
 - i. Prism into prism.
 - ii. Cylinder into cylinder.
 - iii. Cylinder into prism.
 - iv. Cone into cylinder.
- Importance and difference of detail and assembly drawing these drawings.
- Detail drawing from given assembly.
- Assembly drawings from given details.
- Preparing bill of material (part list).