

GANPAT UNIVERSITY									
FACULTY OF ENGINEERING & TECHNOLOGY									
Programme		Diploma Engineering			Branch		Mechanical Engineering		
Semester		III			Version		1.0.0.0		
Effective from Academic Year			2019-20		Effective for the batch Admitted in			June 2019	
Subject code		1ME2306	Subject Name		Drafting Application				
Teaching scheme					Examination scheme (Marks)				
(Per week)	Lecture(DT)		Practical(Lab.)		Total		CE	SEE	Total
	L	TU	P	TW					
Credit	0	0	2	0	2	Theory	0	0	0
Hours	0	0	4	0	4	Practical	60	40	100

Pre-requisites:
Basic Knowledge of Engineering Drawing and General Operating of Computer

Course Learning Outcomes:
The course content should be taught and implemented with an aim to develop different skills leading to the achievement of the following competencies and course learning outcomes:
CO1. Understand the importance of engineering drawing in various industries.
CO2. Use of basic drawing tools and their application in different situations
CO3. Use of Modifying tools in drawings and their application under the given situations.
CO4. Understand and apply various dimensions to given drawing with layer managements.
CO5. Understand how to plot drawing on standard paper sheet with scale.

Name Unit	Unit Content	Unit learning outcomes	Marks	Hrs
Unit-1 Introduction to AutoCAD, workspace and drawing fundamentals	1a. Get acquainted with AutoCAD interface. 1b. Use Navigation commands. 1c. Use different drawing methods to draw 2d drawings.	1.1 Introduction to AutoCAD and its interface. 1.2 Pan & zoom command practice with keyboard shortcuts. 1.3 Different drawing methods in AutoCAD		08
Unit – 2 Drawing & Modifying commands	2a. Use various 2d drawing & modifying commands.	2.1 Use of drawing commands i.e. line, circle, rectangle, ellipse, arc, polyline, 2.2 Use of Modifying commands- move, copy, rotate, mirror, fillet, chamfer, trim, extend, offset, explode, scale, stretch, erase, array.		14
Unit-3 Orthographic drawing	3a. Prepare orthographic views using draw and modifying commands.	3.1 Concept of orthographic views. 3.2 Drawing ortho views in AutoCAD using advanced Draw & Modify commands like x-ray and construction line.		08
Unit-4 Annotation	4a. Annotate given drawing.	4.1 Creating text (single line, multiline) 4.2 Dimensioning the drawing 4.3 Creating table & linking from excel		08
Unit-5 Layer management, blocks & attributes	5a. Create layers, block & attributes	5.1 Concept and use of layer for managing drawing 5.2 Create, modify and deleting a layer and assign a layer to existing object 5.3 Concept of Block and Creating block with attributes		06
Unit-6 Plotting	6a. Plot a drawing from model and viewport with page setup 6b. Make title block with template	6.1 Plotting drawing from model space and layout 6.2 Create pagesetup and Creating viewport 6.3 Plotting drawing with annotative style 6.4 Creation of title block with template		08
Unit-7 Properties Palette	7a. Apply tool palettes to find properties of	7.1 Importance of property palette & design center 7.2 Find length, area and perimeter from properties of object 7.3 Learn use commands like inquiry, purge,		04
Unit-8 Isometric drawing	8a. Draw isometric view	8.1 Use of Iso-Grid, Iso-Circle 8.2 Changing cursor shape for TV, FV & SV 8.3 Draw isometric views from given orthographic views and Dimension it		04

List of Practical			
No.	Unit No.	Name of Practical	Hours

1	1	Draw given 2d sketches using basic drawing methods and commands.	08
2	2	Prepare drawings of given parts using various drawing and modifying commands. (at least 5)	14
3	3	Draw orthographic drawings of given parts. (at least 2)	08
4	4	Draw and provide dimensions for given part drawing. (at least 2)	08
5	5	Prepare drawing of given part using layers and blocks. (at least 2)	06
6	6	Plot drawings on standard sheet drawn in Previous Practical (at Least 2)	08
7	7	Make a drawing of given part and dimension it using design center.	04
8	8	Create isometric drawing of given parts. (at least 2)	04

List of Instruments / Equipment / Trainer Board	
1	CAD Workstations
2	AutoCAD Education software
3	LCD Projector
4	Plotter 24"

Link of Learning Web Resource	
1	https://www.youtube.com/user/caddsoftsolutions
2	https://thesourcecad.com/autocad-tutorials/
3	https://www.linkedin.com/learning/topics/autocad

List of Reference books			
Sr.No	Author	Title	Publication
1	Prof. Sham Tickoo	AutoCAD2018: A problem solving approach	CADCIM technologies
2	Randy H. Shih	AutoCAD2018 Tutorials	SDC Publication
3	David Frey	AutoCAD no experience required	Autodesk
4	James D Bethune	Engineering Graphics with AutoCAD	PHI Learning Pvt. Ltd.
5	Prof. Sham Tickoo	AutoCAD2018: For Engineers and Designers	CADCIM technologies
6	Kelvin Chang	AutoCAD 2013 Tutor for Engineering Graphics	Cengage
7	P. Nageswara Rao	AutoCAD For Engineering Drawing Made Easy	Tata McGraw Hill
8	Scott Onstott	AutoCAD 2018 and AutoCAD LT 2018 Essentials	Sybex