

AUTOCAD DRAWING AND WORKSHOP TRAINING

Subject Code : QPME-101
Weekly load :08
LTP :0-0-8
Credit :01

COURSE OUTCOMES:

After successful completion of the course, the students should be able to:

- CO1: Enhance the knowledge of the application of computers in designing and manufacturing.
CO2: Use CAD software to designs engineering components.
CO3: Understand and select various tools/equipments used in workshop.
CO4: Operate various tools/equipments and machines installed in workshop
CO5: Select and recommend most suitable operation/machine /equipment for a particular application

COs	Programme Outcomes (POs)								
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	3	3	2	3	3	3	3	3
CO2	3	2	3	2	1	1	2	2	2
CO3	2	2	2	3	1	2	2	2	1
CO4	2	2	2	3	1	1	1	1	2
CO5	2	2	2	3	2	1	1	2	1
	2.4	2.2	2.4	2.6	1.6	1.6	1.8	2.0	1.8

Course Description	Lecture(s)
Unit-I (AUTOCAD DRAWING)	
1. Introduction to Auto CAD. 2. Familiar and practice with Auto CAD interface. 3. Setting of limits & units before starting of actual drawing. 4. Practice of absolute coordinate system, relative and polar system. 5. To draw a drawing using draw commands. 6. To draw and modify a drawing using modify bar. 7. To inset dimensions on an existing drawing. 8. Introduction to layers system.	64
Unit-II (Workshop Training)	
Machine Shop	16
Introduction of various tools, equipments and machines installed in a machine shop. Practice of tool/job setting and centring on a lathe. Practice of facing, turning , taper turning, chamfering etc on a lathe machine. Practice to make flat surface on a shaper.	
Tool Room	16
Introduction of various tools, equipments and machines installed in tool room. Practice of re-sharpening of a cutting tool using pedestal/bench grinder. Practice of making key way/ splines /flat surface on a slotting machine. Practice on turret lathe.	

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Welding Shop	
Establishing various flames in oxy-acetylene gas welding.	16
Depositing stringer bead on plate using gas welding.	
Depositing stringer bead on plate using shielded metal arc welding.	
Forging Shop	
Familiar with various tools and equipments like hearth, swage block, anvil, hammers, sledge hammer, tongs, fullers, flatters, bick iron.	16
Practice of simple operations like upsetting, drawing, bending and cutting.	
Making a ring from mild steel bar using bending and forge welding operations.	

Total = 128









