

Lesson Plan		
Name of the Faculty : Manish Kumar		Discipline : Mechanical Engg
Semester : 3rd		
Subject : Mechanical Engg. Drawing		
Lesson plan duration : 16 weeks (from sept. 2022 to jan, 2023)		
Week	Practical	
	Practical Lect.	Topic (including assignments /tests)
Week 1	1	Limit, fits and tolerance -Need of limit, fits and tolerance, Maximum limit of size, minimum limit of size, tolerance, allowance, deviation, upper deviation, lower deviation, fundamental deviation, clearance, maximum clearance, minimum clearance
	2	Fits – clearance fit, interference fit and transition fit. Hole basis system, shaft basis system, tolerance grades
Week 2	3	calculating values of clearance, interference, hole tolerance, shaft tolerance with given basic size for common assemblies like $H_7/g6$, $H_7/m6$, $H_8/p6$
	4	Basic terminology and symbols of geometrical dimensioning and tolerances
Week 3	5	Drawing of the following with complete dimensions, tolerances, bill of material and surface finish representation A) Universal coupling and Oldham coupling (Assembly) 1 sheet
	6	Bushed Bearing (Assembly Drawing)
Week 4	7	Ball Bearing and Roller Bearing (Assembled Drawing)
	8	Plummer Block (Detail and Assembly Drawing)
Week 5	9	Foot step Bearing (Assembled Drawing)
	10	Pulleys - Pulleys, Function of pulley, Types and materials of Pulley. Free hand Sketch of Various types of pulleys.
Week 6	11	Fast and loose pulley (Assembly Drawing)
	12	Pipe Joints - Types of pipe Joints, Symbol and line layout of pipe lines

Week 7	13	Expansion pipe joint (Assembly drawing)
	14	Flanged pipe and right angled bend joint (Assembly Drawing)
Week 8	15	Lathe Tool Holder (Assembly Drawing) (01 sheets)
	16	Reading and interpretation of mechanical components and assembly drawings
Week 9	17	Sketching practice of bearings and bracket. (01 sheet)
	18	Drilling Jig (Assembly Drawing) (01 sheets)
Week 10	19	Machine vices (Assembly Drawing) (02sheets)
	20	I.C. Engine Parts Piston (03 sheets)
Week 11	21	Connecting rod (Assembly Drawing)
	22	Crankshaft and flywheel (Assembly Drawing)
Week 12	23	Boiler Parts Steam Stop Valve (Assembly Drawing) (02 sheets)
	24	Blow off cock. (Assembly Drawing)

Week 13	25	Mechanical Screw Jack (Assembled Drawing) (01 sheet)
	26	Gears -(2 Sheet) Gear, Types of gears, Nomenclature of gears and conventional representation
Week 14	27	Draw the actual profile of involute teeth of spur gear by different methods.
	28	Revision
Week 15	29	Revision
	30	Test
Week 16	31	Revision
	32	Revision