

## 19ME3351– COMPUTER AIDED MACHINE DRAWING

Offering Branches	Mechanical Engineering		
Course Category	Program core	Credits	2.5
Course Type	Lab	Lecture-Tutorial-Practical	1-0-3
Prerequisites	Engineering Graphics, Introduction to Computers	Continuous Evaluation	25+50=75
Course Outcomes			
Upon successful completion of the course, the student will be able to			
CO1	Develop engineering drawings for the machine components as per Indian Standard Code of practice using drafting software.		L5
CO2	Prepare assembly drawings from part drawings.		L3
<b>Course Content</b>			
A	<p><b>The following contents are to be done by any 2D software package</b></p> <p><b>Conventional representation of materials and machine components:</b></p> <p><b>Detachable joints:</b> Geometric dimensioning, Drawing of thread profiles, hexagonal and square-headed bolts and nuts, bolted joint with washer and locknut.</p> <p><b>Riveted joints:</b> Types of rivet heads, single riveted and double riveted lap joints, butt joint with single riveted, double riveted, single strap and double strap joints.</p> <p><b>Keys:</b> Sunk key, round key, saddle key, feather key, woodruff key.</p> <p><b>Cotter Joints:</b> Cotter joint with Socket and spigot joint ends, Knuckle Joint.</p> <p><b>Shaft coupling:</b> bushed pin-type flanged coupling, Oldham's coupling.</p>		CO1
B	<p><b>The following contents to be done by any 3D software package</b></p> <p>Creating solid models of complex machine parts, assembly of the parts and create sectional views.</p> <p><b>Assembly drawings: (Any four of the following using solid model software)</b> Screw jack, Stuffing box, Single tool post, Plummer block, Universal coupling, Piston of a Petrol Engine.</p>		CO2

<b>Learning Resources</b>	
Text Books	1. Machine Drawing by K.L.Narayan, P.Kannaiah and K.Venkata Reddy, 3rd edition, New Age Publications 2006. Machine Drawing with Auto CAD, (1st edition) by GowthamPohit and Goutam Ghosh, Pearson Education, Delhi, 2004.
Reference Books	1. Machine Drawing, by R.K.Dhawan, S.Chand Publications, New Delhi, 1996. Machine Drawing by K.C.John, PHI Learning Pvt.Ltd.,New Delhi, 2009.

*Course Coordinator*

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