

Course code	Course Name	L-T-P - Credits	Year of Introduction
AU231	Computer Aided M/C & Auto Components Drafting Lab	0-0-3 -1	2016
Prerequisite : Nil			
Course Objectives <ul style="list-style-type: none"> To study the capabilities of software for Drafting and Modeling To develop skill to use software to create 2D and 3D models To introduce the students the Indian standard code of practice for engineering drawing 			
List of Exercises/Experiments <ol style="list-style-type: none"> Review of graphic interface of the software. Review of basic sketching commands and navigational commands. Starting a new drawing sheet. Sheet sizes. Naming a drawing, Drawing units, grid and snap. Drawing and Sections of Solids: Sections of Pyramids, Prisms, Cubes, Tetrahedrons, Cones and Cylinders resting only on their bases (No problems on, axis inclinations, spheres and hollow solids). True shape of sections. Orthographic Views: Conversion of pictorial views into orthographic projections of simple machine parts with or without section. (Bureau of Indian Standards conventions are to be followed for the drawings) Hidden line conventions. Fasteners: Hexagonal headed bolt and nut with washer (assembly), square headed bolt and nut with washer (assembly) simple assembly using stud bolts with nut and lock nut. Flanged nut, slotted nut, taper and split pin for locking, counter sunk head screw, grub screw, Allen screw. Assembly Drawings of the following components (Part drawings should be given) <ol style="list-style-type: none"> Plummer block Rams Bottom Safety Valve I.C. Engine connecting rod Screw jack Tailstock of lathe Tool Head of a shaper Piston Assembly Injector Couplings Diaphragm Regulator valve Clutch Assembly 			
Expected outcome. <ul style="list-style-type: none"> Ability to create 2D and 3D models of Engineering Components using the software package. Ability to develop engineering drawing for the industrial component as per Indian Standard code of practice. Ability to prepare assembly drawings from detailed drawings. 			
Text Books: <ol style="list-style-type: none"> K.C.John, Machine Drawing, PHI Learning Pvt.Ltd.,New Delhi, 2009. K.L.Narayana, P.Kannaiah & K. Venkata Reddy , Machine Drawing, 3rd Edition , New Age International Pvt.Ltd, New Delhi, , 2006. N. Siddeshwar, P. Kanniah, V.V.S. Sastri 'Machine Drawing', Tata McGraw Hill Co. R.K.Dhawan , Machine Drawing, S.Chand Publications, New Delhi, 1996. S. Trymbaka Murthy , 'A Text Book of Computer Aided Machine Drawing' , CBS Publishers, New Delhi, 2007 2. 'Machine Drawing' , K.R. Gopala Krishna, Subhash Publication. 			