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| **Lesson Plan** | | |
| Nameof Faculty : Manish Bansal | | |
| Discipline : Automobile | | |
| Semester : 4nd (SECTIONA+B) | | |
| Subject : COMPUTER AIDED DRAFTING | | |
| LessonPlanDuration: 12 Weeks | | |
| **Week** | **Theory** | |
| **Lecture Day** | **Topic** |
| 1st | 1st | UNIT -1 Introduction to Computer Aided Drafting (2D) commands of any one software (Auto CAD, ProE, Solid works, Solid Edge, Unigraphics NX etc.) |
| 2nd | * 1. Concept of AutoCAD, Tool bars in CAD software, coordinate system, snap, grid, and ortho mode (Absolute, Relative and Polar), setting of units and layout. |
| 3rd | * 1. Drawing commands – point, line, arc, circle, ellipse   2. Editing commands – scale, erase, copy, stretch, lengthen and explode. |
| 4th | * 1. Dimensioning and placing text in drawing area   2. Sectioning and hatching |
| 2nd | 5th | * 1. Inquiry for different parameters of drawing entity   2. Create layers within a drawing |
| 6th | Specifying Geometrical Dimensioning & tolerancing (GD&T) parameters in drawing |
| 7th | * 1. Plotting/printing drawings and creating template files |
| 8th | Practical on software |
| 3rd | 9th | Practical on software |
| 10th | Revision |
| 11th | Revision |
| 12th | Unit 2 . Detail and assembly drawing of the following using Drafting Software (2D) |

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| 4th | 13th | * 1. Ball Joint, tie rod |
| 14th | * 1. Screw jack   2. Crank shaft |
| 15th | SESSIONALTEST-I |
| 16th | * 1. Piston   Single plate clutch |
| 5th | 17th | * 1. Stepped pulley, V-belt pulley |
| 18th | Practical on software |
| 19th | Revision. |
| 20th | Revision. |
| 6th | 21st | Unit 3 . Isometric Drawing by CAD using any part modeling Software (3D) |
| 22nd | Drawings of following on computer:   * Cone |
| 23rd | * Cylinder |
| 24th | * Cube |
| 7th | 25th | * Isometric view of objects |
| 26th | Practical on software. |
| 27th | Revision. |
| 28th | **Unit 4** Introduction to any part modeling software |
| 8th | 29th | 1. (ProE, Solid works, Solid Edge AutoCAD, Uni Graphic NX , Catia etc.) |
| 30th | Introduction to Sketcher: Sketch Entities, Sketch Tools, Blocks, Dimensioning |

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|  | 31st | SESSIONALTEST-II |
| 32nd | Part modeling (4 models) Part |
| 9th | 33rd | Modeling tools .   * + 1. Creating reference planes |
| 34th | * + 1. Creating Extrude features Creating Revolve Creating Swept features     2. Creating Loft features |
| 35th | * + 1. Creating Reference - points, axis, coordinates     2. Creating curves |
| 36th | * + 1. Creating Fillet features     2. Inserting Hole types |
| 10th | 37th | * + 1. Creating Chamfer     2. Creating Shell |
| 38th | * + 1. Creating Rib     2. Environment & Utilities - Working with views and manipulating views. |
| 39th | * + 1. Create parts e.g. Piston, Pin, Bolts and Nuts, Fixture, Jig parts, Washer, Rings, Gaskets, Machine parts etc. |
| 40th | * 1. Assembly Modeling:- introduction |
| 11th | 41st | Introduction to Assembly Modeling & Approaches – Top down and Bottom up approach. |
| 42nd | Practical on software |
| 43 | Revision. |
| 44 | Revision. |
| 12th | 45 | Sessional 3 |
| 46 | Revision. |