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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.
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| 3rd | * 1. Drawing commands – point, line, arc, circle, ellipse
	2. Editing commands – scale, erase, copy, stretch, lengthen and explode.
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| 4th | * 1. Dimensioning and placing text in drawing area
	2. Sectioning and hatching
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| 2nd | 5th | * 1. Inquiry for different parameters of drawing entity
	2. Create layers within a drawing
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| 6th | Specifying Geometrical Dimensioning & tolerancing (GD&T) parameters in drawing |
| 7th | * 1. Plotting/printing drawings and creating template files
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| 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
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| 14th | * 1. Screw jack
	2. Crank shaft
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| 15th | SESSIONALTEST-I |
| 16th | * 1. Piston

Single plate clutch |
| 5th | 17th | * 1. Stepped pulley, V-belt pulley
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| 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
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| 23rd | * Cylinder
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| 24th | * Cube
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| 7th | 25th | * Isometric view of objects
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| 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.)
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| 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
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| 34th | * + 1. Creating Extrude features Creating Revolve Creating Swept features
		2. Creating Loft features
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| 35th | * + 1. Creating Reference - points, axis, coordinates
		2. Creating curves
 |
| 36th | * + 1. Creating Fillet features
		2. Inserting Hole types
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| 10th | 37th | * + 1. Creating Chamfer
		2. Creating Shell
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| 38th | * + 1. Creating Rib
		2. Environment & Utilities - Working with views and manipulating views.
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| 39th | * + 1. Create parts e.g. Piston, Pin, Bolts and Nuts, Fixture, Jig parts, Washer, Rings, Gaskets, Machine parts etc.
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| 40th | * 1. Assembly Modeling:- introduction
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| 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.  |