**Lesson Plan**

**Name of faculty: Mr. Kamaljeet Motia / Dr. VikasModgil**

**Discipline: ECE**

**Semester: 2nd**

**Subject: Engineering Drawing and Graphics**

Lesson Plan Duration: 15 weeks (from January, 2018 to April, 2018)

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| --- | --- | --- | --- | --- |
| **Week** | **Theory** | | **Practical** | |
|  | **Lecture day** | **Topic(Including assignment/ test)** | **Practical day** | **Topic** |
| 1st |  | **Chapter 1 : Introduction, Projection of Points:** Introduction to Engineering Equipments, Elements of Engineering Drawing |  |  |
|  |  | Sheet 1  (Group-1) | Types of Lines, Various types of projections |
|  |  | Sheet 1  (Group-2) | Types of Lines, Various types of projections |
| 2nd |  | First and third angle systems of orthographic projections |  |  |
|  |  | Sheet 2  (Group-1) | Projections of points in different quadrants. |
|  |  | Sheet 2  (Group-2) | Projections of points in different quadrants. |
| 3rd |  | **Chapter 2 : Projections of straight lines:** parallel to one or both reference planes, contained by one or both planes |  |  |
|  |  | Sheet 3  (Group-1) | parallel to one or both reference planes, contained by one or both planes |
|  |  | Sheet 3  (Group-2) | parallel to one or both reference planes, contained by one or both planes |
| 4th |  | **Projections of straight lines** perpendicular to one of the planes, inclined to one plane but parallel to the other plane |  |  |
|  |  | Sheet 4  (Group-1) | perpendicular to one of the planes, inclined to one plane but parallel to the other plane |
|  |  | Sheet 4  (Group-2) | perpendicular to one of the planes, inclined to one plane but parallel to the other plane |
| 5th |  | **Projections of straight lines**inclined to both the planes, true length of a line and its inclinations with reference planes, traces of a line. |  |  |
|  |  | Sheet 5  (Group-1) | inclined to both the planes, true length of a line and its inclinations with reference planes, traces of a line. |
|  |  | Sheet 5  (Group-2) | inclined to both the planes, true length of a line and its inclinations with reference planes, traces of a line. |
| 6th |  | **Chapter 3** : **Projection of planes:** Introduction, types of planes, Projection of planes by change of position method only |  |  |
|  |  | Sheet 6  (Group-1) | projection of plane perpendicular to a plane, with axis parallel to both planes |
|  |  | Sheet 6  (Group-2) | projection of plane perpendicular to a plane, with axis parallel to both planes |
| 7th |  | projection of plane with axis parallel to one plane and inclined to the other plane |  |  |
|  |  | Sheet 6  (Group-1) | projection of plane with axis parallel to one plane and inclined to the other plane |
|  |  | Sheet 6  (Group-2) | projection of plane with axis parallel to one plane and inclined to the other plane |
| 8th |  | **Chapter 4 :Projection of Solids:** Introduction, Types of solids |  |  |
|  |  | Sheet 7  (Group-1) | Projections of Polyhedra Solids and Solids of Revolution – in simple positions with axis perpendicular to a plane |
|  |  | Sheet 7  (Group-2) | Projections of Polyhedra Solids and Solids of Revolution – in simple positions with axis perpendicular to a plane |
| 9th |  | Projections of Polyhedra Solids and Solids of Revolution with axis parallel to both planes, with axis parallel to one plane and inclined to the other. |  |  |
|  |  | Sheet 8  (Group-1) | Projections of Polyhedra Solids and Solids of Revolution with axis parallel to both planes, with axis parallel to one plane and inclined to the other. |
|  |  | Sheet 8  (Group-2) | Projections of Polyhedra Solids and Solids of Revolution with axis parallel to both planes, with axis parallel to one plane and inclined to the other. |
| 10th |  | **Chapter 5:** Section of Solids: Introduction - section planes - apparent section - true section - sectional view |  |  |
|  |  | Sheet 9  (Group-1) | Sectional view of simple solids such as Prism, Cylinders, Pyramids and Cones in simple positions |
|  |  | Sheet 9  (Group-2) | Sectional view of simple solids such as Prism, Cylinders, Pyramids and Cones in simple positions |
| 11th |  | Need for sectional view - cutting plane - cutting plane line |  |  |
|  |  | Sheet 10  (Group-1) | Section plane perpendicular to one plane and parallel to the other, section plane perpendicular to one plane and inclined to the other |
|  |  | Sheet 10  (Group-2) | Section plane perpendicular to one plane and parallel to the other, section plane perpendicular to one plane and inclined to the other |
| 12th |  | **Chapter 6 :Development of Surfaces:** Development of surface of various simple solids in simple positions such as cubes, cylinders, prisms, pyramids etc. |  |  |
|  |  | Sheet 10  (Group-1) | Development of surface of various simple solids in simple positions such as cubes, cylinders, prisms, pyramids etc. |
|  |  | Sheet 10  (Group-2) | Development of surface of various simple solids in simple positions such as cubes, cylinders, prisms, pyramids etc. |
| 13th |  | **Chapter 7 :Orthographic views (First Angle Projection Only):**Introduction to various views |  |  |
|  |  | Sheet 11  (Group-1) | Three orthographic views of solids |
|  |  | Sheet 11  (Group-2) | Three orthographic views of solids |
| 14th |  | **Orthographic viewsof Nuts & Bolts** |  |  |
|  |  | Sheet 12  (Group-1) | Three views of Nuts & Bolts assembly |
|  |  | Sheet 12  (Group-2) | Three views of Nuts & Bolts assembly |
| 15th |  | **Chapter 8 :AUTOCAD basics:** Cartesian and Polar Co-ordinate system, Absolute and Relative Co- ordinates systems.Basic Commands: Line, Point, Rectangle, Polygon, Circle, Arc, Ellipse, Polyline |  |  |
|  |  | Practical on Computer Systems | Basic editing Commands: Basic Object Selection Methods, Window and Crossing Window Erase, Move, Copy, Offset, Fillet, Chamfer, Trim, Extend, Mirror Display Commands: Zoom, Pan, Redraw, and Regenerate Simple dimensioning and text, simple exercises |
|  |  | Practical on Computer Systems | Basic editing Commands: Basic Object Selection Methods, Window and Crossing Window Erase, Move, Copy, Offset, Fillet, Chamfer, Trim, Extend, Mirror Display Commands: Zoom, Pan, Redraw, and Regenerate Simple dimensioning and text, simple exercises |