



B P Poddar Institute of Management and Technology
137, VIP Rd, Poddar Vihar, Rajarhat, Kolkata, West Bengal 700052
Department: First year Faculty/ Applied Science & Humanities
Laboratory Name: Engineering Drawing Hall; Room No: A305
Academic Year: 2024-25, Semester: Odd/ Even
Course Name: Engineering Graphics & Design (ES-ME191/ 291)

Lesson Plan:

LECTUR E NO.	CHAPTER	DETAILS OF CHAPTER
Lecture 1	Introduction To Engineering Drawing	Principles of Engineering Graphics and their significance, usage Drawing instruments, lettering, Different types of lines and their use; Drawing standards and codes. Dimensioning System
Lecture 2	Geometrical Construction And Curves	Construction of polygons, Conic sections including the Parabola and Ellipse.
Lecture 3	Scales	Plain scale, Diagonal scale
Lecture 4	Projection Of Points, Lines, Surfaces	Principles of Orthographic Projections-Conventions - 1st and 3rd angle projection, Projections of Points and lines inclined to both planes;
Lecture 5	Projection Of Regular Solids	Regular solids inclined to both the Planes- Auxiliary Views; Draw simple annotation, dimensioning and scale (Cube, Pyramid, Prism, Cylinder, Cone).
Lecture 6	Sectional Views of Solids	Draw the sectional orthographic views of geometrical solids, objects from industry and dwellings (foundation to slab only)
Lecture 7	Development of surfaces	Development of surfaces of Right Regular Solids - Prism, Pyramid, Cylinder and Cone



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LECTURE NO.	CHAPTER	DETAILS OF CHAPTER
Lecture 8	Isometric Projections	Principles of Isometric projection – Isometric Scale, Isometric Views, Conventions; Isometric Views of Simple and compound Solids; Conversion of Isometric Views to Orthographic Views and Vice-versa, Conventions;
Lecture 9	Floor Plans	Floor plans that include: windows, doors, and fixtures such as WC, bath, sink, shower, etc.
Lecture 10	Demonstration Of A Simple Team Design Project	Geometry and topology of engineered components: creation of engineering models and their presentation in standard 2D blueprint form and as 3D wire-frame and shaded solids; meshed topologies for engineering analysis and tool-path generation for component manufacture; geometric dimensioning and tolerance; Use of solid modelling software for creating associative models at the component and assembly levels;
Lecture 11	Overview Of Computer Graphics, Customization & Cad Drawing	Listing the computer technologies that impact on graphical communication, Demonstrating knowledge of the theory of CAD software such as: The Menu System, Toolbars (Standard, Object Properties, Draw, Modify and Dimension), Drawing Area (Background, Crosshairs, Coordinate System), Dialog boxes and windows;
Lecture 12	Annotations, Layering & Other Functions	Applying dimensions to objects, applying annotations to drawings; Setting up and use of Layers, layers to create drawings, Drawing sectional views of composite right regular geometric solids and project the true shape of the sectioned surface; Drawing annotation, Computer aided design (CAD) software modelling of parts and assemblies. Parametric and non-parametric solid, surface, and wireframe models.

Signature of Faculty