

Lesson Plan

Subject: Engineering Graphics (1st year)

Course Code: PR 3(a)

Total Periods: 60

Periods per Week: 4

End Semester Exam: 75 Marks

Sessional: 25 Marks

Credits: 2

Faculty Name- Smita rani Patel/Manoranjan Patra

Detailed Lesson Plan

| Unit | Topic | Content Covered | Periods | Teaching Method |
|------|---------------------------|--|---------|--|
| I | Basic Elements of Drawing | Drawing instruments, conventions of lines, scales, dimensioning techniques, geometrical and tangency constructions. | 12 | Lecture, demonstration and practical drawing |
| II | Orthographic Projections | Concept of projections, first angle and third angle methods, symbols, conversion of pictorial views into orthographic views. | 12 | Board work and practical exercises |
| III | Isometric Projections | Introduction to isometric projection, isometric scale, natural scale, isometric view and projection problems. | 12 | Demonstration and practice |
| IV | Free Hand Sketches of | Sketching machine | 12 | Sketch practice and |

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|----|-----------------------------------|--|---|----------------------------|
| | Engineering Elements | elements such as threads, nuts, bolts, studs, screws, washers and locking arrangements. Orthographic and isometric free hand sketches. | | discussion |
| V | Computer Aided Drafting Interface | CAD concepts, hardware and software, AutoCAD interface, file features, units, limits, grid, snap, undo and redo. | 6 | Computer lab demonstration |
| VI | Computer Aided Drafting | Drawing basic entities, coordinate systems, modify commands, layers, dimensioning, text, plotting and editing. | 6 | CAD lab practice |

Faculty signature

Ravi
18/8/25

HOD signature

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19/8/25