Lesson Plan

Subject – Software Engineering

Teacher – Surender Choudhary

| S.No | Working Week | Content to be covered |
|------|--------------|----------------------|
| 1 | 1st | Concept of systems: Types of systems: open, closed, static and dynamic systems. Introduction, Programmes v/s Software Products |
| 2 | 2nd & 3rd | Emergence of Software Engineering- Early Computer Programming, High-level Language Programming, Control flow based Design, Data Structure Oriented Design, Object Oriented Design |
| 3 | 4th | Requirement of Life Cycle Model, Classic Waterfall Model, Prototyping Model |
| 4 | 5th | Evolutionary Model, Spiral Model, introduction to angle methodology. Comparison of different Life Cycle Models |
| 5 | 6th | Responsibilities of Software Project Manager Metrics for Project Size Estimation- LOC (Lines of Code), Function Point Metric |

| 6 | 7th | Project estimation Techniques- Using COCOMO Model. |
|---|---|---|
| 7 | 8th | Requirement gathering and Analysis, Software Requirement Specifications(SRS), Characteristics of good SRS |
| 8 | 9th | Characteristics and features of good Software Design Cohesion and Coupling |
| 9 | 10th | Software design Approaches- Function Oriented Design (Data flow diagrams, Data dictionary, Decision Trees and tables) |
| 10 | 11th | Object Oriented Design, Structured Coding Techniques, Coding Styles, documentation |
| 11 | 12th | Concept of Testing, Verification v/s Validations, Unit Testing, Black Box Testing |
| 12 | 13th | White Box Testing, Integration testing, System testing, Configuration management. |
| 13 | 14th | Revision |