**PG.GOVT COLLEGE FOR GIRLS, SECTOR-42, CHANDIGARH**

**Teaching Plan Session Odd Semester**

**(2018-19)**

**Class: M.Sc (IT) 1ST Sem**

**Name of the Teacher: SUDHIR KUMAR SHARMA**

**Subject: SOFTWARE ENGINEERING**

**Period :**

**Paper : MS 61**

**Room No : 202**

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| **S. No** | **Date From** | | **Date Upto** | **Topics to be covered** |
| Week 1 | **(For ongoing classes)** | | |  |
| July 24, 2018 | | July 28, 2018 |
| Week 2 | July 30, 2018 | August 4, 2018 | | **Introduction to Software Engineering:** Definition. |
| Week 3 | August 6, 2018 | August 11, 2018 | | Software Engineering goals,  Characteristics of well-engineered software, Software Process Models: Waterfall Model, Prototyping Model. |
| Week 4 | August 13, 2018 | August 18, 2018 | | Spiral Model, RAD, AgileModelling. Introduction to Software Requirement Specification (SRS). |
| Week 5 | August 20, 2018 | August 25, 2018 | | Software Requirements, Definition of SRS, Characteristics of SRS, Components of SRS, Designing of SRS. |
| Week 6 | August 27, 2018 | September 1, 2018 | | System Analysis: Principles of Structures Analysis, DFDs, E-R Diagrams, Data Dictionary. |
| Week 7 | September 3, 2018 | September 8, 2018 | | Software Design: Design Objectives, Design Principles, Concepts, Design Process. |
| Week 8 | September 10, 2018 | September 15, 2018 | | Methodologies: Structured Design, Modular Design, Object Oriented Design, User Interface Design and its elements and its Characteristics. |
| Week 9 | September 17, 2018 | September 22, 2018 | | Software Project Planning & Scheduling: Objectives, Decomposition techniques, Planning and Scheduling Tools: GANTT Chart, PERT Chart, Critical Path Method and Work Breakdown Structure; |
| Week 10 | September 24, 2018 | September 29, 2018 | | Cost estimation, Cost estimation Models: Single Variable Model, COCOMO Model; Software Risks, Risk Assessment. |
| Week 11 | October 1, 2018 | October 8, 2018 | | Software Metrics: Role of Metrics and Measurement, Types of Software Metrics: Product Metrics, Software Size Metrics: LOC and Function Points, Process Metrics, People Metrics. |
| **MID SEMESTER EXAMINATION (October 11, 2018 to October 17, 2018)** | | | | |
| Week 12 | October 20, 2018 | October 27, 2018 | | System Maintenance and Reliability: Maintenance and its types; Factors Affecting Software Reliability, Software Reliability vs Hardware Reliability, Software Reliability Metrics. |
| Week 13 | October 29, 2018 | November 3, 2018 | | Software Testing Techniques: Introduction to Software Testing Process, Objectives of Software Testing. BBT & its Techniques: |
| Week 14 | November 5, 2018 | November 10, 2018 | | Boundary Value Analysis, Equivalence Class Testing, and Cause- Effect Graph, White-Box Testing and its Techniques- |
| Week 15 | November 12, 2018 | November 17, 2018 | | Domain and Boundary Testing, Logic Based Testing, Data Flow Testing and Basic Path Testing. |
| Week 16 | November 19, 2018 | November 22, 2018 | | Software Testing Strategies: Characteristics, Integration Testing. |
| Week 17 | November 26, 2018 | December 1, 2018 | | Functional Testing, Object Oriented Testing, Alpha and Beta Testing. Revision of Whole Syllabus. |