**GANPAT UNIVERSITY**

**U.V. PATEL COLLEGE OF ENGINEERING**

**COMPUTER ENGINEERING / INFORMATION TECHNOLOGY DEPARTMENT**

**Second Internal Syllabus of Software Engineering (2CE602)**

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| **Unit No** | **University Syllabus Contents** | **Syllabus Mapping** |
| 4 | **Requirements Analysis and Specification or Requirement Engineering:**   * Requirement Engineering * Requirement Elicitation * Requirement Analysis * Requirement Documentation (SRS) * Requirement Gathering and Analysis * Software Requirement Engineering | * 5.1 of Pressman 7th Ed. * 4.1 and 4.2 of Rajib Mall |
| 5 | **Software Project Management:**   * Introduction * Responsibility of Software Project Manager * Project Planning Activities * Project planning, SPMP Document * Metrics for Project Size Estimation * Project Estimation Techniques * Scheduling | * Rajib mall PPT * Rajib mall PPT * NPTEL PDF (L-29) * Rajib mall PPPT * NPTEL FILE (L-28) * Proj. SCH. PDF |
| 6 | **Coding and Testing:**   * Coding Standards and Guidelines * Coding Review * What is Testing * Error- Faults-Failures * Test cases * Test suites * Verification versus Validation * Design of Test Cases * Alpha and Beta Testing * Testing in Small and Testing in Large * Black Box Testing * White Box Testing (Structural Testing) * Integration testing * System Testing | Rajib Mall, 4th Edition   * 10.1 * 10.2 * 10.4 * 10.5 * 10.6 * 10.7 * 10.10 * 10.12 |
| 8 | **Unified Modeling Language (UML):**   * Overview of object oriented concepts, * Advantage of OOD, * Unified modeling language (UML), * UML diagrams, * Use Case Diagram, * Class Diagram, Sequence, * collaboration Diagram, * Activity Diagram, * State chart Diagram | **Refer Object Oriented Modeling and Design with UML (2nd edition) by Rumbaugh, Blaha** |
| 9 | **Function oriented software design:**   * Overview of SA/SD methodology Structured analysis, * Data flow diagrams(DFDs), * Structure design | **Ch-6 : (4th Edition,Rajib Mall)**  **6.1, 6.2, 6.3, 6.4, 6.5, 6.6** |
| 10 | **Architectural design:**   * Software architecture, * Data design, * Architectural styles and patterns, * Architectural design | * **CH-13 (Textbook - pressman 8th edition)**   **Topic-13.1.1, 13.2.2, 13.3, 13.4, 13.6, 13.12**  **And**   * **Ppt given** |