CO	PO						PSO		
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CP5072   **ADVANCED SOFTWARE ENGINEERING**   **L T P C**
                                                             3 0 2 4

OBJECTIVES :
- Comprehend the different stages of Software Development Lifecycle.
- Comprehend the Process of developing Analysis models and map the Analysis models to Design Models.
- Comprehend the Design Issues related to Web applications and Mobile Apps.
- Comprehend the Quality Factors associated with Software Development.
- Comprehend the use of different Testing Strategies in Software Development.

UNIT I   **PROCESS MODELS**   **9+6**
Prescriptive process models – Specialized process models –The Unified Process – Personal and Team Software process – Product and Process – Agile development – Extreme Programming – Other Agile process models – Human aspects of Software Engineering

UNIT II   **REQUIREMENTS MODELING AND DESIGN CONCEPTS**   **9+6**
Understanding Requirements–Scenario based methods–Class based methods–Behavior, Patterns and Web/Mobile Apps – Design Process – Design concepts – Design Model

UNIT III   **SOFTWARE DESIGN**   **9+6**
Architectural design–Component level Design–User Interface Design–Pattern based design–Web App design– Mobile App design

UNIT IV   **SOFTWARE QUALITY**   **9+6**
Garvin's Quality dimensions–McCall's Quality factors–ISO9126 Quality factors – Software Quality Dilemma – Achieving Software Quality–Review Techniques–Elements of Software Quality Assurance–SQA Processes and Product Characteristics–SQA Tasks, Goals, and Metrics–Statistical Software Quality Assurance–Software Reliability–The ISO 9000 Quality Standards–SQA Plan

**UNIT V   SOFTWARE TESTING AND SOFTWARE CONFIGURATION   9+6
               MANAGEMENT**

Software Testing Strategies–Testing Conventional Applications–Testing Object Oriented Applications–Testing Web applications–Testing Mobile Apps–Software Configuration management– SCM process–Configuration Management for Web and Mobile App.

TOTAL: 45+30: 75 PERIODS

OUTCOMES:
Upon completion of the course, the student will be able to
- Select Appropriate Process Model for Software Development.
- Develop Analysis Models and Map the Analysis Models to Design Models.
- Address the Design Issues related To Web Applications and Mobile Apps.
- Incorporate Appropriate Quality Factors and Standards during Software Development.
- Select Appropriate Testing Strategies For Software Testing.

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