

MCAD 104

Master of Computer Application



Software Engineering



JAMIA HAMDARD

(Deemed to be University)

SEMESTER - II

CAD 104 - Software Engineering

Unit I

Introduction, Software Model and Process: Software Crisis, Need and Definition of Software Engineering, Software Myths, Process Model: Waterfall Model, V-Model, Incremental Model, Evolutionary Model,

Unit II

Requirement Engineering: Inception, Elicitation, Elaboration, Negotiation, Specification, Validation, Requirements, Analysis & Model: Domain Analysis, Data Flow Modelling, Class-based Modeling, CRC Modeling.

Unit III

Software Design Concepts: Abstraction, Modularity, Cohesion, Coupling, Software Design: Architectural Design, Data Design: Entity Relationship Design, User Interface Design, Object Oriented Design, Web Application Design: Aesthetic Design, Content Design, Navigation Design

Unit IV

Testing and Quality: Software Testing, Verification and Validation, Test Strategy: Unit Testing, Integration Testing, System Testing, User Acceptance Testing: Alpha & Beta Testing, Internal and External View of Testing: White Box Testing, Black Box Testing, Quality Concepts, Garvin's Quality Dimension, McCall's Quality Factors, ISO 9126 Quality Factors

Unit V

Maintenance and Software Metrics: Maintenance: Corrective, Perfective, Adaptive, Metrics: Size Oriented Metrics, Function Point Metrics, CK Metrics suite, Introduction to Risk Management