

Unit 1 Overview of Software and Software Engineering: The Evolving Role of Software, Software: A Crisis on the Horizon and Software Myths, Software Engineering: A Layered Technology, Software Process Models, The Linear Sequential Model, The Prototyping Model, The RAD Model, Evolutionary Process Models.

Unit 2 Agile Development: Agility and the Agile Process Model, Extreme Programming, SCRUM, Other Process Models of Agile Development and Tools.

Unit 4 Requirement Analysis and Specification: Understanding the Requirement, Requirement Modelling, Requirement Specification (SRS), Requirement Analysis, Requirement Elicitation and Requirement Engineering. Object-orientated modelling, analysis and design with various UML diagrams (class Diagrams, State Diagrams, use case diagrams, activity diagrams, sequence diagrams)

Unit 5 Software Design: Design concepts and principles - Abstraction - Refinement–modularity, cohesion, coupling, function -orientated design, DFD, Structure Chart