**CSX-402: OBJECT-ORIENTED ANALYSIS AND DESIGN [3 0 0 3]**

**Introduction**:Introduction to the Design Process Improvement Model , Six-Level Improvement Process

**UML Structural Modeling Techniques**:Basic Building Blocks -- objects and classes, Structural Composition

Techniques, Design Scaling Issues

**UML Behavioral Modeling Techniques** :Use Case Diagrams, Interaction Diagrams, Event State Diagrams, Action Matrices, Business Lifecycle Diagrams, Activity Diagrams, Collaboration Diagrams, Rule Specification Techniques, Behavioral Model-Based Reference Architecture for Component Specification

**Design Standards** :Architectural Patterns , Design Patterns, Program Patterns, Behavioral Design Units, Component- Based Specification Techniques

**DPIM - Level One**:Requirements Analysis Techniques, Ad Hoc Approach to Design

**DPIM - Levels Two**, Three and Four:Design Methodology Deployment

**Design Quality Control Properties and Analysis Techniques**:Automatic

Convertability, Traceability, Standardizability (Design Units/Reusable Patterns) Modularity, Changeability (Change Management), Scalability of Design, Reliability

**DPIM - Levels Five and Six**:Design Process Management and Optimization, Design Metric Models, Testing Maturity Model, Extended V-Model , Testing Techniques

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**Introduction From PPts**

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**UML Behavioral Modeling Techniques** :Use Case Diagrams, Interaction Diagrams, Event State Diagrams, Action Matrices, Business Lifecycle Diagrams, Activity Diagrams, Collaboration Diagrams, Rule Specification Techniques, Behavioral Model-Based Reference Architecture for Component Specification

From **Object oriented modelling and design with UML Michael blaha and James Rambaugh: Chapter 1 , 2, 3, 4, 5, 7**

**Design Standards**

Process Management and Optimization, Design Metric Models **(**Software engineering by Pressman)

**(DPIM Level 1: Requirement Elicitation& Analysis Techniques Object-Oriented-Software-Engineering-Using-UML-Patterns-and-Java-Prentice-Hall-2010-Bernd-Bruegge-Allen-H.-Dutoit**

**DPIM Level 2, 3 & 4: System Design, Object Design & Implementation Object-Oriented-Software-Engineering-Using-UML-Patterns-and-Java-Prentice-Hall-2010-Bernd-Bruegge-Allen-H.-Dutoit**

**DPIM Level 5 & Level 6: Testing and Change Management)**

**Object-Oriented-Software-Engineering-Using-UML-Patterns-and-Java-Prentice-Hall-2010-Bernd-Bruegge-Allen-H.-Dutoit or (**Software engineering by Pressman)

**Design Quality Control Properties and Analysis Techniques**:Automatic

Convertability, Traceability, Standardizability (Design Units/Reusable Patterns) Modularity, Changeability (ChangeManagement), Scalability of Design, Reliability( Software engineering by Pressman)

Testing Maturity Models *SOFTWARE TESTING AND QUALITY ASSURANCE* Theory and Practice**KSHIRASAGAR NAIK****PRIYADARSHI TRIPATHY**

testing techniques: Software engineering by Pressman)