**BS (SE)-Software Engineering (Core)**

**Course Name: Object Oriented Software Engineering**

**Credit Hours:** 4

**Prerequisites: Object Oriented Programming**

**Course Outline:**

Introduction to Software Engineering, Modeling with UML, Project

Organization and Communication, Requirements Elicitation, Analyses,

System Design: Decomposing the System, System Design: Addressing

Design Goals, Object Design: Reusing Pattern Solutions, Object Design:

Specifying Interfaces, Mapping Models to Code, Testing, Rationale

Management, Configuration Management, Project Management, Software

Life Cycle, Methodologies: Putting It All Together.

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**Reference Materials:**

1. *Object-Oriented Software Engineering: Using UML, Patterns, and Java,*

Bernd Bruegge, Allen H. Dutoit, Prentice Hall, 2010 ( or Latest Edition)

2. *Object-Oriented Software Construction*, Bertrand Meyer, 2nd Edition,

Prentice Hall in 1997 (or Latest Edition)

3. *Formal Methods in Computing*, M. Ferenczi, and Andras Pataricza ,

Akademiai Kiao, 2005 ( or Latest Edition)

4. *Code Complete: A practical handbook of software construction*, Microsoft

Press, 2004. (or Latest Edition)

5. *Software Engineering*, Ian Sommerville, 8th edition, Addison & Wesley.

2006 (or Latest Edition)