

**CORE COURSE – IX - SOFTWARE DESIGN**

**1. DESIGN FUNDAMENTALS**

The nature of design process – Objectives – Design qualities, Assessing the design process, Design view points for software.

**2. DESIGN METHODOLOGIES**

Design practices, Design strategies – Top down and bottom up – Coupling and cohesion – Popular design methodologies – Function oriented and object oriented design, Design documentation.

**3. DESIGN MODELS**

Structural analysis and design technique, SSADM and real time design. Data design, mappings requirements into a software Architecture.

**4. DETAILED DESIGN**

User interface Design – Task analysis and modeling – Interface design activities, implementation tools, comparison of design notations, structural programming.

**5. OBJECT ORIENTED DESIGN**

Object oriented concepts, object oriented analysis – OOA process, object – relationship model, system and object design process – Design patterns.

**TEXT BOOKS**

Pressman R.S., “Software Engineering”, 4<sup>th</sup> Edition, McGraw Hill Inc., 1996.  
David Budgen, “Software Design”, Addison – Wesley, 1994.

**REFERENCES**

1. Steve McConnell, “Code Complete”, Microsoft Press, 1996.
2. A.G.Suteliffe, “Human Computer Interface Design”, 2<sup>nd</sup> Edition, MacMillan, 1995.