

# College of IT and Management Education

## Lesson Plan

**Sub** : SOFTWARE ENGINEERING (MCC-403)

**Branch** : MCA

**Semester** : 4<sup>th</sup> Semester MCA (JAN-JUNE,2017)

**Name of the Faculty** : Sudhir Kumar Senapati

**Total Credit Point** : 3

**Total Number of Classes:** 40

Sl. No.	TOPIC PLANNED	SESSION
<b>MODULE-I</b>		<b>13 Hours</b>
1	Evolution and impact of Software Engineering	1
2	Socio-technical Systems	1
3	Critical Systems	1
4	Software Processes	1
5	Software Life cycle Models	1
6	Software Project Management	1
7	Software Requirements	1
8	Requirements Engineering Processes	1
9	Requirements analysis and specification	1
10	System Models	1
11	Critical System Specification	1
12	Formal Specification	1
13	Doubt clearing class	1
<b>MODULE-II</b>		<b>13 Hours</b>
14	Architectural Design	1
15	Cohesion and coupling	1
16	Abstraction, Data flow Oriented Design	1
17	Distributed Systems Architecture	1
18	Application Architectures, Object-Oriented Design	1
19	Real-time Software Design	1
20	User Interface Design and Usability Engineering	1
21	Rapid Software Development, Software Reuse	1
22	Design Patterns, Component Based Software Engineering (CBSE)	1
23	Critical Systems Development, Software Evolution.	1
24	Verification and Validation	1
25	Software Testing	1
26	Critical Systems validation	1



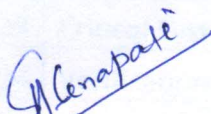
	MODULE-III	14 Hours
27	Musa's Reliability Model	1
28	Managing People	1
29	Software Cost Estimation— COCOMO Model	1
30	Quality Management, Process Improvement	1
31	Configuration Management	1
32	Software Maintenance	1
33	CASE Tools	1
34	Humphrey's Capability Maturity Model	1
35	CMMI (Capability Maturity Model Integration)	1
36	Agile software development, Extreme Programming (XP)	1
37	Security Engineering	1
38	Service-oriented Software Engineering	1
39	Aspect-oriented Software Development	1
40	Doubt clearing class	1

**Text book:**


1. Rajib Mall, "Fundamentals of Software Engineering", 2<sup>nd</sup> Edition, 2007, PHI Learning Pvt. Ltd. New Delhi.
2. Ian Sommerville, "Software Engineering", 8<sup>th</sup> Edition, 2007, Pearson Education Inc., New Delhi.

**Reference books:**

1. Roger S. Pressman, "Software Engineering: A Practitioner's Approach", 7<sup>th</sup> International Edition, McGraw-Hill Education (Asia), Singapore.
2. Shari Lawrence Pfleeger, Joanne M. Atlee, "Software Engineering", 3<sup>rd</sup> Edition (2006), Pearson Education, Inc. New Delhi.
3. Ben Shneiderman, Catherine Plaisant, "Designing the User Interface: Strategies for Effective Human-Computer Interaction", 4<sup>th</sup> Edition (2006), Pearson Education, Inc. New Delhi.
4. Pankaj Jalote, "Software Engineering", First Edition, 2009, Wiley India Pvt. Ltd., New Delhi.
5. Dines Bjørner, "Software Engineering: Volume-1, Volume-2 & Volume -3", Springer India Pvt. Ltd., New Delhi.

  
Faculty

  
Course Coordinator

  
Principal