Bhoj Reddy Engineering College for Women: Hyderabad

Department of Computer Science and Engineering

Lesson plan of faculty member for the academic year 2020–21

Class: III B Tech Branch-Section: CSE-A Semester: I

Subject: Software Engineering Lectures per week: 3

Lecture Number	Topics to be covered	Date (s)
UNIT-I: Introduction to Software Engineering, A Generic view of process, Process models		
1	The evolving role of software	03-09-2020
2	Changing nature of software, software myths.	05-09-2020
3	Software engineering- a layered technology	07-09-2020
4	a process framework	10-09-2020
5	The capability maturity model integration (CMMI)	12-09-2020
6	process patterns, process assessment, personal and team process models	14-09-2020
7	The waterfall model, incremental process models	17-09-2020
8	Evolutionary process models	19-09-2020
9	The unified process, Revision	21-09-2020
UNIT-II: Software Requirements, Requirements engineering process, System models		
10	Functional and non-functional requirements, user requirements	24-09-2020
11	System requirements, interface specification	26-09-2020
12	The software requirements document, Feasibility studies	28-09-2020
13	Requirements elicitation and analysis	01-10-2020
14	Requirements validation, requirements management	03-10-2020
15	Context model	05-10-2020
16	Behavioral models	08-10-2020
17	Data models, Object models	10-10-2020
18	Structured methods, Revision	12-10-2020
UNIT-III: Design Engineering, Creating an architectural design		
19	Design process and design quality, design concepts	15-10-2020
20	The design model, software architecture	26-10-2020
21	Architectural styles and patterns, data design	29-10-2020
22	Architectural design, Revision	31-10-2020
23	Conceptual model of UML, basic structural modeling	09-11-2020
24	class diagrams	12-11-2020
25	use case diagrams	16-11-2020
26	sequence diagrams, collaboration diagrams	19-11-2020
UNIT-IV: Testing Strategies, Product metrics		
27	A strategic approach to software testing, test strategies for conventional software	21-11-2020
28	black-box and white-box testing, validation testing	23-11-2020
29	System testing, the art of debugging.	26-11-2020
30	Software quality, metrics for analysis model	28-11-2020
31	metrics for design model, metrics for source code	03-12-2020
32	metrics for testing	05-12-2020
33	metrics for maintenance, Revision	07-12-2020
UNIT-V: Metrics for Process and Products, Risk management, Quality Management		
34	Software measurement, metrics for software quality	10-12-2020

35	Reactive Vs proactive risk strategies, software risks	12-12-2020
36	risk identification, risk projection, risk refinement	14-12-2020
37	RMMM, RMMM plan	17-12-2020
38	Quality concepts, software quality assurance, software reviews	19-12-2020
39	Formal technical reviews, statistical software quality assurance	21-12-2020
40	Software reliability	24-12-2020
41	The ISO 9000 quality standards	28-12-2020
42	Revision	31-12-2020
43	Revision	02-01-2021

Text Books:

1. Software Engineering, A practitioner's Approach- Roger S. Pressman, 6th edition, Mc Graw Hill International Edition.
2. Software Engineering- Sommerville, 7th edition, Pearson Education.
3. The unified modeling language user guide Grady Booch, James Rambaugh, Ivar Jacobson, Pearson Education.

Reference Books:

1. Software Engineering, an Engineering approach- James F. Peters, Witold Pedrycz, John Wiley.
2. Software Engineering principles and practice- Waman S Jawadekar, The Mc Graw-Hill Companies.
3. Fundamentals of object-oriented design using UML Meiler page-Jones: Pearson Education.

Name and signature of the faculty: **Ms M Jhansi Rani** ----

Name and signature of Head of the Department: **Mr N Satyanandam** ----