SREE VIDYANIKETHAN ENGINEERING COLLEGE (Autonomous)

Sree Sainath Nagar, A. Rangampet-517 102

<u>Department of Information Technology</u> <u>Lesson Plan cum Dairy 2016-17</u>

Name of the Subject: Software Engineering (14BT51202)

SREE VID YANIKETHAN Engineering College (Autonomous) Accredited by NAAC with 'A' Grade

Name of the faculty Member: Mr. P. Srinivasa Reddi & Mr. K. Khaja Baseer

Class& Semester: III B.Tech – I Semester Section: IT – A&B

S. No.	Topic	No. of periods required	Book(s) followed	Self-Learning concepts				
UNIT-I: INTRODUCTION TO SOFTWARE ENGINEERING								
1.	The evolving role of the software, Software Myths	1	T1	Agile process models- Extreme programming,				
2.	Software Engineering – Layered Technology	1	T1	Adaptive development.				
3.	Process Framework, CMMI	1	T1					
4.	Process patterns, Process Assessment	1	T1					
5.	Personal and Team Process Models	1	T1					
6.	Water Fall Model, Incremental Model	1	T1					
7.	RAD, Prototyping Model	1	T1					
8.	Spiral Model, Concurrent Development Model	1	T1					
9.	Unified Process, Agile Process	1	T1					
	Total of periods required:	09						
	UNIT-II: REQUIREMEN	NTS ENGIN	EERING					
10.	Functional and Non-Functional Requirements	1	T2					
11.	The Software Requirements Document	1	T2					
12.	Requirements specifications,	1	T2	Identify				
13.	Requirements engineering processes	1	T2	functional and				
14.	Requirements Elicitation and Analysis	1	T2	non-functional				
15.	Requirement Validation, Requirement Management	1	T2	requirements for Graphics Editor.				
16.	Context Models, Interaction Models	1	T2					
17.	Structured Models, Behavioral models	1	T2					
18.	Model driven engineering	1	T2					
	Total of periods required:	09		1				
	UNIT-III: DESIGN	ENGINEER	ING					
19.	Design Process and Design Quality, Design Concepts	2	T1					
20.	Software Architecture, Data Design	1	T1	Design Use case				
21.	Architecture Styles and Patterns	1	T1	diagram for				
22.	Architectural Design	1	T1	Graphics Editor				
23.	Golden Rules, User Interface Analysis and Design	1	T1]				
24.	Interface Analysis	1	T1	1				

26. Re-engineering 1 T1 Total of periods required: 09	25.	Interface Design Steps	1	T1	
Total of periods required: 09 UNIT-IV: SOFTWARE TESTING 27. A strategic approach to software testing 28. Strategic issues 1 T1 software 30. Test strategies for conventional 1 T1 software 31. Validation testing, System testing 1 T1 environments, architecture and applications. 32. The art of debugging 1 T1 architecture and applications. 33. Testing tactics: Software testing 1 T1 sesting for specialized environments, architecture and applications. 34. Basis path testing, Control structure 1 T1 testing for specialized environments, architecture and applications. 35. Black box testing 1 T1 total of periods required: 10 UNIT-V: RISK AND QUALITY MANAGEMENT 37. Risk management: Reactive vs 1 T1 T1 Mittage in Mitigation, Risk Proactive Risk Strategies, Software Proactive Risk Strategies, Software Risk Refinement 1 T1 mand Management for in T1 mand Management for in T2 mand Management for in T2 mand Management for in T3 mand Management for in T4 mand Management for in T4 mand Management for in T5 mand Management for in T5 mand Management for in T6 meet specifications in in T1 meet specifications in Interviews 41. Software reviews, Formal technical 1 T1 meet specifications in Interviews 42. Formal approaches to SQA, Statistical 1 T1 meet specifications in Interviews 43. Software reliability 1 T1 T			1	T1	
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43. Software reliability 1 T1 2) ISO 9000 quality standards, SQA plan. Total of periods required: 08	42.		1	T1	
Total of periods required: 08	43.		1	T1	quality standards,
Grand total of periods required: 45			08		
		Grand total of periods required:			

TEXT BOOKS:

- T1. Roger S. Pressman, **"Software Engineering, A practitioner's Approach",** McGraw-Hill International Edition, 6thedition, 2010.
- T2. Ian Sommerville, **"Software Engineering"**, Pearson Education, 9thedition, 2011.

REFERENCE BOOKS:

- R1.K. K. Aggarwal &Yogesh Singh, **"Software Engineering"**, New Age International Publishers, 3rdedition, 2007.
- R2. Shely Cashman Rosenblatt, "Systems Analysis and Design", Thomson Publications, 6^{th} edition, 2006.