

STATE INSTITUTE OF ENGINEERING TECHNOLOGY, NILOKHERI
DEPARTMENT OF COMPUTER ENGINEERING
LESSON PLAN

Subject Name: –Software Verification and Validation Testing

Semester: – 7th

Subject Code:- PE-CS-D403A

Faculty Name:-Mrs Monika and Mrs. Seema Ranga

Lecture No.	Unit	Topic to be Covered	CO Covered
1 st	Unit-1	Overview of software evolution	CO1
2 nd		SDLC	
3 rd		Testing & Testing Process	
4 th		Terminologies in Testing: Error, Fault, Failure, Verification, Validation	
5 th		Definition of software testing, Test	
		Cases, Test Oracles, Testing Process, Limitations of Testing	
6 th		Revision	
7 th		Functional Testing	CO2
8 th		Boundary Value Analysis	
9 th		Equivalence Class Testing	
10 th		Decision Table	
		Based Testing	
11 th		Cause Effect Graphing Technique	
12 th		Structural Testing	

13 th	Unit-2	Path testing,DD-Paths	
14 th		Cyclomatic Complexity	
15 th		Graph Metrics	
16 th		Data Flow Testing	
17 th		Mutation testing	
18 th		Revision	
		Minor Test	
19	Unit-3	Reducing the number of test cases,Prioritization guidelines	CO3
20		Priority category	
21		Scheme,	
		Risk Analysis	
22		Regression Testing	
23		Slice based testing	
24		Testing & Levels of Testing	
25		Unit Testing	
26		Integration Testing	
27		System Testing	
28		Debugging	
29		Domain Testing	

30		Revision	
31	Unit-4	Overview of SQM & Concepts of Software Quality	CO4
32		Quality Attributes	
33		Software Quality Models: McCall, Boehm	
34		ISO-9000,CMM	
35		Stress Testing, Ad hoc testing	
36		Revision	
		Minor Test	
37		Stress Testing, Ad hoc testing	
38		Agile and extreme testing	
39		Revision	

Suggested Books:

1. Naresh Chauhan “Software Testing Principles and Practices” Oxford Publications, 2012
2. Louise Tamres, “Software Testing”, Pearson Education Asia, 2002
3. Robert V. Binder, “Testing Object-Oriented Systems-Models, Patterns and Tools”, Addison Wesley.
4. William Perry, “Effective Methods for Software Testing”, John Wiley & Sons, New York.