

LESSON PLAN

Name of Faculty: Ajay Singh
Discipline: Computer Engg.
Semester: 5th
Subject: Software Engineering
Lesson Plan Duration: 16 weeks
Work load (Lecture /Practical) per week (in hours): Lectures—03

Week	Theory	
	Lecture Day	Topic (Including Assignment/ Test)
1 st	1	Introduction to Software Engineering , Programmes v/s Software Products
	2	Emergence of Software Engineering- Early Computer Programming, High-level Language Programming
	3	Control flow based Design, Data Structure Oriented Design, Object Oriented Design
2 nd	4	Revision and assignment topic
	5	Requirement of Life Cycle Model and general discussion about models
	6	Classical Waterfall Model
3 rd	7	Prototyping Model
	8	Evolutionary Model, Spiral Model
	9	Comparison of different Life Cycle Models with their advantage and disadvantage
4 th	10	Continue lecture 9
	11	Revision and assignment topic
	12	Class test/ Sessional
5 th	13	Software Planning general discussion
	14	Responsibilities of Software Project Manager
	15	Metrics for Project Size Estimation- LOC (Lines of Code).
6 th	16	Function Point Metric
	17	Project estimation Techniques- Using COCOMO Model

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7 th	19	Halstead's Software Science
	20	Revision and assignment topic.
	21	Expert Lecture
8 th	22	Requirement Analysis and Specification
	23	Requirement gathering and Analysis
	24	Software Requirement Specifications(SRS)
9 th	25	Formal Specification Technique
	26	Characteristics of good SRS
	27	Revision and assignment topic
10 th	28	Class Test /Sessional -2
	29	Seminar-1
	30	Seminar-2
11 th	31	Software Design and Implementation Characteristics and features of good Software Design
	32	Cohesion and Coupling
	33	Software design Approaches- Function Oriented Design, Object Oriented Design
12 th	34	Structured Coding Techniques
	35	Coding Styles, documentation
	36	Revision and assignment topic
13 th	37	Software Testing Concept of Testing
	38	Verification v/s Validations, Unit Testing
	39	Black Box Testing.
14 th	40	White Box Testing
	41	Integration testing, System testing and differentiate all testing
	42	Revision and assignment topic

15 th	43	Software Quality and Maintenance Introduction to Capability Maturity Model
	44	ISO9000 and Six Sigma
	45	Configuration Management
16 th	46	Revision/ seminar
	47	Revision/ Seminar
	48	Sessional