

Name of the Faculty : HARNEK SINGH
Department : Computer Engineering
Semester : 5th
Subject : Software Engineering
Lesson Plan Duration : 15 weeks

****Work load (Lecture / Practical) per week (in hours): Lectures-03, practical -NIL**

Week	Theory	
	Lecture day	Topic (Including assignment / test)
1st	1 st	Introduction to Software Engineering, Introduction, Programmes v/s Software Products
	2 nd	Emergence of Software Engineering- Early Computer Programming, High- level
	3 rd	Control flow based Design
2nd	4 th	Data Structure Oriented Design
	5 th	Object Oriented Design
	6 th	Revision of unit I
3rd	7 th	Software Life Cycle Models
	8 th	Requirement of Life Cycle Model
	9 th	Classic Waterfall Model
4th	10 th	Advantages and Limitations of Classical model
	11 th	Prototyping Model
	12 th	Evolutionary Model
5th	13 th	Spiral Model
	14 th	Comparison of different Life Cycle Models
	15 th	Revision of Unit II
6th	16 th	Software Planning: Responsibilities of Software Project Manager
	17 th	Metrics for Project Size Estimation- LOC(Lines of Code)
	18 th	Function Point Metric
7th	19 th	Project estimation Techniques: Need and Types
	20 th	COCOMO Model and its variants.
	21 st	Halstead’s Software Science
8th	22 nd	Revision of Unit III
	23 rd	Class Test of Unit I, II, III
	24 th	Requirement Analysis and Specification
9th	25 th	Requirement gathering and Analysis
	26 th	Software Requirement Specifications(SRS)
	27 th	Characteristics of good SRS
10th	28 th	Formal Specification Technique
	29 th	Revision of Unit IV
	30th	Software Design and Implementation
11th	31 st	Characteristics and features of good Software
	32 nd	Design Cohesion and Coupling,
	33 rd	Software design Approach- Function Oriented Design
12th	34 th	Software design Approach- Object Oriented Design
	35 th	Structured Coding Techniques
	36 th	Coding Styles, documentation
13th	37 th	Software Testing: Concept of Testing
	38 th	Verification v/s Validations
	39 th	Types of testing : Unit Testing
14th	40 th	Black Box Testing, White Box Testing
	41 st	Integration testing
	42 nd	System testing
15th	43 rd	Software Quality and Maintenance
	44 th	Introduction to Capability Maturity Model
	45 th	ISO9000 and Six Sigma, Configuration Management