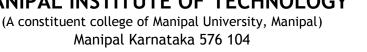


MANIPAL INSTITUTE OF TECHNOLOGY





DEPARTMENT OF INFORMATION & COMMUNICATION TECHNOLOGY

COURSE PLAN

Department : Information & Communication Technology

Subject : Software Engineering & Project Management

Subject code : ICT 208

Semester & branch : IV BTech.,(Information Technology)

Name of the faculty : Mrs. Sucheta V. Kolekar, Mr. Rajesh K

No of contact hours/week : 4 lecture

Assignment Portion		
Assignment/Quiz No.	Topics	
A1	L1 – L8	
A2	L9 – L15	
A3	L16 – L23	
A4	L24 – L31	
A5	L32 – L39	
	Test Portion	
Test No.	Topics	
1	L1 – L17	
2	L18 – L37	

Submitted by:

(Signature of the faculty)

Date:

Approved by: Dr. Preetham Kumar

(Signature of HOD)

Date: MIT/GEN/F-05/R0

Lecture No.	Topic to be covered	
1	Software and Software Engineering, Changing nature of Software	
2	Legacy Software, Software Myths	
3	Phases in Software Development, The Waterfall Model	
4	Evolutionary Models	
5	Incremental Models, Specialized Models,	
6	Unified models	
7	Requirements Engineering Tasks	
8	Requirements Engineering Process	
9	Eliciting Requirements	
10	Developing Use Cases, Building Analysis Model	
11	Negotiating requirements, Validating Requirements	
12	Requirement Analysis	
13	Analysis Modeling Approaches	
14	Data Modeling Concepts	
15	Object Oriented Analysis	
16	Scenario Based Modeling	
17	Class Based Modeling: Class-Responsibility-Collaborator Modeling, Associations and Dependencies	
18	Creating a behavioral model: Identifying events with the Use- Case, State representations	
19	Flow oriented modeling: Creating a data flow model	
20	Design process and quality	

21	Design concepts: Abstraction, modularity
22	Design concepts: Functional independence, Information hiding
23	Structured/ function oriented design methodology -explanation
24	Structured design methodology details with example
25	Design representation -graphical notation
26	Tabular design notation and PDL
27	Object oriented design using class
28	Object oriented design case study
29	Design case study
30	Testing Strategies-Strategic Approach to Software Testing
31	Strategic issues- Strategic issues for conventional software-unit testing, integration testing
32	Strategic strategies for object oriented software, Validation testing, System testing-recovery testing
33	Security testing, stress testing, performance testing, Debugging
34	Testing tactics- Black box testing with examples
35	White box testing with examples
36	Basis path testing with examples
37	Control structure testing-condition testing, data flow testing, loop testing with examples
38	Black box testing-graph based testing methods, equivalence partitioning, boundary value analysis, orthogonal array testing
39	Project Management -People
40	Process and project
41	Project Scheduling and defining a task set
42	Scheduling-timeline charts, tracking the schedule ,tracking progress for 00 project
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43	Metrics, Size oriented metrics	
44	Function based metrics	
45	Process based models	
46	Empirical estimation model-COCOMO II model	
47	Case study-Design and development of software application using OODM and SDM	
48	Case study continued	