SCHEME OF COURSE WORK

Course Details:

Course Title	: Software Project Management		
Course Code	:15CT1126	**L T P C**	**: 3 0 0 3**
Program:	: B.Tech		
Specialization:	: Information Technology		
Semester	: VI		
Prerequisites	: Software Engineering		
Courses to which it is a prerequisite	: **Financial Management.**		

Course Outcomes (COs):
At the end of the course the student will be able to

1	Estimate overall cost of a software project.
2	Explain software development process.
3	Distinguish workflows of process.
4	Design project organization structure & analyze quality.
5	Estimate effort and schedule needed for project.

Course Outcome versus **Program Outcomes** versus **Progran Specific Outcomes:**

Course outcomes	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		3	2						2		2		2		
CO2		3	2								2		2		
CO3		2	3								2		2		
CO4		2	3						2				2		
CO5		3	2						2		2		2		

S - Strongly correlated, *M - Moderately* correlated, *Blank - No correlation*

Teaching-Learning and Evaluation

Week	Topic / Contents	Course Outcomes	Sample Questions	Teaching-Learning Strategy	Assessment Method & Schedule
1	**UNIT-I: CONVENTIONAL SOFTWARE MANAGEMENT** The Waterfall Model, Conventional Software Management Performance.	CO1	1) Define the scope of software project management. 2) Describe the stepwise project planning.	☐Lecture ☐Chalk and Talk	Quiz-1 Mid-1
2	Software Economics, Pragmatic Software Cost Estimation. IMPROVING SOFTWARE ECONOMICS: Reducing Software Product Size.	CO1	1) Describe the steps in cost-benefit analysis. 2) Describe the methods to reduce software product size.	☐Lecture ☐Chalk and Talk	Quiz-1 Mid-1
3	Improving Software Processes, Improving Team Effectiveness, Improving Automation through Software Economics.	CO1	1) Explain why discounted cash flow technique is better n than net profit or return on investment. 2) Describe the activities covered by software project management.	☐Lecture ☐Chalk and Talk	Quiz-1 Mid-1 Assignement-1
4	**UNIT-II: THE OLD WAY AND THE NEW:** The Principles of Conventional Software Engineering, The Principles of Modern Software Management, Transitioning to an Iterative Process	CO2	1) Explain the principles of conventional software project management. 2) Differentiate the conventional software project management and modern software project management.	☐Lecture ☐Chalk and Talk	Quiz-1 Mid-1
5	**LIFE CYCLE PHASES:** Engineering and Production Stages, Inception Phase,	CO2	1) Explain the production stages with an example. 2) Explain the inception phase with example.	☐Lecture ☐Chalk and Talk	Quiz-1 Mid-1 Assignement-1
6	Elaboration Phase, Construction Phase, Transition Phase.	CO2	1) Write in detail about the elaboration phase. 2) Explain the steps involved in construction phase and Transition phase.	=☐Lecture ☐Chalk and Talk	Quiz-1 Mid-1
7	**UNIT-III MODEL BASED SOFTWARE ARCHITECTURES:** A Management Perspective, A Technical Perspective. WORKFLOWS OF THE PROCESS: Software Process Workflows, Iteration Workflows.	CO3	1) Illustrate the model based software architecture. 2) Describe the software process workflows.		
8	**MID TEST-1**				
9	**ITERATIVE PROCESS PLANNING:** Work Breakdown Structures, Planning Guidelines,	CO3	1) Explain the iterative process planning. 2) List out the guidelines for project planning.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2 Assignment-2
10	The Cost and Schedule Estimating Process, The Iteration Planning Process.	CO3	1) How to evaluate the cost and scheduling estimation process? 2) Explain the iteration planning process.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2
11	**UNIT-IV PROJECT ORGANIZATION AND RESPONSIBILITIES:** Line-Of-Business Organizations, Project Organizations, Evolution of Organizations.	CO4	1) Define line of business organizations. 2) Explain the evolution of organizations.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2
12	**PROJECT CONTROL AND PROCESS INSTRUMENTATION:** The Seven Core Metrics, Management Indicators, Quality Indicators Modern Project Profiles.	CO4	1) Illustrate the seven core metrics of project control. 2) Explain the quality indicators of modern project profiles.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2 Assignment-2

13	The COCOMO Cost Estimation Model: COCOMO	CO4	1) Describe COCOMO Cost Estimation Model. 2) How to evaluate COCOMO Cost Estimation model.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2
14	UNIT-V **EFFORT ESTIMATION AND SCHEDULING:** Effort Estimation, Scheduling.	CO5	1) Define effort estimation. 2) Explain the methods involved in scheduling.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2 Assignment-2
15	**QUALITY PLANNING:** Quality Concepts, Quantitative Quality Management Planning.	CO5	1) Describe quality management planning. 2) Explain the Quality concepts.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2
16	RISK MANAGEMENT: Risk Assessment, Risk Control.	CO5	1) Explain steps of Risk management. 2) List out the steps to control Risk.	☐Lecture ☐Chalk and Talk	Quiz-2 Mid-2 Assignment-2
17	**MID TEST-2**				
18/19	**END EXAM**				