

**ELEMENTS OF SOFTWARE PROJECT MANAGEMENT  
(Professional Elective –III)**

<b>Course Code</b>	20IT4701C	<b>Year</b>	IV	<b>Semester</b>	I
<b>Course Category</b>	PE3	<b>Branch</b>	IT	<b>Course Type</b>	Theory
<b>Credits</b>	3	<b>L-T-P</b>	3-0-0	<b>Prerequisites</b>	Software Engineering
<b>Continuous Internal Evaluation:</b>	30	<b>Semester End Evaluation:</b>	70	<b>Total Marks:</b>	100

Course Outcomes		Blooms Taxonomy Level
<b>Upon Successful completion of course, the student will be able to</b>		
CO1	Understand the concepts of conventional software management and software economics	L2
CO2	Gain the knowledge on software development lifecycle and artifacts	L3
CO3	Understand the process workflows and milestones	L3
CO4	Analyze the concepts of work break down structure, cost estimation and process automation	L3

**Correlation between CO – PO , CO- PSO**(Use √ symbol for representing correlation)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	√													
CO2	√													
CO3	√													
CO4				√					√		√		√	√

**Strength of Correlation between CO – PO , CO- PSO in scale of 1-3**

1: Slight (low), 2: Moderate (medium) 3: Substantial (High)

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3													
CO2	3													
CO3	3													
CO4				3					3		3		3	3
Overall course	3			3					3		3		3	3

Syllabus		
Unit No	Contents	Mapped CO
I	Conventional Software Management: The waterfall model, conventional software Management performance. Evolution of Software Economics: Software Economics, pragmatic software cost estimation. Improving Software Economics: Reducing Software product size,	CO1

	improving software processes, improving team effectiveness, improving automation, Achieving required quality, peer Inspections	
<b>II</b>	The old way and the new: The principles of conventional software Engineering, principles of modern software management, transitioning to an iterative process. Life cycle phases: Engineering and production stages, inception, elaboration, construction, transition phases. Artifacts of the process: The artifact sets, Management artifacts, Engineering artifacts, Programmatic artifacts	<b>CO1,CO2</b>
<b>III</b>	Model based software architectures: A Management perspective and technical perspective. Work Flows of the process: Software process workflows, Iteration workflows. Checkpoints of the process: Major mile stones, Minor Milestones, Periodic status assessments.	<b>CO1,CO2</b>
<b>IV</b>	Iterative Process Planning: Work breakdown structures, planning guidelines, cost and schedule estimating, Iteration planning process, Pragmatic planning. Project Organizations and Responsibilities: Line-of-Business Organizations, Project Organizations, evolution of Organizations. Process Automation: Automation Building blocks, The Project Environment	<b>CO1,CO3</b>
<b>V</b>	Project Control and Process instrumentation: The seven core Metrics, Management indicators, quality indicators, life cycle expectations, pragmatic Software Metrics, Metrics automation, Process discriminates.	<b>CO1,CO4</b>
<b>Learning Resources</b>		
<b>Text Books</b>		
Software Project Management, Walker Royce Pearson Education, 2009		
<b>References</b>		
1. Software Project Management, Bob Hughes and Mike Cotterell Tata McGraw- Hill Edition. 2. Software Project Management in Practice, Pankajjalot, Pearson Education		