Software Project Management	L	T	P	Software Engineering
	3	1	-	

Course Objective: To introduce concepts of software planning, estimation and time scheduling.

S. NO	Course Outcomes (CO)
CO1	Understand the fundamental concepts of project management, including process frameworks, software life cycle models, and key artifacts
CO2	Apply various cost and effort estimation models to accurately estimate project costs and schedules.
CO3	Implement project management techniques, including risk management, project tracking, and control mechanisms, to ensure successful project execution and delivery.
CO4	Perform project closure analysis by understanding the role of closure in a project and creating comprehensive closure analysis reports.
CO5	Analyze the evolution and impact of software economics on conventional and modern software management practices.
CO6	Discuss future trends in software project management, including next-generation software economics, modern project profiles, and process transitions.

S. NO	Contents	Contact Hours
UNIT 1	**Introduction:** Project Management concepts, Process Framework, Project Planning Software Life Cycle Models, Artifacts of the Project Management Process.	6
UNIT 2	**Cost and Scheduling Estimation Models:** Various Levels of COCOMO for Cost ,Effort, Schedule and Productivity Estimation. Approaches to Effort, Cost Estimation, and Schedule Estimation factors through COCOMO II, Putnam Estimation Model, Algorithmic models.	8
UNIT 3	**Project Management Techniques:** Project Organizations and Responsibilities, Establishing Project Environment, Risk Management Process, Project Tracking and Control Defect Tracking Concepts such as Process monitoring and audit, Reviews, Inspections and Walkthroughs.	8

UNIT 4	**Project Closure:** Project Closure Analysis, Role of Closure Analysis in a project, Performing Closure Analysis, Closure Analysis Report.	**6**
UNIT 5	**Software Project Management Renaissance:** Conventional Software Management, Evolution of Software Economics, Improving Software Economics, The old way and the new way.	**6**
UNIT 6	**Advance Topics in Software Project Management:** Discussion on future Software Project Management Practices & Modern Project Profiles, Next Generation Software Economics, Modern Process Transitions.	**8**
	TOTAL	**42**

REFERENCES

S.No.	Name of Books/Authors/Publishers	Year of Publication / Reprint
1	Managing the Software Process, Watts S. Humphrey, Pearson Education	1989
2	Software Project Management, Bob Hughes, Tata McGraw Hill	2009
3	Sommerville, "Software Engineering", Addison Wesley	2001

GENERIC ELECTIVE COURSE-1

B.Tech. Information Technology		
Course code: Course Title	**Course Structure**	**Pre-Requisite**