7th Semester	RCS7D001	Software Project Management	L-T-P 3-0-0	3 CREDITS

Unit 1

Introduction to Software Project Management - Software Projects - ways of categorizing software projects – problems with software projects - Project Life Cycle – Management - Setting objectives – Stakeholders - Project Team – Step Wise: An overview of project planning - Project evaluation - Selection of appropriate project approach. S/W size estimation, estimation of effort & duration. COCOMO models, Putnam's work, Jensen's model, Halstead's software Science.

Unit 2

Activity planning - project schedules - sequencing and scheduling projects - Network planning models - AON and AOA - identifying critical activities - crashing and fast tracking, Risk management: Categories, Risk planning, management and control - Evaluating risks to the schedule, PERT. Resource allocation - identifying resource requirements - scheduling resources - creating critical paths - publishing schedule - cost schedules - sequence schedule.CPM, Gantt chart, staffing, organizing a software engineering project

Unit 3

Monitoring and control – Visualizing progress, Earned value analysis – Managing people and organizing teams – organizational structures - Planning for small projects. Case Studies, Agile Development.

Unit 4

Software quality- quality engineering, defining quality requirements, quality standards, practices & conventions, ISO 9000, ISO 9001, Software quality matrices, managerial and organization issues, defect prevention, reviews & audits, SEI capability maturity model, PSP, six sigma.

BOOKS

1. B. Hughes, M. Cotterell, Rajib Mall, Software Project Management, McGraw Hill , 2015
2. R. Walker, Software Project Management, Pearson , 2003
3. R. H. Thayer, Software Engineering Project management, IEEE CS Press , 1988
4. R. Pressman, Software Engineering: A Practitioner's approach, McGraw Hill, 2005