

PSE104 SOFTWARE PROJECT MANAGEMENT

L	T	P	Cr
3	0	2	4.0

Course Objective: It gives an in depth knowledge of software project management and project planning. It also covers the Step Wise framework in project planning

Project Planning: Characteristics of a software project, Software scope and feasibility, resources, the SPM plan.

Software Project Estimation: Size/scope estimation, Decomposition techniques, WBS. Effort estimation: Sizing, Function point, LOC, FP vs LOC. Schedule estimation: GANTT Charts, Activity networks, PERT/CPM networks. Cost estimation: Models: COCOMO I, COCOMO II.

Quality Planning: Quality control, Quality assurance, Formal Technical Reviews, The SQA Plan, ISO and CMM standards.

Risk Management: Reactive vs proactive Risk strategies, Risk projection, Risk Refinement, Risk Monitoring, Monitoring and management, RMMM plan.

Measurement and Tracking Planning: Earned Value Analysis.

Team Management: Team structures: hierarchical, Egoless, chief programmer, mixed; Team software Process; Resource leveling, Building a team: Skill sets.

Configuration Management: Baselines, Configurable items, SCM repository, SCM process, version control change control, configuration audit.

Project Monitoring and Control: Audits and Reviews.

Laboratory Work: Implementation of software project management concepts using tools like MS Project, Rational Suite (RequisitePro, Purify, etc.), Advanced Cost Estimation Models.

Recommended Books

1. Software Project Management, Bob Hughes and Mike Cotterell, Tata McGraw Hill 5th edition, 2009
2. A practitioner's Guide to Software Engineering, Roger Pressman, Tata McGraw Hill 2014 8th edition
3. *Head First PMP: A Brain Friendly Guide To Passing The Project Management Professional Exam*, 2013