

Syllabus: CSCR3211 SOFTWARE PROJECT MANAGEMENT

School:		SSCSE		
Department		Department of Computer Science and Engineering		
Program:		B.Tech		
Branch:		Computer Science and Engineering		
1	Course Code	CSCR3211		
2	Course Title	SOFTWARE PROJECT MANAGEMENT		
3	Credits	3		
4	Contact Hours (L-T-P)	3	0	0
	Course Status	Core /Elective/Open Elective		
5	Course Objective	To provide fundamental skills of software Project management emphasizing on issues & hurdles associated with delivering successful projects. Apply project management concepts through working in a group as team leader or active team member on an IT project.		
6	Course Outcomes (6)	After successful completion of this course students should be able to: CO1: Define the Project Management principles while developing software. CO2: Explain different project scheduling techniques. CO3: Apply various project monitoring,control and review techniques CO4: Categorize various activities and estimate the risks involved in various project activities. CO5: Assess project quality and issues related to contract management. CO6: Discuss the impact of project planning on the performance of the organizations		
7	Course Description	This course is aimed at introducing the primary important concepts of project management related to managing software development projects. Students will also get familiar with the different activities involved in Software Project Management. Further, they will also come to know how to successfully plan and implement a software project management activity, and to complete a specific project in time with the available budget.		
8	Outline syllabus			CO Mapping
	Unit 1	Introduction to Software Project Planning		
	A	Fundamentals of Software Project Management (SPM), Need Identification, Vision and Scope Document, Project Management Cycle, SPM Objectives		CO1
	B	SPM Framework, Software Project Planning, Planning Objectives, Project Plan, Types of Project Plan, Structure of a Software Project Management Plan		CO1
	C	Software Project Estimation, Estimation Methods, Estimation Models, Decision Process		CO1
	Unit 2	Project Organization and Scheduling Project Elements		
	A	Work Breakdown Structure (WBS), Types of WBS, Functions, Activities and Tasks, Project Life Cycle and Product Life Cycle		CO2
	B	Ways to Organize Personnel, Project Schedule, Scheduling Objectives, Building the Project Schedule, Scheduling Terminology and Techniques		CO2
	C	Network Diagrams: PERT, CPM, Bar Charts: Milestone Charts, Gantt Charts		CO2
	Unit 3	Project Monitoring and Control		
	A	Dimensions of Project Monitoring & Control, Earned Value Analysis		CO3, CO6
	B	Earned Value Indicators: Budgeted Cost for Work Scheduled (BCWS), Cost Variance (CV), Schedule Variance (SV), Cost Performance Index (CPI), Schedule Performance Index (SPI)		CO3

	C	Software Reviews, Types of Review: Inspections, Deskchecks, Walkthroughs, Code Reviews	CO3
	Unit 4	Project Management Tools	
	A	Software Configuration Items and Tasks, Baselines, Plan for Change, Change Control, Change Requests Management, Version Control	CO4
	B	Risk Management: Risks and Risk Types, Risk Breakdown Structure (RBS), Risk Management Process: Risk Identification, Risk Analysis, Risk Planning, Risk Monitoring	CO4, CO6
	C	Cost Benefit Analysis, Software Project Management Tools: CASE Tools, MS-Project	CO4, CO6
	Unit 5	Software Quality and Staffing in Project Management	
	A	Concept of Software Quality, Software Quality Attributes, Software Quality Metrics and Indicators, The SEI Capability Maturity Model (CMM)	CO5, CO6
	B	SQA Activities, Formal SQA Approaches: Proof of Correctness, Statistical Quality Assurance, Product versus process quality management,	CO5
	C	Introduction, types of contract, stages in contract, placement, typical terms of a contract, contract management, acceptance	CO5, CO6
	Mode of examination	Theory/Jury/Practical/Viva	
	Weightage Distribution	CA 25%	ETE 75%
	Text book/s*	1. Cottrell M. and Hughes B., "Software Project Management", 5th Edition, The McGraw-Hill Companies. 2. Walker Royce: —Software Project Management- Addison-Wesley, 1998	
	Other References	1. Pankaj Jalote, "Software Project Management in practice", 1st Edition, Pearson Education, 2005. 2. Kathy Schwalbe, "Information Technology Project Management" International Student Ed. THOMSON Course Technology	

CO and PO Mapping

S. No.	Course Outcome	Program Outcomes (PO) & Program Specific Outcomes (PSO)
1.	CO1: Define the Project Management principles while developing software.	PO1,PO3,PO5,PO9,PO10, PO11,PSO3
2.	CO2: Explain different project scheduling techniques.	PO1,PO3,PO5,PO9,PO10, PO11PSO3
3.	CO3: Apply various project monitoring, control and review techniques	PO1,PO3,PO5,PO8,PO9, PO10,PO11,PSO3
4.	CO4: Categorize various activities and estimate the risks involved in various project activities.	PO1,PO3,PO5,PO8,PO9, PO10,PO11,PSO3
5.	CO5: Assess project quality and issues related to contract management.	PO1,PO3,PO5,PO6,PO8,PO9, PO10,PO11,PSO3
6.	CO6: Discuss the impact of project planning on the performance of the organizations	PO1,PO3,PO4,PO5,PO6,PO8,PO9, PO10,PO11,PSO3

PO and PSO mapping with level of strength for Software Project management (Course code CSCR3211)

Course Code_ Course Name	CO's	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CSE041_ Software Project Managem ent	CO1	3	-	1	-	1	-	-	-	3	2	3	-	-	2
	CO2	2	-	2	-	2	-	-	-	3	3	3	-	-	2
	CO3	2	-	3	-	2	-	-	1	3	2	3	-	-	3
	CO4	2	-	2	-	2	-	-	1	3	2	3	-	-	3
	CO5	1	-	3	-	2	3	-	1	3	3	3	-	-	3
	CO6	2	-	3	3	2	2	-	1	3	3	3	-	-	2

Average of non-zeros entry in following table (should be auto calculated).

Course Code	Course Name	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CSCR3 211	Software Project Managem ent	2	-	2.3	3	1.8	2.5	-	1	3	2.5	3	-	-	2.5

Strength of Correlation

1. Addressed to Slight (Low=1) **extent**
2. Addressed to Moderate (Medium=2) **extent**
3. Addressed to Substantial (High=3) **extent**