

Semester	IV	Specialization	Information Technology
Course Code	403IT	Type	Subject Core
Course Title	Software Project Management		

Course Objectives:	
1	To understand different aspects of Software Project Management as an important field of practice under IT Management
2	To learn tools and techniques of Software Project Management
3	To understand importance of, and learning techniques to ensure, software quality
4	To learn to use a Software Package for Software Project Management

Syllabus:

Unit Number	Contents	Number of Sessions
1	Introduction to Software Project Management – Software Projects Vs. Other Projects – Contract Management and Technical Project Management – Activities under technical project management – Plans, Methods and Methodology – Stakeholders – Business Case.	7 + 1
2	Project Planning, Evaluation and Program Management – Steps in Project Planning and Project Evaluation – Strategic Assessment – Technical Assessment – Cost Benefit Analysis –Cash Flow Forecasting – Process Models – Prototyping – Dynamic Systems Development – Extreme Programming – Managing Iterative Processes.	7 + 2
3	Software Effort Estimation – Estimation Techniques – Expert Judgment – Analogy – Function Point Analysis – Object Points – Procedural Codes – COCOMO Model Activity Planning – Project Schedules – Sequencing and Scheduling – Network Planning – Using PERT and CPM for activity planning – Forward Pass – Backward Pass – Activity-on-arrow networks Managing Contracts – Types of contracts – Stages in contract placement – Contract Management and Acceptance Software Quality Management – Defining Software Quality – Requisite ISO Standards – Product Vs. Process Quality – Enhancing Software Quality – Quality Planning	9+2
4	Risk Management in Software Projects – Nature and Types of risk – Managing risks – Risk Analysis, Planning and Control – Strategies for risk reduction – PERT as a tool of Risk Management Resource Monitoring and Control–Creating Control Framework – Reporting for	7+2

	Control – Visualizing Progress – Cost Monitoring – Change Control	
5	Using Project Management Software – Introduction to either of Microsoft Project 2010, Prince2 and Primavera and learning to use any one of these products	5+3

Learning Resources:

1	Text Books	Software Project Management, 5 th Edition, Hughes, Cotterel, Rajib Mall, Tata McGraw Hill
2	Reference Books	Software Project management in practice by Pankaj Jalote Software project management by Rajendra Mishra
3	Supplementary Reading Material	
4	Websites	www.projectbubble.com www.sei.cmu.edu
5	Journals	International Journal of Software Project management

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