Lecture Plan: Software Project Management

S.No.	Topics	No. of Lectures
1	**Project Management**: The management spectrum, the people, the product, the process, the project, the W5HH principle	2
	critical practices Metrics for Process and Project: Metrics in the process and project Domains, software measurements, metrics for software quality	3
	integrating metrics within software process, metrics for small organizations, establishing a software metrics program.	3
2	**Estimation**: Observations, Project planning Process, software scope and feasibility, resources, software project estimation,	3
	decomposition techniques, empirical estimation models, estimation for object oriented projects,estimation for Agile development and web engineering projects, the make/buy decision.	3
3	**Project Scheduling:** Basic concepts, project scheduling, defining a task set and task network, scheduling, earned value analysis	2
	Risk Management: Reactive V/S proactive Risk Strategies, software risks, Risk identification, Risk projection, risk refinement, risk mitigation, monitoring and management, the RMMM plan Quality Planning.	4
	Quality Concepts, Procedural Approach to Quality Management, Quantitative Approaches to Quality Management, Quantitative Quality Management Planning, Setting the Quality Goal, Estimating Defects for Other Stages, Quality Process Planning, Defect Prevention Planning.	4
4	**Quality Management**: Quality Concepts, Software Quality assurances, software reviews, formal technical reviews, Formal approaches to SQA, Statistical Software Quality assurances,	4
	Change Management: software Configuration Management, The SCM repository, SCM Process, Configuration Management for Web Engineering	3
5	**Project Execution And Closure**: Reviews. The Review Process, Planning, Overview and Preparation, Group Review Meeting, Rework and Follow-up, One-Person Review, Guidelines for Reviews in Projects, Data Collection, Analysis and Control Guidelines, Introduction of Reviews and the NAH Syndrome.	4
	Project Monitoring and Control: Project Tracking, Activities Tracking, Defect Tracking, Issues Tracking, Status Reports, Milestone Analysis, Actual Versus Estimated Analysis of Effort and Schedule, Monitoring Quality, Risk-Related Monitoring. **Project Closure**: Project Closure Analysis, The Role of Closure Analysis, Performing Closure Analysis.	5

Lecture Plan: Internet Programming

S.No.	Topics	No. of Lectures
1	**Introduction:** Editing XHTML , First XHTML Example , W3C XHTML Validation service , Headings, Linking , Images , Special Characters and horizontal rules, Lists, Tables, forms, Internet linking, web resources.	4
	Cascading Style Sheets Introduction , Inline Styles, Embedded Style Sheets, Conflicting Styles , Linking External Style Sheets, Positioning Elements , Backgrounds , Element Dimensions , Box Model and Text Flow Media types, Building a CSS drop-down menu, User Style Sheets ,CSS3, Web Resources	5
2	**JavaScript**: Introduction to Scripting, Control Structures, Functions, Arrays, Objects, and Document object model (DOM): Objects and Collections, Events.	4
	XML and RSS: Introduction, XML basics, structuring data, XML namespaces, document type definitions (DTDs), W3C XML schema documents ,XML vocabularies, Extensible style sheet language and XSL transformations, Document object model(DOM),RSS	5
3	**Ajax-enabled rich internet applications**: introduction , traditional web applications vs Ajax application , rich internet application (RIAs)with Ajax, history of Ajax, "Raw" Ajax example using the XMLHttpRequest object , using XML and the DOM, creating a full-scale Ajax –enabled application ,	5
	dojo toolkit Web Servers (IIS and Apache): introduction, HTTP transactions , multi tier application architecture ,client-side scripting versus server-side scripting ,accessing web servers, Microsoft internet information services(IIS), Apache HTTP server, requesting documents.	5
4	**PHP:** Introduction, PHP basics, string processors and regular expressions, form processing and business logic, connecting to a database, using cookies, dynamic content, operator precedence chart	4
	ASP.NET 2.0 and ASP.NET Ajax: introduction, creating and running a simple web form example, web controls, session tracking case study : connecting to a database in ASP.NET	4
5	**Java Server Faces Web applications:** introduction, java web technologies, creating and running a simple application in NetBeans, JSF components , session tracking	4