

## **CSEB422: PROJECT MANAGEMENT**

L: 3 T: 0 P: 2, Credit: 4

**Course Outcomes:** Through this course students should be able to

CO1: explain project management concepts, roles, and compare traditional, agile, and hybrid approaches.

CO2: identify stakeholders, communication needs, and analyze resource requirements.

CO3: apply scheduling techniques and analyze estimations, budgets, and procurement processes.

CO4: analyze project risks, quality control, and change management during execution.

CO5: describe Agile principles and differentiate agile, waterfall, and hybrid frameworks.

CO6: analyze Agile practices like sprints, Scrum tools, and organizational Agile adoption.

### **Unit I: Introduction to Project Management**

Project Management and Role of Project Manager, Characteristics of a Project, Responsibilities of the Project Manager, Project Management Professionalism, Project Manager Insights, Project Management Process, Project Management Traditional, Agile and Hybrid Methods, Project Charter, Project Management Scope, Planning and Requirements, Work Breakdown Structure(WBS)

### **Unit II: Project Initiation and Stakeholder Management**

Project Introduction - Project Scope Management, Managing Stakeholders & Communications, Communications in Project Management, Communication Barriers in Modern Workplace, Securing Data and Communications, Stakeholder Analysis, Project resource management, Trends in global project management, Plan resource management, Team development, Resource requirements

### **Unit III: Project Planning and Scheduling**

Project planning Lifecycle, Project Schedule Management, Activities and sequencing, Project Duration Estimation, Scheduling Constraints, Network Diagram, Project Schedule Management, Leads and Lags Time, Analogous and Parametric Estimating, Three-Point & PERT Estimating, Bottom-Up Estimating, Schedule Baseline and Gantt Chart, Compressing and Schedule Controlling, Project Management Cost and Estimation, Estimating Tools, Project Budget, Managing Project Procurement, Procurement Process, Earned Value Management, Supplier Management

### **Unit IV: Project Execution and Risk Management**

Project Risk Identification and Analysis, Risk Monitoring and Management, Qualitative and Quantitative Risk Analysis, Risk Management Plan, Project Quality Management, Quality Characteristics, Cost of Quality, Controlling Change, Quality Policy, Quality Assurance, Quality Control in Project Management, Project Issues and Project Closing, Project Post-Mortem.

## **Unit V: Agile Foundations and Frameworks**

Introduction to Agile, Agile Project Management, Agile Values and Principles, Agile Frameworks, Venn Diagram, Agile vs Waterfall/Predictive vs Hybrid, Lean Agile, Kanban, XP, Agile Methodology, Introduction to Scrum, Scrum Master, Sprint Charter, Daily Stand-up, Simplicity Principle, User Story Points & Team Velocity, Setting Priorities.

## **Unit VI: Agile Practices and Organizational Adoption**

Introduction to Sprint, Sprint Planning, Product Backlog and Backlog Refinement, Sprint Review, Sprint Retrospective, Kanban Board, Burn Down & Burn Up Charts, Scrum Process and Tools, Creating Kanban Board, Agile Organization, Agile Organizational Structure, Five Trademarks of Agile Organizations, Agile Strategic Vision, Distributed Teams, Agile Structures and Leadership

**Examination Category:** 11 (Mid Term Examination: All MCQ and End Term Examination: All MCQ).

**Weightage:** Mid Term Examination 40% Marks and End Term Examination 60% Marks.

**Continuous Assessment:** Not Applicable (Only Mid Term and End Term exams will be conducted).

- **Eligibility Criteria for Mid Term Examination**

To be eligible for the Mid Term Examination, a student must successfully complete and produce Coursera completion certificates for all 6 courses included in Units 1, 2, and 3 on or before 10<sup>th</sup> September 2025 and the courses are listed here:

1. Project Management and Role of the Project Manager
2. Starting the Project: Project Scope
3. Managing Stakeholders & communications
4. Forming and Leading the Project team
5. Project Schedule
6. Project Budget and Procurement

- **Eligibility Criteria for End Term Examination**

To be eligible for the End Term Examination, a student must successfully complete and produce coursera completion certificates for all 11 courses included in all Units six units on or before 16<sup>th</sup> November 2025 and the courses are listed here:

1. Project Management and Role of the Project Manager
2. Starting the Project: Project Scope
3. Managing Stakeholders & communications
4. Forming and Leading the Project team
5. Project Schedule
6. Project Budget and Procurement
7. Risk Planning and Management

8. Quality Management & Compliance
9. Agile Project Management
10. The Agile Process
11. The Agile Organization

**Course link:** <https://www.coursera.org/programs/cseb422-project-management-zxa5i>