

Course Code	Course Name	Teaching Scheme (hrs/week)			Credits Assigned			
		Theory	Practical	Tutorial	Theory	Practical/Oral	Tutorial	Total
BEITC701	Software Project Management	04	02	---	04	01	---	05

Course Code	Course Name	Examination Scheme							
		Theory Marks				Term Work	Practical	Oral	Total
		Internal assessment			End Sem. Exam				
		Test1	Test 2	Avg. of 2 Tests					
BEITC701	Software Project Management	20	20	20	80	25	---	25	150

Course Objectives:

This course will help students to identify key areas of concern over Project Life Cycle (PLC) and use of project management principles across all the phases of PLC. The course will also help student to make them understand the importance and necessity of project plan and how it is helpful to project manager in monitoring and controlling the various aspects of the project such as schedule, budget, etc. The course will make them understand the importance of team and how to work as a team member, share best project management practices.

Course Outcomes:

Upon completion of the course, students should be able to:

- Articulate similarities and differences between IT projects and other types of projects.
- Justify an IT project by establishing a business case
- Develop a project charter
- Develop a work breakdown structure for an IT project

- Estimate resources (time, cost, human being, etc.)
- Establish task inter-dependencies
- Construct and analyze a network diagram
- Identify IT project risks and develop risk mitigation strategies
- Ensure the quality of the project using various standards
- Demonstrate Team work and team spirit and how to overcome the conflicts

DETAILED SYLLABUS:

Sr. No.	Module	Detailed Content	Hours
1	An overview of IT Project Management	Introduction, the state of IT project management, context of project management, need of project management, project goals, project life cycle and IT development, information technology project methodology (ITPM), project feasibility, request for proposal (RFP), the business case, project selection and approval, project contracting, PMBOK.	4
2	Project Integration Management	Introduction, project management process, project integration management, the project charter, project planning framework, the contents of a project plan, the planning process.	4
3	Project Scope Management	Introduction, scope planning, project scope definition, project scope verification, scope change control, the Work Breakdown Structure (WBS), the linear responsibility chart.	4
4	Project Time Management	Introduction, developing the project schedule, Scheduling Charts, logic diagrams and network (AOA, AON), critical path, calendar scheduling and time based network, management schedule reserve, PDM network, PERT, CPM, Resource loading, resource leveling, allocating scarce resources to projects and several projects, Goldratt's critical chain.	10
5	Project Cost Management	Cost estimating, Cost escalation, Cost estimating and system development cycle, Cost estimating process, Elements of budgets and estimates, Project cost accounting and MIS, Budgeting using cost accounts, Cost schedules and forecasts.	4

6	Project Quality Management	Introduction, Quality tools and philosophies, quality systems, the IT project quality plan.	3
7	Project Human Resource Management	Introduction, organization and project planning, the project team, multidisciplinary teams, the project environment, project leadership, ethics in projects, multicultural projects, Role of project manager, IT governance and the project office. Introduction to change, the nature of change, the change management plan, dealing with resistance and conflicts.	5
8	Project Communication Management	Introduction, monitoring and controlling the project, the project communications plan, project metric, project control, designing the control system, the plan-monitor-control cycle, data collection and reporting, reporting performance and progress, information distribution.	4
9	Project Risk Management	Basic concepts, Identification, Assessment, Response planning, Management.	4
10	Project Procurement Management	Introduction, project procurement management, outsourcing.	3
11	The Implementation Plan and Project Closure	Introduction, project implementation, administrative closure, project evaluation, project audit.	3

Text Books:

1. Jack T. Marchewka, Information Technology Project Management, 4th edition, Wiley India, 2009.
2. John M. Nicholas, Project Management for Business and Technology, 3rd edition, Pearson Education.

References:

1. E-Book - Project Management Body of Knowledge (PMBOK).
2. Claudia M. Baca, Patti M. Jansen, PMP: Project Management Professional Workbook, Sybex Publication.
3. S. J. Mantel, J. R. Meredith and etal., Project Management 1st edition, Wiley India, 2009.
4. Joel Henry, Software Project Management, A real-world guide to success, Pearson Education, 2008.
5. Gido and Clements, Successful Project Management, 2nd edition, Thomson Learning

6. Hughes and Cornell, Software Project Management, 3rd edition, Tata McGraw Hill
7. Joseph Phillips, IT Project Management, end edition, Tata McGraw Hill
8. Robert K. Wyzocki, Effective Project Management, 5th edition, Wiley
9. Brown, K.A. Project Management, McGraw Hill, 2002.
10. Dinsmore, P. C. (Ed.), The AMA Handbook of Project Management. AMACOM, 1993.

Term work:

Term work shall consist of at least 10 experiments covering all topics of the syllabus. Distribution of marks for term work shall be as follows:

1. Attendance (Theory and Practical): 05 Marks
2. Laboratory work (Experiments and Journal): 15 Marks
3. Assignments: 5 Marks

The final certification and acceptance of TW ensures the satisfactory performance of laboratory Work and Minimum Passing in the term work.

Suggested Practical List:

In practical, a group of maximum **three** students should be formed. Each group is supposed to complete all lab experiments (given below) on the case study given by the subject teacher. In lab experiments, students can use the tools like MsWord to prepare document whereas MsProject for preparing WBS, N/w diagram, PERT, CPM, performance analysis of the project, etc.

1. Project and System's Management
2. Feasibility study
3. Project Proposal
4. Project Planning
5. Activity Planning
6. Analyzing the project network diagram
7. Cost estimation and budgeting
8. Risk management
9. Performance analysis of project
10. Project evaluation and closure

Theory Examination:

- Question paper will comprise of 6 questions, each carrying 20 marks.
- Total 4 questions need to be solved.
- Q.1 will be compulsory, based on entire syllabus.
- Remaining question will be randomly selected from all the modules.

Weightage of marks should be proportional to number of hours assigned to each module.