



GUJARAT TECHNOLOGICAL UNIVERSITY

Bachelor of Engineering
Subject Code: 3171506
Semester –VII
Subject Name: Project Management

Type of course:

Prerequisite: Nil

Rationale:

The course aims to impart basic skills of Project management & its various aspects.

Teaching and Examination Scheme:

Teaching Scheme			Credits C	Examination Marks				Total Marks
L	T	P		Theory Marks		Practical Marks		
				ESE (E)	PA (M)	ESE (V)	PA (I)	
3	0	2	4	70	30	30	20	150

Content:

Sr. No.	Content	Total Hrs
1	Project Management: Definition of project, Project Management Vs. General Management, Three goals of project, The life cycle of projects, Selecting projects to meet organizational goals, Confronting Uncertainty, Project portfolio process, An approach to Project Formulation	08
2	Organizing the project: The PM's Roles, The PM's responsibility to the project, Selection of a Project Manager, Project Management as a profession, Fitting projects into the parent organization, The project team	06
3	Planning the project: The contents of a project plan, The planning process-overview, The planning process- Nuts and Bolts, The work breakdown structure and other aids, Multidisciplinary Teams- Balancing Pleasure and Pain,	06
4	Budgeting the Project: Methods of budgeting, Cost estimating, Improving Cost Estimates, Budget Uncertainty and risk management	04
5	Project Network Theory: Scheduling the Project PERT and CPM Networks, Project uncertainty and risk management, Simulation, The Gantt chart, Extensions to PERT/CPM.	08
6	Allocating the Resources to the Project: Expediting a Project, Resource Loading, Resource Leveling, Allocating Scarce resources to projects, Allocating several resources to the several projects, Goldratt's critical chain. Crashing the Project network.	05
7	Monitoring and Controlling the Project: The plan-monitor-control cycle, Data collection and reporting, Earned value, Project	04



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	control, Designing the control system, Scope creep and change control	
8	Evaluating and Terminating the Project: Evaluation, Project Auditing, Project Termination	04
	Total Hours	45

Suggested Specification table with Marks (Theory): (For BE only)

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
10	15	20	20	20	15

Legends: R: Remembrance; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create and above Levels (Revised Bloom's Taxonomy)

Note: This specification table shall be treated as a general guideline for students and teachers. The actual distribution of marks in the question paper may vary slightly from above table.

Reference Books:

1. Project Management by Samuel J. Mantel, Jr. , Jack R. Meredith, Scott M. Shafer, Margaret M. Sutton with M. R. Gopalan (WILEY-INDIA)
2. Project Management and Appraisal by Sitangshu Khatua (Oxford)

Course Outcomes: Students will be able to:

Sr. No.	CO statement	Marks % weightage
CO-1	Demonstrate the fundamentals of project management its organization.	25
CO-2	Utilize the concepts of project organizing, project planning and it's budgeting.	25
CO-3	Analyze the project network and resource allocation in projects.	20
CO-4	Illustrate the project monitoring and control.	20
CO-5	Choose evaluating and terminating the Project.	10

List of Experiments:

The following are Practical/Experiments list :

1. Study and Analysis of different Projects and Management of Projects (case study type)
2. Case study on Project Planning (Example: The planning process- Nuts and Bolts)
3. Exercise Problems on Budgeting the Project
4. Exercise Problems on CPM, Project duration and float calculation.



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5. Exercise Problems on PERT Networks and calculation of Project duration, Project completion probability and simulation of PERT.
6. Exercise on Expediting a Project, Resource Loading, Resource Leveling,
7. Exercise Problems on Crashing the Project network
8. Exercise Problems Project Auditing