



GUJARAT TECHNOLOGICAL UNIVERSITY
Syllabus for Integrated MSc, 9th Semester
Branch: Computer Science
Subject Name: Project Management Practices and Evaluation
Subject Code: 1390302

Teaching and Examination Scheme:

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

Content:

Sr. No.	Content	Teaching Hours	Module Weightage (%)
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	6	15
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.	7	20
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.	6	15
4	Budgeting the Project: Methods of budgeting, Cost estimating, Improving Cost Estimates, Budget Uncertainty and risk management.	4	10
5	Project Network Theory: Scheduling the Project PERT and CPM Networks, Project uncertainty and risk management, Simulation, The Gantt chart, Extensions to PERT/CPM.	6	10
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.	5	10
7	Monitoring and Controlling the Project: The plan-monitor-control cycle, Data collection and reporting, earned value, project control, Designing the control system, Scope creep and change control.	4	10



8	Evaluating and Terminating the Project: Evaluation, Project Auditing, Project Termination.	3	10
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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 Outcome:

1. Demonstrate the fundamentals of project management its organization.
2. Utilize the concepts of project organizing, project planning and it's budgeting.
3. Analyze the project network and resource allocation in projects.
4. Illustrate the project monitoring and control.
5. Choose evaluating and terminating the Project.

List of Experiments:

- 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.
- 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

List of open-Source software/learning Websites:

- [www. nptel.ac](http://www.nptel.ac)