

GUJARAT TECHNOLOGICAL UNIVERSITY

PRODUCTION ENGINEERING MANAGING PROJECTS SUBJECT CODE: 2182506 B.E. 8th SEMESTER

Type of course: Under Graduate

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)	
				PA	ALA	ESE	OEP			
3	2	0	5	70	20	10	30	0	20	150

Content:

Sr. No.	Content	Total Hrs	% Weightage
1	The world of 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	06	12
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	12
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,	08	16
4	Budgeting the Project Methods of budgeting, Cost estimating, Improving Cost Estimates, Budget Uncertainty and risk management	06	12
5	Scheduling the Project PERT and CPM Networks, Project uncertainty and risk management, Simulation, The Gantt chart, Extensions to PERT/CPM	08	16
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	06	12
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	06	12

	change control		
8	Evaluating and Terminating the Project Evaluation, Project Auditing, Project Termination	04	08

Suggested Specification table with Marks (Theory):

Distribution of Theory Marks					
R Level	U Level	A Level	N Level	E Level	C Level
7	14	21	14	14	0

Legends: R : Remembrance ; U = Understanding; A = Application 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 Outcome:

After learning the course the students should be able to:

1. Understand Project Management.
2. Understand Organizing, planning, of project.
3. Monitoring and Controlling the Project
4. Evaluating and Terminating the Project.

List of Experiments:

Tutorials based on above syllabus.

List of Open Source Software/learning website:

www.nptel.ac.in/

ACTIVE LEARNING ASSIGNMENTS: Preparation of power-point slides, which include videos, animations, pictures, graphics for better understanding theory and practical work – The faculty will allocate chapters/ parts of chapters to groups of students so that the entire syllabus to be covered. The power-point slides should be put up on the web-site of the College/ Institute, along with the names of the students of the group, the name of the faculty, Department and College on the first slide. The best three works should be submitted to GTU