



GUJARAT TECHNOLOGICAL UNIVERSITY
Program Name: Master of Business Administration
Level: PG
Branch: Information Technology
Course / Subject Code: MB02096021
Course / Subject Name : IT Project Management

w. e. f. Academic Year:	2024-25
Semester:	2
Category of the Course:	Core Course (CC)

Prerequisite:	UG Level Course
Rationale:	An IT Project Management course in an MBA IT program equips students with essential skills to oversee and deliver complex technology projects efficiently. It combines project management principles with IT-specific challenges, fostering competencies in planning, execution, risk management, and stakeholder communication. The course enhances strategic thinking and leadership abilities, ensuring graduates can align IT projects with business objectives. By understanding both the technical and managerial aspects, students are prepared to handle the dynamic demands of the IT industry, driving innovation and ensuring successful project outcomes in a competitive marketplace.

Course Outcome:

After Completion of the Course, the Student will able to:

Identify the different project contexts and suggest an appropriate management strategy. Practice the role of professional ethics in unsuccessful software development. Identify and describe the key phases of project management. Determine an appropriate project management approach through an evaluation of the business context and scope of the project.

No	Course Outcomes	RBT Level
01	Understanding of various aspects of project management in general and IT project management in particular	U
02	Develop an understanding of various tools and techniques that assist in managing IT projects	U
03	Evaluate and manage project risks, as well as implement quality assurance practices to ensure IT project outputs meet defined standards and stakeholder expectations.	E
04	Effectively plan and schedule projects, including defining project scope, setting objectives, creating work breakdown structures (WBS), and developing Gantt charts and PERT diagrams for the IT Projects	A

**Revised Bloom's Taxonomy (RBT)*



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Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
L	T	PR	C	Theory		Tutorial / Practical		
				ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
3	1	0	4	70	30	50	0	150

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	Introduction to IT Project Management • Introduction to Project • Introduction to Project Management • Introduction to IT Project Management • Reasons for IT Project failure Software Engineering • Evolution—From an Art Form to an Engineering Discipline • Software Development Projects • Emergence of Software Engineering System Development Life Cycle (SDLC) • Waterfall Model and its Extensions • Rapid Application Development (RAD) • Agile Development Models • Spiral Model Business Case Project Charter	11	25
2.	Software Project Management: • Software Project Management Complexities • Responsibilities of a Software Project Manager • Project Planning • Metrics for Project Size Estimation • Project Estimation Techniques • Empirical Estimation Techniques • COCOMO—A Heuristic Estimation Technique	12	25



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	• Staffing Level Estimation • Scheduling (WBS, Activity Networks, PERT, CPM, Gantt Charts) • Organisation and Team Structures • Staffing Requirement analysis and Specification: • Requirements Gathering and Analysis Software Requirements Specification (SRS)		
3.	Software Design: • Overview of SA/SD Methodology • Structured Analysis • Developing the DFD Model of a System • Developing ER-Diagram Object Modeling using UML • Basic Object-Orientation Concepts • Unified Modelling Language (UML) • UML Diagrams • Class Diagrams • Activity Diagram • State Chart Diagram Organization and Team Structure • Organization Structure • Team Structure Staffing	11	25
4.	Coding and Testing: • Coding Standards and Guidelines • Code Review • Introduction to Black-box and White-box Testing • Introduction to Unit testing, Integration testing, System Testing and Acceptance testing (Alpha and Beta testing) Project Risk Management • Introduction • Risk management process • Risk identification for IT-Projects and risk strategies IT Project quality management • ISO • Six Sigma (6σ)	11	25



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	Project procurement management • Project Procurement Management Processes • Outsourcing of products and services Project Implementation and Closure • Project Implementation • Administrative closure Closing the project		
5.	Practical: • Creating Work Breakdown Structure using Microsoft Project • Transform WBS into baseline project plan using Microsoft Project Tracking and Reporting Project Progress through Microsoft Project	15	
	Total	60	100

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	U Level	A Level	N Level	E Level	C Level
15	30	30	10	10	5

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

No.	Author	Name of the Book	Publisher	Year of Publication /Edition
1	Rajib Mall	Fundamentals of Software Engineering	PHI	Latest Edition
2	Jack T Marchewka	Information Technology Project Management	Willy India	Latest Edition
3	Kathy Schawalbe	Project Management in IT	Cengage	Latest Edition
4	Bob Hughes, Mike Cotterell, Rajib Mall	Software Project Management in Practice	Pearson	Latest Edition
5	Pankaj Jalote	Software Project Management in Practice	Pearson	Latest Edition
6	Samuel J mantel et.al	Project Management Core Textbook	Wiley India	Latest Edition



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7	Roger S. Pressman	Software Engineering: A practical Approach	Mc GrawHill	Latest Edition
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CO- PO Mapping:

Semester 2	Course Name : IT Project Management				
	POs				
Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	1	2
CO2	3	2	2	1	2
CO3	3	2	2	1	2
CO4	3	2	2	1	2

Legend: '3' for high, '2' for medium, '1' for low and '-' for no correlation of each CO with PO.

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