

Sardar Patel University, Balaghat (M.P.)



Curriculum

For

M.Tech.

Industrial Management & Engineering

From Session: 2024-25



SARDAR PATEL UNIVERSITY, BALAGHAT (MP)

School of Engineering and Technology

Syllabus

Subject Name: Financial Management and Project Management

Subject Code : MIM031(A)

Course: M.Tech. Branch: Industrial Management and Engineering, Semester: III

Academic Session: 2024-25

Course Objectives

1. Equip students with the skills to analyze financial statements and assess the financial health of organizations using key performance indicators.
2. Teach students how to evaluate investment opportunities and make informed decisions using techniques such as net present value (NPV) and internal rate of return (IRR).
3. Explore the implications of different capital structures and financing options on a firm's financial performance and cost of capital.
4. Instill knowledge of effective working capital management strategies to ensure liquidity and operational efficiency.

Course Contents

Unit 1

Nature and Scope of Financial Management: Role of financial management in business decision, goal of financial management, The Firm and Its Environment: Forms of business ownership, economic and regulatory environment, Tax planning

Unit 2

Balance sheet and profit and loss statements, Tools of Financial Analysis: Funds flow analysis - sources and uses of funds, measurements of cash flow, Revenue costs, Investment Management: Capital Budgeting Techniques. PBP, ARR, Discounted PBP, PI, Time Value of Money, NPV v/s IRR. Risk Analysis, Case Studies

Unit 3

Profit relationships, break even analysis, ratio analysis, of operating and financial leverages, Working Capital Management, Credit Policy, Financial Decision Making: Sources of raising capital, Internal financing, Cost of capital, Balanced Capital Structure. Capital Structure Theories, Dividend Policy & its Theories.

Unit 4

Project Management: Definition, characteristics, and life cycle, difference with operations management, Steps in PM, project manager's jobs, Organization for PM. Market Potentiality

Analysis: Identification of opportunities of new products, Technical Analysis : Materials and Inputs, Selection of Appropriate Technology , Product mix, Plant capacity.

Unit 5

Project Analysis & controls: Monitoring and Control: Features of control, Project control, Performance analysis and cost control curves, Line of balance, GERT, Financial Analysis : Estimation of cost of project, means of finance, newer modes of financing. Estimation of working capital, estimation of cost of production working results and profitability, Project cash flows, Project Report Preparation: Detailed project report preparations for various agencies, Planning of a new enterprise, Introduction to IPR, Procedures and practices.

Reference Books :

- ❖ Khan and Jain, Financial management.
- ❖ Kuchchal, Financial management.
- ❖ Pandey I M, Financial Management.
- ❖ Prasanna Chandra, Project Preparation, Appraisal and Implementation, TMH
- ❖ Dennis Lock, Project Management, Galgotia Book Service, New Delhi.
- ❖ Chaudhary S., Project Management, TMH

Course Outcomes

1. Students will understand the phases of the project management lifecycle and apply appropriate tools and techniques at each stage.
2. Students will create detailed project plans, including scope, timelines, resource allocation, and budgeting.
3. Students will identify, assess, and develop strategies to manage risks associated with projects effectively.
4. Students will demonstrate effective leadership and communication skills to manage project teams and foster collaboration.



SARDAR PATEL UNIVERSITY, BALAGHAT (MP)

School of Engineering and Technology

Syllabus

Subject Name: Research Methodology, Subject Code : MIM031(B)

Course: M.Tech. Branch: Industrial Management and Engineering, Semester: III

Academic Session: 2024-25

Course Objectives

1. Provide students with a comprehensive understanding of the principles and importance of research in various fields.
2. Teach students how to conduct thorough literature reviews, critically analyzing existing research to identify gaps and formulate research questions.
3. Familiarize students with various data collection methods, including surveys, interviews, observations, and experiments, and their appropriate applications.
4. Enable students to apply statistical and qualitative analysis techniques to interpret data and draw meaningful conclusions.

Course Contents

Unit 1

Introduction to research methodology: defining the Research Problem & Developing an approach.

Unit 2

Research Design formation: Research design, Exploratory research design: Secondary Data, Qualitative Research, and Descriptive

Research Design: Survey & Observation, Casual Research Design: Design of Experiments.

Unit 3

Measurement and scaling: Introduction, Fundamentals & Comparative Scaling, Measurement & scaling: Non-comparative scaling techniques, Questionnaire & form design, Sampling: Design & procedures, Sampling: Final & initial sample size determination.

Unit 4

Data collection and preparation: Fieldwork, Data preparation, Frequency distribution, crosstabulation, & hypothesis testing, Analysis of Variance & covariance, Correlation & regression, significance of error R-square, differentiation between correlation and causal analysis

Unit 5

Analysis, and reporting: Discriminate & logic analysis, Factor analysis, Cluster Analysis, Multidimensional scaling & conjoint analysis, Report preparation & presentation, International marketing research.

References:

- ❖ Bryman Alan and Bell Emma; Business research methods; Oxford University Press
- ❖ Malhotra Naresh K; Market Research
- ❖ Borden; Research Design and Methods; TMH
- ❖ Trochim; Research Methods; Wiley
- ❖ Churchill Gilbirth and Dawn Iacobucci; Market Research-Methodological Foundation.
- ❖ Pual Haque; Market Research: A Guide to Planning, Methodology and Evolution.
- ❖ Blankship Albert, George Breen, Alan Dutka; State of the Art Marketing Research.
- ❖ Donald R. Lehman; Marketing Research.

Course Outcomes

1. Students will be able to design effective research studies using appropriate methodologies, including qualitative, quantitative, and mixed methods.
2. Students will conduct thorough literature reviews, critically analyzing existing research to identify gaps and formulate relevant research questions.
3. Students will demonstrate the ability to select and apply suitable data collection methods, including surveys, interviews, and experiments, based on research objectives.
4. Students will analyze and interpret data using appropriate statistical and qualitative analysis techniques, drawing meaningful conclusions from their findings.



SARDAR PATEL UNIVERSITY, BALAGHAT (MP)

School of Engineering and Technology

Syllabus

Subject Name: Financial Management and Project Management

Subject Code : MIM032

Course: M.Tech. Branch: Industrial Management and Engineering, Semester: III

Academic Session: 2024-25

Course Objectives

1. Provide students with a foundational understanding of key financial concepts, including time value of money, risk and return, and capital budgeting.
2. Equip students with the skills to analyze and interpret financial statements to assess an organization's financial health and performance.
3. Provide students with a thorough understanding of the project management lifecycle, including initiation, planning, execution, monitoring, and closure.
4. Equip students to develop comprehensive project plans, including defining project scope, setting timelines, and allocating resources.

Course Contents

Unit 1

Introduction: Tasks and Philosophies of Marketing Management differentiation between need, want and demand, marketing system and environment, Systems approach to marketing; Marketing Organization: Organization of Marketing department. Responsibilities and functions of Marketing managers, Interaction of Marketing with other functions

Unit 2

Sales Function: Recruitment, Selection, Training, Motivation and compensation of sales force, Controlling and evaluating, Sales Promotion and evaluation of advertising program

Unit 3

Marketing research: Scope and objective, Planning and formulating Marketing Research Projects, Methods of collecting data. Analysis and evaluation of data. Consumer behavior analysis, Vendor analysis

Unit 4

Product Planning: Product Policy decision, Life Cycle, Innovation, Product failure. Introducing new products, Product Mix strategies

Unit 5

Distribution: Importance of middlemen. Types of distribution channel, design decisions, Problem in Channel Determination and uses.

References:

- ❖ Philip Kotler; Marketing Management: Analysis ,Planning Implementation and Control. PHI.
- ❖ Stanton; Marketing Management; Mc Graw Hill
- ❖ Philip Kotler; Principles of Marketing; PHI
- ❖ Rajagopal; Marketing Management: Text and Cases; Vikas Publishing House
- ❖ Gandhi; Marketing a managerial Introduction TMH
- ❖ Still,Cundiff and Govoni; Sales Management- Decision, strategy and Cases; PHI
- ❖ Beri; Marketing Research; PHI

Course Outcomes

1. Students will be able to analyze and interpret financial statements to assess an organization's financial health and performance metrics.
2. Students will assess the impact of different capital structures on organizational performance and identify optimal financing strategies.
3. Students will understand and apply the phases of the project management lifecycle, from initiation to closure.
4. Students will create detailed project plans that include defined scope, timelines, resources, and budgets.