MBA (Healthcare & Hospital Management)

Programme Educational Objectives (PEO)

PEO 01: To impart knowledge and decision-making capabilities using management theory and Healthcare Management practice as per organizational requirements.

PEO 02: To develop analytical power and expertise to critically think and solve operational problems in real world situations in various functional areas of healthcare and hospital management.

PEO 03: To enhance professional competency in meeting the challenges in a globalized world of healthcare business.

PEO 04: To develop ethical, social and environmental consciousness to face and overcome the challenges of the healthcare sector.

PEO 05: To inculcate effective communication skills, teamwork skills, domain skills, application skills and values to meet the diversified needs of the healthcare industry

PEO 06: To produce industry ready and responsible managers who have high regard for personal and institutional integrity

Programme Outcome (PO)

At the end of the MBA (Healthcare & Hospital Management) Programme, post-graduate students will be able to:

PO-01(Management Knowledge): Demonstrate the knowledge of management principles to solve the domain specific problems and contribute in decision-making process of the business

PO-02(Problem Solution): Demonstrate the ability to integrate tools and concepts from multiple functional areas to solve specific problems related to healthcare sector.

PO-03(**Leadership and Organization Skills**): Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. He/she is expected to

excel others while exercising choice for business decision in a setting where there exist competing alternatives

PO-04(Self-control and Resilience): Cope up with the physical and physiological challenges of the healthcare sector and hospital administration.

PO-05(Environment and Sustainability): Understand the role of the professionals in societal contexts, and demonstrate the knowledge of, and need for sustainable development

PO-06(Life-long Learning): Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of business world.

PO-07(Creativity and Innovation): Solve the problems of business and industry through research and innovative practices derived out of optimum blending of abstract reasoning and the ability to analyse the real-life issues (case studies).

PO-08(Employability): Get employed as MBA professional in the diversified areas either in domestic and multinational organizations.

PO-09(Ethics and Governance): Apply principles of ethics and rules of corporate governance in day-to-day business practices.

PO-10 (Crisis Management): Use resilience and proactiveness in tackling crises in the industry.

Programme Specific Outcome (PSO)

PSO-01: Create capabilities of converting theoretical knowledge into practical applications as per organizational requirements in the field of Health System Management, Quality & Accreditation, Health Technology Assessment, Medical Tourism, Disaster Management, Health Care Delivery Organization, and Public Health Facilities & Services for overall improvement of the facilities.

PSO-02: Encourage the students on their professional development plans by reflecting on their learning and Internship experiences in order to apply healthcare practices, policies and theories by following scientific approach to knowledge development in real life situations for the wellbeing of the society.

PSO-03: Keep abreast of inter-disciplinary trends which can be brought to bear in creating strategic and tactical benefits in post pandemic era in the field of Health Care Technology, Health Care Industry related subjects, Text Books for Health Management Courses for the benefit of Students & Faculty, Hospital and Health Care organizations and Academic Institutions.

PSO-04: Develop competencies to be socially responsible professionals in the field of Health Care Technology in this digital era.

PSO-05: Apply to create synergies amongst the most diverse set of variables and the ability to continuously learn, improvise, adapt, energize, excel and grow in today's dynamic digital era.

Subject: Principles & Practice of Management

Semester: 1

Subject Category: CC

Credit: 4 (L: 3, T: 1)

Subject Code: 1030060101

Syllabus

Module-I: Concept and Nature of Management

- Meaning & Definition of the term Management
- Management as a Science or an Art
- Management as a Profession
- Management as a Process
- Levels of Management
- Roles of a Manager
- Significance of Management
- Limitations of Management

Module-II: Management Theories

- Evolution of Management Thoughts [Pre-Scientific Management Era (before 1880)
- Classical Management Era (1880-1930)
- Neo-classical (1930-1950), and Modern Management era (1950-onwords)
- Contribution of Management Thinkers:
 - o Taylor's Scientific Theory
 - o Fayol's Administrative Theory
 - o Max Weber's Bureaucratic theory
 - o Elton Mayo's theory

Module-III: Planning

- Planning: Meaning, Definition, Process, Types, Essential characteristics of a sound plan, Need and importance of planning, Components of planning, Various types of single-use plan, Limitations of Planning.
- Strategic Planning Meaning & Process, MBO Meaning, Process and Requirements for Implementation,

Module-IV: Organization Design and Structure

- Organization Meaning, Process, Principles,
- Organization Structure Determinants and Forms: Line, Functional, Line & Staff, Matrix,
- Formal and Informal Organization;
- Divisional and Network organizational structure;
- Centralization and Decentralization;
- Principles of the organization;
- Authority and Responsibility relation; Structural Contingency approach to organization design.
- Span of Control Meaning and Factors Influencing.

Module-V: Staffing

- Definition of Staffing, an overview of Staffing Function,
- Recruitment, Selection, Placement, Promotion, Performance Appraisal.

Module-VI: Directing

- Motivation Meaning,
- Definition, Significance & Limitations;
- McGregor's Theory of X and Y, Maslow's Hierarchy of Needs Theory,
- Leadership Meaning, Definition, various Leadership styles Type,
- Processes and Barriers of Communication, and Strategies to overcome the Barriers.

Module-VII: Controlling

- Controlling Meaning,
- Steps, Types,
- Major Controlling Techniques:
- Budgetary and Non-Budgetary Control Devices,
- Significance,
- Limitations.

Suggested Readings:

- 1. Weihrich and Koontz, et al: Essentials of Management; Tata McGraw Hill
- 2. V.S.P Rao & Hari Krishna: Management-Text & Cases, Excel Books

- 3. Ramaswami T: Principles of Mgmt., Himalaya Publishing
- 4. Chandan, J. S: Management Concepts and Strategies, Vikas Publishing
- 5. Dipak Kumar Bhattacharyya: Principles of Management Text and Cases, Pearson.
- 6. Robbins, S. P. Management, Prentice Hall.

Course Outcome (CO)

CO #	Description									
CO -1	Discuss the various aspects of management & evolution of management thoughts and the challenges of managerial activities in a global business environment.									
CO-2	Explain different management theories & their applicability in the modern business concept.									
CO-3	Explain the types of Planning and Decision-making methodologies followed in the Organizations.									
CO-4	Summarize various types of Organization structures and associated Human Resources activities for manpower utilization.									
CO-5	Explain various motivation theories, behavioural theories & leadership theories, and communication processes and methods for effective directing.									
CO-6	Explain various controlling techniques & budgetary methods to maintain standards in organizations and demonstrate essential managerial functions and knowledge for organizational growth.									

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Discuss the various aspects of management & evolution of management thoughts and the challenges of managerial activities in a global business environment.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5,6
CO-2	Explain different management theories & their applicability in the modern business concept.	1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6
CO-3	Explain the types of Planning and Decision-making methodologies followed in the Organizations.	1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6
CO-4	Summarize various types of Organization structures and associated Human Resources activities for manpower utilization.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5,6
CO-5	Explain various motivation theories, behavioural theories & leadership theories, and communication processes and methods for effective directing.	1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6
CO-6	Explain various controlling techniques & budgetary methods to maintain standards in organizations and demonstrate essential managerial functions and knowledge for organizational growth.	1,2,3,4,5,6,7,9,10,11	1,2,3,4,5,6

CO-PO Matrix

Course		Programme Outcome											
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11		
CO 1	3	3	2	2	2	1	2	2	3	3	-		
CO 2	3	3	3	3	2	2	1	2	2	3	2		
CO 3	2	2	2	1	1	2	3	2	1	2	3		
CO 4	2	3	2	1	3	2	2	1	2	2	-		
CO 5	1	2	3	1	3	2	2	1	2	3	2		
CO 6	3	2	3	2	1	1	2	-	2	2	2		
Average	2.33	2.50	2.50	1.67	2.00	1.67	2.00	1.60	2.00	2.50	2.25		

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course		Programme Specific Outcome											
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6							
CO 1	1	1	2	2	2	1							
CO 2	2	1	3	2	1	2							
CO 3	3	2	2	3	2	1							
CO 4	2	2	3	3	1	2							
CO 5	2	1	2	1	1	1							
CO 6	2	3	2	2	2	1							
Average	2.00	1.67	2.33	2.17	1.50	1.33							

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Managerial Accounting

Semester: 1

Subject Category: CC

Credit: 4 (L: 3, T: 1)

Subject Code: 1030060102

Syllabus:

Module-I: Financial Accounting

- Meaning
- Accounting Concepts and Conventions
- Recording of Business Transactions
- Double Entry System, Journal, Ledger
- Preparation of Final accounts of Sole Traders

Module-II: Management Accounting

- Nature and Functions
- Financial vs. Management Accounting
- Cost vs. Management Accounting
- Role of Management Accountant
- Cost Concepts and Classifications

Module-III: Activity Based Costing (ABC)

- Concept and uses
- Flow of Costs in ABC
- Emerging Costing Approaches
- Traditional Costing System vs. ABC

Module-IV: Variable and Absorption Costing

- Concept, Comparison, Applications of Variable Costing
- Preparation of Income Statements

- Cost-Volume-Profit (CVP) Analysis
- Contribution Margin;
- Break Even Analysis
- Profit Volume (P/V) Analysis
- Multiple-Product Analysis
- Optimal use of Limited Resources

Module-V: Budgeting

- Nature and functions
- Preparation of Different Types of Budgets
- Fixed Versus Flexible Budgeting
- Zero Based Budget Performance Budgets

Module-VI: Standard Costing

- Concept
- Advantages
- Types of Standards
- Variance Analysis; Materials, Labour, Overhead
- Managerial Uses of Variances

Module-VII: Responsibility Accounting and Divisional Performance Measurement

- Concept of Responsibility Accounting
- Responsibility Centres Cost Centre
- Revenue Centre, Profit Centre
- Investment Centre Performance Measurement- Traditional Performance Measures
- Balanced Scorecard Meaning
- Perspectives in Balanced Scorecard
- Weighting Performance Measures; Requisites of Balanced Scorecard

Suggested Readings:

- 1. Atkinson Anthony A., Rajiv D. Banker, Robert Kaplan and S. Mark Young, Management Accounting, Prentice Hall.
- 2. Horngreen Charles T., and Gary L. Sundem and William O. Stratton,
- 3. Introduction to Management Accounting, Prentice Hall of India.
- 4. Drury Colin, Management and Cost Accounting, Thomson Learning.
- 5. Garison R.H. and E.W. Noreen, Managerial Accounting, McGraw Hill.
- 6. Ronald W. Hilton, Managerial Accounting, McGraw Hill Education.
- 7. Jawahar Lal, Advanced Management Accounting, Text, Problems and Cases, S.Chand & Co., New Delhi.

Course Outcome (CO)

CO#	Description
CO -1	Determine the appropriate accounting concept for the business situation
CO-2	Examine the financial statements
CO-3	Identify and examine the cost accounting concepts
CO-4	Explain the concept of standard costing and calculation of variance
CO-5	Elaborate the importance of budgetary control system
CO-6	Apply the accounting techniques for effective management

CO-PO-PSO Mapping

CO #	Course Outcomes (CO)	Pos	PSOs
CO -1	Determine the appropriate accounting concept for the business situation	1,2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6
CO-2	Examine the financial statements	1,2,4,5,7,8,9,10,11	1,2,3,4,5,6
CO-3	Identify and examine the cost accounting concepts	1,2,3,4,8,9,10,11	1,2,3,4,5,6
CO-4	Explain the concept of standard costing and calculation of variance	1,2,3,4,8,10,11	1,2,3,4,5,6
CO-5	Elaborate the importance of budgetary control system	1,2,3,4,6,7,8,9,10	1,2,3,4,5,6
CO-6	Apply the accounting techniques for effective management	1,2,3,4,5,6,7,8,11	1,2,3,4,5,6

CO-PO Matrix

Course		Programme Outcome												
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11			
CO 1	2	3	1	2	1	1	3	3	1	3	3			
CO 2	1	2	-	2	2	-	1	2	3	2	3			
CO 3	3	3	3	1	1	1	2	3	1	2	3			
CO 4	1	3	2	2	-	-	-	1	-	2	3			
CO 5	1	2	1	3	-	3	2	3	3	1	-			
CO 6	3	2	1	2	2	2	2	1	-		3			
Average	1.83	2.50	1.60	2.00	1.50	1.75	2.00	2.17	2.00	2.00	3.00			

1: (Slightly Low) 2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course		Progr	amme Sp	ecific Ou	tcome	
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6
CO 1	2	1	1	3	2	3
CO 2	1	1	3	1	3	3
CO 3	2	2	3	3	3	2
CO 4	1	3	1	2	2	1
CO 5	2	2	3	1	2	1
CO 6	3	2	3	3	2	3
Average	1.83	1.83	2.33	2.17	2.33	2.17

1: (Slightly Low) 2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Economics for Managerial Decisions

Semester: 1

Subject Category: CC

Credit: 4 (L: 3, T: 1)

Subject Code: 1030060103

Syllabus

Module-I: Managerial Economics

- Meaning, Nature, Scope & Significance,
- Uses of Managerial Economics
- Role and Responsibilities of Managerial Economist
- Relationship of Managerial Economics with Statistics
- Accounting and Operations Research
- The Basic process of decision making

Module-II: Demand Analysis

- Law of Demand, Exceptions to the Law of Demand
- Elasticity of Demand Classification of Price
- Income & Cross elasticity
- Uses of elasticity of demand for Managerial decision making
- Measurement of elasticity of demand
- Law of supply
- Elasticity of supply
- Demand forecasting: Meaning & Significance
- Methods of demand forecasting

Module-III: Production Analysis & Cost analysis

- Production function with one variable input Law of Variable Proportions
- Production function with 2 variable inputs and Laws of returns to scale
- Cost, Types of cost, Cost curves
- Cost Output Relationship in the short run and in the long run, LAC curve

Module-IV: Market structure and pricing practices

- Perfect Competition, Features
- Determination of price under perfect competition
- Monopoly: Features
- Pricing under monopoly
- Price Discrimination
- Monopolistic Competition: Features, Pricing Under monopolistic competition, Product differentiation
- Oligopoly: Features, Kinked demand Curve, Cartels, Price leadership

Module-V: Macro Economics

- Nature, Concept and measurement of National Income
- Classical and Keynesian approaches to Income
- Employment and Investment.
- Inflation: Types, causes and measurement of inflation.

Suggested Readings:

- 1. D. M. Mithani, Managerial Economics.
- 2. Mcguigan, Moyer & Harris, Managerial Economics.
- 3. Yogesh Maheswari, Managerial Economics.

Course Outcome (CO)

CO #	Description
CO -1	Understand the relationship of Managerial economics with other functional areas
CO-2	Learn the techniques and methods to predict the demand scientifically.
CO-3	Ascertain production levels and analyze the relationship of Cost-Volume Profit.
CO-4	Take informed decisions on price fixation under different market structures of the economy under different scenario.
CO-5	Acquire knowledge on the concepts Inflation and business cycle.

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Understand the relationship of Managerial economics with other functional areas	1,2,4,5,6,7,8,9,11	1,2,3,4,5,6
CO-2	Learn the techniques and methods to predict the demand scientifically. (BTL2)	1,3,4,5,8,10,11	1,2,3,4,5,6
CO-3	Ascertain production levels and analyze the relationship of Cost-Volume Profit.	1,2,3,5,7,8,9,11	1,2,3,4,5,6
CO-4	Take informed decisions on price fixation under different market structures of the economy under different scenario.	1,2,3,5,7,10,11	1,2,3,4,5,6
CO-5	Acquire knowledge on the concepts Inflation and business cycle.	1,2,3,4,7,8,10,11	1,2,3,4,5,6

CO-PO Matrix

Course		Programme Outcome												
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11			
CO 1	3	2	-	3	2	2	2	3	3	-	2			
CO 2	3	-	2	2	2	-	-	2	-	3	3			
CO 3	3	3	2	-	3	-	3	3	3	-	3			
CO 4	3	3	2	-	2	-	3	-	-	3	3			
CO 5	2	3	3	3	-	_	3	3	-	3	3			
Average	2.8	2.75	2.25	2.67	2.25	2	2.75	2.75	3	3	2.8			

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course		Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6					
CO 1	3	2	2	2	1	3					
CO 2	3	1	1	1	1	1					
CO 3	3	3	2	1	1	2					
CO 4	3	3	1	2	2	2					
CO 5	2	3	2	2	2	2					
Average	2.8	2.4	1.6	1.6	1.4	2					

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Statistics & Data Analysis

Semester: 1

Subject Category: CCCredit:

4 (L: 3, T: 1)

Subject Code: 1030060104

Syllabus

Module-I

- Classification, collection, and presentation of data,
- Frequency distribution of discrete and continuous variables,
- Measures of Central Tendency,
- Measures of Dispersion,
- Skewness and Kurtosis,
- Correlation and Regression: scatter diagram, product-moment correlation coefficient and its interpretation, linear regression, properties of regression coefficient, rank correlation,
- Descriptive measures for categorical data

Module-II

- Time series analysis: components of time series, methods of trend estimation,
- Index number: construction of index numbers, wholesale price index and cost of livingindex,
- Concept of purchasing power of money, real wage, inflation

Module-III

- Probability theory: different approaches to defining probability, basic theorems on probability, conditional probability,
- Random variables, and their probability distributions:
- Discrete and continuous random variables,
- Discrete and continuous probability distributions, expectation, variance;
- Theoretical probability distributions Binomial, Poisson and Normal

Module-IV

Characteristic of estimator, Unbiasedness, sufficiency, efficiency, Neyman- Fisher theorem (statement only), methods of estimation, MLE, Methods of Minimum Variance, Methods of Least square.

Module-V

Statistical hypothesis- simple and composite, null hypothesis, alternative hypothesis, critical region, Type-I, Type-II errors, level of significance, power of test.

Suggested Readings

- D. Bhattacharya and S. Roychowdhury, "Statistics: Theory and Practice", U. N. Dhur & SonsPvt Ltd.
- 2. J. F. Kenney and E. S. Keeping, "Mathematics of Statistics" (Part One & Two), Affiliated East-West Press Pvt. Ltd.
- 3. G.U. Yule and M.G. Kendall, "An Introduction to the theory of Statistics", Universal Book Stall.
- 4. D. Bhattacharya and S. Roychowdhury, Probability and Statistical Inference", U. N. Dhur &Sons Pvt Ltd.
- 5. Richard I Levin, David S Rubin, "Statistics for Management", Prentice-Hall of India.
- 6. M. Spiegel, "Probability and Statistics", McGraw-Hill.
- 7. Anderson D.R., Sweeney D. J., Williams T.A., Thomson, "Quantitative Methods for BusinessLearning Inc.", South Western College Publishing.

Course Outcome (CO)

CO#	Description
CO -1	Understand statistical techniques popularly used to describe the data in managerial decision making.
CO-2	Apply appropriate quantitative technique according to nature of data.
CO-3	Learn the computational skill, interpretation of results of the data analysis.
CO-4	Analyze and differentiate various types of data distribution and its probability distribution.
CO-5	Know the procedure involved in inferential statistics and appropriate tests for given data.

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Understand statistical techniques popularly used to describe the data in managerial decision making.	1,2,3,4,5,7,8,9,10	1,2,3,4,5,6
CO-2	Apply appropriate quantitative technique according to nature of data.	1,3,4,5,6,7,10,11	1,2,3,4,5,6
CO-3	Learn the computational skill, interpretation of results of the data analysis.	1,2,3,4,7,8,9,11	1,2,3,4,5,6
CO-4	Analyze and differentiate various types of data distribution and its probability distribution.	1,3,5,6,7,10,11	1,2,3,4,5,6
CO-5	Know the procedure involved in inferential statistics and appropriate tests for given data.	1,2,3,4,5,8,10,11	1,2,3,4,5,6

CO-PO Matrix

Course	Programme Outcome										
Outcome	PO	PO	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO	PO	PO
	1	2							9	10	11
CO 1	3	3	3	1	1	-	1	1	2	1	-
CO 2	2	-	2	1	1	3	2	-	-	2	1
CO 3	2	3	3	3	-	-	2	3	3		1
CO 4	3	-	1	-	3	3	1	-	-	1	1
CO 5	3	1	3	1	2	-	-	2	-	1	2
Averag	2.60	2.33	2.40	1.50	1.75	3.00	1.50	2.00	2.50	1.25	1.25
e											

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course Outcome	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6				
CO 1	3	2	3	2	2	1				
CO 2	3	1	3	2	2	2				
CO 3	1	1	3	1	3	3				
CO 4	3	1	1	3	1	3				
CO 5	3	1	1	3	1	3				
Average	2.6	1.2	2.2	2.2	1.8	2.4				

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Business Ethics and Corporate Governance

Semester: 1

Subject Category: CC

Credit: 4 (L: 3, T: 1)

Subject Code: 1030060105

Syllabus

Module-I:

- Business Ethic an Overview of Principles of Personal Ethics
- Principles of Professional Ethics
- Code of Conduct and Ethics for Managers
- Importance and Need for Business Ethics
- Distinction between Values and Ethics
- Roots of Unethical Behaviour
- Ethical Decision Making
- Changing Business Environment and Ethical Challenges
- Benefits from Managing Ethics in Workplace
- Characteristics of an Ethical Organization

Module-II:

- Concepts and Theories of Business Ethics
- Definition of Ethics, Morality
- Etiquette and Professional Codes, Normative Theories
- Ethical Theories in Relation to Business Ethics

Module-III:

- Ethics of Consumer Protection
- Consumer Protection Act 1986
- Quality Standards
- Standards of Weights and Measures

Module-IV:

- Environmental Ethics
- Environmental Concerns
- Costs and Benefits of Environmental Regulation
- Trade and the Environment
- Waste Management & Pollution Control

Module-V:

- Marketing Ethics
- Normative Marketing Ethics
- Areas in Marketing Ethics

Module-VI:

- Ethical Issues in HR
- HR related Ethical Issues
- Role of HRM in creating Ethical Organization

Module-VII:

- Ethical Issues in Financial Management
- Ethical Issues in Finance
- Frauds in Banks

Module-VIII:

- Corporate Ethics
- Investor's Rights, Privileges, Problems and Protection
- Rights of shareholders, investor Protection in India
- Problems of Investors in India

Module-IX:

- Corporate Social Responsibility
- Theoretical Justification for CSR
- Models for Implementation of CSR

Module-X:

- Overview of Corporate Governance
- Corporate Misgovernance in India
- Tactics of Indian companies
- Benefits of Good Corporate Governance

Module-XI:

- Theory and Practice of Corporate Governance
- The Anglo-American Model
- German Model
- The Japanese Model
- Indian Model, Obligations

Module-XII:

- Landmarks in the Emergence of Corporate Governance
- Corporate Governance Committees
- World Bank on Corporate Governance

Module-XII:

- Board of Directors
- Duties & Responsibilities of Directors
- Powers of the Board
- Liabilities of Directors
- Transparency & Disclosure

Module-XIV:

- Role, Duties and Responsibilities of Auditors
- Types of Audits & Auditors

Module-XV:

- Monopoly
- Competition and corporate Governance
- Regulation of Competition

- Bank's Role in Restraining Emergence of Securities Markets
- Effects of Monopoly on Corporate Governance

Module-XVI:

- Different roles of Government in Ensuring Corporate Governance
- Regulatory Role, Promotional Role, Entrepreneurial Role
- Limiting Corporate Power

Module-XVII:

- Corporate Governance in Developing and Transition Economies
- Corporate Governance Models and systems

Module-XVIII:

- Corporate Governance: Indian Scenario
- The Emergence of Corporate Governance Issues in India
- Reserve Banks and other Regulations
- Establishment of the Serious Fraud Office
- National Foundation of Corporate Governance
- Need for Accounting Standards

Module-XIX:

- SEBI: The Indian Capital Market Regulator
- Development of the Indian Capital Market
- Deficiencies in the Indian Capital Market
- The Securities and Exchange Board of India
- SEBI's Role in Promoting Corporate Governance

Suggested Readings

- Fernando A.C., Business Ethics and Corporate Governance.
- Taxmann, Corporate Governance, Indian Institute of Corporate Affairs

Course Outcome (CO):

CO#	Description
CO-1	Help them understand the concept of ethics its dimensions, needs and its importance. Also helps to understand the challenges Making ethical decision, thus dealing with ethical dilemma. It also talks about Changing Business Environment and Ethical Challenges, Benefits from Managing Ethics in Workplace, Characteristics of an Ethical Organization
CO-2	Helps students to understand various ethical principles that must be followed at workplace ad practices to achieve an ethical organization, Explains the students various Normative Theories, Ethical Theories in Relation to Business Ethics
CO-3	Students are given an entire overview of the Consumer Protection Act, its provisions, process for appeal, redressal of plea etc. and also various quality standards in relation to consumers also is briefed.
CO-4	Helps the students to understand the Environmental Ethical practices that must be followed to ensure environmental cause and Concerns, Costs and Benefits of Environmental Regulation, Trade and the Environment, Waste Management & Pollution Control
CO-5	To understand the role of ethics in marketing discipline, practiced by companies and identify the areas in Marketing Ethics
CO-6	To understand the role of ethics in HR discipline, practiced by companies and identify the areas in HR Ethics. It helps to students to understand the role of HR in creating Ethical Organization
CO-7	Understand the possible ethical Issues in Financial Management, Ethical Issues in Finance, Frauds in Banks. How to handle such situations and enforce working ethics
CO-8	Helps students to understand corporate Ethics in relation to Investor's Rights, Privileges, Problems and Protection, Rights of shareholders, investor Protection in India, Problems of Investors in India
CO-9	This module talks about the what is a CSR and its importance, what are the various models and theories of CSR. Why companies need to do CSR activities and what ae the different types of CSR.
CO- 10	It helps the students to understand what is corporate governance, definition, purpose, benefits and why it is an essential practice in industry.
CO- 11	This module introduces the different models of corporate governance to the students, explaining the obligation of the organizations, theories and practices of corporate governance
CO- 12	This module provides the students with a detailed overview on the landmarks in the Emergence of Corporate Governance, Corporate Governance, World Bank on Corporate Governance,
CO- 13	Students are exposed to the role of Board of Directors, their Duties & Responsibilities, Powers of the Board, Liabilities of Directors, Transparency & Disclosure
CO- 14	Helps the students understand the roles, Duties and Responsibilities of Auditors, Types of Audits & Auditors
CO- 15	Helps the students to understand the relation between Monopoly, Competition and corporate Governance. What is the Regulation of Competition, and Bank's Role in Restraining Emergence of Securities Markets, Effects of Monopoly on Corporate Governance

CO- 16	Helps the students to understand and learn the different roles of Government in Ensuring Corporate						
	Governance; Regulatory Role, Promotional Role, Entrepreneurial Role, Limiting Corporate						
	Power						
CO- 17	Develop an understanding of Corporate Governance in Developing and Transition Economies Students are made aware of the various Corporate Governance Models and systems						
CO- 18	This module exposes the students to the Indian Scenario of corporate governance. It talks about the Emergence of Corporate Governance Issues in India, Reserve Banks and other Regulations, Establishment of the Serious Fraud Office, National Foundation of Corporate Governance, Need for Accounting Standards						
CO- 19	This module introduces SEBI as the Indian Capital Market Regulator to the students, Development of the Indian Capital Market, Deficiencies in the Indian Capital Market, The Securities and Exchange Board of India, SEBI's Role in Promoting Corporate Governance are explained to the students.						

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO-1	Help them understand the concept of ethics its dimensions, needs and its importance. Benefits from Managing Ethics in Workplace, Characteristics of an Ethical Organization	1,2,4,6,8,9,10,	1,2,3,5,6
CO-2	Helps students to understand various ethical principles that must be followed at workplace ad practices to achieve an ethical organization,		1,2,3,4,
CO-3	Students are given entire overview of the Consumer Protection Act, its provisions, process for appeal, redressal of plea etc. Also, various quality standards in relation to consumers also is briefed.	1,2,3,4,5,	1,2,4,
CO-4	Helps the students to understand the Environmental Ethical practices that must be followed to ensure environmental cause and Concerns, Costs and Benefits of Environmental		1,2,3,4,
CO-5	To understand the role of ethics in marketing discipline, practiced by companies and identify the areas in Marketing Ethics	1,2,4,5,6,8,9,10	1,2,3,4,5, 6,
CO-6	To understand the role of ethics in HR discipline, practiced by companies and identify the areas in HR Ethics. It helps to students to understand the role of HR in creating Ethical Organization		1,2,3,4,5,
CO-7	Understand the possible ethical Issues in Financial Management, Ethical Issues in Finance, Frauds in Banks. How to handle such situations and enforce working ethics		1,2,3,4,5,
CO-8	Helps students to understand corporate Ethics in relation to Investor's Rights, Privileges, Problems and Protection, Rights of shareholders, investor Protection in India, Problems of Investors in India		1,2,3,4,5,
CO-9	This module talks about the what is a CSR and its importance, what are the various models and theories of CSR. Why companies need to do CSR activities and what ae the different types of CSR.	1,2,3,4,5,6,7,8	1,2,3,4,5,

CO- 10	It helps the students to understand what is corporate governance, definition, purpose, benefits and why it is an essential practice in industry.	1,2,3,4,5,6,7,8,9	1,2,3,4,5,
CO- 11	This module introduces the different models of corporate governance to the students, explaining the obligation of the organizations, theories and practices of corporate governance	1,2,4,,5,6,7,9	1,2,3,4,5,
CO- 12	This module provides the students with a detailed overview on the landmarks in the Emergence of Corporate Governance, Corporate Governance Committees, World Bank on Corporate Governance,	1,2,3,4,5,6,7,8,11	1,2,3,4,5,
CO- 13	Students are exposed to the role of Board of Directors, their Duties & Responsibilities, Powers of the Board, Liabilities of Directors, Transparency & Disclosure	1,2,3,4,5,6,10,11	1,2,3,4,5,
CO- 14	Helps the students understand the roles, Duties and Responsibilities of Auditors, Types of Audits & Auditors	1,2,3,4,5,6,7,8	1,2,3,4,5,
CO- 15	Helps the students to understand the relation between Monopoly, Competition and corporate Governance. What is the Regulation of Competition, and Bank's Role in Restraining Emergence of Securities Markets, Effects of Monopoly on Corporate Governance	1,2,3,4,5,6,7,8,9,10,	1,2,4,5,6
CO- 16	Helps the students to understand and learn the different roles of Government in Ensuring Corporate Governance; Regulatory Role, Promotional Role, Entrepreneurial Role, Limiting Corporate Power	1,2,3,4,5,6,7,8,9,10,	1,2,3,5,6
CO- 17	Develop an understanding of Corporate Governance in Developing and Transition Economies Students are made aware of the various Corporate Governance Models and systems	1,2,3,4,5,6,7,8,	1,2,3,4,5,
CO- 18	This module exposes the students to the Indian Scenario of corporate governance. It talks about the Emergence of Corporate Governance Issues in India, Reserve Banks and other Regulations, Establishment of the Serious Fraud Office, National Foundation of Corporate Governance, Need for Accounting Standards	1,2,3,4,5,6,7,8,9,	1,2,3,5,6
CO- 19	This module introduces SEBI as the Indian Capital Market Regulator to the students, Development of the Indian Capital Market, Deficiencies in the Indian Capital Market, The Securities and Exchange Board of India, SEBI's Role in Promoting Corporate Governance are explained to the students.	1,2,3,4,5,6,7,8,9,10,1	1,2,3,4,6

CO-PO Matrix

Course			P	rogram	me Outc	ome					
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO11
CO 1	3	2	-	3	-	2	-	2	2	1	
CO 2	3	2	1	3	-	2	2	-	1	1	1
CO 3	3	2	2	3	2	-	-	-	-	-	-
CO 4	3	2	1	3	3	2	-	2	-	-	-
CO 5	2	2	-	2	2	1	-	3	3	2	-
CO 6	3	2	1	3	-	1	1	2	2	-	-
CO 7	3	2	-	2	-	1	2	2	2	2	-
CO 8	2	2	1	3	-	2	-	3	2	1	-
CO 9	2	1	1	3	1	1	2	1	-	-	-
CO 10	2	2	2	1	1	2	2	2	2	2	-
CO 11	3	2	-	3	1	2	1	-	2	-	-
CO 12	2	2	2	1	1	2	2	2	-	-	2
CO 13	3	2	1	3	2	1	-	-	-	3	2
CO 14	1	1	1	2	1	1	1	2		-	-
CO 15	1	1	1	2	1	1	2	1	1	1	-
CO 16	2	1	3	2	1	2	1	1	1	1	-
CO 17	1	1	2	2	2	2	2	1	-	-	-
CO 18	1	1	2	2	2	2	2	1	2	-	-
CO 19	2	2	2	2	2	2	1	1	2	2	3

1: (Slightly Low) 2: Moderate (Medium)3: Substantial (High) -: None

CO-PSO Matrix

Course	`Programme Specific Outcome								
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO5	PSO6			
CO 1	2	2	3	-	1	1			
CO 2	1	1	1	1	-	-			
CO 3	3	3	-	3	-	-			
CO 4	2	2	1	2	-	-			
CO 5	3	3	3	3	1	3			
CO 6	1	1	1	1	1	1			
CO 7	2	2	1	2	2	1			
CO 8	2	2	2	1	2	2			
CO 9	1	1	3	3	1	1			
CO 10	1	1	3	2	1	1			
CO 11	1	1	3	3	1	1			

CO 12	1	1	1	3	1	1
CO 13	1	1	3	2	1	1
CO 14	1	1	1	3	1	1
CO 15	1	1	-	1	1	1
CO 16	1	2	1	-	1	2
CO 17	1	1	1	1	1	1
CO 18	1	1	2	-	2	1
CO 19	1	2	1	1	-	1

1: (Slightly Low)

2: Moderate (Medium)3: Substantial (High) -: None

Subject: Organizational Behaviour

Semester: 1

Subject Category: CC

Credit: 4 (L:3; T:1)

Subject Code: 1030060106

Syllabus

Module-I

- Meaning of organization behaviour
- Importance of organization behaviour
- Brief history of organization behaviour
- Interdisciplinary approach,
- Application of organization behaviour in industry and modern management.

Module-II

- Values
- Attitudes-characteristics of attitude
- Types of attitudes
- Perception Process and Errors of perception
- Learning: types of Learners
- Personality Meaning of Personality, characteristics of personality, Determinants of Personality, Theories of Personality

Module-III

- Motivation: components of motivation
- Types of motivation
- Importance of motivation
- Theories of Motivation: Maslow's need hierarchy theory
- McGregor's Theories X and Y; Application of Motivation in the Workplace
- QWL characteristics, essential elements, work-life balance

• Job Enlargement- Job Enrichment-Job Rotation-Job satisfaction, and morale

Module-IV

- Leadership
- Leader v/s manager- Leadership styles
- Leadership characteristics; Power- forms of Power
- Leadership theories

Module-V

- Group Behaviour Different types of groups,
- Group Formation, and development –
- Requirements for building highly effective teams;
- Group/Team Efficiency and effectiveness-GRPI model;
- Group Norms Cohesiveness, Factors affecting group cohesiveness, Its advantages, and disadvantages;
- Group Decision Techniques- Application of Fundamental Interpersonal Orientation;
 Kinesics Body Language;
- Role of Kinesics in communication.

Module-VI

- Organizational Culture Concept, Characteristics, and nature, creating and sustaining cultural diversity;
- Organizational conflicts,
- Types of organizational conflicts Ways to resolve organizational conflicts;
- Organizational Change Forces behind the change, benefits of change,
- Resistance to Change Managing Change;
- Work Stress Sources and consequences, benefits of preventing stress in the organization;
- Organizational Role Stress;
- Emotional Intelligence & Emotional Quotient

Suggested Readings

- 1. Fred Luthans, Organisational Behaviour, New York, McGraw Hill.
- 2. A.F.Stoner and Charles Wenkel, Management New Delhi, Prentice Hall of India.

- 3. ROrganization Behaviourbins, S.P. Judge, T.A. & Sanghi, S.: Organizational Behaviour, Pearson
- 4. Luthans, Fred: Organizational Behaviour, McGraw Hill
- 5. Newstrom J.W. &Devis K.: Organizational Behaviour, McGraw Hill
- 6. Aswathappa, K: Organisational Behaviour, Himalaya Publishing House
- 7. Shukla, Madhukar: Understanding Organizations Organizational Theory & Practice inIndia, Prentice Hall

Course Outcome (CO)

CO#	Course Outcomes (CO)
CO -1	Students will be able to identify behavioural issues in an organization
CO-2	Demonstrate the applicability of the concept of Perception, attitudes, and personality to understand the behaviour of people in the organization.
CO-3	Able to analyze different types of learning followed by each individual.
CO-4	Students will be able to understand different types of groups in an organization and how it influences the behaviour of the individuals.
CO-5	To understand the resistance to change, its causes, and how to overcome it.
CO-6	Explain the organizational culture, manage organizational culture, explain cultural complexities, encourage organizational change, and adapting the changing environment

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Students will be able to identify behavioural issues in an organization	1,2,5,6,7,8,9,10,11	1,2,3,4,5,6
CO-2	Demonstrate the applicability of the concept of Perception, attitudes, and personality to understand the behaviour of people in the organization.	1,2,3,4,5,6,8,9,10,11	1,2,3,4,5,6
CO-3	Able to analyze different types of learning followed by each individual.	2,3,4,5,6,7,8,9,10,11	1,2,3,4,5,6
CO-4	Students will be able to understand different types of groups in an organization and how it influences the behaviour of the individuals.	1,2,3,4,5,6,10	1,2,3,4,5,6
CO-5	To understand the resistance to change, its causes, and how to overcome it.	2,3,4,5,6,8,9,10	1,2,3,4,5,6
CO-6	Explain the organizational culture, manage organizational culture, explain cultural complexities, encourage organizational change, and adapting the changing environment	2,3,45,6,7,8,9,10,11	1,2,3,4,5,6

CO-PO Matrix

Course Outcome	Programme Outcome										
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO 1	3	2	-	-	2	2	1	2	2	3	2
CO 2	2	3	3	2	2	2	-	1	1	1	1
CO 3	-	1	2	2	2	3	1	1	2	3	1
CO 4	1	2	3	3	3	1	-	-	-	2	-
CO 5	-	2	2	3	3	2	-	3	2	2	-
CO 6	-	2	2	3	3	3	2	2	2	2	3
Average	1	2	2	2.16	2.5	2.16	0.66	1.5	1.5	2.16	1.16

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course Outcome	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6				
CO 1	3	1	2	1	2	2				
CO 2	3	2	2	1	2	2				
CO 3	2	3	3	3	2	3				
CO 4	2	2	3	3	1	2				
CO 5	2	3	3	3	2	2				
CO 6	1	2	3	3	3	3				
Average	2.16	2.16	2.66	2.33	2	2.33				

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Effective Business Communication-I

Semester: 1

Subject category: AECC

Credit: 2 (P:2)

Subject Code: 4030060101

Syllabus

Module-I: Principles of Effective Writing

• Spellings- 100 Most Misspelled words/Dictation.

- Web Based Writing
- Note Taking: Process & Techniques
- Activities: Descriptive writing, sentence variety exercise, proof reading

Module-II: Professional Buildup

- Block Format
- Types & formats of letter writing
- Email
- Netiquette
- Business Memos

Module-III: Mastering Listening

- Paraphrasing
- Summarizing
- Guidelines to increase listening
- Activities: Reflective listening, mindful exercises, audio material, nonverbal ques

Module-IV: Power Reading

- Process, types and reading rate adjustment
- Tips for improving reading skills
- Activities: News reading, Picture Reading, Review

Module-V: Comprehensive Reading

- "The Room of Many Colours" by Ruskin Bond
- The Alchemist-Paulo Coelho

• Comprehension Questions will be set in the End-Semester Exam

Module-VI: Logic & Analytics

• Logical Reasoning

Reading List

- 1. Koneru, A., "Professional Communication", 2008, Tata McGraw Hill.
- 2. Bill Mascull, "Business Vocabulary in Use", 2010, Cambridge University Press. Reference Books:
- 3. Bovee, C. and Thill, J.V., "Business Communication Today", 11th edition, 2011, Prentice Hall.
- 4. Francis Soundararaj, "Speaking and Writing for Effective Business Communication", 2008, Macmillan.
- 5. RK Madhukar, "Business Communication", 2010, Vikas Publishing House Pvt. Ltd.
- 6. Mallika Nawal, "Business Communication", 2012, Cengage Learning India.
- 7. Meenakshi Raman & Prakash Singh, "Business Communication", 2012, OUP

Course Outcome (CO)

CO #	Description
CO -1	Understand the scope of communication and learn its importance and implication strategies.
CO-2	Recognize and learn the sub-skills of listening and speaking and be able to deliver effectively in the real time contexts.
CO-3	Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.
CO-4	Use different forms of written communication techniques to make effective internal and external business correspondence.
CO-5	Apply principles of effective writing to practical applications in business communication, including correct spelling and punctuation and appropriate content, style, and form.
CO-6	Adapt the tone of business documents to the needs of particular audiences, including professional, cross-cultural, and Christian contexts, by identifying appropriate context.
CO-7	Produce different types of reports with appropriate format, organization and language.

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Understand the scope of communication and learn its importance and implication strategies.	1,2,3,4,7,8,9,10,11	1,2,3,4,5,6
CO-2	Recognize and learn the sub-skills of listening and speaking and be able to deliver effectively in the real time contexts.	1,2,4,5,8,9,10,11	1,2,3,4,5,6
CO-3	Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.	1,2,3,4,7,9,10,11	1,2,3,4,5,6
CO-4	Use different forms of written communication techniques to make effective internal and external business correspondence.	1,2,3,4,8,10,11	1,2,3,4,5,6
CO-5	Apply principles of effective writing to practical applications in business communication, including correct spelling and punctuation and appropriate content, style, and form.	1,2,3,4,6,7,8,9,10	1,2,3,4,5,6
CO-6	Adapt the tone of business documents to the needs of audiences, including professional, cross- cultural, and Christian contexts, by identifying appropriate context.	1,2,3,4,5,6,7,8,11	1,2,3,4,5,6
CO-7	Produce different types of reports with appropriate format, organization, and language.	1,2,3,4,5,6,10,11	1,2,3,4,5,6

CO-PO Matrix

Course	Programme Outcome										
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11
CO 1	3	2	2	1	-	-	3	3	1	1	2
CO 2	2	2	-	2	1	-	-	2	3	2	3
CO 3	3	1	1	3	-	-	3		1	3	3
CO 4	3	3	3	1	-	-	-	3	•	1	2
CO 5	3	2	2	3	-	1	2	2	2	2	-
CO 6	3	3	3	2	3	2	1	3	-	-	3
CO 7	1	3	1	3	3	2	-	-	-	1	2
Average	2.57	2.29	2.00	2.14	2.33	1.67	2.25	2.60	1.75	1.67	2.50

1: (Slightly Low) 2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6				
CO 1	3	3	1	2	2	3				
CO 2	3	1	2	2	1	2				
CO 3	3	3	2	1	3	2				
CO 4	3	3	2	3	1	2				
CO 5	3	2	3	3	1	2				
CO 6	1	2	2	2	3	2				
CO 7	3	3	3	2	3	1				
Average	2.71	2.43	2.14	2.14	2.00	2.00				

1: (Slightly Low) 2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Financial Management

Semester: 2

Subject Category: CC

Credit: 4 (L-3; T-1)

Subject Code: 1300061106

Syllabus

Module-I: Introduction

- Definition, Nature and Scope of Financial Management
- The Risk-Return trade-off
- Introduction of the three important decisions in Financial Management: Capital Budgeting, Capital Structuring and Dividend

Module-II: Investment Decision

- The Capital Budgeting Process
- Cash flow Estimation
- Concept of Time Value of Money
- Future Value
- Net Present Value
- Internal Rate of Return

Module-III: Financing Decision

- Debt and Equity
- Leverage (High Leverage and Low Leverage firms)
- Cost of Capital: Cost of Equity (Capital Asset Pricing Model) and Cost of Debt
- Calculation of Weighted Average Cost of Capital
- Theories (Net Income, Net Operating Income, Modigliani Miller and Traditional Approach)

Module-IV: Working Capital

- Concept of Working Capital
- Working Capital Management
- Characteristics of Current Assets
- Factors Influencing Working Capital Requirements
- Level of Current Assets

- Current Assets Financing Policy
- Operating Cycle and Cash Cycle

Module-V: Fund Flow Statement

- Statement of Changes in Working Capital
- Fund Flow Analysis (Sources of Funds and Application of Funds)
- Funds from Operations (Non-fund items and Non-trading Charges)

Module-VI: Ratio Analysis

- Concept of Ratio Analysis
- Importance of Ratio Analysis
- Calculation of different types of ratios: Liquidity, Valuation, Solvency, Profitability and Turnover
- Interpretation of the results of the ratios

Module-VII: Bond Valuation

- Concept of Bonds, Different types of Bonds
- Calculation of Bonds with annual and semi-annual interests
- Price-Yield Relationship, Clean and Dirty Bonds
- Different types of yields

Module-VIII: Dividend Decision

- Concept of Dividend, why firms pay dividends?
- Dividend Payout Ratio
- Dividend Yield
- Ex-dividend
- Record Date
- Dividend Payout Policy (Stable, Constant and Residual)
- Gordon Growth Model

Suggested Readings

- P. Singh (2009), Fundamentals of Financial Management, Second Edition, Ane Books Private Limited.
- A. Damodaran (2014), Applied Corporate Finance, Fourth Edition, John, Wiley & Sons, Inc.
- P. Chandra (2011), Financial Management, Eight Edition, Tata McGraw Hill Publishing Company Limited.
- A. Shapiro (2020), Multinational Financial Management, Eleventh Edition, John, Wiley & Sons, Inc.

Course Outcome (CO):

CO#	Description
CO-1	Enumerates the concept of Financial Management along with the Risk-Return trade off and the three important decisions of Capital Budgeting, Capital Structure and Dividends. Thus, helps students in understanding the core concepts of Corporate Finance. It also helps students to understand as to how management principles can be applied in financial planning.
CO-2	Helps students to understand the concept of Capital Budgeting. Thus, empowering students with the necessary skill sets that are required to take effective business decisions (using creative techniques) for achieving the objectives of an organisation.
CO-3	States the important concept of Capital Structuring. Thus, imparting students with the knowledge for financing a company. It also imparts students with the knowledge of Cost of Capital. Thus, empowering students with the knowledge and technical knowhow to succeed in the corporate world. It also helps students to understand the importance of Ethics in running a business and to inculcate the spirit of social responsibility. Thus, in this way helping students to act as Corporate Citizens.
CO-4	Helps students to understand the concept of Working Capital. Thus, imparting students with the knowledge and the skill sets which will enable them to take leadership role for solving various business problems in an organisation. It also helps students to understand the importance of Ethics in running a business and to inculcate the spirit of social responsibility. Thus, in this way making students job ready.
CO-5	Enumerates the concept of Fund Flow Statement. In other words, it helps students to analyse as to how a company raises and utilises its funds. Thus, empowering students with the knowledge that is necessary to succeed in the corporate world.
CO-6	Depicts the important concept of Ratio Analysis. Thus, imparting students with the necessary skill sets to analyse the financial health as well as calculating the value of a company. Thus, in the process making them job ready.
CO-7	Helps students to understand the different aspects of Bond Valuation (Debt Instrument). Thus, imparting within students the knowledge to succeed in corporate world.
CO-8	Enumerates the concept as well as the different aspects of Dividends as well as valuation of a company using Gordon Growth Model. Thus, empowering students with the necessary skill sets to meet the challenges of the business world (using creative techniques). Thus, in this way making them job ready.

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Enumerates the concept of Financial Management along with the Risk-Return trade off and the three important decisions of Capital Budgeting, Capital Structure and Dividends. Thus, helps students in understanding the core concepts of Corporate Finance. It also helps students to understand as to how management principles can be applied in financial planning.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	Helps students to understand the concept of Capital Budgeting. Thus, empowering students with the necessary skill sets that are required to take effective business decisions (using creative techniques) for achieving the objectives of an organisation.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-3	States the important concept of Capital Structuring. Thus, imparting students with the knowledge for financing a company. It also imparts students with the knowledge of Cost of Capital. Thus, empowering students with the knowledge and technical knowhow to succeed in the corporate world. It also helps students to understand the importance of ethics in running a business and to inculcate the spirit of social responsibility. Thus, in this way helping students to act as Corporate Citizens.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-4	Helps students to understand the concept of Working Capital. Thus, imparting students with the knowledge and the skill sets which will enable them to take leadership role for solving various business problems in an organisation. It also helps students to understand the importance of ethics in running a business and to inculcate the spirit of social responsibility. Thus, in this way making students job ready.	1,2,3,4,5,6,8,9,10	1,2,3,4,5
CO-5	Enumerates the concept of Fund Flow Statement. In other words, it helps students to analyse as to how a company raises and utilises its funds. Thus, empowering students with the knowledge that is necessary to succeed in the corporate world.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-6	Depicts the important concept of Ratio Analysis. Thus, imparting students with the necessary skill sets to analyse the financial health as well as calculating the value of a company. Thus, in the process making them job ready.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-7	Helps students to understand the different aspects of Bond Valuation (Debt Instrument). Thus, imparting within students the knowledge to succeed in corporate world.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-8	Enumerates the concept as well as the different aspects of Dividends as well as valuation of a company using Gordon Growth Model. Thus, empowering students with the necessary skill sets to meet the challenges of the business world (using creative techniques). Thus, in this way making them job ready.	1,2,3,4,5,6,8,9,10	1,2,3,4,5

CO-PO Matrix

Course	Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	3	2	1	2	3	3	2	2	2
CO 2	3	3	2	3	2	3	2	2	2	3
CO 3	3	3	2	1	2	1	2	3	2	3
CO 4	2	3	3	2	3	3	-	1	3	1
CO 5	2	3	2	2	2	3	3	2	2	2
CO 6	3	2	2	3	2	3	2	2	2	3
CO 7	3	3	2	2	2	1	2	3	2	3
CO 8	3	2	3	3	2	3	-	3	3	1
Average	2.63	2.75	2.25	2.13	2.13	2.50	2.33	2.25	2.25	2.25

1: (Slightly Low) 2: Moderate (Medium)3: Substantial (High) -: None

CO-PSO Matrix

Course	Programme Specific Outcome								
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5				
CO 1	2	3	2	2	3				
CO 2	3	2	3	2	2				
CO 3	3	3	2	2	2				
CO 4	3	3	3	3	2				
CO 5	1	3	2	2	3				
CO 6	3	2	3	2	2				
CO 7	3	3	2	2	2				
CO 8	3	3	3	3	2				
Average	2.63	2.75	2.50	2.25	2.25				

1: (Slightly Low) 2: Moderate (Medium)3: Substantial (High) -: None

Subject: Marketing Management

Semester: 2

Subject Category: CC Credit: 4 (L: 3, T: 1)

Subject Code: 1300061107

Syllabus:

Module-I: Introduction to Marketing

- Definition of Marketing Management
- Marketing Philosophy, Need
- Demand, want with classification
- Difference between selling and marketing
- Marketing terminology
- Market place vs Market space
- Meta Marketing & Multimediatizes
- Marketing Myopia

Module-II: Segmentation, Targeting & Positioning

- What is STP Strategy
- Meaning of Segmentation
- Classification of Segmentation
- Meaning of Targeting
- Meaning of Positioning

Module-III: Introduction to Marketing Mix

- Concept of Marketing Mix
- 4 P's of Marketing
- 4 C's of Marketing
- Introduction to product concept
- Core product, augmented product, total product
- PLC Curve analysis, Product Mix Strategy with length, depth, line, width & consistency

Module-IV: Introduction to Pricing strategy, place & promotion strategy

- Price & different classifications
- Place strategy

• Promotional tools and mixing strategy

Module-V: Introduction to Service Marketing

- Concept of service Mix
- 3P's of Service Mix
- Difference between product and service
- Service characteristics
- 4 I'S of Service Marketing
- Service Triangle
- Service Gap Analysis Model
- Service Quality

Suggested Readings

- 1. Marketing Management concepts and case studies, M. Govindarajan
- 2. Marketing Management Rajan Saxena, 6th Edition
- 3. Marketing for Managers David Mercer
- 4. Marketing Management Phillip Kotler

Course Outcome (CO):

CO#	Description								
CO -1	Definition of Marketing Management, Marketing Philosophy, Need, Demand, Want with classification, Difference between selling and Marketing, Marketing terminology, Market place vs Market space, Meta Marketing & Multimediatizes, Marketing Myopia.								
CO-2	What is STP Strategy, Meaning of Segmentation, classification of Segmentation, Meaning of Targeting, Meaning of Positioning								
CO-3	Concept of Marketing Mix, 4 P's of Marketing, 4 C's of Marketing, Introduction to product concept, Core product, augmented product, total product, PLC Curve analysis, Product Mix Strategy with length, depth, line, width & consistency.								
CO-4	Price & different classifications, place strategy, promotional tools and mixing strategy.								
CO-5	Concept of service Mix, 3P's of Service Mix, Difference between product and service, Service characteristics, 4 I'S of Service Marketing, Service Triangle, Service Gap Analysis Model, Service Quality.								

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
	Definition of Marketing Management, Marketing Philosophy, Need,	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO -1	Demand, Want with classification, Difference between selling and		
CO -1	Marketing, Marketing terminology, Market place vs Market space,		
	Meta Marketing & Metamediaries, Marketing Myopia.		
CO-2	What is STP Strategy, Meaning of Segmentation, classification of		
CO-2	Segmentation, Meaning of Targeting, Meaning of Positioning	1,2,3,5,7,8,9,10	1,2,3,4
	Concept of Marketing Mix, 4 Ps of Marketing, 4 Cs of Marketing,		
CO-3	Introduction to product concept, Core product, augmented product,	1,2,3,4,5,6,8,9,10	1,2,4
00-3	total product, PLC Curve analysis, Product Mix Strategy with		
	length, depth, line, width & consistency.		
CO-4	Price & different classifications, place strategy, promotional tools		
CO-4	and mixing strategy.	1,2,3,4,6,8,9,10	1,2,3,4,5
	Concept of service Mix, 3P's of Service Mix, Difference between	1,2,5,6,8,10	1,2,3
CO-5	product and service, Service characteristics, 4 I'S of Service		
00-3	Marketing, Service Triangle, Service Gap Analysis Model, Service		
	Quality.		

CO-PO Matrix

Course	Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	3	-	3	3	3	3	2	2	2
CO 2	3	-	2	2	2	3	-	2	3	2
CO 3	2	3	3	-	2	-	3	3	2	2
CO 4	2	2	2	-	2	-	2	3	2	2
CO 5	3	1	2	2	-	2	2	3	-	3
Average	2.40	2.25	2.25	2.33	2.25	2.67	2.50	2.60	2.25	2.20

1: (Slightly Low) 2: Moderate (Medium) 3: Substantial (High)-: None

CO-PSO Matrix

Course Outcome	`Prog				
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5
CO 1	2	2	3	2	3
CO 2	1	1	1	1	-
CO 3	3	3	-	3	-
CO 4	2	2	1	2	3
CO 5	3	3	3	-	-
Average	2.2	2.2	1.6	1.6	1.2

1: (Slightly Low) 2: Moderate (Medium) 3: Substantial (High)-: None

Subject: Production & Operations Management

Semester: 2

Credit: 4 (L: 3, T: 1)

Subject Code: 1300061108

Syllabus:

Module-I: Introduction to Production

- Scope and characteristics of modern operations management
- Recent trends in operations management
- Types of production system
- Lean production concept
- Bottle neck operations
- Concept of QQTC

Module-II: Operations Planning

- Demand forecasting with numerical exposure
- Capacity planning requirement with measurement of efficiency & utilization
- Facility location, facility layout, resource aggregate planning
- EOQ, ROL, Maximum, Minimum, Avg. Inventory Level with numerical exposure.

Module-III: Design of operations systems and control

- Product Design
- Process design
- Product life cycle
- Process planning
- Process selection

Module-IV: Production planning and control

- Introduction
- Control measures
- Time study
- Work study
- Method study
- Job evaluation
- Job allocation

- Assignment Technique
- Scheduling queuing models
- Jonson Bellman algorithm with numerical exposure

Module-V: Project Management

- Project Planning, project life cycle
- Concept of Network Diagram
- Concept of GANTT Chart & WBS
- Critical Path measurement
- Forward pass, and backward pass rule in PERT & CPM with numerical exposure
- Difference between PERT and CPM
- Concept of total float, free float & independent float with numerical exposure

Module-VI: Maintenance and spares management:

- Preventive maintenance
- Break down maintenance
- Routine maintenance
- Replacement of machines
- Spare parts management

Module-VII: Reliability & TQM Concept:

- Concept of MTBF, MTTR in Reliability measurement
- Concept of KAIZEN, KANBAN, and TQM
- Six Sigma brief over view

Suggested Readings

- 1. Production & Operations Management, S.N. CHARY
- 2. Production and Operations Management: Manufacturing and Services, Richard B. Chase
- 3. Production and Operations Management, N. Suresh
- 4. Operations Management: Theory and Practice, B. Mahadevan
- 5. Production and Operations Management Systems, Martin Starr

Course Outcome (CO):

CO#	Description
CO -1	POM analyses the concepts of Production and identifies the evolution of Production throughout the organization.
CO-2	In Operations Planning students will learn, Demand forecasting with numerical exposure, capacity planning requirement with measurement of efficiency & utilization, facility location, facility layout, resource aggregate planning, EOQ, ROL, Maximum, Minimum, Avg. Inventory Level with numerical exposure.
CO-3	In Design of operations systems and control students will learn Product Design, process design, product life cycle, process planning, and process selection.
CO-4	In Production planning and control students will learn Introduction, control measures, time study, work study, method study, job evaluation, job allocation, Assignment Technique, Scheduling queuing models, Jonson Bellman algorithm with numerical exposure.
CO-5	In Project Management students will learn Project Planning, project life cycle, concept of Network Diagram, concept of GANTT Chart & WBS, Critical Path measurement, forward pass and backward pass rule in PERT & CPM with numerical exposure, difference between PERT and CPM, Concept of total float, free float & independent float with numerical exposure.
CO-6	In Maintenance and spares management students will learn, Preventive maintenance, Break down maintenance, Routine maintenance, Replacement of machines, Spare parts management.
CO-7	In Reliability & TQM Concept students will learn Concept of MTBF, MTTR in Reliability measurement, Concept of KAIZEN, KANBAN and TQM, Six Sigma brief over view.

CO-PO-PSO Mapping

CO #	Course Outcomes (CO)	POs	PSOs
CO -1	POM analyses the concepts of Production and identifies the evolution of Production throughout the organization.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	In Operations Planning students will learn, Demand forecasting with numerical exposure, capacity planning requirement with measurement of efficiency & utilization, facility location, facility layout, resource aggregate planning, EOQ, ROL, Maximum, Minimum, Avg. Inventory Level with numerical exposure.	1,2,3,5,7,8,10	1,2,3,4
CO-3	In Design of operations systems and control students will learn Product Design, process design, product life cycle, process planning, and process selection.	1,2,3,4,5,6,8,9	1,2,4
CO-4	In Production planning and control students will learn Introduction, control measures, time study, work study, method study, job evaluation, job allocation, Assignment Technique, Scheduling queuing models, Jonson Bellman algorithm with numerical exposure.	1,2,3,4,6,8,9	1,2,3,4,5
CO-5	In Project Management students will learn Project Planning, project life cycle, concept of Network Diagram, concept of GANTT Chart & WBS, Critical Path measurement, forward pass and backward pass rule in PERT & CPM with numerical exposure, difference between PERT and CPM, Concept of total float, free float & independent float with numerical exposure.	1,2,5,6,8,10	1,2,3
CO-6	In Maintenance and spares management students will learn, Preventive maintenance, Break down maintenance, Routine maintenance, Replacement of machines, Spare parts management.	4,6,8,9	2,3,4,5

	In Reliability & TQM Concept students will learn Concept of MTBF,	2,5,6,8,10	1,2,3
CO-7	MTTR in Reliability measurement, Concept of KAIZEN, KANBAN		
	and TQM, Six Sigma brief over view.		

CO-PO Matrix

Course	Programme Outcome									
Course Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	3	2	1	2	3	3	2	2	3	1
CO 2	1	1	1	-	2	-	2	2	-	3
CO 3	1	1	3	3	3	1	-	2	2	-
CO 4	2	2	2	1	-	2	-	2	2	-
CO 5	1	3	-	-	2	1	-	2	-	2
CO 6	-	-	-	2	_	2	-	3	3	-
CO 7	-	3	-	-	3	2	-	2	-	2
Average	1.14	1.71	1.0	1.14	1.85	1.57	0.57	2.14	1.42	1.14

1: (Slightly Low) 2: Moderate (Medium)3: Substantial (High) -: None

CO-PSO Matrix

Course	`Programme Specific Outcome								
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5				
CO 1	2	2	3	2	3				
CO 2	1	1	1	1	-				
CO 3	3	3	- 3		-				
CO 4	2	2	1	2	3				
CO 5	3	3	3	-	-				
CO 6	-	3	2	2	1				
CO 7	1	3	3	-	-				
Average	1.71	2.42	1.85	1.42	1.0				

1: (Slightly Low) 2: Moderate (Medium)3: Substantial (High) -: None

Subject: Human Resource Management

Subject Category: CC

Credit: 4 (L:3; T:1)

Subject Code: 2241124

Syllabus

Module-I

Basic concepts of human resource management, Functions and structure of human resource management, difference between personnel management and human resource management, Role of HR managers.

(4 sessions)

Module-II:

Basics of HR Planning. Need of human resource planning. Various stages, methods and techniques of human resource planning process, strategies of human resource planning.

(8 sessions)

Module-III

Recruitment and selection, their differences. Various sources of recruitment and their advantages and disadvantages. Recruitment and selection processes. Critical issues in recruitment and selection, retention.

(6 sessions)

Module-IV

Job analysis and job evaluation: Job analysis concepts, process, uses, limitations; Job Description, Job Specification. Job Evaluations: concepts, methods, limitations. (6 sessions)

Module-V

Human resource development, HRD needs, Training need analysis, HRD methods: Training and non-training methods. *(6 sessions)*

Module-VI

Performance Appraisal: Purpose, various methods, various instruments for appraisal, Errors in appraisal.

(4 sessions)

Module-VII

Compensation Management: Concepts of wages, Factors influencing wage structures, Different methods of fixing the wage, Different methods of payment of wages, Fringe benefits. (4 sessions)

Module-VIII

Industrial Relations in India: different approaches of IR; Management and Trade Unions: nature, importance and role of trade unions in IR; Problems of trade union in India, Industrial dispute. (4 sessions)

Module-IX

Worker's participation in management: concepts, quality circles- concepts and limitations. (2 sessions)

Module-X

Misconduct, disciplinary action, domestic enquiry, grievance handling.

(2 sessions)

Suggested Readings:

- 1. W.B. Werther & Davis: Human Resource Management, McGraw Hill.
- 2. Dessler, Human Resource Management, Pearson Education/PHI.
- 3. K.K. Chaudhuri: Personnel Management for Executives, Himalaya Publishing.
- 4. S. Venkata Ratnam & Esources, Tata McGraw Hill.
- 5. P.C Tripathi: Human Resource Development: Sultan Chand
- 6. George Bohlander and Scott Snell (2008), Human Resource Management, Cengage Learning Private Limited, Alphs Building, 56-Janpat, New Delhi-110001.
- 7. K Aswathappa, Human Resource and Personnel Management, Tata McGraw-Hill Education, 2005.
- 8. Mamoria C.B and Goankar S.V(2010). Human Resource Management, Himalaya Publishing House, Girgaon, Mumai-400004.
- 9. Subba Rao (2014), Essentials of Human Resource Management and Industrial Relations, Himalaya Publishing House, Girgaon, Mumbai-400004.
- 10. VSP Rao, Human Resource Management: Text and cases, First edition, Excel Books.

Course Outcome (CO):

CO#	Description
CO -1	Integrated perspective on role of HRM in modern business and the ability to plan human resources and implement techniques and to impart fundamentals of HR practices in various organisations.
CO-2	Competency to recruit, select, train, appraise the performance of the employees and proper retention to handle their issues and to evaluate the new trends in HRM.
CO-3	Rational design of compensation and salary administration and to provide the students a synthesized framework theory.

CO-4

Successful restructuring of the organization requires good planning which will address all the programmatic needs, support services to advance organizational goals. The students must be able to frame good planning of the workforce along with brilliant communication skills to cope up with current situation in times of challenging situation.

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Integrated perspective on role of HRM in modern business and the ability to plan human resources and implement techniques and to impart fundamentals of HR practices in various organisations.	1,2,4,5,8,9,10	1,2,3,4,5
CO-2	Competency to recruit, select, train, appraise the performance of the employees and proper retention to handle their issues and to evaluate the new trends in HRM.	1,3,5,6,7,8,9,10	1,2,3,4,5
CO-3	Rational design of compensation and salary administration and to provide the students a synthesized framework theory.	1,2,3,4,5,8,9,10	1,2,3,4,5
CO-4	Successful restructuring of the organization requires good planning which will address all the programmatic needs, support services to advance organizational goals. The students must be able to frame good planning of the workforce along with brilliant communication skills to cope up with current situation in times of challenging situation.	1,2,3,4,5,8,9,10	1,2,3,4,5

CO-PO Matrix

Course		Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	
CO 1	3	3		2	2			2	3	3	
CO 2	3		3		2	2	1	2	2	3	
CO 3	2	2	2	1	1			2	1	2	
CO 4	2	3	2	1	3	2	2	1	2	2	
Average	2.50	2.67	2.33	1.33	2.00	2.00	1.50	1.75	2.00	2.50	

1: (Slightly Low)

2: Moderate (Medium)3: Substantial (High) -: None

CO-PSO Matrix

Course	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5					
CO 1	1	1	2	2	2					
CO 2	2	1	3	2	1					
CO 3	3	2	2	3	2					
CO 4	2	2	3	3	1					
Average	2.00	1.50	2.50	2.50	1.50					

1: (Slightly Low)

2: Moderate (Medium)3: Substantial (High) -: None

Subject: Management Information System & Enterprise Resource Planning

Semester: 2

Subject Category: CC

Credit: 4 (L:3, T:1)

Subject Code: 1300061110

Syllabus

Module-I: Introduction to Management Information System (MIS)

- Introduction to MIS
- Concepts and Definition
- Role of MIS
- Concepts & process in Decision Making.

Module-II: Introduction to Information Technology

- Database Management System
- Networking
- Systems & Application Software

Module-III: Decision Making & Types of information systems

- Management information systems, transactions processing systems, decisions support systems, expert systems, office automation systems and knowledge-based systems
- Structured decision making, unstructured decision making and semi structured decision making.

Module-IV: Information Systems Analysis & Design

- Stages of SDLC
- Feasibility study, systems study, and systems design.
- Resource utilization, implementation, audit, operation, maintenance, and modification

Module-V: Functional Information Systems

• Marketing, Finance, HR, Production/Operations information systems.

Module-VI: Overview on Different Enterprise Applications & Cloud Computing

- ERP System, CRM System, SCM System etc
- Cloud Computing

Module-VII: ERP System

- ERP Basics—why ERP- History of ERP- ERP Modules- Functions of each Module
- ERP Implementation Process- implementation success factors –Introduction of SAP ERP SAP Architecture
- Introduction of SAP HANA Its Features Difference Between SAP ECC & SAP HANA SAP
 Organisation Structure
- Overview of SAP Business Processes or Cycles Overview of SAP Master Data related with each Modules of SAP

References:

- 1. Management Information Systems, Effy OZ, Thomson Leaning/Vikas Publications
- 2. Management Information Systems, James A. O'Brien, Tata McGraw-Hill
- 3. Management Information System, W.S Jawadekar, Tata Mc Graw Hill Publication.
- 4. Management Information System, David Kroenke, Tata Mc Graw Hill Publication.
- 5. MIS: Management Perspective, D.P. Goyal, Macmillan Business Books.
- 6. MIS and Corporate Communications, Raj K. Wadhwa, Jimmy Dawar, P. Bhaskara Rao, Kanishka Publishers.
- 7. MIS: Managing the digital firm, Kenneth C. Landon, Jane P. Landon, Pearson Education

Course Outcome (CO)

CO#	Description
CO -1	Implement different types of information system in an organization like MIS & DSS and
CO -1	understand the phases for SDLC.
CO-2	Able to gather data to analyze and specify the requirements of a system.
CO-3	Develop and analyze data flow diagrams and explain how to develop the project budget.
CO-4	Design system input/output components and environments and also describe the process of
CO-4	moving from logical to physical data models.
CO-5	Identify the techniques in testing phase for better quality assurance.

CO-PO-PSO Mapping

CO #	Course Outcomes (CO)	POs	PSOs
CO -1	Implement different types of information system in an organization like MIS & DSS and understand the phases for SDLC.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	Able to gather data to analyze and specify the requirements of a system.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-3	Develop and analyze data flow diagrams and explain how to develop the project budget.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-4	Design system input/output components and environments and also describe the process of moving from logical to physical data models.	1,2,3,4,5,6,8,9,10	1,2,3,4,5
CO-5	Identify the techniques in testing phase for better quality assurance.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5

CO-PO Matrix

Course	Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	1	2	3	2	3	3	2	3	2
CO 2	3	3	2	3	2	3	2	2	1	3
CO 3	3	2	2	1	2	1	2	3	3	3
CO 4	2	3	3	2	3	3	-	1	3	1
CO 5	2	3	2	2	2	3	3	2	3	2
Average	2.40	2.40	2.20	2.20	2.20	2.60	2.50	2.00	2.60	2.20

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5					
CO 1	2	3	2	2	3					
CO 2	3	1	2	2	2					
CO 3	2	3	3	2	2					
CO 4	3	3	3	3	2					
CO 5	3	2	2	2	3					
Average	2.60	2.40	2.40	2.20	2.40					

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Business Environment

Semester: 2

Subject Category: CC

Credit: 4 (L: 3, T: 1)

Subject Code: 1300061111

Syllabus

Unit-I: Legal Environment

Module-I

- 1. Concept of Business, Levels of the Business Environment, Understanding the Environment; Business and Society, Business and Culture, Indian Business Culture,
- 2. Legal Aspects of Business Society, State and Law, Enforceability of Law, Mercantile Law. Indian Contract Act, 1872 – Contract defined, Elements of valid contract, Classification of contracts, Offer and acceptance, Consideration, Capacity to contracts, Free consent, Legality of object and consideration, Illegal agreements, Termination of contracts, Breach of contract, Indemnity and guarantee, Laws of agency
- 3. Sale of Goods Act, 1930 Classification of goods, Conditions & Warranties, Passing of ownership rights, Rights of an unpaid seller, Remedies for breach of Contract of Sale of Goods.
- 4. Negotiable Instruments Act, 1881 Definition and characteristics of different types of negotiable instruments, Parties to a negotiable instrument and their capacity, Dishonor of cheques, Discharge from Liability, Crossing of cheques, Bank drafts and Banker's cheques.

Module-II

- 5. Companies Act, 1956 Nature and kinds of companies, Formation, Memorandum, Articles, Prospectus, Capital shares, debentures, borrowing powers, minimum subscription, Appointment of Directors; Winding up of companies (Including Amendments)
- Consumer Protection Act, 1986 Salient features and objectives of the Consumer Protection Act, 1986, Different Consumer redressal Forums, Composition and jurisdiction of district, state and National forum, Mode of complaints, Procedures for disposal of complaints, Penalty.
- 7. Intellectual Property Right- Laws relating to Patents (Patent Act, 1970), Trademarks (Trademark Act, 1999), Copyright (Copyright Act, 1957), Geographical Indications (Registration & Protection) Act, 1999

Module-III

- 8. Competition Act, 2002: Basic Concepts –Constitutional aspect of Elimination of Concentration of Wealth and Distribution of Resources Article 39 (b) (c) Relation between Competition Policy and Competition Law –Objectives of Competition Law- History and Development of Competition Law / Antitrust Law, Liberalization and Globalization Raghavan Committee Report, Difference between MRTP Act and Competition Act, Salient feature of Competition Act, Important Definitions under the Competition Act, 2002
- 9. Anti-Competitive Agreements, Horizontal and Vertical agreement, Rule of Perse and Reason, Appreciable Adverse Effect on Competition (AAEC) in India, Exemption, Prohibition of Anti-competitive agreement/ Cartel/bid rigging; Regulation of Abuse of Dominant Position Enterprise, Relevant Market, Dominance in Relevant Market, Abuse of dominance, Predatory Pricing; Regulation of Combinations- Merger, Acquisition, Amalgamation and Takeover Horizontal, Vertical and Conglomerate Mergers Combinations covered under the Competition Act, 2002 Regulations, Penalties, Enforcement Mechanisms Establishment and Constitution of Competition Commission of India, Powers and Functions- Jurisdiction of the CCI adjudication and appeals, Competition Appellate Tribunal (CompAT), Director General of Investigation (DGI)- Penalties and Enforcement.
- 10. Competition Advocacy in India and other foreign jurisdictions; Emerging Trends in Competition Law (National and International) - Intellectual Property Rights and Competition Law, International Trade and Competition Law, The Competition (Amendment) Bill, 2012, Draft National Competition Policy, 2011.

Unit-II: Economic Environment

Module-I

- 1. Introduction to Economic Environment, Economic Environment of Business, The Global Economic Environment, Economic Policies, Business and Economic Policies; Economic Indicators Consumer Price Index, Interest Rate, Inflation Rate and its impact on Business, Business Risk; Introduction to Economic Systems, Capitalist Economy, Socialist Economy, Mixed Economy
- 2. Introduction to Financial Environment; An Overview of the Financial System, Components of Financial System, Financial Institutions and their Roles, Financial Institutions in India, Role of Foreign Direct Investment; Regulatory Role of Government, Promotional Role of Government, Participatory Role of Government, Conciliatory and Judicial Role of Government, Impact of India's Industrial Policy on Economic Reforms

Module-II

3. Introduction to New Economic Policy (NEP), Industrial Policy, The crisis of June, 1991, Objectives of New Economic Policy – 1991, Emphasis of NEP on Liberalization, NEP and Privatization, NEP effect on Globalization, Positive and Negative effects of New Economic Policy

4. Introduction to Political Environment, Political Environment and the Economic system, Types of Political Systems, Indian Constitution and Business, Changing Profile of Indian Economy, Business Risks Posed by the Indian Political System

Suggested Readings:

- 1. Sen & Mitra: Commercial law; World Press
- 2. Pathak: Legal Aspect of Business, TMH
- 3. Das & Ghosh: Business Regulatory Framework: Ocean Publication, Delhi
- 4. Pillai & Bagavathi: Business law, S. Chand
- 5. Dutt & Sundaram: Economic Environment of Business, S. Chand
- 6. Misra, S. K & Puri, D. K.: Economic Environment of Business, Himalaya Publishing

Course Outcome (CO)

CO#	Description
CO -1	Comprehend the forces that shape business and economic structure and develop strategies to cope with the same.
CO-2	Evaluate the economic & political environmental dynamics to cope with the changing regulations affecting business and its profitability.
CO-3	Analyse the competitive forces in environment and accordingly devise business policies and strategies to stay in competitive position.
CO-4	Analyze the desirability of technological advancement in the current set-up and how to gain technological advancement with least cost.
CO-5	Understand the international influences on domestic business and measures to be taken for successful global business operations

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Comprehend the forces that shape business and economic structure and develop strategies to cope with the same.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	Evaluate the economic & political environmental dynamics to cope with the changing regulations affecting business and its profitability.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-3	Analyse the competitive forces in environment and accordingly devise business policies and strategies to stay in competitive position.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-4	Analyze the desirability of technological advancement in the current set-up and how to gain technological advancement with least cost.	1,2,3,4,5,6,8,9,10	1,2,3,4,5
CO-5	Understand the international influences on domestic business and measures to be taken for successful global business operations	1,2,4,5,6,7,8,9,10	1,2,3,4,5

CO-PO Matrix

Course	Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	3	2	1	2	3	3	2	3	2
CO 2	3	3	2	3	2	3	2	2	3	3
CO 3	3	3	2	1	2	1	2	3	3	3
CO 4	2	3	3	2	3	3	-	1	3	1
CO 5	3	2	-	3	3	2	3	3	2	2
Average	2.60	2.80	2.25	2.00	2.40	2.40	2.50	2.20	2.80	2.20

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5					
CO 1	1	3	2	2	3					
CO 2	3	2	3	2	2					
CO 3	3	3	2	2	2					
CO 4	3	3	3	3	2					
CO 5	1	2	3	3	2					
Average	2.20	2.60	2.60	2.40	2.20					

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Research Methodology & Optimization Techniques

Semester: 2

Subject Category: CC

Credit: 4 (L: 3, T: 1)

Subject Code: 1300061112

Syllabus

Module-I: Research Methodology

- 1. Problem identification and Research Design- Problem identification and definition, research proposal, research type—exploratory, descriptive, conclusive research, value and cost information.
- 2. Data Resources- Secondary data sources, online data sources, primary data collection method, online surveys, questionnaire preparation, characteristics of good questionnaire, scale reliability checking of good questionnaire, Cronbach Alpha measurement
- 3. Aptitude Measurement & Scaling Techniques Elementary introduction to Measurement scale, rating scales, Likert & Semantic different scale.
- 4. Hypothesis: Meaning, types, characteristics, Formulation of hypothesis, Errors in hypothesis testing.
- 5. Sampling Plan- Universe, sample frame, sampling technique, sampling & non sampling errors, probability & non probability samples, simple random sampling, stratified random sampling, systematic sampling, Quota sampling, Judgmental sampling.
- 6. Data processing and Analysis -Tabulation of data, editing coding, Basic concept of Univariate, Bivariate & Multivariate data analysis

Module-II: Optimization Technique

- 1. Introduction: An overview of Quantitative Optimization Techniques, Quantitative Techniques and Decision Making in Business, Quantitative Techniques and Computer Software
- 2. Basic Mathematics in Business: Business Functions, Linear and Quadratic Functions, Cost, Revenue and Profit functions, Break Even Point (BEP), Matrix Theory: Applications, Definition and some types of Matrices, Matrix Operations, Applications of Matrices in Business Problems, Differential Calculus: Applications, Overview of Differential Calculus, Applications of Derivative, Price Elasticity of Demand, Price Elasticity of Supply, Average Cost and Marginal Cost, Maxima & Minima
- 3. Linear Programming: Introduction, Linear Programming Problem, Requirements of LPP, Mathematical Formulation of LPP, Case Studies of LPP, Graphical Methods to Solve Linear Programming Problems, Applications, Advantages, Limitations

- 4. Graphical Analysis of Linear Programming Problems: Introduction, Graphical Analysis, Some Basic Definitions, Graphical Methods to Solve LPP,
- 5. Duality in Linear Programming Problem: Introduction, Importance of Duality Concepts, Formulation of Dual Problem, Economic Interpretation of Duality
- 6. Theory of Games: Introduction Minimax (maximin) Criterion and optimal strategy Solution of games with saddle points Rectangular games without saddle points 2 X 2 games dominance principle m X 2 & 2 X n games.
- 7. Transportation problem: Various methods of finding Initial basic feasible solution and optimal solution.
- 8. Assignment model: Algorithm and its applications.

Suggested Readings:

- 1. Handy A Taha, Operations Research An Introduction, Prentice Hall of India, New Delhi
- 2. R. K. Bharadwaj, Anuradha Rajkonwar Chetiya, Kakali Majumdar, Quantitative Techniques for Business Managers, Himalaya Publishing House
- 3. Kanti Swarup, P.K Gupta & Manmohan, Operations Research, Sultan Chand

Course Outcome (CO)

CO#	Description
CO -1	Define various terms used in research process
CO-2	Describe research design, sample design and sampling methods
CO-3	Apply appropriate methods for data collection for research work PO5
CO-4	Use appropriate statistical tools for data analysis and interpretation
CO-5	Identify and develop operational research models from the verbal description of the real system.
CO-6	Understand the mathematical tools that are needed to solve optimisation problems.
CO-7	Use mathematical software to solve the proposed models.
CO-8	Develop a report that describes the model and the solving technique and analyse the results and propose recommendations

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Define various terms used in research process	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	Describe research design, sample design and sampling methods	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-3	Apply appropriate methods for data collection for research work PO5	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-4	Use appropriate statistical tools for data analysis and interpretation	1,2,3,4,5,6,8,9,10	1,2,3,4,5
CO-5	Identify and develop operational research models from the verbal description of the real system.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-6	Understand the mathematical tools that are needed to solve optimisation problems.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-7	Use mathematical software to solve the proposed models.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-8	Develop a report that describes the model and the solving technique and analyse the results and propose recommendations	1,2,3,4,5,6,8,9,10	1,2,3,4,5

CO-PO Matrix

Course	Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	3	2	3	2	3	3	2	3	2
CO 2	3	1	2	3	2	3	2	2	1	3
CO 3	3	3	2	3	2	1	2	3	3	3
CO 4	2	3	3	2	3	3	-	3	3	1
CO 5	2	2	2	3	2	3	2	2	2	2
CO 6	3	3	2	3	2	3	2	2	3	3
CO 7	3	2	2	2	2	1	3	3	2	3
CO 8	2	3	3	2	3	3	-	1	3	1
Average	2.50	2.50	2.25	2.63	2.25	2.50	2.33	2.25	2.50	2.25

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5					
CO 1	2	3	2	2	3					
CO 2	3	2	3	2	3					
CO 3	3	3	3	1	2					
CO 4	3	3	3	3	2					
CO 5	2	3	2	2	3					
CO 6	3	2	3	2	2					
CO 7	3	3	1	2	2					
CO 8	2	3	2	3	2					
Average	2.63	2.75	2.38	2.13	2.38					

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Effective Business Communication-II

Semester: 2

Subject category: AECC

Credit: 2 (P:2)

Subject Code: 4030060101

Syllabus

Module-I: Employment Structure Program

- Resume Writing
- Covering Letters
- Follow Up Letters
- Application writing
- Activities: Job Application Exercises,

Module-II: Synergy Sessions

- Significance of GD
- Methodology & Guidelines
- Activities: Ice braker Activities, assigned roles, topic brainstorming, round-robin sharing, fish-bowl discussions, mindmaping

Module-III: Personality Development

- Essentials in public speaking
- Parameters in public speaking
- Context based speaking i.e., in general situation, specific professional situation, simulation/role play
- Activities: In prompt to speeches, mock presentations, postmasters, audience interaction exercise,
 stage presence

Module-IV: Adult Grooming

- Small talk
- Building rapport
- Expand social and Corporate Associations
- Informal Communication: Grapevine, Chat
- Activities: Role play, emotional intelligence, conflict resolution, peer feedback, cultural awarenessProcess, types and reading rate adjustment

Module-V: Comprehensive Reading

- Mastering the VC Game-Jeffrey Bussgang
- "The Gentleman of the Raj" by Khushwant Singh

Module-VI: Logic & Analytics

• Logical Reasoning

Reading List

- 1. Koneru, A., "Professional Communication", 2008, Tata McGraw Hill.
- 2. Bill Mascull, "Business Vocabulary in Use", 2010, Cambridge University Press. Reference Books:
- 3. Bovee, C. and Thill, J.V., "Business Communication Today", 11th edition, 2011, Prentice Hall.
- 4. Francis Soundararaj, "Speaking and Writing for Effective Business Communication", 2008, Macmillan.
- 5. RK Madhukar, "Business Communication", 2010, Vikas Publishing House Pvt. Ltd.
- 6. Mallika Nawal, "Business Communication", 2012, Cengage Learning India.
- 7. Meenakshi Raman & Prakash Singh, "Business Communication", 2012, OUP

Course Outcome (CO)

CO #	Description
CO -1	Understand the scope of communication and learn its importance and implication strategies.
CO-2	Recognize and learn the sub-skills of listening and speaking and be able to deliver effectively in the real time contexts.
CO-3	Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.
CO-4	Use different forms of written communication techniques to make effective internal and external business correspondence.
CO-5	Apply principles of effective writing to practical applications in business communication, including correct spelling and punctuation and appropriate content, style, and form.
CO-6	Adapt the tone of business documents to the needs of particular audiences, including professional, cross-cultural, and Christian contexts, by identifying appropriate context.
CO-7	Produce different types of reports with appropriate format, organization and language.

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Understand the scope of communication and learn its importance and implication strategies.	1,2,3,4,7,8,9,10,11	1,2,3,4,5,6
CO-2	Recognize and learn the sub-skills of listening and speaking and be able to deliver effectively in the real time contexts.	1,2,4,5,8,9,10,11	1,2,3,4,5,6
CO-3	Imbibe the mechanics of writing and construct effective paragraphs which befit in a longer composition.	1,2,3,4,7,9,10,11	1,2,3,4,5,6
CO-4	Use different forms of written communication techniques to make effective internal and external business correspondence.	1,2,3,4,8,10,11	1,2,3,4,5,6
CO-5	Apply principles of effective writing to practical applications in business communication, including correct spelling and punctuation and appropriate content, style, and form.	1,2,3,4,6,7,8,9,10	1,2,3,4,5,6
CO-6	Adapt the tone of business documents to the needs of audiences, including professional, cross- cultural, and Christian contexts, by identifying appropriate context.	1,2,3,4,5,6,7,8,11	1,2,3,4,5,6
CO-7	Produce different types of reports with appropriate format, organization, and language.	1,2,3,4,5,6,10,11	1,2,3,4,5,6

CO-PO Matrix

				P	rogramm	e Outcon	ne			
Course Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	3	2	2	1	-	-	3	3	1	1
CO 2	2	2	-	2	1	-	-	2	3	2
CO 3	3	1	1	3	-	-	3		1	3
CO 4	3	3	3	1	-	-	-	3	-	1
CO 5	3	2	2	3	-	1	2	2	2	2
CO 6	3	3	3	2	3	2	1	3	-	-
CO 7	1	3	1	3	3	2	-	-	-	1
Average	2.57	2.29	2	2.14	2.33	1.67	2.25	2.6	1.75	1.67

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course Outcome	Programme Specific Outcome									
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5					
CO 1	3	3	1	2	2					
CO 2	3	1	2	2	1					
CO 3	3	3	2	1	3					
CO 4	3	3	2	3	1					
CO 5	3	2	3	3	1					
CO 6	1	2	2	2	3					
CO 7	3	3	3	2	3					
Average	2.71	2.43	2.14	2.14	2					

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Business Policy & Strategic Management

Semester: 3

Subject Category: CC Credit: 4 (L: 3, T: 1)

Subject Code: 1030062114

Syllabus

Unit-I: Introduction to Business Policy and Strategy

- Nature & importance of business policy & strategy
- Introduction to the strategic management process and related concepts
- Characteristics of corporate
- Business & functional level strategic management decisions
- Company's vision and mission, need for a mission statement

Unit-II: Environmental Analysis & Diagnosis

- Analysis of company's external environment
- Michael E. Porter's 5 Forces model
- Internal analysis
- Importance of organisation capabilities
- Competitive advantage and core competence
- Michael E. Porter's Value Chain Analysis
- Porters Diamond Theory of National Advantage

Unit-III: Formulation of Competitive Strategies

- Michael E. Porter's generic competitive strategies
- Implementing competitive strategies- offensive & defensive moves
- Formulating Corporate Strategies-Introduction to strategies of growth, stability, and renewal
- Types of growth strategies concentrated growth, product development, integration, diversification, international expansion (multi domestic approach, franchising, licensing, and joint ventures)
- CAGE distance framework
- Types of renewal strategies retrenchment and turnaround
- Strategic fundamentals of merger & acquisitions

Unit-IV: Strategic Analysis and Choice

• Strategic gap analyses; portfolio analyses – BCG, GE

- Product market evolution matrix
- Experience curve
- Directional policy matrix
- Life cycle portfolio matrix
- Grand strategy selection matrix
- Behavioural considerations affecting choice of strategy; impact of structure, culture & leadership on strategy implementation
- Functional strategies & their link with business level strategies; introduction to strategic control & evaluation

Suggested Readings:

- 1. Kazmi, A.Strategic Management and Business Policy. McGraw Hill Education
- 2. Pearce, J.A. & Robinson, R.B. Strategic Management: Formulation Implementation and Control. McGraw Hill Education
- 3. Strickland, A.J. III & Thompson, A.A. Strategic Management: Concepts and Cases. McGraw Hill Education

Course Outcome (CO)

CO#	Description
CO -1	Explain the basic concepts of Strategic Management
CO-2	Apply strategic concepts to real-life business problems.
CO-3	Analyse various stages of strategic management starting from strategy formulation to its evaluation.
CO-4	Evaluate the strategy which best fits in achieving the organisational goals.
CO-5	Assess the impact of external environment on business strategy

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	Pos	PSOs
CO -1	Explain the basic concepts of Strategic Management	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	Apply strategic concepts to real-life business problems.	1,2,3,4,5,6,8,9,10	1,2,3,4,5
CO-3	Analyse various stages of strategic management starting from strategy formulation to its evaluation.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-4	Evaluate the strategy which best fits in achieving the organisational goals.	1,2,3,4,5,6,8,9,10	1,2,3,4,5
CO-5	Assess the impact of external environment on business strategy	1,2,4,5,6,7,8,9,10	1,2,3,4,5

CO-PO Matrix

Course	Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	3	2	1	2	3	3	2	3	2
CO 2	3	2	3	3	2	3	-	2	2	3
CO 3	2	3	2	3	2	3	2	3	3	3
CO 4	3	3	2	2	3	2	-	2	3	3
CO 5	3	2	-	3	3	2	3	3	2	2
Average	2.60	2.60	2.25	2.40	2.40	2.60	2.67	2.40	2.60	2.60

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course	Programme Specific Outcome							
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5			
CO 1	2	3	2	2	3			
CO 2	3	2	2	3	2			
CO 3	3	3	3	2	3			
CO 4	3	3	3	3	2			
CO 5	1	2	2	2	2			
Average	2.40	2.60	2.40	2.40	2.40			

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Design Thinking

Semester: 3

Subject Category: CC Credit: 4 (L: 3, T: 1)

Subject Code: 1030062115

Syllabus

Module-I: Design Thinking Overview

- Introduction to Design thinking
- Design Thinking Skills
- Exercise: Design Thinking Skills; Design Thinking Mindset
- Principles of Design Thinking

Module-II: General Approaches to Design Thinking

- The Basis for Design Thinking
- Design Thinking Frameworks
- The Design Thinking Team
- Design Thinking Workshops and Meetings Characteristics; Types of Workshops

Module-III: A Design Thinking Approach in Stages

- Apply the Design Thinking Frameworks
- Empathize with the Customers and/or Users
- Define the Problem; Ideate; Prototype Alternate Solutions; Test the Solutions

Module-IV: Design Thinking Techniques

- Listening and Empathizing Techniques
- Engagement
- Observation
- Showing Empathy
- Define and Ideation Techniques
- Unpacking
- Personas
- Pattern Recognition and Connecting the Dots
- Prototype and Test Techniques

- Types of Prototypes
- Forms of Testing in Design Thinking

Module-V: General Design Thinking Practices

- Visualization Techniques and Diagrams
- Use of Diagrams and Maps in Design Thinking
- Story Telling Techniques
- Story Telling Throughout the Design Thinking Process
- Improvisation; Scenarios

Module-VI: Adopt and Adapt Design Thinking

- Cautions and Pitfalls; Assumptions
- Pitfalls and Cautions in Design Thinking Workgroups
- Final Words and Best Practices; Best Practices

Suggested Readings:

- 1. Tim Brown, Change by Design: How Design Thinking Transforms Organizations and Inspires Innovation, HarperCollins Publishers Ltd.
- 2. Idris Mootee, Design Thinking for Strategic Innovation, 2013, John Wiley & Sons Inc
- 3. Stuart Pugh, Total Design: Integrated Methods for Successful Product Engineering, Bjarki Hallgrimsson, Prototyping and model making for product design, 2012, Laurence King Publishing Ltd
- 4. Kevin Henry, Drawing for Product designers, 2012, Laurence King Publishing Ltd

Course Outcome (CO):

CO#	Description
CO -1	Recognize the latest and future issues and challenges in innovation.
CO-2	Expose the student with the perspectives, ideas, concepts, and solutions related to the design and execution of innovation driven projects using design thinking principles.
CO-3	Develop an advance innovation and growth mindset form of problem identification and reframing, foresight, hindsight and insight generation.
CO-4	Prepare the mindset and discipline of systemic inspiration driven by an educated curiosity aimed find new sources of ideas, new connections and new models specially outside their regular operating atmosphere.
CO-5	Recognize and specify the best problem to solve and restate the problem as a function of its mutually exclusive and collectively exhaustive different dimensions.
CO-6	Propose a concrete, feasible, viable and relevant innovation project/challenge

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Recognize the latest and future issues and challenges in innovation.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	Expose the student with the perspectives, ideas, concepts, and solutions related to the design and execution of innovation driven projects using design thinking principles.	1,2,3,4,5,6,8,9,10	1,2,3,4,5
CO-3	Develop an advance innovation and growth mindset form of problem identification and reframing, foresight, hindsight and insight generation.	1,2,4,5,6,7,8,9,10	1,2,3,4,5
CO-4	Prepare the mindset and discipline of systemic inspiration driven by an educated curiosity aimed find new sources of ideas, new connections and new models specially outside their regular operating atmosphere.	1,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-5	Recognize and specify the best problem to solve and restate the problem as a function of its mutually exclusive and collectively exhaustive different dimensions.	1,2,3,4,5,7,8,9,10	1,2,3,4,5
CO-6	Propose a concrete, feasible, viable and relevant innovation project/challenge	1,2,3,5,7,8,9,10	1,2,3,4,5

CO-PO Matrix

Course Outcome	Programme Outcome									
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	3	3	3	2	3	2	3	2	3	2
CO 2	2	2	3	3	1	3	-	1	2	3
CO 3	3	3	-	2	2	2	2	2	3	3
CO 4	3	-	3	3	3	2	2	3	3	3
CO 5	3	2	2	2	2	-	3	3	2	3
CO 6	2	3	3	-	3	-	3	3	3	2
Average	2.67	2.60	2.80	2.40	2.33	2.25	2.60	2.33	2.67	2.67

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course	Programme Specific Outcome						
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5		
CO 1	3	2	3	2	2		
CO 2	2	3	3	3	3		
CO 3	2	2	2	2	2		
CO 4	3	2	3	3	3		
CO 5	1	3	3	3	2		
CO 6	3	1	2	2	2		
Average	2.33	2.17	2.67	2.50	2.33		

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Basic Concept of Health

Semester: 3

Subject Category: DSE

Credit: 4 (L: 3, T: 1)

Subject Code: 2030092101

Syllabus

Module-I

• Health – WHO definition, dimensions, spectrum of health

- Determinants of health
- Indicators of health
- Disease- concept and natural history of diseases
- Levels of prevention

Module-II

- Social determinants of Health
- Medical sociology and its Importance
- Health seeking behaviour and factors determining it
- Health status of various socio-economic groups

Module-III

- Basics of Medical Terminology
 - o Commonly used root words in medical terminology
 - o Commonly used prefixes in medical terminology
 - o Commonly used suffixes in medical terminology
 - o Commonly used medical terms to define various parts of the body

Module-IV

- Human body
 - o Body planes
 - o Body directions
 - o Body cavities
 - o Basic examination positions
 - Basic concept of elementary diseases and procedures in human body
 - Study of standard abbreviations used in prescriptions

Suggested Readings

- 1. Paramedics Six in One by Dr. G.D Mogli Jaypee Brothers
- 2. Human Physiology Vol 1 & 2 by C. C Chatterjee
- 3. Textbook of Medical Physiology by Guyton & Hall
- 4. Park's Textbook of Preventive and Social Medicine, K. Park, Banarasidas Bhanot

Course Outcome (CO)

CO#	СО
CO 01	Define health and disease, explain the determinants and indicators of health, interpret the meanings of the values of various health indicators and identify different health actions as levels of prevention.
CO 02	Understand Social determinants of health deals with how social factors affect health of an individual.
CO 03	Enable students explain the role of social factors in determining who will be ill or well in the society.
CO 04	Apply their knowledge of Basics of Medical Terminology to read and interpret medical prescriptions, patient records and identify the condition patient is suffering from.
CO 05	Identify various body planes, cavities, anatomical positions and relate their knowledge of basic diseases and procedures with the ones they encounter at their workplaces.
CO 06	Enable students acquire skills of dealing with medical records of the patient, learn to code diseases and operations as per International Classification of Diseases.

CO-PO-PSO Mapping

CO#	CO	PO	PSO
CO 01	Define health and disease, explain the determinants and indicators of health, interpret the meanings of the values of various health indicators and identify different health actions as levels of prevention.	1,2,5,6,8,10	1,2,4,5
CO 02	Understand Social determinants of health deals with how social factors affect health of an individual.	1,2,4,6,8,9	1,2,3,4,5
CO 03	Enable students explain the role of social factors in determining who will be ill or well in the society.	1,2,4,5,6,8,10	1,2,3,4,5
CO 04	Apply their knowledge of Basics of Medical Terminology to read and interpret medical prescriptions, patient records and identify the condition patient is suffering from.	1,2,6,8,10	1,2,4,5
CO 05	Identify various body planes, cavities, anatomical positions and relate their knowledge of basic diseases and procedures with the ones they encounter at their workplaces.	1,2,6,8,10	1,2,3,4,5
CO 06	Enable students acquire skills of dealing with medical records of the patient, learn to code diseases and operations as per International Classification of Diseases.	1,3,5,6,7,8,9,10	1,2,3, 4,5

	PO 01	PO 02	PO 03	PO 04	PO 05	PO 06	PO 07	PO 08	PO 09	PO 10
CO 01	3	3	-	-	2	2	-	3	-	3
CO 02	3	3	-	2	•	2	-	3	2	-
CO 03	3	3	-	2	2	2	-	3	-	3
CO 04	3	3	-	-	-	2	-	3	-	3
CO 05	3	3	-	-	-	2	-	3	-	3
CO 06	3	-	3	-	2	2	2	3	2	3
Average	3	3	3	2	2	2	2	3	2	3

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

CO-PSO Matrix

	PSO 01	PSO 02	PSO 03	PSO 04	PSO 05
CO 01	3	2	-	2	3
CO 02	3	1	2	2	3
CO 03	3	2	2	2	3
CO 04	3	2	-	1	3
CO 05	2	2	2	2	3
CO 06	2	2	2	2	3
Average	2.67	1.83	2	1.83	3

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Subject: Hospital Operations & Supportive Services

Semester: 3

Subject Category: DSE

Credit: 4 (L: 3, T: 1)

Subject Code: 2030092102

Syllabus

Module-I

• Introduction to Hospital Operations Management

- o Overview of Healthcare Operations
- o Introduction to hospital management and its significance in the healthcare industry
- o Key functions and departments in hospital operations

Module-II

• Patient Care Services and Clinical Support

- Inpatient and Outpatient Services
- o Managing inpatient admissions and discharge processes
- o Coordinating outpatient services and scheduling

• Diagnostic Support Services

- o Overview of diagnostic and therapeutic services in the hospital
- o Coordination of radiology, laboratory, and other clinical support functions
- o Infection Control and Hospital Safety

Module-III

• Waste Management in Hospitals

- Safe disposal of medical waste and hazardous materials
- o Environmental sustainability in waste management

Module-IV

• Hospital Front Desk Operations

- o Role of front office staff in patient registration and appointment scheduling
- o Managing patient inquiries and information dissemination

• Customer Service Excellence in Healthcare

- o Principles of excellent customer service in a hospital setting
- o Communication skills and dealing with patient feedback

Suggested Readings

- 1. Healthcare Operati Healthcare Facility Planning: Thinking Strategically" by Cynthia
- 2. Haywardons Management" by Daniel B. McLaughlin and John R. Olson
- 3. "Essentials of Hospital Administration and Management" by K. Rama Mohan Rao and M. Sivakumar
- 4. Hospital Support Services and Facilities Management" by S. Bhuvaneswari

Course Outcome (CO)

CO#	CO
CO 01	Describe the fundamental concepts and significance of hospital operations management in the healthcare industry. Identify key functions and departments within a hospital and their roles in providing quality patient care.
CO 02	Demonstrate proficiency in managing patient care services, including inpatient and outpatient services. Develop skills to coordinate inpatient admissions, discharge processes, outpatient services, and scheduling to ensure smooth patient flow and optimal patient experience.
CO 03	Understand the importance of diagnostic support services in hospital operations. Analyze the coordination and management of radiology, laboratory, and other clinical support functions to facilitate timely and accurate patient diagnosis and treatment. Implement infection control measures and hospital safety protocols to ensure a safe healthcare environment
CO 04	Implement waste management practices in hospitals, including safe disposal of medical waste and hazardous materials. Develop strategies for environmental sustainability in waste management to contribute to eco-friendly healthcare operations
CO 05	Demonstrate effective front desk operations in a hospital setting, including patient registration, appointment scheduling, and handling patient inquiries. Apply principles of excellent customer service to foster positive patient experiences and effectively address patient feedback.

CO-PO-PSO Mapping

CO#	CO	PO	PSO
CO 01	Describe the fundamental concepts and significance of hospital operations management in the healthcare industry. Identify key functions and departments within a hospital and their roles in providing quality patient care.	1,2,3,5,6,7,8,9	1,2,3,4,5
CO 02	Demonstrate proficiency in managing patient care services, including inpatient and outpatient services. Develop skills to coordinate inpatient admissions, discharge processes, outpatient services, and scheduling to ensure smooth patient flow and optimal patient experience.	1,2,5,6,7,8,9	1,2,3,4,5
CO 03	Understand the importance of diagnostic support services in hospital operations. Analyze the coordination and management of radiology, laboratory, and other clinical support functions to facilitate timely and accurate patient diagnosis and treatment. Implement infection control measures and hospital safety protocols to ensure a safe healthcare environment	1,3,4,5,6,7,8,9	1,2,3,4,5
CO 04	Implement waste management practices in hospitals, including safe disposal of medical waste and hazardous materials. Develop strategies for environmental sustainability in waste management to contribute to eco-friendly healthcare operations	1,3,4,6,8,9,10	1,2,3,4,5
CO 05	Demonstrate effective front desk operations in a hospital setting, including patient registration, appointment scheduling, and handling patient inquiries. Apply principles of excellent customer service to foster positive patient experiences and effectively address patient feedback.	1,2,3,6,8,10	1,2,3,4,5

CO-PO Matrix

	PO 01	PO 02	PO 03	PO 04	PO 05	PO 06	PO 07	PO 08	PO 09	PO 10
CO 01	3	2	2	-	2	2	2	3	3	-
CO 02	3	2	-	-	2	2	2	3	3	-
CO 03	3	-	3	2	2	2	2	3	3	-
CO 04	3	-	3	3	-	2	•	3	3	3
CO 05	3	3	2	-	-	2	•	3	-	3
Average	3	2.33	2.5	2.5	2	2	2	3	3	3

1: (Slightly Low) 2: Moderate (Medium) 3: Substantial (High) -: None

CO-PSO Matrix

	PSO 01	PSO 02	PSO 03	PSO 04	PSO 05
CO 01	3	3	2	2	2
CO 02	2	3	3	3	3
CO 03	3	3	2	2	3
CO 04	3	2	3	3	3
CO 05	3	3	2	3	2
Average	2.8	2.8	2.4	2.6	2.6

1: (Slightly Low) 2: Moderate (Medium) 3: Substantial (High) -: None

Subject: Hospital Architecture, Planning & Designing

Semester: 3

Subject Category: DSE

Credit: 4 (L: 3, T: 1)

Subject Code: 2030092103

Syllabus

Module-I

- Types of hospital organizations
- Guiding principles in planning hospital facilities and services
- Assessment of demand and need for hospital services
- Factors influencing hospital utilisation
- Land requirement
- Site selection
- Important considerations for planning a new hospital
- Concept of regionalisation

Module-II

- Steps in hospital planning
 - Need assessment
 - o Appointment of planning teams
 - Appointment of hospital Architect
 - Size of the hospital
 - o Design of the hospital
 - o Bed distribution by service and types of accommodation
 - Selection of contractor
 - o Project management
 - o Gantt chart

Module-III

- Steps in hospital planning
 - o Preparation of Architect's brief
 - o Preparation of master plan
 - o Features to be incorporated in hospital design

- o Positioning of various services
- o Zoning
- Planning for OPD, Accident and Emergency, Indoor accommodation, specialised departments and support services
- Planning for water supply, sewage disposal, electric supply and safety, illumination, ventilation, fire protection, waste disposal

Module-IV

- Equipment planning, classification of equipments
- Licenses required for registration of a hospital
- Commissioning and Inauguration of the hospital
- Hospital accreditation
- Manpower planning in hospitals

Suggested Readings

- 1. Principles of Hospital Administration and Planning by B.M Sakharkar, Jaypee Brothers
- 2. Hospital Planning, Design & Management by Kunders, Gopinath, Tata Mc Graw Hill
- 3. Hospital Administration by D.C Joshi & Mamta Joshi, Jaypee Brothers

Course Outcome (CO)

CO#	СО
CO 01	List the requisites of planning a new hospital including need and demand estimation
	of hospital services, site selection, land requirement and later apply them to plan new
	health care facilities.
CO 02	Explain in detail the steps involved in the planning of a new hospital and make use of
	the knowledge in future.
CO 03	Identify planning and designing considerations while planning for services
CO 04	Utilize Knowledge on various licences required in a hospital, hospital accreditation
	procedures to secure registration for a new hospital or obtain accreditation from
	accrediting bodies.
CO 05	Identify needs for various categories of manpower in health care organizations and fill
	up the need with the right kind of people through the knowledge of manpower
	planning.

CO-PO-PSO Mapping

CO#	CO	PO	PSO
CO 01	List the requisites of planning a new hospital including need and demand	1,2,3,5,6,7,8,9	1,2,3,4,5
	estimation of hospital services, site selection, land requirement and later		
	apply them to plan new health care facilities.		
CO 02	Explain in detail the steps involved in the planning of a new hospital and	1,2,5,6,7,8,9	1,2,3,4,5
	make use of the knowledge in future.		
CO 03	Identify planning and designing considerations while planning for services	1,3,4,5,6,7,8,9	1,2,3,4,5
CO 04	Utilize Knowledge on various licences required in a hospital, hospital	1,3,4,6,8,9,10	1,2,3,4,5
	accreditation procedures to secure registration for a new hospital or obtain		
	accreditation from accrediting bodies.		
CO 05	Identify needs for various categories of manpower in health care	1,2,3,6,8,10	1,2,3,4,5
	organizations and fill up the need with the right kind of people through the		
	knowledge of manpower planning.		

CO-PO Matrix

	PO 01	PO 02	PO 03	PO 04	PO 05	PO 06	PO 07	PO 08	PO 09	PO 10
CO 01	3	2	2	-	2	2	2	3	3	-
CO 02	3	2	-	-	2	2	2	3	3	-
CO 03	3	-	3	2	2	2	2	3	3	-
CO 04	3	-	3	3	-	2	-	3	3	3
CO 05	3	3	2	-	-	2	-	3	-	3
Average	3	2.33	2.5	2.5	2	2	2	3	3	3

¹⁻Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

CO-PSO Matrix

	PSO 01	PSO 02	PSO 03	PSO 04	PSO 05
CO 01	3	3	2	2	2
CO 02	2	3	3	3	3
CO 03	3	3	2	2	3
CO 04	3	2	3	3	3
CO 05	3	3	2	3	2
Average	2.8	2.8	2.4	2.6	2.6

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Subject: Inventory Control & Purchase Management in Hospital

Semester: 3

Subject Category: DSE

Credit: 4 (L: 3, T: 1)

Subject Code: 2030092104

Syllabus

Module-I: Inventory Control

- Meaning, Objectives & Scope of Inventory Control, Classification of Inventory
- Techniques of Inventory Control: ABC, VED, FSN, Others
- Lead-time, Buffer stock, Reorder level, Two Bin System, Periodic Inventory, EOQ

Module-II: Materials Management

- Definition, objectives, Scope & Function
- Classification of Materials- Consumables & Non consumables
- Materials Planning with Forecasting & Budgeting
- Procurement methods of materials

Module-III: Purchase Management

- Objectives
- Legal aspects of purchasing
- Out Sourcing of Services
- Purchase system- Centralised, Decentralised, & Local purchase
- Selection of Suppliers
- Tendering procedures
- Analysing bids, Price negotiations
- Issue of purchase orders, Rate Contracts, Follow up action,
- Safety Stock & Lead time
- Receipt & Inspection of Materials
- Distribution, Standardisation, Codification
- Preparation of defect/Discrepancy Reports.

Module-IV: Stores Management

- Organisation & layout
- Functions of Store Manager
- Materials handling, Flow of goods/FIFO
- Security of stores
- Disposal of scrap/unserviceable materials

Module-V: Medical stores

- Functions
- Store Monitoring
- Expiry Dates & Action
- Cold Chain
- Drug Review Committee
 - ➤ Hospital formulary
 - > Drug obsolescence

Suggested Readings

- 1. Shakti Gupta, Sunilkanth Hospital Stores Management, Jaypee Brothers
- 2. Gopalakrishna, P., Materials Management, Prentice Hall, New Delhi, 1997
- 3. Gopalakrishna P., Stores Management & Logistics, Sultanchand & Co. New Delhi
- 4. Gopalakrishna P., Purchasing & Materials Management, Tata Mc GrawHill

Course Outcome (CO)

CO#	СО
CO 01	Acquire skills in appropriate methods for the procurement, storage, distribution of various categories of materials in the hospital.
CO 02	Apply proper inventory management techniques in order to avoid over- stocking or stock outs.
CO 03	Apply knowledge in classifying various categories of materials in the hospital and determine what quantity is to be stocked.
CO 04	Apply the knowledge acquired to forecast material requirement and also the budget required for the materials.
CO 05	Ensure optimal utilization of all materials in the hospital with minimum wastage.
CO 06	Ensure patient satisfaction through the supply of right materials at the right place, and at the right time.
CO 07	Understand drug obsolescence and apply the knowledge in identifying such drugs and disposing them off according to the stipulated law of the land.

CO-PO-PSO Mapping

CO#	СО	PO	PSO
CO 01	Acquire skills in appropriate methods for the procurement, storage, distribution of various categories of materials in the hospital.	1,2,3,6,8,10	1,2,3,4,5
CO 02	Apply proper inventory management techniques in order to avoid over-stocking or stock outs.	1,2,4,6,8,10	1,2,3,4,5
CO 03	Apply knowledge in classifying various categories of materials in the hospital and determine what quantity is to be stocked.	1,2,3,5,6,8,10	1,2,3,4,5
CO 04	Apply the knowledge acquired to forecast material requirement and also the budget required for the materials.	1,2,4,5,6,8,10	1,2,3,4,5
CO 05	Ensure optimal utilization of all materials in the hospital with minimum wastage.	1,2,3,4,5,6,8,10	1,2,3,4,5
CO 06	Ensure patient satisfaction through the supply of right materials at the right place, and at the right time.	1,2,3,5,6,7,8,10	1,2,3,4,5
CO 07	Understand drug obsolescence and apply the knowledge in identifying such drugs and disposing them off according to the stipulated law of the land	1,2,3,5,6,7,8,9,10	1,2,3,4,5

	PO 01	PO 02	PO 03	PO 04	PO 05	PO 06	PO 07	PO 08	PO 09	PO 10
CO 01	3	3	2	-	-	2	-	3	-	3
CO 02	3	3	-	2	-	2	-	3	-	3
CO 03	3	3	2	-	2	2	-	3	-	3
CO 04	3	3	-	2	2	2	-	3	-	3
CO 05	3	3	2	2	2	2	-	3	-	3
CO 06	3	3	2	-	2	2	2	3	-	3
CO 07	3	3	2	-	2	2	2	3	2	3
Average	3	3	2	2	2	2	2	3	2	3

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

	PSO 01	PSO 02	PSO 03	PSO 04	PSO 05
CO 01	3	3	2	3	3
CO 02	3	2	3	2	3
CO 03	3	3	3	3	3
CO 04	3	3	2	2	3
CO 05	3	3	3	3	3
CO 06	3	2	2	2	3
CO 07	3	3	3	3	3
Average	3	2.7	2.57	2.57	3

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Application of Analytics in Business

Semester: 4

Subject Category: CC

Credit: 4 (L: 3, T: 1)

Subject Code: 1030063117

Syllabus

Module-I: Business Intelligence

- Definitions and Examples in Business Intelligence
- Need, Features and Use of Business Intelligence (BI)
- BI Component
 - o Data Warehouse
 - Business Analytics
 - o Business Performance Management
 - User Interface

Module-II: Business Analytics

- Introduction to Business Analytics (BA)
- Components (Business Context, Technology, Data Science).
- Types (Descriptive, Predictive and Prescriptive).
- Business Intelligence versus Business Analytics.
- Transaction processing v/s Analytic Processing
 - o OLTP v/s OLAP
 - o OLAP Operations
 - o Data models for OLTP (ER model) and OLAP (Star & Snowflake Schema)

Module-III: Types of Digital Data

- Definition, Sources, Storage and Characteristics of Structured, Unstructured and Semi Structured Data
- Data Warehouse definition, characteristics, framework
- Business Reporting, Visual Analytics:
 - o Definition, concepts
 - o Different types of charts and graphs
 - o Emergence of data visualization and visual analytics

Module-IV: Data Mining

- Concepts and applications
- Data mining process

Module-V: Text & Web Analytics

- Text analytics and text mining overview
- Text mining applications
- Web mining overview
- Social media analytics
- Sentiment analysis overview

Module-VI: Business Performance Management

- Business performance management cycle
- KPI, Dashboard

Module-VII: Analytics in Business Support Functions

- Sales & Marketing Analytics HR Analytics
- Financial Analytics
- Production and operations analytics
- Analytics in Industries: Telecom, Retail, Healthcare, Financial Services

Suggested Readings:

- 1. Vasant Desai Dynamics of Entrepreneurial Development and Management, HPH
- 2. Donald F Kuratko, "Entrepreneurship Theory, Process and Practice", 9th Edition, Cengage Learning, 2014.
- 3. Mathew J Manimala, "Entrepreneurship theory at crossroads: paradigms and praxis" 2nd Edition Dream tech, 2005.
- 4. Rajeev Roy, "Entrepreneurship" 2nd Edition, Oxford University Press, 2011.
- 5. Anderson, R. and Reeb, D. (2003), 'Founding-family ownership and firm performance: evidence from the S&P 500', Journal of Finance, June (3), 1301–28.
- 6. Anderson, R., Mansi, S. and Reeb, D. (2003), 'Founding family ownership and the agency cost of debt', Journal of Financial Economics, 68, 263–85.
- 7. Barnes, L.B. and Hershon, S.A. (1976), 'Transferring power in the family business', Harvard Business Review, July/August, 105–114.
- 8. Brockhaus, R.H. (1994), 'Entrepreneurship and family business research: comparisons, critique, and lessons', Entrepreneurship Theory and Practice, 19(1), 25–38.

Course Outcome (CO)

CO#	Description
CO -1	Identify and translate real-world business and operational problems into business analytics problems
CO-2	Implement efficient business analytics strategies to solve business and operational problems
CO-3	Demonstrate the process for developing, reporting and analyzing the business data
CO-4	Understand the current trend of business analytics and be aware of the ethical issues related to
CO-4	business analytics

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Identify and translate real-world business and operational problems into business analytics problems	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-2	Implement efficient business analytics strategies to solve business and operational problems	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-3	Demonstrate the process for developing, reporting and analyzing the business data	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5
CO-4	Understand the current trend of business analytics and be aware of the ethical issues related to business analytics	1,2,3,4,5,6,8,9,10	1,2,3,4,5

Course Outcome	Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10
CO 1	2	1	2	3	2	3	3	2	2	2
CO 2	3	3	2	3	3	3	2	2	2	3
CO 3	3	2	2	3	2	1	2	3	3	3
CO 4	2	3	3	2	3	3	-	3	3	2
Average	2.50	2.25	2.25	2.75	2.50	2.50	2.33	2.50	2.50	2.50

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

Course	Programme Specific Outcome								
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5				
CO 1	2	3	3	2	3				
CO 2	2	2	3	2	3				
CO 3	3	2	2	1	2				
CO 4	3	3	3	3	2				
Average	2.50	2.50	2.75	2.00	2.50				

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Entrepreneurship Development & Family Business

Semester: 4

Subject Category: CC Credit-4 (L: 3, T: 1)

Course Code- 2241141

Syllabus

Module-I: Introduction

- Evolution of Entrepreneurship
- Corporate Entrepreneurship
- Entrepreneurial Mindset
- Entrepreneurship Education and Entrepreneurship Ecosystem

Module-II: Early Career Dilemmas of an Entrepreneur

- The Entrepreneur's Role
- Task, and personality
- A typology of Entrepreneurs: Defining Survival and success
- Entrepreneurship as a Style of Management
- Entrepreneurial Venture and the Entrepreneurial Organization

Module-III: Choosing a Direction

- Opportunity recognition and entry strategies: new product, Franchising, Partial Momentum, Sponsorship and Acquisition
- The strategic window of Opportunity: Scanning, Positioning and Analysing; Intellectual Property: Creation and Protection

Module-IV: Opening the Window

- Gaining Commitment: Gathering the Resources you do not have
- The Business plan as an Entrepreneurial Tool
- Financial Projections: how to do them the right way
- Debt, Venture Capital, and other forms of Financing
- Sources of External support

Module-V: Developing Entrepreneurial Marketing

Competencies

Networks and Frameworks

Module-VI: Family Business Management

- The Nature, Importance, and Uniqueness of Family Business
- Dynamics of Family Business Governance
- Small Business Promotion
- Entrepreneurial Finance
- Change, Adaptation, Innovation and Creativity
- Family Communication; Social Entrepreneurship
- Technology innovation and sustainable enterprise
- Cases of Family Business: Tata group, TVS group, Aditya Birla group, Kirloskar group, TVS group, Murugappa, Godrej, Shapoorji & Palanji

Suggested Readings:

- 1. Vasant Desai Dynamics of Entrepreneurial Development and Management, HPH
- 2. Donald F Kuratko, "Entrepreneurship Theory, Process and Practice", 9th Edition, Cengage Learning, 2014.
- 3. Khanka. S.S., "Entrepreneurial Development" S. Chand & Co. Ltd., Ram Nagar, New Delhi, 2013.
- 4. EDII "Faulty and External Experts A Handbook for New Entrepreneurs Publishers: Entrepreneurship Development", Institute of India, Ahmadabad, 1986.
- 5. Hisrich R D, Peters M P, "Entrepreneurship" 8th Edition, Tata McGraw-Hill, 2013.
- 6. Mathew J Manimala, "Entrepreneurship theory at crossroads: paradigms and praxis" 2nd Edition Dream tech, 2005.
- 7. Rajeev Roy, "Entrepreneurship" 2nd Edition, Oxford University Press, 2011.
- 8. Anderson, R. and Reeb, D. (2003), 'Founding-family ownership and firm performance: evidence from the S&P 500', Journal of Finance, June (3), 1301–28.
- 9. Anderson, R., Mansi, S. and Reeb, D. (2003), 'Founding family ownership and the agency cost of debt', Journal of Financial Economics, 68, 263–85.
- 10. Barnes, L.B. and Hershon, S.A. (1976), 'Transferring power in the family business', Harvard Business Review, July/August, 105–114.
- 11. Brockhaus, R.H. (1994), 'Entrepreneurship and family business research: comparisons, critique, and lessons', Entrepreneurship Theory and Practice, 19(1), 25–38.

Course Outcome (CO):

CO#	Description
CO -1	Introduction part gives the students the knowledge regarding Evolution of Entrepreneurship, Corporate Entrepreneurship, Entrepreneurial Mindset, Entrepreneurship Education and Entrepreneurship Ecosystems which considers three specific topics within entrepreneurial ecosystems towards future research by focusing attention on research methods and women entrepreneurs.
CO-2	Early Career Dilemmas of an Entrepreneur explains the knowledge regarding hiring of family members and psychological dilemmas and preparing the business for the future; and transferring personal values and financial assets to one's family by helping the entrepreneurs to discuss key attributes that help the entrepreneurs to achieve career success.
CO-3	Choosing a Direction helps the learners to understand opportunity recognition and entry strategies and the strategic window of opportunity which includes scanning, positioning, and analysing.
CO-4	Opening the window gives the knowledge to the learners regarding the business plan as an entrepreneurial tool; financial projections, venture capital, and other forms of financing and all other sources of external support.
CO-5	Developing entrepreneurial marketing eschews many of the fundamental principles of marketing which are typically designed for large, well-established firms and utilizes a toolkit of new and unorthodox marketing practices to help the emerging firms to gain a foothold in crowded markets.
CO-6	Family Business Management explains the nature and uniqueness of family business; dynamics of family business Governance; Small business promotion; Entrepreneurial Finance; Change, Adaptation, Innovation and Creativity and the popular cases of family businesses such as Tata group, TVS group, Aditya Birla group, Kirloskar group, Murugappa, Godrej, Shapoorji & Palanji etc.

CO-PO-PSO Mapping

CO#	Course Outcomes (CO)	POs	PSOs
CO -1	Introduction part gives the students the knowledge regarding Evolution of Entrepreneurship, Corporate Entrepreneurship, Entrepreneurial Mindset, Entrepreneurship Education and Entrepreneurship Ecosystems which considers three specific topics within entrepreneurial ecosystems towards future research by focusing attention on research methods and women entrepreneurs.	1,2,4,5,6,9,10	1,2,3,4,5
CO-2	Early Career Dilemmas of an Entrepreneur explains the knowledge regarding hiring of family members and psychological dilemmas and preparing the business for the future; and transferring personal values and financial assets to one's family by helping the entrepreneurs to discuss key attributes that help the entrepreneurs to achieve career success.	1,3,5,6,7,8,9,19	1,2,3,4,5
CO-3	Choosing a Direction helps the learners to understand opportunity recognition and entry strategies and the strategic window of opportunity which includes scanning, positioning, and analysing.	1,2,3,4,5,6,9,10	1,2,3,4,5
CO-4	Opening the window gives the knowledge to the learners regarding the business plan as an entrepreneurial tool; financial projections, venture capital, and other forms of financing and all other sources of external support.	1,2,3,4,5,6,7,8,9,10	1,2,3,4,5

CO-5	Developing entrepreneurial marketing eschews many of the fundamental principles of marketing which are typically designed for large, well-established firms and utilizes a toolkit of new and unorthodox marketing practices to help the emerging firms to gain a foothold in crowded markets.					
CO-6	Family Business Management explains the nature and uniqueness of family business; dynamics of family business Governance; Small business promotion; Entrepreneurial Finance; Change, Adaptation, Innovation and Creativity and the popular cases of family businesses such as Tata group, TVS group, Aditya Birla group, Kirloskar group, Murugappa, Godrej, Shapoorji & Palanji etc.	1,2,3,5,6,7,8,9,10	1,2,3,4,5			

Course Outcome		Programme Outcome									
Outcome	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	
CO 1	3	2	-	3	-	3	-	-	3	3	
CO 2	2	-	3	-	3	3	2	2	3	2	
CO 3	2	2	2	2	2	2	-	-	2	2	
CO 4	2	3	3	2	3	3	3	3	2	2	
CO 5	3	-	-	2	2	2	-	-	3	2	
CO 6	2	3	3	-	3	2	1	3	2	3	
Average	2.33	2.50	2.75	2.25	2.60	2.50	2.00	2.67	2.50	2.33	

1: (Slightly Low) 2: Moderate (Medium) 3: Substantial (High) -: None

CO-PSO Matrix

Course	Programme Specific Outcome								
Outcome	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5				
CO 1	3	2	2	3	3				
CO 2	2	2	3	3	2				
CO 3	1	3	3	2	3				
CO 4	3	1	3	3	3				
CO 5	2	2	3	1	3				
CO 6	2	3	3	3	3				
Average	2.17	2.00	2.67	2.25	2.67				

1: (Slightly Low) 2: Moderate (Medium) 3: Substantial (High) -: None

Subject: Bio-Science & Epidemiology

Semester: 4

Subject Category: DSE

Credit: 4 (L: 3, T: 1)

Subject Code: 2030093105

Syllabus

Module 1

• Overview of Healthcare Bioscience

- o Introduction to biology and its relevance in healthcare management.
- o Principles of medical science and their application in healthcare organizations

• Human Anatomy and Physiology

- o Understanding the structure and function of human body systems
- o Implications for healthcare decision-making and management

Module 2

• Pharmacology and Drug Management

- o Basics of pharmacology and drug classification
- o Drug development, regulation, and utilization in healthcare settings

• Bioscience Applications in Healthcare

- o Application of bioscience knowledge in medical technology and innovation
- o Biomedical research and its impact on healthcare advancements

Module 3

• Introduction to Epidemiology

- o Definition, scope, and importance of epidemiology in healthcare management
- o Epidemiological measures and study designs

• Epidemiology of Infectious Diseases

- o Understanding the spread and control of communicable diseases
- Outbreak investigation and management

Module 4

• Epidemiology of Non-Communicable Diseases

o Analysis of non-communicable disease patterns and risk factors

o Strategies for prevention and control

• Epidemiology in Healthcare Planning and Policy

- o Use of epidemiological data in healthcare planning and policy formulation
- o Evidence-based decision-making and healthcare interventions

Suggested Readings

- 1. Epidemiology: Beyond the Basics" by Moyses Szklo and Javier Nieto
- 2. Principles of Epidemiology in Public Health Practice" by Richard Dicker, Jr., David R. Jacobs, and Shrihari S. Kadkol
- 3. Pharmacology: An Introduction" by Henry Hitner and Barbara T. Nagle
- 4. Park's Textbook of Preventive and Social Medicine. K. Park

Course Outcome (CO)

CO #	со
CO 01	Understand the fundamental principles of healthcare bioscience, including biology and medical science, and their significance in healthcare management. Apply this knowledge to identify relevant medical advancements and technologies in healthcare organizations.
CO 02	Demonstrate a comprehensive understanding of human anatomy and physiology, including the structure and function of human body systems. Analyze the implications of this knowledge for making informed healthcare decisions and managing patient care.
CO 03	Grasp the basics of pharmacology and drug classification. Assess drug development, regulation, and utilization in healthcare settings to ensure safe and effective patient care.
CO 04	Apply bioscience knowledge in medical technology and innovation. Analyze the impact of biomedical research on healthcare advancements and identify opportunities for implementing new technologies in healthcare settings
CO 05	Apply bioscience knowledge in medical technology and innovation. Analyze the impact of biomedical research on healthcare advancements and identify opportunities for implementing new technologies in healthcare settings.
CO 06	Analyze the spread and control of infectious diseases, including outbreak investigation and management. Apply epidemiological principles to assess and respond to communicable disease threats in healthcare settings.

CO-PO-PSO Mapping

CO#	со	РО	PSO
CO 01	Understand the fundamental principles of healthcare bioscience, including biology and medical science, and their significance in healthcare management. Apply this knowledge to identify relevant medical advancements and technologies in healthcare organizations.	1, 2, 5, 6, 8, 10	1, 2, 4, 5
CO 02	Demonstrate a comprehensive understanding of human anatomy and physiology, including the structure and function of human body systems. Analyze the implications of this knowledge for making informed healthcare decisions and managing patient care.	1, 2, 4, 6, 8, 9	1, 2, 3, 4, 5
CO 03	Grasp the basics of pharmacology and drug classification. Assess drug development, regulation, and utilization in healthcare settings to ensure safe and effective patient care.	1, 2, 4, 5, 6, 8, 10	1, 2, 3, 4, 5
CO 04	Apply bioscience knowledge in medical technology and innovation. Analyze the impact of biomedical research on healthcare advancements and identify opportunities for implementing new technologies in healthcare settings	1, 2, 6, 8, 10	1, 2, 4, 5
CO 05	Apply bioscience knowledge in medical technology and innovation. Analyze the impact of biomedical research on healthcare advancements and identify opportunities for implementing new technologies in healthcare settings.	1, 2, 6, 8, 10	1, 2, 3, 4, 5
CO 06	Analyze the spread and control of infectious diseases, including outbreak investigation and management. Apply epidemiological principles to assess and respond to communicable disease threats in healthcare settings.	1, 3, 5, 6, 7, 8, 9, 10	1, 2, 3, 4, 5

CO-PO Matrix

	PO 01	PO 02	PO 03	PO 04	PO 05	PO 06	PO 07	PO 08	PO 09	PO 10
CO 01	3	3	•	-	2	2	-	3	-	3
CO 02	3	3	•	2	•	2	-	3	2	-
CO 03	3	3	•	2	2	2	-	3	-	3
CO 04	3	3	•	-	•	2	-	3	-	3
CO 05	3	3	•	-	•	2	-	3	-	3
CO 06	3	-	3	-	2	2	2	3	2	3
Average	3	3	3	2	2	2	2	3	2	3

¹⁻Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

CO-PSO Matrix

	PSO 01	PSO 02	PSO 03	PSO 04	PSO 05
CO 01	3	2	-	2	3
CO 02	3	1	2	2	3
CO 03	3	2	2	2	3
CO 04	3	2	-	1	3
CO 05	2	2	2	2	3
CO 06	2	2	2	2	3
Average	2.67	1.83	2	1.83	3

1-Low Correlation; 2- Moderate Correlation; 3- Substantial Correlation

Subject: Healthcare Law & Policy

Semester: 4

Subject Category: DSE

Credit: 4 (L: 3, T: 1)

Subject Code: 2030093106

Syllabus

Module 1

- Law & Ethics : Concept & Comparison
- Essentials of Valid Contract
- Types of Contract
- Importance of Law in Hospitals
- Consent to Treatment, types of consent
- Medico-legal problems

Module 2

- Medical Negligence & Consumer Protection Act 1986
- West Bengal Clinical Establishment Act 2000
- Medical Termination of Pregnancy Act 1971
- Organ Transplantation Act 1994
- Bio-Medical Waste Management & Handling Rules 1998
- Pre Natal-Diagnostic Techniques Act 1994

Module 3

- Ethical principles
- Hippocratic Oath & Declaration of Geneva
- Declaration of Helsinki
- Indian Medical Council Code of Ethics

Module 4

- National Population Policy, 2000
- National Health policy, 2002 & 2017

Suggested Readings

- 1. R.K. Chaube, Consumer Protection and the Medical profession, Jaypee Publishing, New Delhi, 2000.
- 2. Commercial Laws N.D.Kapoor
- 3. Medical Ethics Francis, D'souza
- 4. Prabhakara G.N: Professional Medical Ethics

Course Outcome (CO)

CO#	СО
CO 01	Define health laws and medical ethics, distinguish between them and also be able to recognize which laws govern the healthcare systems in India.
CO 02	Explain concepts of informed consent, confidentiality, liability of the doctors and other healthcare professionals towards the patients and apply these whiles on the job.
CO 03	Explain the concept of medical negligence and identify its components and be conversant with the laws which surrounds the healthcare professionals in the country.
CO 04	Apply safe practices in their jobs and ensure negligible complaints by patients and their attendants.
CO 05	Being conversant in fields of law, ethics and health will assist them in taking informed, legally sound decisions and developing more ethical healthcare policies.
CO 06	Meet the challenges of changing dynamics in healthcare scenario in terms of the regulations that govern the operational aspects of the hospital
CO 07	Demonstrate the necessary knowledge, skill and competencies required for good administrator as significant contributor in healthcare

CO-PO-PSO Mapping

CO#	СО	PO	PSO
CO 01	Define health laws and medical ethics, distinguish between them and also be able to recognize which laws govern the healthcare systems in India.	1, 2, 5, 6, 8, 9, 10	1, 2, 4, 5
CO 02	Explain concepts of informed consent, confidentiality, liability of the doctors and other healthcare professionals towards the patients and apply these whiles on the job.	1, 2, 4, 5, 6, 8, 9, 10	1, 2, 3, 4, 5
CO 03	Explain the concept of medical negligence and identify its components and be conversant with the laws which surrounds the healthcare professionals in the country.	1, 2, 3, 6, 8, 9, 10	1, 2, 3, 4, 5
CO 04	Apply safe practices in their jobs and ensure negligible complaints by patients and their attendants.	1, 2, 3, 4, 6, 7, 8, 10	1, 2, 3, 4, 5
CO 05	Being conversant in fields of law, ethics and health will assist them in taking informed, legally sound decisions and developing more ethical healthcare policies.	1, 2, 3, 4, 5, 6, 7, 8, 9, 10	1, 2, 3, 4, 5
CO 06	Meet the challenges of changing dynamics in healthcare scenario in terms of the regulations that govern the operational aspects of the hospital	1,2,3,4,6, 8, 9, 10	1,2, 3, 4, 5
CO 07	Demonstrate the necessary knowledge, skill and competencies required for good administrator as significant contributor in healthcare	1, 2, 3, 4, 6, 7, 8, 10	1, 2, 3, 4, 5

	PO 01	PO 02	PO 03	PO 04	PO 05	PO 06	PO 07	PO 08	PO 09	PO 10
CO 01	3	3	-	-	2	3	-	3	3	3
CO 02	3	2	•	2	2	2	-	3	3	3
CO 03	3	3	3	-	-	2	-	3	3	3
CO 04	3	2	2	2	-	2	2	3	-	3
CO 05	3	2	2	2	1	2	2	3	3	3
CO 06	3	2	-	2	2	2	-	3	3	3
CO 07	3	3	2	3	-	2	2	3	-	3
Average	3	2.43	2.25	2.2	1.75	2.14	2	3	3	3

1: (Slightly Low) 2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

	PSO 01	PSO 02	PSO 03	PSO 04	PSO 05
CO 01	3	3	-	2	3
CO 02	3	3	2	3	3
CO 03	3	3	3	3	3
CO 04	3	3	3	3	3
CO 05	3	3	2	2	3
CO 06	3	3	3	3	3
CO 07	3	2	3	3	3
Average	3	2.8	2.67	2.7	3

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

Subject: Hospital Service Quality Management

Semester: 4

Subject Category: DSE

Credit: 4 (L: 3, T: 1)

Subject Code: 2030093107

Syllabus

Module 1

- Definition & Concepts of Quality
- Dimensions of quality in healthcare
- Determinants of quality
- Importance of quality in healthcare

Module 2

- Definition, Objectives of Quality Management
- Quality Gurus and their contribution Juran, Deming, Ishikawa, Taguchi, Crosby
- Quality management Quality Planning, Quality Control, Quality Improvement

Module 3

- Total Quality management Definition, Principles of TQM
- Quality Council
- Kaizen, Quality Circle
- Basic QC Tools check sheet, Histogram, Scatter diagram, Process Mapping, Cause and Effect diagram, Pareto analysis
- Cost of Quality
- Bench Marking
- Basics of Six Sigma & Lean Management in healthcare

Module 4

- Evaluation of Healthcare through Medical Audit, Nursing Audit
- Basics of NABH, NABL, JCI
- Doctor Patient relationship, Patient Satisfaction
- Performance Reviews in Hospitals (mortality review, infection review, surgical review)

Suggested Readings

- 1. Sridhar Bhat, Total Quality Management, Himalaya House publications, Mumbai, 2002
- 2. Sundara Raju, S.M., Total Quality Management: A Primer, Tata McGraw Hill, 1995.
- 3. S.K. Joshi Quality Management in Hospitals Jaypee Brothers

Course Outcome (CO)

CO#	СО						
CO 01	Explain and Use quality management methods analyzing and solving problems of organization.						
CO 02	Evaluate the performance of an organization, and determine the set of performance indicators that will align people with the objectives of the organization						
CO 03	Define the prerequisites of evolution of total quality management and significance of quality gurus' works to the management of modern hospitals and keep them abreast of the modern thoughts and practices in healthcare quality.						
CO 04	Implement TQM in healthcare organizations and contribute specifically to patient satisfaction.						
CO 05	The knowledge of accreditation processes for health care organizations will enable students identify the requirements of the organization to conform to standards of accreditation.						
CO 06	Understand elements of patient safety and medication safety and apply them in healthcare organizations.						

CO-PO-PSO Mapping

CO#	CO	PO	PSO
CO 01	Explain and Use quality management methods analyzing and solving problems of organization.	1, 2, 3, 6, 7, 8, 10	1, 2, 3, 4, 5
CO 02	Evaluate the performance of an organization, and determine the set of performance indicators that will align people with the objectives of the organization	1, 2, 3, 6, 7, 8, 10	1, 2, 3, 4, 5
CO 03	Define the prerequisites of evolution of total quality management and significance of quality gurus' works to the management of modern hospitals and keep them abreast of the modern thoughts and practices in healthcare quality.	1, 2, 4, 6, 8, 10	1, 2, 3, 4, 5
CO 04	Implement TQM in healthcare organizations and contribute specifically to patient satisfaction.	1,2, 3, 6, 7, 8, 9	1, 2, 3, 4, 5
CO 05	The knowledge of accreditation processes for health care organizations will enable students identify the requirements of the organization to conform to standards of accreditation.	1, 2, 3, 5, 6, 7, 8	1, 2, 3, 4, 5
CO 06	Understand elements of patient safety and medication safety and apply them in healthcare organizations.	1, 2, 4, 7, 8, 9, 10	1, 2, 3, 4, 5

	PO 01	PO 02	PO 03	PO 04	PO 05	PO 06	PO 07	PO 08	PO 09	PO 10
CO 01	3	3	2	-	-	2	2	3	-	3
CO 02	3	3	2	-	-	2	2	3	-	3
CO 03	3	3	-	3	-	2	-	3	-	3
CO 04	3	3	3	-	-	2	2	3	3	-
CO 05	3	3	3	-	2	2	2	3	-	-
CO 06	3	3	-	3	-	-	2	3	3	3
Average	3	3	2.5	3	2	2	2	3	3	3

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None

CO-PSO Matrix

	PSO 01	PSO 02	PSO 03	PSO 04	PSO 05
CO 01	3	3	2	3	3
CO 02	3	2	3	2	3
CO 03	3	3	3	3	3
CO 04	3	3	2	2	3
CO 05	3	3	3	3	3
CO 06	3	2	2	2	3
Average	3	2.67	2.5	2.5	3

1: (Slightly Low)

2: Moderate (Medium)

3: Substantial (High)

-: None