

# SYLLABUS

## MBA-HOSPITAL ADMINISTRATION

2022



JSS Academy of Higher Education & Research  
Deemed to be University  
Re-Accredited "A+" Grade by NAAC  
Sri Shivarathreeshwara Nagara, Mysuru - 570015, Karnataka



**DEPARTMENT OF HEALTH SYSTEM MANAGEMENT STUDIES**  
**MBA-HOSPITAL ADMINISTRATION**

**Table – I: Course of study for semester I (MBAHA)**

Sl. No.	Course	No. of Hrs/ week	Lectures Hrs/week	Practicals Hrs/week	Credit Points
1	Management Principles and Practice	4	4	-	4
2	Marketing Management and Services marketing	4	4	-	4
3	Accounting for Managers	4	4	-	4
4	Managerial and Health Economics	4	4	-	4
5	Organizational Behaviour	4	4	-	4
6	Managerial Communication	4	3	1	3
7	Soft skill/Personality dev.	4	-	4	2*
	<b>Total</b>	<b>28</b>	<b>23</b>	<b>5</b>	<b>25</b>

**Table – II: Course of study for semester II (MBAHA)**

Sl. No.	Course	No. of Hrs/ week	Lectures Hrs/week	Practicals Hrs/week	Credit Points
1	Human Resource Management	4	4		4
2	Strategic Management	4	4		4
3	Total Quality Management	4	4		4
4	Financial Management	4	4		4
5	Business Statistics & Research Methodology	4	3	1	4
6	Management Information System	4	3	1	3
7	Hospital Posting	8	-	8	2
8	Summer Internship*	-	-	-	2*
	<b>Total</b>	<b>32</b>	<b>22</b>	<b>10</b>	<b>27</b>

\*Summer Internship - Swacch Bharath Abhiyan/NSS/Any other extension/co-curricular activities= 2 credits

**Table – III: Course of study for semester III (MBAHA)**

Sl. No.	Course	No. of Hrs/ week	Lectures Hrs/week	Practicals Hrs/week	Credit Points
1	Hospital Planning, Designing & core services	4	4		4
2	Hospital Support Services	4	4		4
3	Hospital Operations Management	4	4		4
4	Epidemiology	4	4		4
5	Operation Research & Project Management	4	4		4
6	Hospital Postings	12	-	12	4

7	Electives-				
7a	Drug Management or	2	2		2
7b	Biostatistics or				
7c	Basic health sciences				
8	Entrepreneurship workshop*	-	-	-	2*
	<b>Total</b>	<b>34</b>	<b>22</b>	<b>12</b>	<b>28</b>

**\*Workshop**

**Table – IV: Course of study for semester IV (MBAHA)**

Sl.No.	Course	No. of Hrs/ week	Lectures Hrs/week	Practicals Hrs/week	Credit Points
1	Safety and Risk Management	4	4	-	4
2	Medical Ethics & Law	4	4	-	3
3	Medical Insurance, Audits & Accreditations	4	4	-	3
4	Electives-				
4a	Health Informatics or	2	2	-	2
4b	Public Health				
5	Project work	-	-	5	8
6	Hospital Postings	16	-	16	4
	<b>Total</b>	<b>30</b>	<b>14</b>	<b>21</b>	<b>24</b>

## MANAGEMENT PRINCIPLES & PRACTICE

### MODULE: 1

**Development of Management concept:** History & growth of management science, Tradition/Modern management, Evolution of Management theory, Management as a profession, process of management.

**Management function & tools:** Management levels & skills, Functions & Principles of management, Challenges to manager, System approach.

### MODULE: 2

**Fundamentals of Planning & Decision –making:**

**Planning:** Nature, Types, Steps, Process, Objectives, MBO, Strategies, Policies, Planning & Forecasting, Hospital Planning.

**Decision Making:** Nature & process of managerial decision making, Tools & techniques of decision making, Programmed and non-programmed decisions –Modern approaches to decision making under uncertainty-Decision trees.

### MODULE: 3

**Organizing & Staffing:**

**Organizing:** Nature of organizing and entrepreneuring - formal and informal organizations- Structure and departmentation - line, line and staff, functional, divisional and matrix; span of control-decentralization delegation of authority - the art of delegation-Power and responsibility,

Hospital as an organization & role of hospital administrators.

**Staffing:** Overview of all staffing functions; systems approach to human resource management.

### MODULE: 4

**Leading:** Leader centered Approaches; Trait, Behavior, Power focus; Follower centered approaches –self – leadership, Leadership substitutes focus; Interactive approaches- situational, empowerment, and transformational leadership; Women as leaders; Leaders of the future; Likert's four systems of management- the managerial grid-Robert Blake and Jane Mouton Model - Committees – Nature of committees-Reasons for using committees-Types- Merits and Demerits.

### MODULE: 5

**Coordinating & controlling:**

**Coordinating:** Need for coordination principles, Techniques of coordination.

**Controlling:** Process of control for diverse organizations; Setting standard for performance; Measuring actual performance; Responding to deviations; Designing quality and effectiveness into control systems; criteria for effective control; Selecting the focal point of control; Managerial control philosophies-bureaucratic control, organic control; Selecting a control style in today's diverse and multinational organizations; Impact of information technology on organizational control.

**Managerial ethics:** Codes of Ethics, Ethics committees, Ethics & law, corporate culture & ethical climate.

## **MARKETING MANAGEMENT & SERVICES MARKETING**

### **MODULE 1**

**Introduction-** Marketing and Marketing Management, importance, value, and scope of marketing.

**Core marketing concepts** – Needs, Wants, and Demands, Target markets, Positioning, Segmentation, Marketing orientations, marketing mix and classification of goods and services.

**Marketing management process** (in brief)

**CASE STUDY**

### **MODULE 2**

**Analysing the Marketing Environment**

**The Microenvironment:** The Company; Suppliers; Marketing Intermediaries; Competitors; Publics and Customers

**Macroenvironment:** The Demographic, Economic, Natural, Technological, Political, Social and Cultural environment that affect the company's ability to serve its customers.

**CASE STUDY**

### **MODULE-3**

**Consumer behaviour** – characteristics affecting consumer behaviour, The buyer decision process (The five-stage model).

**Market segmentation** - bases for segmenting consumer markets.

**Brand** - meaning, importance, and building and managing the brands.

**The new product development process**

**CASE STUDY**

### **MODULE-4**

**Product Life Cycle (PLC)** – concept, PLC marketing strategies.

**Advertisement** – setting advertising objectives, setting the advertising budget, evaluating advertising effectiveness and the return on advertising investment.

**Public Relations** – The Role and Impact of PR , Major Public Relation Tools

**CASE STUDY**

### **MODULE 5**

**Introduction to Services:** meaning, importance, categories, characteristics, marketing challenges in service industry, 7P's of services marketing/ services marketing mix.

**Service Quality** - The Gaps model, reviewing strategies to close quality gaps, Customer defined service standards – Hard and Soft.

**CASE STUDY**

## ACCOUNTING FOR MANAGERS

**Objectives:** The subject is designed to introduce accounting concepts theories and their implication on hospital administration. It also introduces detail working of accounting for under trading protocol accounting system in general company and hospital administration.

### MODULE 1

(8 hours)

**Introduction to Accounting-** Definition – Accounting for historical function and managerial function – Scope of accounting – Financial accounting and Management accounting – Managerial uses, GAAP, Accounting Principles & Conventions, Accounting Equations, Users of Accounting and Indian accounting standards.

### MODULE 2 (simple problems)

**Double entry system of accounting:** Accounting books – Preparation of journal and ledger,– Preparation of trial balance and - Preparation of Trading, Profit & Loss Account and Balance Sheet from records, financial reporting system in hospital, reports prepared in hospitals.

### MODULE 3 (Simple problems)

(8 hours)

**Non trading accounting-**Meaning of non-trading accounting and concern, difference between profit and non profit, purpose of non trading concern, capital and revenue items, receipts and payment accounting and income and expenditure statement preparation.

### MODULE 4 Working Capital Management

Significance and types of Working Capital – Calculating Operating Cycle Period and Estimation of Working Capital Requirements problems – Financing of Working Capital and norms of Bank Finance – Sources of Working capital – Factoring services– Dimensions of Working Capital Management.

### MODULE 5

Depreciation – Causes – Methods of Calculating Depreciation – Straight Line Method, Diminishing Balance Method and Annuity Method - Ratio Analysis – Uses and Limitations – Classification of Ratios – Liquidity, Profitability, Financial and Turnover Ratios – Simple Problems only.

### Text and Reference Books:

1. Jelsy Josheph Kuppapally, ACCOUNTING FOR MANAGERS, PHI, Delhi, 2010.
2. Paresh shah, BASIC ACCOUNTING FOR MANAGERS, Oxford, Delhi, 2007
3. Ambrish Gupta, FINANCIAL ACCOUNTING FOR MANAGEMENT, Pearson, Delhi, 2004
4. Fundamentals of FM: Brigham and Houston
5. Fundamentals of FM: James C Horne
6. Principles of Managerial Finance: Gitman
7. Financial Management: I.M. Pandey
8. Financial Management: Khan and Jain.
9. Financial Management: Prasanna Chandra
10. Cases in FM: I.M. Pandey and Ramesh Bhat
11. Accounts for managers- B.S. Raman

## **MANAGERIAL AND HEALTH ECONOMICS**

### **Module 1- Introduction to economics**

Introduction to economics, definition, scope, basic assumptions, economic analysis-micro, macro, positive and normative, short run, long run, equilibrium-partial, general, basic questions of economics, economic model-circular flow of economics, PPS curve. Introduction to managerial economics, relatedness to managerial function.

### **Module 2- Introduction to health economics**

Health economics- introduction, area of health economics, importance of health economics, scope, concept of health and health characteristics, need of health economics, uniqueness of health as goods and service, health and economic development, causes of health problems in India, economics evaluation methods-cost benefit, cost minimization, cost utility analysis.

### **Module 3- Analysis of demand and supply**

Introduction to demand, law of demand, demand in health care, elasticity in demand for health care, determinants of health care demand.

Supply in health, law of supply, determinants of supply, elasticity of supply, relation of demand and supply.

### **Module 4- Markets in health**

Study of different markets, features of markets, price and output determinants of perfect competition, imperfect, monopoly, oligopoly, duopoly, cost in health economics,

### **Module 5-Healthcare financing, insurance**

Health care financing-health insurance, types of insurance, IRDA, TPA in health insurance, alternative financing in health care.

### **References:**

1. Charles L.Schyltze: National Income Analysis.
2. Misra and Puri – Economic Environment of Business.
3. Health Economics- WHO Public Paper
4. Health Economics-NA Cooper & AJ Cuyler.



# ORGANISATIONAL BEHAVIOUR

## MODULE 1

### **Organizational Behaviour:**

Definition, Meaning, Importance, Nature, Scope, Elements of Organizational Behaviour, Approaches to OB, Multidisciplinary Nature of OB and OB Models. Study of OB at individual level, Group level and Organizational level

## MODULE 2

### **Individual level behaviour:**

- Attitudes and values
- **Personality** – Introduction, Features, Determinants of Personality, Theories of Personality: Type, Trait, Psychoanalytical, and Social Learning Theory.
- **Learning** – Meaning, learning theories – Classical conditioning, Operant conditioning, Cognitive Theory and Social learning theory.
- **Motivation** – Nature, Importance, Theories of Motivation – Maslow's Hierarchy of Needs theory, Douglas McGregor Theory X and Theory Y, Ouchie's Theory Z, Herzberg's Two Factor Theory, Vrooms expectancy Theory

**Case Study/ Journal discussion on individual personality and motivational needs**

## MODULE 3

### **Group level behaviour 1:**

- **Teams and Teamwork** – Introduction, Types of Teams, Team building, Working Teams and team effectiveness.
- **Group** – Meaning, Differences between Groups and Teams, Types of Groups, Stages of Group Development. **Leadership** – Meaning, Importance, Functions, Leadership styles, Theories of Leadership - The Managerial Grid, Trait theory. Transactional vs. Transformational Leaders, Likert's system 4 Management. Leadership in VUCA Business World

**Journal discussion on effective leadership for successful organizations**

## MODULE 4

### **Group level behaviour 2:**

- **Power and Politics** – Introduction, Sources of Power, Organizational politics, Reasons and Managing Political Behaviour.
- **Conflict** – Meaning, Types (Individual, Group and Organisation), Conflict resolution styles and Conflict management strategies.

**Case study: Role of organizational power in conflict management**

## MODULE 5

### **The Organization System:**

- **Organizational culture:** Meaning and definition of organizational culture, managing work force diversity.
- **Organizational Change & Stress Management:** Definition of organizational change, Change Vs transformation, causes of organizational change, consequences of change, resistance to change. Potential sources of organizational stress, consequences of stress and stress management

**Case Study: Employee stress management and its impact on organizational productivity.**

## **MANAGERIAL COMMUNICATION**

**Course outcomes:** After completion of the course, the student will be able to-

1. Understand the importance of communication and develop communication skills for effective business correspondence.
2. Demonstrate competencies in verbal communication through effective oral, written communication and design and deliver presentations in a business environment.
3. Demonstrate abilities to do presentations with effective use of non-verbal communication skills.
4. Develop good listening skills and confidence in facing interviews.
5. Planning and arranging for meetings in the business environment.

### **Module 1**

Communication- definition, process, methods, importance, effective communication (7Cs), theories, models of communication, barriers to communication.

### **Module 2**

Types of communication- verbal and nonverbal communication

Oral-presentation skills, power point presentation, speech making, debate, group discussion.

Written-essay writing, reports, letters, memos, notices, circulars, e-mail communication, press release.

### **Module 3**

Nonverbal- body language-Kinesics, gestures, facial expression, haptics, chromatics, semantics, etiquette-importance, types, importance, skills required.

### **Module 4**

Listening-definition, difference between listening and hearing, skills, importance; persuasion-definition, styles, skills; negotiation-definition, styles, importance, skills; Interview-types, interview skills.

### **Module 5**

Meeting-types of meeting, planning, Arranging, conducting; Agenda-meaning, types, how to prepare agenda; Minutes-meaning, types, skills for writing minutes.

### **Reference books:**

1. 'Contemporary Business Communication' 5th Edition by Scott Ober-Biztatra
2. 'Basic Business Communication' 10th Edition by Lesikar & Flatley TMH Publication.
3. 'Business Communication' 3rd Edition by Mary Ellen Guffey Thomson Publication.
4. 'Foundation of the Business Communication' by Dona. J. young-Tata McGraw Hill TMH Publication.
5. 'Business Communication' by Meenakshi, Raman Prakash Singh.
6. Reference: Business Communication today by Bovee thill schatzmans Pearson Education.

## Second Semester Syllabus

Sl.No.	Course	No. of Hrs/week	Lectures Hrs/week	Practical Hrs/week	Credit Points
1	Human Resource Management	4	4	-	4
2	Strategic Management	4	4	-	4
3	Total Quality Management	4	4	-	4
4	Financial Management	4	4	-	4
5	Business Statistics & Research Methodology	4	3	1	4
6	Management Information System	4	3	1	3
7	Hospital Posting	8	-	8	2
8	Summer Internship*	-	-	-	2*
	<b>Total</b>	<b>32</b>	<b>22</b>	<b>10</b>	<b>27</b>

\*Summer Internship - Swacch Bharath Abhiyan/NSS/Any other extension/co-curricular activities= 2 credits

## **HUMAN RESOURCE MANAGEMENT**

### **COURSE OBJECTIVES:**

This course intends to teach students about human resource management and equip them with knowledge, skills, and competencies to effectively manage people in an organization.

### **SPECIFIC OBJECTIVES:**

This course intends to teach students-

1. The importance of and effective management of human resource in an organization
2. Understand the role of human resource in strategic planning
3. Understand the legal implications in human resource management
4. Current trends in recruitment and selection of employees
5. Understand compensation, appraisal, rewards, and employee benefits
6. Training and development methods and need for HR audit.

**Course outcomes:** At the end of the course the students should be able to:

1. Demonstrate understanding of the scope and functions of human resource management.
2. Identify the human resources needs of an organization and do a job analysis with suitable job description and job specification.
3. Ability to conduct recruitment and selection of candidates and design training modules based on the need.
4. Design appropriate appraisal method for evaluation of employee performance
5. Understand important labour laws as applicable and employee welfare measures.

### **MODULE 1**

Nature, Scope, objectives, Importance, Strategic HRM, Personnel Management, Functions of HRM, Principles of HRM, Differences between HRM and Personnel Management, Trends in Workforce, managing diversity, challenges in Managing a diverse workforce. HR in Healthcare organizations, Human relations in healthcare services

### **MODULE 2**

Job Analysis- Uses, Process, Methods of collecting Job Analysis data. Job Description, Job Specification, Human Resource Planning- Features, Objectives, Importance, the process of HRP. Recruitment –Sources and methods of recruitment. New approaches to recruitment. Recruitment policies and procedures. Selection – Meaning, Process.

### **MODULE 3**

Placement, Induction, Internal mobility and separations– Placement, Induction/orientation, Transfer, Promotion, Demotion, Employee separations.  
Training and Development - Training vs. Development, Types of Training, Training methods, Evaluation of Training methods.

### **MODULE 4**

Performance and Potential Appraisal – The Performance Appraisal Process, Methods of Performance Appraisal and 360 Degree feedback system, Job evaluation – Meaning, Methods.  
Employee Grievances and Discipline, Collective bargaining-Types of Bargaining, The process of collective bargaining, Collective bargaining in India, Job stress, counseling and Mentoring. HR Audit in Healthcare services.

## **MODULE 5**

Labour laws – The Industrial dispute act 1947, Industrial Employment (Standing orders) Act 1946, Employees Provident funds Act 1952, Payment of wages Act 1936, Minimum wages act 1948, ESI Act 1948, Workmen Compensation Act 1923, The Trade Union Act 1926.

Labour Economics and Compensation Systems in Health Care, Wage Fixation – Employee incentives and Benefits – ESOPs – Role of Monetary and Non-monetary Benefits, Talent Acquisition, Retention and Management for Healthcare, Employer Employee relations, Emerging trends in HRM in healthcare.

### **References:**

1. Human Resource Management – text and cases VSP Rao 3<sup>rd</sup> edition
2. Human Resource Management – Aswathappa.K
3. HRM case studies- Aswathappa.K
4. Dessler, Human Resource Management
5. Human Resource Management-V.S. Subba Rao.
6. HRM concepts & cases- Chhabra TN
7. HR in hospital management- Thomas Erickson
8. HRM in hospitals- Laws, issues & solutions- D Samuel Abraham
9. Personnel and HRM- texts & cases- P Subba Rao.

## STRATEGIC MANAGEMENT

### COURSE OBJECTIVES

The objective of this course is to help the students understand and explore the concepts of strategies in the form of identification, prioritization, and exploration of opportunities, in the environment.

### SPECIFIC OBJECTIVES

Specific learning objectives for this course are as follows:

1. It helps in identifying the problems in the surrounding environment.
2. It helps in identifying the various factors within the organization in terms of strength and challenges.
3. It helps the organization to carry out the matter of greatest importance first, by seizing the opportunity that lie in the environment.
4. It helps in adequate decision making in the organization and in the demonstrating the responsibility towards the society.

### LEARNING OUTCOMES

After the completion of the course, students will demonstrate the ability to:

1. Preparation for challenges faced by the organization with the understanding of the environment and the internal factors that regulate the organization.
2. It helps to understand the various resources in the organization and helps them to improve the resource allocation towards the necessary activities.
3. Identify various critical components for better programming of the services in the organizations.
4. Articulate the functional requirements of the hospital and helps in identifying and securing more funds for the organizational growth.

### MODULE 1

**Introduction** - Basic concepts of strategic management; concept of strategy; Business vision, Mission and Objectives. Environment Analysis: External and Internal environment components  
External Analysis: Macro Environment, Operating Environment, Industry Analysis. Competitive Analysis: Michael Porter's Analysis Internal Analysis: SWOT Analysis, Value Chain Analysis (VCA). Core Competence: character of core competencies, Relationship between Core Competence & competitive Advantages.

### MODULE 2

**Strategy Formulation** - Developing Alternative Strategies: Strategic Alternatives, Ansoff's Matrix/ Market grid. Strategic Analysis: Portfolio analysis – BCG Portfolio Matrix, GE Multifactor Portfolio Matrix. Corporate Level strategy: Establishing a competency agenda, Pursuing growth through concentration strategies by market penetration their risks and benefits. Growth through product or market development, Horizontal and Vertical Integration strategies. Key drivers for company to diversify. Understand differences in related diversification & unrelated diversification. Competing in foreign markets, various modes of entry benefits and drawbacks, Entry through new startups, Strategic alliances & acquisition. Global Strategies, key drivers for changes in the global strategies. Strategic alliances in the health care industry. Healthcare industry and competitive analysis. Business Level Strategies: Development of concepts for competitive positioning, Cost leadership/ Differentiation/Focus/Broad differentiation strategies & how firms strive to achieve with benefits and drawbacks of each generic strategy. If strategies were generic, then how and why does each firm within industry pursue varying strategies. Strategies

in High Technology Industry. Value creation frontier -a desire for firm to be different and competitive. Global Strategy: Global expansion strategies.

### **MODULE 3**

**Strategy Implementation:** Nature of Strategy Implementation, Linkages between Formulation and Implementation, Importance of strategy Implementation, Mc Kinsey 's 7-S Model, Major Issues in Strategy Implementation. Strategic leadership – Analysing leadership, Role of strategic leader, leaders' tasks, leadership approaches and Competitive advantage.

### **MODULE 4**

**Strategy Evaluation and Control:** Nature of evaluation & control, Characteristic of effective Evaluation, Importance of Strategic Evaluation & control, Strategic controls.

### **MODULE 5**

- Corporate Social Responsibilities
- Social Audit
- Corporate Governance

### **References**

1. Business Policy, 2nd Ed. - Azhar Kazmi
2. Strategic Management, 12th Ed. - Concepts and Cases - Arthur A. Thompson Jr. and A.J. Strickland
3. Management Policy and Strategic Management (Concepts, Skills, and Practices) - R.M. Shrivastava
4. Business Policy and Strategic Management - P. Subba Rao
5. Strategic Management – Pearce
6. Strategy & Business Landscape - Pankaj Ghemawat

## **TOTAL QUALITY MANAGEMENT**

### **COURSE OBJECTIVES:**

The objective of this course is to provide students with a better understanding of the underlying concepts, emphasizing Quality, understanding needs, wants, demands and promotion of products and services, as managers and administrators.

### **SPECIFIC OBJECTIVES:**

To learn the basic concepts of quality and quality from an organizational point of view.  
To learn about the Quality Gurus and their Contribution to Total Quality Management  
To Learn about the Statistical Quality Control Tool, Six Sigma, and their applications  
To Learn about the Concepts of Benchmarking and its Importance in Organization  
To learn the internal politics, quality culture, education, and training of the organization.

### **LEARNING OUTCOMES:**

Upon successful completion of the module students will be able to:

1. Develop an understanding on quality management philosophies and frameworks
2. Develop in-depth knowledge on various tools and techniques of quality management
3. Learn the applications of quality tools and techniques in both manufacturing and service industry.

### **MODULE 1**

**Quality** – Introduction, definition, importance, cost of quality, the evolution of Total Quality Management, Philosophy of TQM Customer focus, employee empowerment, Leadership – Concepts, Quality Gurus and their contribution-1 (Walter A. Shewhart, W. Edwards Deming, Joseph M. Juran).

### **MODULE 2**

**Quality:** Quality Gurus and their contributions -2 (Armand V. Feigenbaum, Philip B. Crosby, Kaoru Ishikawa and Genichi Taguchi). Customer Perception and Satisfaction, Customer Complaints, Service Quality, Customer Retention, Continuous Process Improvement Juran Trilogy, PDCA Cycle, 5S, Kaizen, Quality awards and standards - The Malcolm Baldrige National Quality Award (MBNQA), The Deming Prize, ISO 9000 Standards, ISO 14000 Standards.

### **MODULE 3**

TQM tools and their implementation – check sheets, scatter diagrams, cause-and-effect diagrams, pareto charts, flowcharts, histograms. Statistical Quality Control (SQC) - importance, categories of SQC – descriptive statistics, statistical process control, and acceptance sampling (only theory and in brief). Supplier Partnership – Partnering, sourcing, Supplier Selection, Supplier Rating, Six sigma – importance and applications to manager and organization.

### **MODULE 4**

Benchmarking – introduction, process and types, House of Quality – concept and importance. Just-In-Time (JIT) - philosophy of JIT (Eliminate Waste, A Broad View of Operations, Simplicity, Continuous Improvement, Visibility and Flexibility), three elements of JIT (JIT manufacturing, TQM and Respect for people).



## **MODULE 5**

Warehousing: Meaning and need for warehousing, Types of warehouses, Characteristics of an ideal warehouse, Functions of warehousing, Advantages of warehousing Supply Chain Management - meaning, components, bullwhip effect, supply chain for service organisations and major issues affecting supply chain management. Quality and Competitiveness in Business, Zero Defects, Role of Leadership and Commitment in Quality Deployment Quality and Ethics Internal Politics and Total Quality Management, Quality Culture, Education and Training.

### **Textbooks:**

1. Dale H. Besterfield, et al., "Total quality Management", Pearson Education Asia, Third Edition, Indian Reprint 2006.
2. James R. Evans and William M. Lindsay, "The Management and Control of Quality", 8th Edition, First Indian Edition, Cengage Learning, 2012.
3. Oakland J.S, Total Quality Management, Butterworth-Heinemann Ltd, Oxford 1989

### **Reference Books:**

1. Narayana V & Sreenivasan, N.S. Quality Management-Concepts and Tasks New age International 1996
2. Zeiri, Total Quality Management for Engineers, Wood Head Publishers
3. TQM in Health Care-Huch CH Koch.

## FINANCIAL MANAGEMENT

### COURSE OBJECTIVE

This course helps the students with an understanding of the tools, techniques, and frameworks commonly used as part of market and industry assessments and engagements involving the substantial operational and organisational analysis. It also highlights the principles of financial analytical tools used to conduct strategic analysis and indicates the link between corporate strategy and performance through measurement frameworks used frequently to provide decision making information to management when required.

### SPECIFIC OBJECTIVES

1. The management tools and techniques used to design and manage successful organizations
2. core financial accounting and control principles
3. the work of management accounting, incorporating budget preparation and budget appraisal
4. ethical principles and principles of priorities

### LEARNING OUTCOMES

1. Acquire knowledge about general aspects of business operations.
2. Describe the role of an accounting information system and its limitations.
3. Explain the concepts and procedures of financial reporting, including income statement, statement of retained earnings, balance sheet, and statement of cash flows.
4. Identify the basic economic events most common in business operations and be able to report the events in a generally accepted manner, including the impacts of alternative accounting methods on financial statements.
5. Tabulate the income tax slabs and understand the dynamic income tax discipline guidelines.
6. Locate and analyze financial data from annual reports of corporation
7. Communicate financial findings and results in an unbiased manner to a non-technical audience such as decision makers, stakeholders, and the general public.

### MODULE 1

**Introduction to financial management-** objectives of financial management, function of financial management, financial planning concept, roles of financial management in organization. Capital Budgeting – Nature of Investment Decisions – Investment Evaluation criteria – Net Present Value (NPV), Internal Rate of Return (IRR), Profitability Index (PI), Payback Period, Accounting Rate of Return (ARR) – NPV and IRR comparison, sources of funds-short term and long-term financing-shares, debentures and bonds, venture capital and other modes of financing.

### MODULE 2

**Cost accounting** - Introduction to cost accounting, objectives, importance of costing, difference between cost and financial accounting, types of cost, types of costing system, preparation of cost sheet and allocation and Apportionment problems, Marginal Costing versus Absorption, concept of standard costing and activity-based costing and its application.

### MODULE 3

**Marginal costing** - Marginal cost and Marginal costing - Importance - Break-even Analysis - Cost Volume Profit Relationship – Application of Marginal Costing Techniques, Fixing Selling Price, Make or Buy, Managerial Applications of Marginal Costing.

#### **MODULE 4**

**Budget** - Concept of Budget, Budgeting and Budgetary Control, Types of Budgets and their preparation and Advantages and Limitations of Budgetary Control. Preparation of Flexible budgets– simple Problems – Theoretical concept of Zero-Base Budgeting.

#### **MODULE 5**

**Taxation System** - Income tax act, direct and indirect taxes in India, important concepts of income tax structure in India, introduction to goods and service tax, computation of income from various head (problems).

#### **References:**

1. Cost and Financial Accounting: Khan and Jain
2. Cost and Financial Accounting: I.M. Pandey
3. Cost Accounting-Ravi Kishore, Taxman Publications
4. Management Accounting-IM Pandey.

## **BUSINESS STATISTICS AND RESEARCH METHODOLOGY**

### **COURSE OBJECTIVES:**

The objective of this course is to provide an understanding of statistical concepts and research methodologies that is helpful in healthcare research.

### **SPECIFIC OBJECTIVES:**

- Explain basic statistical concepts such as statistical collection, species characteristics, statistical series, tabular and graphical representation of data, measures of central tendency, dispersion and asymmetry, correlation and regression analysis, probabilities
- Apply knowledge to solve simple tasks in healthcare systems
- Independently calculate basic statistical parameters (mean, measures of dispersion, correlation coefficient)
- Based on the acquired knowledge to interpret the meaning of the calculated statistical indicators
- Choose a statistical method for solving practical problems
- Apply conceptual framework of research methodologies in practical setup.

### **LEARNING OUTCOMES:**

Upon completion of this course the student will be able to carry out research in healthcare field using statistical methodologies.

### **MODULE 1**

Introduction to concept of statistics, its uses in business and health care, types of statistics, significance of statistics and scope in hospital administration, vital statistics-nature, scope, concept, problems in collecting vital statistics, sources and need of vital statistics in hospital administration.

### **MODULE 2**

Introduction to data, types, importance of data, errors in collecting data, methods of collecting various data, presentation of data, tabular presentation, graphical presentation.

### **MODULE 3**

Measure of central tendency, Measure of dispersion, Probability and Probability Distribution Uses and application in managerial decision making. Simple problems.

### **MODULE 4**

Correlation - Types of correlation problems on correlation. Multiple correlations. Simple problems.

Regression Analysis – Karl Pearson's Coefficient, Rank Correlation, Spearman's Correlation. Regression Equation, Regression Coefficient. Uses and application in managerial decision making. Simple problems.

### **MODULE 5**

Research Methodology

Meaning, objectives, Motivation, Types of Research, and Steps involved in a Research Design, special emphasis on questionnaire and designing questionnaire for health care research, Types of Errors affecting Research Design, Analytical Research, Research approaches, Significance of Research, Research methods versus Methodology, Research Process and Criteria of good Research, Hypothesis.

**Reference:**

1. Business Statistics- K.P Gupta and M.P Gupta
2. Statistics for Management- Levin Rubin
3. Research Methodology- Methods and Techniques- C R Kothari

## **MANAGEMENT INFORMATION SYSTEMS**

### **COURSE OBJECTIVE**

The objective of this course is to introduce the students to the Management Information Systems and its application in organizations. The course would expose the students to various classifications of information systems and help them identify their unique role various business solutions. Also gives them an understanding of various computer networks and using MS-Word, Excel, and Power point applications.

### **SPECIFIC OBJECTIVES**

- To provide knowledge on classification of information systems and health informatics
- To develop skills in identifying the information system according to business needs
- To develop an interest to appreciate and develop a positive attitude toward the many aspects of the course content.

### **LEARNING OUTCOMES**

After the completion of the course, students will demonstrate the ability to

- Describe the role of information technology and information systems in business
- Basic knowledge of concepts and terminology related to information technology
- Interpret how to use information technology to solve business problems
- Articulate the fundamental principles of information systems, analysis and design
- Identify various applications of Hospital Information System (HIS) and their functionality
- Hands on experience on using MS-Word, Excel and Power point applications.

### **MODULE 1**

Information system – Definition of information system, Evolution of information systems, Classification of information systems and overview on- Operation support systems: TPS, Process control systems, Enterprise collaboration systems, Management support systems: MIS, DSS, EIS/ESS, Specialized information systems: Expert systems, Knowledge management systems, Strategic information systems and Functional business systems. Case Studies: Information needs at various levels of management.

### **MODULE 2**

Health Informatics - Definition of Health Informatics, various disciplines of health informatics, information management in healthcare

Concepts of Database management systems – DBMS

Electronic medical record – Definition, Need for EMR, Advantages of paperless data, Role of EMR in health information, functions, and features of EMR, Evolution and Historical Perspective, Information management in an electronic environment, Costs and Benefits of the EMR.

### **MODULE 3**

Computer Networking & Topologies: Types of networks, Topologies- LAN, WAN and MAN, Intranets and Wireless Networks, Systems Development Life Cycle (SDLC), Systems Planning, Systems Analysis, Systems Design, Systems Implementation, and Systems Operation and Support

Security management in information systems: Security challenges, privacy issues, information security measures, Disaster Management and data backup's, Computer Crimes, Information security acts - Health Insurance Portability and Accountability Act( HIPPA), [Information Technology Act 2000](#), National Cyber Security Policy 2013, Digital Information Security in

Healthcare Act (DISHA).

Case studies: Significance of Information security in hospitals

#### **MODULE 4**

Hospital Information System - Hospital communication and information system, Computer applications in hospital environment, Application modules of hospital – Registration, Accident & Emergency, OPD services, In-patient ward management and bed distribution, Billing, Operation theatres, Diagnostic services, Dietary services, Drug stores, medical records department, Material management services, Payroll services, information network in hospital system.

Various reports through HIS- OPD management, IP care, medical records department, Human resources department, Nursing services, Central support services, Pharmacy and drug stores.

#### **MODULE 5 (Practical)**

##### **MS-Office:**

##### **MS-Word**

- Create a new document.
- Open, save and print a document.
- Edit and format text.
- Change the page layout, background and borders.
- Insert headers and footers.
- Insert and edit tables.
- Insert clip art and pictures to documents.
- Perform a mail merge.

##### **MS- Excel**

- Examine spreadsheet concepts and explore the Microsoft Office Excel environment.
- Create, open and view a workbook.
- Save and print workbooks.
- Enter and edit data.
- Modify a worksheet and workbook.
- Learn to use functions
- Create and edit charts and graphics.
- Filter and sort table data.
- Work with pivot tables and charts.

##### **MS- Power point**

- Examine slide show presentation concepts and explore the Microsoft Office PowerPoint environment.
- Create a new presentation.
- Modify presentation themes.
- Add and edit text to slides.
- Add new slides to a presentation.
- Insert clipart images and shapes to slides.
- Insert and modify tables and charts.
- Insert and edit animations and slide transitions.

**References:**

1. Management Information Systems, James O'Brien, Special Indian Edition, Tata McGraw Hill
2. Management Information Systems, Laudon & Laudon, Pearson Publications
3. Management Information Systems, P. Mohan, Himalaya Publications
4. Database Management Systems, Raghu Ramakrishnan, Mc Graw Hill Publications



## HOSPITAL PLANNING, DESIGNING AND CORE SERVICES

### COURSE OBJECTIVE:

The objectives of this course are to provide an overview of the planning aspects of the hospital with an understanding of the planning of the patient care areas of the hospital. It would also enhance the understanding of the students on the role of hospitals in providing adequate patient care needs and the environment of the hospital.

### SPECIFIC OBJECTIVES:

Specific learning objectives for this course are as follows:

- To provide adequate understanding on the factors that are to be considered for the construction and functioning of hospital.
- Better understanding of the environment that influences patient care in critical areas.
- To learn about various specifications to be considered while planning for hospital services
- Role of administrators in the smooth delivery of patient care.

### LEARNING OUTCOMES:

After the completion of the course, students will demonstrate the ability to

- Identify various critical components in planning of the hospital.
- Describe the role of hospital environment in delivering quality patient care
- Identify planning and designing considerations while planning for services
- Articulate the functional requirements of the hospital in delivery of patient care
- Role of administrators in the smooth functioning of the hospital.

#### Module 1:

Hospital Definition; History of Hospitals; Classification of Hospitals; Role of Hospital in Healthcare; hospitals in India today – hospital as a system: Role, functions, and skills of Hospital Administrator in today's healthcare; Regionalization of Healthcare; Planning for site selection, planning for architecture, interiors and graphics, Construction and commissioning of electrical safety, Factors influencing hospital utilization and hospital statistics.

#### MODULE 2 :

**Hospital Planning** - Hospital Organisation –Governing Board –role and future architects' role and future planning, architects brief, Process of Hospital Planning, Hospital Design – Guiding Principles in Planning and Designing –Long range plans and facility master plan– circulation pattern planning of different types of hospitals –Operations and future planning – Equipment planning –Operations Planning- Hospital Building - Space requirements –Hospital project management. Hospitals for tomorrow.

#### MODULE 3 :

OPD (Outpatient Department), OT (Operation Theatre), IP (In –Patient Department), Emergency services, Critical Care Services, Intensive Care Unit, NICU

#### MODULE 4:

Radiology Services and –Radiation Protection Certification from BARC – AERB Rules, Laboratory services, Blood Bank & transfusion services, Tele-Medicine, Facilities for disabled, Day Care Services, Medical tourism

**MODULE 5**

Medical Gases, Heating Ventilation and Air Conditioning, Lighting in Hospitals, Signage's.

**NOTE: PLANNING FOR DEPARTMENTS INCLUDE:**

Introduction, Functions, Layout, workflow Planning Considerations and Designing Concepts, interrelationships with other departments, organogram and staffing, Equipment, Policies and Procedures and Managerial Issues.

## HOSPITAL OPERATIONS MANAGEMENT

### COURSE OBJECTIVE:

The objectives of this course are to provide students with a better understanding of the concepts, strategies and the issues involved in the day-to-day functioning of the hospital as managers and administrators.

### SPECIFIC OBJECTIVES:

- To develop knowledge and understanding of key theories, concepts, and models in the routine operations of the hospital
- To develop the skills to critically analyse the requirements of the hospital in terms of equipment, inventories as well as personnel in the various areas of the hospital.

### LEARNING OUTCOMES:

After the completion of the course, students will demonstrate the ability to

- Understand the role and functions of operations within the organisation.
- Analyzing the key concepts, theories, and techniques for the adequate functioning of the hospital.
- Identify and demonstrate the dynamic nature of the environment in which the organization is functioning and the implications of it the competitive market.
- Applying the conceptual frameworks, theory and techniques to various inventory management aspects in the hospital.
- Evaluate the relevance of the equipment and the inventories in the critical functioning of the hospital.

#### MODULE 1:

Overview and definition of operations management, classification of operations, responsibilities of operations managers at Hospitals.

Nature & concept of ware housing, facility location and layout, importance of location, factors, general steps in location and selection decision process, types of layouts, product, process, service facility layout.

**Logistics management:** Definition, Goals and Objectives of Logistics Management, Principles in Logistics Management, Functions of Logistics Management, Purchase Activities, Types of Purchases, Negotiations in purchase, Legal Aspects of Purchasing, Materials Accounting and Physical Distribution Logistics, Transportation System.

#### MODULE 2:

Introduction to material management & stores management: definition, basic scope, and importance of Materials Management – Materials Planning, recent trends in hospital stores management. Procurement Procedure- Registration of firms – Tender System – Vendor analysis -Purchasing & Purchase Cycle, functions of purchase department, Committee: Purchase, selection, and Audit – Receipt & Inspection of Stores – Asset Accounting. Stock outs of Hospital stores, pilferage, preservation of stores – Stores documentation, Security of Stores, Types of Hospital Stores– Role of computers in stores management – stock verification

#### MODULE 3:

Inventory control: meaning, scope & definition, Aims and Objectives of Inventory Control, Classification of Inventory, Functions of Inventory Control and Criteria of Inventory Control, Inventory control techniques – EOQ, safety stock, Lead Time, all MBASIC Techniques, ABC analysis, VED Analysis- Distribution, codification & classification – standardization and simplification & variety reduction – Quality Control – Value Analysis, perpetual inventory system

**MODULE 4:**

Hospital equipment planning and selection – Steps for Equipment Selection, Hospital Equipment Utilisation, purchasing capital equipment – feasibility study – import of goods and equipment's- documentation & clearance – letter of credit – hospital equipment repair and maintenance, calibration tests, maintenance features, Hospital maintenance items, spare parts stocking techniques and policies, Condemnation & Disposal, Condemning board.

**MODULE 5**

Productivity and work study: method study, work measurement, work sampling and their applications. Supply Chain Management (SCM): Concept of SCM, components, hospital supply chain management

## **EPIDEMIOLOGY**

### **COURSE OBJECTIVES**

To help students understand epidemiologic terminology, basic concepts, measurements of health and disease, demographics, health programmes and health policy and the use of this knowledge in healthcare administration.

### **SPECIFIC OBJECTIVES:**

This course intends to teach students-

1. The basic terminologies in epidemiology, health and disease
2. Basic concepts of health and disease, factors affecting health and disease.
3. Different types of epidemiological studies
4. Knowledge about population, its significance in healthcare administration
5. Knowledge about national health programmes, population policy and role of health care administrators in implementation of these policies.

### **LEARNING OUTCOMES:**

At the end of the course the student is expected to-

1. Understand basic concepts of epidemiology and epidemiological study methods.
2. Develop understanding of communicable and noncommunicable diseases and challenges in management of diseases and investigation of an epidemic outbreak.
3. Analyze the demographic differences across nations and challenges in healthcare administration.
4. Understand the national health programmes and challenges in implementing the same.
5. Develop effective health education methods to address the needs of the diverse population.

### **Module 1**

Health, concepts of health, indicators of health  
Epidemiology-definition, determinants, importance, Epidemiological triad,  
Natural History of disease, levels of prevention, ICD, Methods of Epidemiological studies

### **Module 2**

Epidemiology of communicable & non-communicable diseases, disease transmission, cold chain, immunization, disease monitoring and surveillance. Screening and surveys, Investigation of an epidemic and role of hospital in its control.

### **Module 3**

Demography  
National Health Policy, National Population Policy.

### **Module 4**

Health Committees, National Five-year plans, National Health Programmes.

### **Module 5**

Health education-Aims & Principles of Health education, Methods of Health Education, Occupational health, mental health, geriatric health.

## HOSPITAL SUPPORT SERVICES

### COURSE OBJECTIVE:

The objective of this course is to provide an overview of various support services and utility services of the hospital. The course would also expose the students on the role of hospital support and utility services in providing quality patient care.

### SPECIFIC OBJECTIVES:

Specific learning objectives for this course are as follows:

- To provide knowledge on various support and utility services of hospital
- To learn how hospital support and utility services influence patient care
- To learn about various planning considerations and engineering specifications to be considered while planning for hospital services.

### LEARNING OUTCOMES:

After the completion of the course, students will demonstrate the ability to

- Identify various support and utility services of the hospital.
- Describe the role of support and utility services in delivering quality patient care.
- Identify planning and designing considerations while planning for services.
- Articulate the functional requirements of individual departments.

#### Module1:

Principles and methods of organizing clinical and support services for hospitals, role of support services in hospital functioning.

Administrative departments:

- Finance
- Marketing & PR
- Stores and Purchase department
- Bio-medical engineering
- Human resources
- Information technology

#### MODULE 2

- Nursing services: meaning, objectives, nursing services administration, duties and responsibilities of nursing officers, nursing byelaws, rules, policies and procedures. Department-wise functional nursing component in a hospital.
- Medical Records Department

**Case studies and journal discussion on significance of nursing staff in hospital, clinical and legal importance of medical record services**

#### Module3:

- Pharmacy
- Central Sterile Supply Department (CSSD),
- Hospital laundry services
- Hospital housekeeping services

#### Module 4:

- Physical Medicine and Rehabilitation and Physiotherapy
- Ambulance Service
- Hospital Security department
- Mortuary Services

In house facilities and outsourcing of hospital services

**Module 5:**

Pediatrics, OBG, ENT, Ophthalmology, Orthopaedics, Cardiology, Nephrology, Neurology, Dental, Dialysis, Geriatric Unit

**NOTE:**

**Introduction, functions, layout, workflow, planning considerations and designing concepts, interrelationships with other departments, organogram, and staffing, equipment, policies, procedures and managerial issues.**

## OPERATIONS RESEARCH AND PROJECT MANAGEMENT

### COURSE OBJECTIVE:

The objective of this course is to introduce the students to the Operations research techniques and the importance of research for an Organisations' growth and its application in organizations.

### SPECIFIC OBJECTIVES:

- Identify and develop operational research models from the verbal description of the real system.
- Understand the mathematical tools that are needed to solve optimization problems.
- Research components summarize what is to be achieved by the study and the relation of the objectives to the research problem, in order to help the managers in facilitation of decision making.

### LEARNING OUTCOMES:

- Students will have the skills to build their own formulations, to expand existing formulations, to critically evaluate the impact of model assumptions and to choose an appropriate solution technique for a given formulation.
- Students will know why organizational research is undertaken, and the audiences that profit from research studies.
- Students should be able to identify the overall process of designing a research study from its inception to its report.

#### MODULE 1

An overview and significance, features, definitions, scope, phases, methodology, applications, and scope of operations research.

**LPP** – advantages, disadvantages, formulation of LPP solution using Graphic solution method problems limited to two constraints (maximisation and minimisation).

#### MODULE 2

**Transportation Problem** - finding IBFS by North-West Corner Rule, Vogel's Approximation Method, Least Cost Method and MODI method (Basic problems) – balanced, unbalanced, minimisation and maximisation problems.

**Assignment Problem** – Finding optimal solution by Hungarian Method (Unbalanced, Maximization and Minimisation problems).

#### MODULE 3

**Job Sequencing** - Processing 'n' jobs through 2 machines and 3 machines problem solving using Johnson method.

#### MODULE 4

**Queuing theory** – Introduction, features of a queuing system, terminologies of queuing system, empirical queuing models (simple problems). Single server model.

#### MODULE 5

**Project Management** – definition, characteristics, objectives, importance and objectives.

**Project Scheduling with CPM – PERT.**

CPM - The concepts of critical path and critical activities, location of the critical path, evaluation of the project completion time.

PERT – concept, estimates of the time of an activity, determination of critical path, probability estimates.



## **ELECTIVES (2 CREDITS)**

### **BASICS OF HEALTH SCIENCES**

**Course Objective:** The Objective of the Course is to expose the learner to the basic concepts of clinical, Diagnostic and Therapeutic services for an efficient and effective Administration of Hospitals.

**Specific Objectives:**

1. To understand the basic medical terminologies
2. To understand the different organ systems in the human body
3. To understand the different terminologies used frequently in diagnosis, test and treatment plan of patients.

**Learning outcomes:**

At the end of the course, the learner will be able to-

1. Knowledge of basic anatomy of the human body and its structure
2. Apply the knowledge in understanding the various medical terminologies
3. To use the knowledge in the functioning of the hospital

**UNIT-1:**

Body structure and organisations, directional terms, planes, and regions, combining forms

**UNIT-2:** Medical Terminologies.

Speciality-wise terminology – Pathology terms of Common Use – Clinical, diagnostic, and therapeutic terms

**UNIT-3:**

**Blood:** Composition and functions of blood,

**Nerves:** Classification and functions of nerves.

**Nervous System:** Organization of CNS: - Central and peripheral nervous system. Functions of nervous system. Structure and functions of brain, spinal cord & CSF.

**UNIT-4:**

**Respiratory System:** Functions of respiratory system, Mechanics of breathing, Tracheo-bronchial tree, alveolus, Disorders of Respiration (Dyspnea. Orthopnea, Hyperpnea, hyperventilation, apnea, tachypnea.)

**Digestive System:** Functions of salivary glands, esophagus, stomach, liver, pancreas, intestines,

**Renal system:** Functions of kidneys, Mechanism of Urine Formation, Mechanism of glomerular filtration.

**UNIT-5: Endocrine System:** Major endocrine glands, Hormone: classification, mechanism of action. Functions of hormones.

**Special senses: Vision:** Functions of cornea, iris, pupil, aqueous humor, lens, vitreous humor, rods and cones.

**Auditory System:** Functions of external ear, middle ear, and inner ear.

**Taste:** Taste buds. Primary tastes.

**Smell:** Olfactory membrane. Olfactory pathway.

## BIOSTATISTICS

### Course objectives:

The objective of this course is to familiarize the learners about the importance of statistics, its use in health policy decisions and implementation.

### Specific Objectives:

1. To understand the concept of vital statistics, sources, and methods of collection of information.
2. To use the statistical methods in measurement of statistics
3. To understand the different sampling methods
4. To understand the concept of hypothesis, tests, to validate the results.

### Learning outcomes:

At the end of the course, the learner will be able to –

1. Have knowledge of biostatistics and its use in healthcare
2. Understand the compilation of information about vital statistics.
3. To apply the knowledge in health policy decisions
4. To apply the knowledge in hypothesis testing and its result interpretation for better decision making.

### Vital Statistics:

Introduction, definition, and uses of vital statistics. Sources of vital statistics, registration method and census method. Rates and ratios, Crude death rates, age specific death rate, standardized death rates, crude birth rate, age specific fertility rate, general fertility rate, total fertility rate. Measurement of population growth, crude rate of natural increase- Pearl's vital index. Gross reproductive rate and Net reproductive rate, Life tables, construction and uses of life tables and Abridged life tables.

### Distribution Patterns:

Concept of Random variables, Probability distribution, Theoretical Probability Distribution: Binomial, Poisson, Normal and Exponential Distributions, Baye's Theorem (No derivation). Problems on Binomial, Poisson, Normal distribution only. Skewness and Kurtosis (Theory and simple problems).

### Sampling:

Introduction, Population and Sample - Universe or Population - Types of Population – Sample, Advantages of Sampling, Terms Used in Sampling Theory, Errors in Statistics, Measures of Statistical Errors, Types of Sampling - Probability Sampling - Non-Probability Sampling, Determination of Sample Size, Central Limit Theorem.

### Hypothesis Testing:

Introduction, Meaning and types, Formulation and testing of hypothesis, Procedure of Hypothesis Testing Hypothesis Testing- one tailed test, two tailed test, tools of testing – Chi Square, Statement of conclusion.

### Analysis of Variance:

Introduction, Assumptions in analysis of Variance, Computation of analysis of variance, Assumptions for F-test - Objectives of ANOVA - ANOVA table - Assumptions for study of ANOVA, Classification of ANOVA - ANOVA table in one-way ANOVA – Two-way classifications.

## **MBAHA- IV Semester**

1. Safety and Risk Management
2. Medical Ethics and Law
3. Medical Insurance, Audits & Accreditations
4. Electives- Health Informatics/Public Health

## **SAFETY AND RISK MANAGEMENT**

### **COURSE OBJECTIVE:**

The objectives of this course are to provide students with an overview of various hazards within the hospital and how to manage them for the better functioning of the organisation. This would also expose the students in providing a safe environment for the employees as well patients and also ensure that the services of the organisation are delivered efficiently and effectively.

### **SPECIFIC OBJECTIVES:**

- Understanding the concepts and the issues that cause the hazards within the organization.
- Determining the practices in various situations of hazards and disaster in the organization and also its impact on the quality of performance of the employees and long-term successful practice of an organization.
- Apply and evaluate best practices for the attainment of quality services in the various areas of the hospital.

### **LEARNING OUTCOMES:**

- Know the principles of hazards management and peculiarities of their implementation
- Know prerequisites of the safety principles in management of modern organizations.
- Be able to use these principles and methods in analyzing and solving problems of organization.
- Choose a framework to evaluate the performance excellence of an organization and determine the set of performance indicators that will align people with the objectives of the organization.

## **SAFETY AND RISK MANAGEMENT**

### **MODULE 1**

**Hospital Hazards Management** - Meaning, Needs, Principles, Purpose, Impact on employees, Patients and Visitors; Preventive measures.

**Types of Hospital Hazards** - Physical, Biological, Mechanical, and Psychological Hazards.

**Hospital Related Infections** - Introduction, Common Hospital acquired infections and their causative agents, Prevention of hospital acquired infection, Mode of transmission, Interruption of transmission, Role of Housekeeping, Dietary, Linen and Laundry, Nursing care, central sterile supply department in control of Infections. Infection control committees, Monitoring and control of cross infections. Hospital infection control committee: role and function, Surveillance, Processing of information collected. High Risk procedures, training and education, Universal precautions.

### **MODULE 2**

**Biomedical Waste Management:** Meaning – Categories of biomedical wastes –Process of waste management. Disposal of biomedical waste products – Methods, Government Rules and regulations – Standards for Waste autoclaving, microwaving and deep burial. Agencies appointment for waste disposal.

Sewage wastes: Meaning, Composition, Objectives of sewage disposal, Decomposition of organic matter, Modern sewage treatment methods, Solid and Liquid wastes and their treatment.

### **MODULE 3**

**Disaster Plan** - Objectives, Basic concepts, Disaster classification, Process, Spectrum of disaster management, Special characteristics, Disaster Management in India - National level, State level. Principles of disaster planning, Health Problems associated with disaster, Organisation of Medical Relief, Principles of mass casualty management.

**Need for Hospital Disaster Plan** – Objectives and Purpose, Planning process and development of plan - Disaster committee- Organisation role and responsibilities- Organising disaster facilities - Disaster responses- Response - Alert and Recall - Deployment – Disaster Administration-Disaster manual - Disaster drill- Policies and Procedures for general safety. Various codes applicable in hospitals.

### **MODULE 4**

**Fire Hazards** - Elements of Fire-Fire Hazard Triangle-Causes of Hospital Fires-Fire Protection-Structure Planning and Design Consideration –Buildings: Harness Communication Zone-Building Services-Central Air –Conditioning Facilities-Electric Installation-Special Hazards-Fixed Installation –Hazards Associated with Furnishing Material, Curtains Upholstery, Dresses, Bed and Bedding Materials –Water Supply-Fire Points and Escape Routes –Fuel Store – Manual call Points-Means of Escape-Risk Evaluation.

**Radiation Hazards** - Introduction –Biological Effects of Radiation Hazards-Diagnostic Imaging-Radiation Protection and Safety-Radiation safety Monitoring devices – Principles in the Layout of a Diagnostic X ray room-Video imaging Modalities-Contrast Media-Laser Imaging –Magnetic Resonance Imaging –Planning Constrains-Preventive Measures Against Magnetic Field Hazards-Nuclear Medicine Department-Facility Planning-Radiation Protection Aspects-Radioactive Waste Collection and Disposal –Procedure for obtaining Clearance-Radiation Therapy –Facility Planning and Procedure Radiation Protection Facility-Radioactive waste

## **MODULE 5**

**Security Organisation and Management** - Security Threats and Vulnerabilities of Hospitals- Threats and Vulnerabilities of Hospitals- Threats Groups- Security Sensitive Areas/Function of Hospitals- Strategic Security System- Role of Hospitals Security- Functions of Hospitals Security Department – Nontraditional “Service “Functions- Security Organisation and Physical Security Measures – Security Organisation – The Staff Complement- Physical Security Measures- Perimeter Protection System- Implementing Physical Controls – Access Control Concepts- Definition – Means and Components- Integration of Security Technology- Need for Security Technology – Security Technology Plan – Computer and Information Security – Selection and Management of Department Security Staff/Contract Security Agency and Security Training- System Choice- Selection of Contract Security Agency- Verification of Security Personnel- Personnel – Security Staff Discipline – Security Training

## **MEDICAL ETHICS AND LAW**

### **COURSE OBJECTIVES:**

To help students understand the ethical aspects of health care delivery and the legal issues concerning the setting up and the adequate functioning of the hospital, and the judicious use of this knowledge in the day-to-day administration of care.

### **SPECIFIC OBJECTIVES:**

This course intends to teach students-

- The basic terminologies and concepts in ethics and law
- The practice of ethical principles in the hospital and day to day delivery of care for the patients.
- The impact of legal issues in healthcare.
- To understand the pharmacy sector regulations for the establishment of the pharmacy and also the current legal issues regulating the hospitals.
- To understand the concepts regulating the human resource management in the hospital.

### **LEARNING OUTCOMES:**

At the end of the course the student is expected to:

- To apply the knowledge of ethics in the functioning of the hospital.
- To be able to handle various issues related to healthcare setup and also manage the hospital with the various issues that can arise from the legal perspective.
- To recognize and train the workforce to meet the challenges of changing dynamics in healthcare scenario in terms of the regulations that govern the operational aspects of the hospital.
- To be able to demonstrate the necessary knowledge, skill and competencies required for good administrator as significant contributor in healthcare.

## MEDICAL ETHICS & LAW

### MODULE 1

**ETHICS:** Introduction to Ethics and Values, Confidentiality, consent (Relevance of consent, Necessity of consent, Refusal of consent, Consent –vulnerable group, Validity of consent, Consent in an emergency) Autonomy, Truth Telling, Research Ethics issue in contemporary health care, Bio Medical Research (relevant ethical issue and importance of ICMR guidelines for research) HIV, AIDS, Human Experiments, Clinical Trials, Life Support, Dying Declaration, Death Certificate, Post mortems, Professional Secrets and Privilege Communication, Understanding of patient rights, Universal Accessibility, Equity and Social Justice, Care of terminal ill, Euthanasia distribute Justice in health care, Alternate Medicine, Spiritual dimensions of health care, Holistic approaches to health care

### MODULE 2

Medico-legal Procedure and Medical Jurisprudence: Definition of Medico-legal cases (MLCs); Principles of MLCs; Examples of MLCs; Management of MLCs; Medical examination of the accused; Time frame for registering a case; Approach to MLCs; Preservation of Medico-legal exhibits of MLCs; Medico-legal case report; Cognizable offence; First Information Report (F.I.R.); Custody of the MLC records; Steps for problem free management of MLCs.

### MODULE 3

Medical Negligence: Definition; Proving Medical Negligence; Burden of proof; Types of negligence – Civil negligence, Criminal negligence; Common acts of negligence; Contributory negligence; Forms of negligence, Malpractice, Criminal negligence; Vicarious liability; Respondent superior; Liability of hospitals in cases of negligence; Prevention of negligence; Management of an incident of negligence.

### MODULE 4

**Introduction** – Sources of law – Interpretation of Law – Important Provisions under Indian Contract Act – Trust Act – Societies Registration Act.

**Law governing the commissioning of Hospital & Patient Safety:** - Atomic Energy Act – Companies Act-Indian Electricity Rules & Act – Fire Safety rules & Act – National Building Act– Indian Boilers Act – Medical Establishment (Registration & Regulation) – Gas Cylinder Rules – Rules Governing operation of Lift-Prevention of Food Adulteration Act – Prohibition Of Violence Against Medicare Service Personnel And Damage To Property In Medicare Service Institutions Act – Prohibition of Smoking in Public Places Rules.

### MODULE 5

**Laws Governing to the qualification/ Practice & Conduct of Professionals:**

–Indian Nursing Council Act —Apprenticeship Act- Mental Health Act – PC-PNDT Act – MTP Act – Transplantation of human Organs Act –Birth & Death Registration Act. Consumer Protection Act

**Law governing to sale, storage of drugs & safe medication:** - Blood bank Regulations Under

Drugs & Cosmetics Rules – Drugs & Cosmetics Act – Narcotics & Psychotropic Substances Act – Sales Of Good Act – Drug & Cosmetics Act – Drugs Control Act – Central Excise Act – Importance of Section 274, 275, 276 & 284 of IPC – VAT Act. Drugs and Magic Remedies (Objectionable Advertisement) Act, 1954; Poison Act, 1919.



## **MEDICAL INSURANCE, AUDITS & ACCREDITATIONS**

### **COURSE OBJECTIVE:**

The objective of this course is to provide an overview of the fundamentals of insurance and classification of insurance services. The course would also expose the students to health insurance concepts and various quality control activities in healthcare.

### **SPECIFIC OBJECTIVES:**

Specific learning objectives for this course are as follows:

- To provide knowledge on various life and non-life insurance services
- To learn various public and private insurance schemes available
- To learn about claim settlement mechanisms in insurance services
- To gain knowledge on various quality control mechanisms and hospital accreditation process

### **LEARNING OUTCOMES:**

After the completion of the course, students will demonstrate the ability to

- Identify the process of insurance management and claim settlement procedures
- Understand various risks involved in insurance management
- Be competent in understanding the marketing mechanisms of health insurance
- Analyze the requirements of accreditation process.

## **MEDICAL INSURANCE AUDITS & ACCREDITATIONS**

### **Module 1**

Introduction to Insurance, History of Insurance in India, Principles of insurance, Risk Management in insurance, Classification of Insurance, Health insurance, different health insurance schemes in India (CGHS, ECHS, ESI, Ayushman Bharat)

### **Module 2**

Role of IRDA, TPA – Definition, objectives and functions, fundamentals of insurance underwriting, introduction to claims management, significance of claims settlement, nature of claims from various classes of insurance.

### **Module 3**

Insurance Ombudsman, tax benefits for medical insurance coverage, marketing of health insurance, elements of insurance marketing, distribution channels in insurance marketing, role of regulatory authority (IRDA) in supervising promotional activities.

### **Module 4**

Audits in Health Care: Definition, Process of audit, audit team-duties and responsibilities, various audits in hospitals: Medical, Clinical, Nursing and Pharmacy audits. Evaluation of patient satisfaction through surveys, Hospital committees, various committees functioning in the hospitals

### **Module 5**

Accreditation of healthcare services: Definition of Accreditation, process, national and international accreditation bodies:

- JCI
- NABH
- ISO

## **ELECTIVES (2 CREDITS)**

### **HEALTH INFORMATICS**

**Course Objectives:** This course intends to introduce the learners to the principles and applications of information and communication methods and technologies in healthcare.

#### **Specific Objectives:**

1. To understand the diverse applications of technology in health as well as unique challenges in health care.
2. To understand interventions that can improve upon existing interventions and communication processes.
3. To understand the implementation of EHR and its challenges
4. To be familiar with the cyber security and laws related to it.

#### **Learning outcomes:**

At the end of the course, the learner will be able to

1. To use the knowledge of health informatics in basic theoretical concepts
2. To apply the available information and use the information in communication through technology.
3. To implement EHR in hospitals
4. To realise challenges in health information security and implement measures to overcome them.

#### **Module 1**

**Health Informatics:** Definition of Health Informatics, various disciplines of health informatics, History of Health Informatics, Role of Information Technology in Healthcare

#### **Module 2**

**Information Systems in Healthcare:** Information management systems, formal and informal information systems, characteristics of information systems, purpose of healthcare information systems

#### **Module 3**

**Electronic Health Record (EHR):** Introduction to EHR, role of EHR in healthcare, the quality impacts of EHR, Advantages and disadvantages of EHR.

#### **Module 4**

##### **Specialized applications for health informatics:**

Tele Medicine, Public health informatics- public health surveillance tasks, Consumer Health Informatics- technologies focused on the needs of patients and care providers

#### **Module 5**

**Health Information Security & Cyber Laws:** Security challenges, privacy issues, Information security acts- Information Technology Act 2000, National Cyber Security Policy 2013 and Digital Information Security in Healthcare Act (DISHA).

#### **Reference Books:**

1. Guide to Health Informatics- Enrico Coiera, 3<sup>rd</sup> Edition 2015, CRC Press- Taylor & Francis Group. ISBN: 978-1-4441-7049-8
2. Health Informatics- Barbara M. Hayes and William Aspray. The MIT Press 2010. ISBN: 978-

0-262-01432-8

3. Pharmacy Informatics. Philip O. Anderson, Susan M. McGuinness, Philip E. Bourne, CRC Press- - Taylor & Francis Group, 2010. ISBN: 978-1-4200-7175-7.

## **PUBLIC HEALTH**

**Course objectives:** This course introduces the learners to the concept of public health and its role in healthcare delivery management.

### **Specific Objectives:**

The specific objectives of the course include-

1. To understand the principles and practice of public health
2. To understand the differences in health systems across nations
3. To understand the health policies and its use in decision making
4. To understand the health programmes

### **Learning outcomes:**

At the end of the course, the learner will be able to

1. To use the knowledge of public health concepts in health care management
2. To apply the basic approaches in health policy analysis
3. To design and implement health programmes
4. To realise the challenges and implement measures to overcome them.

### **UNIT 1:**

Principles and practices of public health: Public Health- what it is; causation, prevention, social determinants of health, health systems and health policy, Health equity, Environments and health, Public Health action.

### **UNIT 2:**

Health system and policy in developing countries: Basic theoretical approaches and concepts used in policy analysis, understanding of global and national health policies, including current trends, Analyse the political system within which policies are made, Contextual factors that influence to policy change, Changing global health policy environment.

### **UNIT 3:**

Health policy, process and planning: Policy making key components, Policy framework, Stake holders in policy making, Effects of different interest and advocacy groups in influencing health policy, Translating research in policy making, Effects of national and international affairs on health policy, Short term versus long term policies, Resources allocation to optimize health, Using research and data to drive good policy making.

### **UNIT 4:**

Introduction to Design and Evaluation of Public Health Programs, Concepts underlying the design of health programs, Basic approaches to the design, analysis and interpretation of health programs, communicate in public health research, Framework to evaluate the effectiveness of health programme implementation, Case Study: how to integrate a package of care for a specific problem into a platform of healthcare delivery, Process, outcome and impact evaluation

**UNIT 5:**

Current issues in health policy: National and Global perspective: Theory explaining public health action, its evolution and application in health policy, Methods of assessing the health impact of different types of policy; national and global perspective, assessing health impacts of different policies across sectors, Impact of health threats and interventions to counter health threats including crisis management.