

MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL
(Formerly West Bengal University of Technology)
Syllabus of BBA in HOSPITAL MANAGEMENT
(Effective from 2023-24 Academic Sessions)

Paper Name: HOSPITAL MANAGEMENT INFORMATION SYSTEM

Paper code: BBA(HM) 701

Mode: Offline

Credits: 5(4L+1T)

Aim of the Course: The objective is to attain a comprehensive understanding of hospital management.

Course Objectives: The course is designed to foster comprehension of the core principles, theories and applications of quality in hospital and healthcare Industry. It also covers operational aspects. Upon finishing this course, students should have a grasp of the foundational tenets of healthcare management.

Goals:

- CO1: This course equips students with foundational knowledge in Information system in Hospital and Healthcare sector.
- CO2: Through this course, students will gain the ability to harmonize practice with theoretical knowledge in HMIS.
- CO3: The course will facilitate active learning and the acquisition of knowledge regarding emerging trends in Management Information System in Hospital and Healthcare sector.
- CO4: The course is designed to furnish students with decision-making skills by using MIS.
- CO5: Upon completing this course, students will be equipped to detect and assess Decision making and decision Support System.
- CO6: Detail knowledge about HMIS
- CO7: students can have the knowledge about basic management cycles in Hospital
- CO8: System Design and Development in HMIS (SDLC).
- CO9: students can understand Components of Hospital Management Information System.
- CO10: students can gather knowledge about the Implementation and Management of HMIS

Sl	Course content	Mapped Module	Hours allotted
CO1	1. Basic introduction to MIS <ul style="list-style-type: none"> • Concepts of Data and information • Difference between Data and information • Evaluation and meaning of MIS • Definition, dimensions (quality, value, age and cost) and importance, • Formal and Informal Information. 	M1	2
CO2	2. Information system for competitive advantage <ul style="list-style-type: none"> • Concepts of management and organization theory • Levels of management • Hierarchy of management activity • Different types of decisions • Structured and unstructured decisions • Information requirements by level of management. 	M2	4
CO3	3. Systems approach to problem solving <ul style="list-style-type: none"> ▪ Concepts of System ▪ Types of Systems ▪ Deterministic and Probabilistic System ▪ Close and Open System ▪ Human-Machine Systems ▪ Information System (CBIS) ▪ Scope of CBIS 	M3	4
CO4	4. Evolution and development of MIS. <ul style="list-style-type: none"> • Types of CBIS • Electronic Data Processing (EDP) • Accounting information system (AIS) • Office Automation System (OAS) • Transaction Processing System (TPS), • Management Information System(MIS) 		4

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	<ul style="list-style-type: none"> • Decision Support System (DSS) • Executive Information System (EIS) • Knowledge based System (KBS) • Expert System (ES) 		
CO5	<p>5. DECISION MAKING & DECISION SUPPORT SYSTEM</p> <p>5.1. Decision Making Process</p> <ul style="list-style-type: none"> • Phases of Decision-Making Process • Intelligence and Design Phases <p>5.2. Stages in Decision Making</p> <p>5.3 Individual and Organizational Decision Making Models</p> <ul style="list-style-type: none"> • Group Decision Support Systems <ul style="list-style-type: none"> ➤ Characteristics of GDSS ➤ Types of Group Decision Support Systems • Decision Making Models <p>5.4 Decision Support System</p> <ul style="list-style-type: none"> • Definition & Relationship with MIS <ul style="list-style-type: none"> ➤ Decision Making <ul style="list-style-type: none"> ✓ Programmed decisions ✓ Non-programmed decisions • Management Information Systems <ul style="list-style-type: none"> ➤ Characteristics of an MIS • Difference between MIS and DSS • Evolution of DSS <ul style="list-style-type: none"> ➤ Decision Making Tools ➤ Effectiveness vs. Efficiency <p>5.5 Characteristics, Classification, Objectives & Components of DSS</p> <ul style="list-style-type: none"> • Characteristics of DSSs • Classification • Objectives • Components of a DSS System <p>5.6 Functions and Development of DSS Function</p>		8
CO6	<p>6. Introduction to Hospital Management Information Systems</p> <ul style="list-style-type: none"> • Definition and Purpose of HMIS • Scope of HMIS • Importance of Information Systems in Healthcare • Evolution of HMIS • Types of HMIS (Administrative, Clinical, Financial) • Role of HMIS in Hospital Operations 		2
CO7	<p>7. Basic management cycles in hospitals</p> <ul style="list-style-type: none"> • categories of information system in hospitals, • sources of health information, • uses of health and hospital data, • managing information system, and • need of information in hospital. 		4
CO8	<p>8. System Design and Development in HMIS (SDLC)</p> <ul style="list-style-type: none"> • System Development Life Cycle (SDLC) for HMIS • System Analysis and Design in Healthcare • Requirements Analysis and Specification • Data Flow Diagrams, Entity Relationship Diagrams • Examples of Software and Tools Used in HMIS Development (basic knowledge) 		4

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CO9	9. Components of Hospital Management Information System <ul style="list-style-type: none"> • Patient Management System • Laboratory Information System (LIS) • Radiology Information System (RIS) • Pharmacy Information System (PIS) • Billing and Financial Information Systems • Human Resource and Payroll Systems • Supply Chain Management in Healthcare 		4
CO10	10. Implementation and Management of HMIS <ul style="list-style-type: none"> • HMIS Implementation Process • Change Management in Hospitals • User Training and Support • Monitoring and Evaluating HMIS Performance • Challenges and Best Practices in HMIS Implementation 		4

Books:

1. Basics of Healthcare Analytics – Biswarup Dey – Taurean Publications
2. Management Information Systems, O'Brien, TMH
3. Management Information Systems, Arora & Bhatia, EXCEL BOOKS
4. Management Information Systems. M.M. Oka. EPH.

Learning Outcome/ Skills:

Hospitals are complex organizations with intricate structures. Student will study how different departments and functions within a hospital interact, and how the organizational structure affects decision-making and efficiency.

Module Number	Content	Total Hours	% of questions	Bloom Level (applicable)	Remarks, if any
THEORY					
M1	Basic introduction to MIS	2	5	1,2	NA
M2	Information system for competitive advantage	4	10	1,2,3	NA
M3	Systems approach to problem solving	4	10	1,2	NA
M4	Evolution and development of MIS	4	10	1,2,3	NA
M5	DECISION MAKING & DECISION SUPPORT SYSTEM	8	20	1,2,3	NA
M6	Introduction to Hospital Management Information Systems	2	5	1,2,3	NA
M7	Basic management cycles in hospitals	4	10	1,2,3	NA

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M8	System Design and Development in HMIS (SDLC)	4	10	1,2,3	NA
M9	Components of Hospital Management Information System	4	10	1,2,3	NA
M10	Implementation and Management of HMIS	4	10	1,2,3	NA
Total Theory		40	100		
<u>TUTORIAL</u>		8			
TOTAL		48			

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**Paper Name: RESEARCH METHODOLOGY IN
HEALTHCARE SYSTEM**
Paper code: BBA(HM) 702

Mode: Offline

Credits: 5(4L+1T)

Aim of the Course: The objective is to attain a comprehensive understanding of hospital management.

Course Objectives: The course is designed to foster comprehension of the core principles of hospital management. It also covers operational aspects. Upon finishing this course, students should have a grasp of the foundational tenets of healthcare management.

Goals:

- CO1: This course equips students with foundational knowledge in Quality Management in Hospital and Healthcare sector.
- CO2: Through this course, students will gain the ability to harmonize practice with theoretical knowledge in quality management.
- CO3: The course will facilitate active learning and the acquisition of knowledge regarding emerging trends in Quality management and Total Quality Management.
- CO4: The course is designed to furnish students with decision-making skills relevant to Quality in Health care sector.
- CO5: Upon completing this course, students will be equipped to detect and assess Quality challenges and possibilities in practical settings.

Sl	Course content	Mapped Module	Hours allotted
CO1	Introduction to Research: The concept of research, characteristics of good research, Application of Research, Meaning and sources of Research problem, characteristics of good Research problem, Research process, outcomes, application of Research, Meaning and types of Research hypothesis, Importance of Review of Literature, Organizing the Review of Literature.	M1	6
CO2	Types of Research: Types of research, pure (basic, fundamental) and applied research, qualitative and quantitative. Research Design : Meaning, need, types of research design – Exploratory, Descriptive, Casual research Design, Components of research design, and Features of good Research design. Experiments, surveys and case study Research design.	M2	10
CO3	Sampling, Data Collection and analysis : Types and sources of data – Primary and secondary, Methods of collecting data, Concept of sampling and sampling methods – sampling frame, sample, characteristics of good sample, simple random sampling, purposive sampling, convenience sampling, snowball sampling, classification and tabulation of data, graphical representation of data, graphs and charts – Histograms, frequency polygon and frequency curves, bell shaped curve and its properties.	M3	8
CO4	Statistical Methods for Data Analysis: Applications of Statistics	M4	6

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	in Research, measures of central tendency and dispersion		
CO5	Research Report: Research report and its structure, journal articles – Components of journal article. Explanation of various components. Structure of an abstract and keywords. Thesis and dissertations. components of thesis and dissertations. Referencing styles and bibliography.	M5	6
CO6	Ethics in Research - Plagiarism - Definition, different forms, consequences, unintentional plagiarism, copyright infringement, collaborative work. Qualities of good Researcher.	M6	4

Learning Outcome/ Skills:

Hospitals are complex organizations with intricate structures. Student will study how different departments and functions within a hospital interact, and how the organizational structure affects decision-making and efficiency.

Module Number	Content	Total Hours	% of questions	Bloom Level (applicable)	Remarks, if any
THEORY					
M1	Introduction to Research	6	15	1,2	NA
M2	Types of Research	10	25	1,2,3	NA
M3	Sampling, Data Collection and analysis	8	20	1,2	NA
M4	Statistical Methods for Data Analysis	6	15	1,2,3	NA
M5	Research Report	6	15	1,2,3	NA
M6	Ethics in Research	4	10	1,2,3	NA
Total Theory		40	100		
TUTORIAL		8			
TOTAL		48			

RECOMMENDED BOOKS:

1. Research Methodology in Healthcare System – Anis Chattopadhyay – Taurean Publications
2. Research Methodology – C.R. Kothari – New Age International Publishers

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Course Name: Health Insurance
BBA(HM)703

Mode: Offline

Credits: 4(3L+1T)

Aim of the Course: The aim of this course is to provide students with a comprehensive understanding of health insurance, including its principles, types, and the role it plays in the healthcare system. The course will explore the structure and function of health insurance plans, the regulatory environment, and the economic and social implications of health insurance policies. Students will learn how to analyze different health insurance products, understand the claims process, and evaluate the impact of health insurance on access to healthcare and financial protection. By the end of the course, students will be equipped to navigate the complexities of health insurance and make informed decisions in both professional and personal contexts.

Course Objectives: The objective of this course is to equip students with a thorough understanding of health insurance, focusing on the various types of insurance plans, their design, and their impact on healthcare access and affordability. Students will learn about the regulatory framework governing health insurance, the process of underwriting and claims management, and the role of health insurance in financial risk protection. Additionally, the course will cover the evaluation of insurance products, the analysis of policy options, and the ethical considerations involved in health insurance. By the end of the course, students will be prepared to critically assess health insurance plans and contribute effectively to the healthcare and insurance industries.

Goals: Health Insurance

CO1: Master Health Insurance Fundamentals: Gain a deep understanding of the core principles, types, and operations of health insurance plans.

CO2: Evaluate Insurance Plans: Develop the ability to critically assess and compare various health insurance products for different demographic and healthcare needs.

CO3: Understand Regulatory Compliance: Learn to navigate and apply the regulatory requirements governing health insurance to ensure compliance and protect consumer rights.

CO4: Enhance Financial Security: Understand the importance of health insurance in safeguarding individuals and families from financial hardships related to healthcare expenses.

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SI	Course Content	Mapped Module	Hours allotted
CO1	<p>Introduction and Scope</p> <p>Introduction to insurance: Define health insurance, Importance of health insurance, types of Health insurance, History and Evolution of Insurance in India, Principles of insurance, Insurance documentation, Difference between insurance and assurance, difference between life insurance and health insurance, difference between insurance and reinsurance.</p>	M1	10
CO2	<p>Concept of Risk and Managed care:</p> <p>Concept of Asset, Risk & Pooling. Insurance for the Patient, Premium and factors influencing premium for various policies, concept of copayment.</p> <p>Managed Care: The Key “Ingredients” of Managed Care, Health insurance products, Professional Indemnity Schemes for doctors, Medical Care system & Health Insurance System in different countries (USA, UK, India) Role of Insurance in Economic Development of a country</p>	M2	10
CO3	<p>Government models of Health Insurance:</p> <p>Social security Schemes in India– CGHS, ESI, • Insurance schemes: RSBY, JSY, Pradhan Mantri Suraksha Bima Yojana, Swastha sathi</p>	M3	5
CO4	<p>Insurance regulatory authority:</p> <p>Insurance Regulatory Authority of India (IRDA): Role, function and Control • Third Party Administration- Function, Importance & Challenges, • TPA: Intermediary between provider & Patient, Role of Health Insurance companies</p>	M4	5

Learning Outcomes / Skills for Health Insurance

By the end of this course, students will be able to:

1. **Comprehend Health Insurance Concepts:** Understand the key principles, types, and structures of health insurance plans, including private and public options.
2. **Policy Analysis:** Analyze and compare different health insurance policies to determine their benefits, coverage options, and suitability for various populations.
3. **Regulatory Knowledge:** Demonstrate knowledge of the legal and regulatory frameworks governing health insurance, including compliance with national and international laws.
4. **Claims Management:** Understand the processes involved in health insurance claims, from submission to adjudication, and effectively manage and resolve claims issues.
5. **Risk Assessment:** Assess the risks associated with different health insurance plans and develop strategies to mitigate these risks for both insurers and insured individuals.
6. **Financial Acumen:** Evaluate the financial aspects of health insurance, including premium calculations, cost-sharing mechanisms, and the impact on healthcare affordability.
7. **Consumer Advocacy:** Advocate for consumers by ensuring they have access to clear, accurate information about health insurance options and can make informed decisions.

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8. **Ethical Decision-Making:** Apply ethical principles in the design, sale, and management of health insurance products, ensuring fairness and equity in coverage and access.
9. **Effective Communication:** Develop skills to effectively communicate complex health insurance concepts to diverse audiences, including consumers, employers, and policymakers.
10. **Adaptation to Market Changes:** Stay informed about trends and changes in the health insurance market and adapt strategies to meet evolving consumer needs and regulatory requirements.

Module Number	Content	Total Hours	% of questions	Bloom Level (applicable)	Remarks, if any
M1	Introduction and Scope	10	30%	1,2	NA
M2	Concept of Risk and Managed care	10	30%	1,2,3	NA
M3	Government models of Health Insurance	5	20%	1,2,3	NA
M4	Insurance regulatory authority	5	20%	1,2,3	NA
Total Theory		30	100		
Tutorial		10			
Total		40			

Suggested reading:

1. Health insurance: Anindita Sarkar, Nimai Chandra Chaudhuri, Taurean Publication
2. Commercial Laws: N. D. Kapoor
3. Commercial Laws: Sen & Mitra