

**DELHI PHARMACEUTICAL SCIENCES &
RESEARCH UNIVERSITY**
(The First Pharmacy University in India)

School of Allied Health Sciences



Syllabus Book

Masters in Hospital Management(MHM)

SCHOOL OF ALLIED HEALTH SCIENCES

The School of Allied Health Sciences is dedicated to become a pioneer in research and education in pharmaceutical, hospital management and public health. The school was established in 2016 under Delhi Pharmaceutical Sciences and Research University, Govt of NCT of Delhi.

Mission

- Capacity building of healthcare professionals through comprehensive teaching and training programs.
- To support the personal and professional development of young minds through effective management principles and preparing professionals for the healthcare sector.
- Connecting and collaborating with health care professionals, organisations and professional bodies to improve health care management and enable to get the best of collective expertise and resources for fulfilling the quality management objectives.

Vision

- To transform the health care education to overcome the limitations of Indian health care systems.
- Improvement in the standards of health care systems through excellent teaching, training and research.

The School of Allied Health Sciences has three main programmes:

- **MBA in Pharmaceutical Management (MBA-PM):** Two-year full time Masters of Business Administration Programme with specialization in Pharmaceutical Management
- **Masters in Public Health (MPH):** Two-year full time Master's Programme with specialization in Public health

- **Masters in Hospital Management (MHM):** Two-year full time Master's Programme with specialization in Hospital Management

All the three programmes are equipped to meet the educational challenges of the rapidly growing health sector in the world. The dynamic curriculum designed in conjunction with academia and industry experts provides the opportunities for the students to master new skills and explore varied perspectives in pharmaceutical and health care management. The emphasis is on practical knowledge and personalized learning. Opportunities are abounding for students and faculty at all levels to participate in basic, translational, interdisciplinary and community-oriented education and research. The Departments of Pharmaceutical Management, Hospital Management and Public health offers diverse cutting-edge programs for students with a managerial and technical foundation for careers in pharmaceutical companies, consulting, health care systems, hospital management, public health management and health insurance. The School have collaborations and partnerships with major hospitals like Indraprastha Apollo Hospital, Max Super Specialty Hospital, Delhi Heart and Lung Super Specialty Hospital and renowned pharmaceutical industries Cognitrex Consultants Pvt. Ltd, Alniche Life Sciences Pvt.Ltd and other non-profit organizations etc.

Faculty

Faculty members generate knowledge through cutting-edge research in all functional areas of pharmaceutical, hospital and public health management that would benefit students and society in general. The faculty members collaborate with the health care and pharmaceutical industry as well as other academic institutions in India and abroad.

Internship/Training

An integral part of the MBA-PM, MPH and MHM programs is the internship/training, a structured and supervised professional experience with an approved agency from which students receive academic credit. After completing first year of class room learning, students undergo a short-term internship for 4-6 weeks. And on the completion of third semester they need to undergo training for 3-4 months in pharmaceutical industry, recognized hospitals and/or other health care agencies to gain specific practical training and exposure related to core areas of pharmaceutical management, public health and hospital management. The main purpose of internship for MBA-PM is to give practical exposure to the student's business operations in various pharmaceutical industries and equip them to develop requisite skills and solving management problems. Also help them to acquire the consultancy skills along with class room teaching to develop them as trained professionals. The goal of these internships for MPH and MHM are to impart the practical knowledge through research methods, help formulate a rigorous research problem related to public health and hospital management issues on the basis of their observation, conduct an independent study, and encourage working in a team preparing them for a professional career in public health and hospital management.

Placements

The School of Allied Health Sciences is in the emerging phase identifying the career development prospects of students. All the students have undergone the vigorous placement processes and are successfully placed in various organizations of repute like BLK Memorial Hospital, DGHS, Mamta Foundation, Care Foundation, UNESCO, IQVIA, WNS Global Services, Cognitrex Consultants, ZS Associates, DRG, Eli Lilly and Course 5 Intelligence and few more.

Future Perspectives

- Identified deep engagements with international networks for Advanced Management, which includes eminent business schools around the world.
- Partnership and collaborations with global organizations involved in Public health management.
- Management Development Programs to improve management practices in health and related systems.

Rules governing conduct and maintenance of discipline for students

- Students of School of Allied Health Sciences are required to attend every lecture, field work and journal club activities during the semester. However, to be eligible to take end-semester examination, the student shall be required to attend 75% of actually held lectures and related activities of each course.
- Students availing fellowship shall not be entitled to any vacation/leave.
- Every student shall at all times maintain absolute integrity and devotion to studies and conduct himself in a manner conducive to the best interest of the School and University and shall not commit any act which is unbecoming of him/her or is prejudicial to the interest of the School and University.
- Conform to and abide by the provisions of the rules made by the University from time to time.
- Comply and abide by all lawful orders which may be issued to him /her from time to time in the course of his/ her studies by the University or by any person or persons to whom he/ she may be reporting in his/her department.

Masters in Hospital Management(MHM)

Masters in Hospital Management (MHM) program emphasizes on developing knowledge component, skill and attitude pertaining to Hospital Managers. The program will help the candidates in developing expertise in planning and managing different types of hospitals and equip them with problem solving strategies. The program prepares the students for leadership roles in the hospital sector, through training in operational and project management of hospitals, including orientation in the managerial aspects of clinical and support services.

Program Structure, Course Curriculum And Scheme of Examination

Program Overview

This program aims to develop professional hospital managers with requisite skills in planning, implementation, operational Management, problem solving, consultancy and entrepreneurship. Through this rigorous program, graduates are able to manage hospitals and healthcare organizations globally, both in the public and the private sectors, thus meeting the demand for quality healthcare management.

Program Outcomes: After completion of the program, the students would be able to:

PO1. Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions and would enhance their administrative competence and decision making, when facing the challenges of the hospital and healthcare industry.

PO2.Effective Communication: Speak, read, write and listen in person and through electronic media to promote knowledge through applied and conceptual research relevant to hospital and healthcare management and to disseminate this knowledge through publications for furtherance of healthcare development.

PO3.Social Interaction: Elicit views of others and mediate disagreements while applying skills in planning and managing hospitals and healthcare organizations to help reach conclusions in group settings.

PO4.Effective Citizenship: Demonstrate empathetic social concern towards national development, and the ability to act with an informed awareness of healthcare issues and hospital policies.

PO5. Ethics: Recognize ethical issues, ethical and social responsibility towards healthcare providers, patients and society, to justify the moral judgement concerning medical profession and inspire social values

PO6.Environment and Sustainability: Get Responsible towards the wellbeing of environment, the patients, healthcare professionals and the community by reducing toxicity of hospital waste, minimizing the use of hazardous chemicals, recycling and realising the importance of sustainable designs and building techniques to create true healing environment.

PO7.Self-directed and Life-long Learning: Engage in independent and life-long personal and professional learning and developing skills to cope with and socio-technological changes

Program Specific Outcomes: After completion of the program, graduates should be able to

- Understand the latest concepts and techniques of management and their applications in making the administrative roles of the graduates effective and efficient.
- Have the skills to analyse and solve operational problems in the delivery of hospital and healthcare services.
- Use appropriate strategies for effective planning, implementation and evaluation of institutional and community based health and family welfare program.
- Apply the qualitative and quantitative analytical tools as applicable to health and hospital management related problems.
- Develop skills with the focus on strategic responsibility for training and development of human resource for health care delivery.
- Explain the legal and regulatory environment in healthcare and implications for managers within the field
- Promote the efficient and equitable allocation of resources and development of strategies to promote cost-effective healthcare.
- Apply scientific approach to reduce cost of care through better material and money management.
- Use oral and written communication skills and integrate appropriate technology and software skills to develop informative, explanatory, and persuasive presentations.

Course Structure and Duration

It will be an intensive full time two years course, comprising of four semesters, which will include classroom lectures, tutorials, seminars, journal club and practical exposure in various departments of an approved hospital/s by the university.

This booklet contains the Programme Structure, detailed curriculum and the scheme of examination. The importance of each course is defined in terms of credits assigned to it. The credit units of each course have been further defined in terms of contact hours i.e. Lecture hours (L), Tutorial Hours (T), Practical Hours (P).

It is hoped that it will help the students study in a planned and a structured manner and promote effective learning.

Wishing students an intellectually stimulating stay at Delhi Pharmaceutical Sciences and Research University.

Masters in Hospital Management(MHM)

Semester - 1

Semester	Paper Code	Subject	Periods			Credit Units	Evaluation scheme		
			L	T	P		Internal	External	Total
I	MHM 101	Principles of Management	3	1	-	4	20	80	100
	MHM 102	Healthcare Delivery System and National Health Policy	3	1	-	4	20	80	100
	MHM 103	Health Economics	3	1	-	4	20	80	100
	MHM 104	Human Resource Management	3	1	-	4	20	80	100
	MHM 105	Research Methodology	3	1	-	4	20	80	100
	MHM 106	Demography	3	1	-	4	20	80	100
	MHM 107	Communication Skills-I	2	-	-	2	50*	-	50
	MHM 108	Computer Applications Lab	-	-	4	2	50*	-	50
		Total		20	6	4	28	220	480

*Evaluation to be conducted by internal faculty / examiner

Principles of Management

Paper Code - MHM 101

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course defines management principles and discusses major functions of healthcare manager towards the patient, the health organization and the community. Knowledge is imparted about the roles and responsibilities in order to accomplish stated objectives with efficiency.

Course Objectives: The objectives of this course are to:

- Provide knowledge and ability to apply managerial principles to the healthcare environment.
- Discuss organizational behaviour as well as the roles and responsibilities of management and leadership within healthcare organizations through the macro (organization-wide) and micro (individual and team performance) perspectives.
- Inculcate the practice of managing individuals and groups through motivation, communication, teamwork, leadership, organizational change, coalition building, negotiation, and conflict management and resolution.

Course Outcomes: After Completion of this course, students would be able to:

CO1 Describe key concepts, theories and techniques for analyzing different organizational situations.

CO2 Identify and demonstrate the dynamic nature of the environment in which planning, organizing, controlling, staffing, decisions making skills are demonstrated and help the organization in implementation of its vision and mission.

CO3 Apply the introduced conceptual frameworks, theory and techniques to lead the organization in achieving its goals

Course Content:

Unit 1: Introduction to Management

Management- definition, scope, function and significance; approaches to management: system and contingency; Levels of management- concepts of PODSCORB, managerial grid; Evolution of management thoughts-contribution of F.W. Taylor, Henri Fayol and contingency approach, functions of managers.

Unit 2: Planning and Decision making

Planning- definition, characteristics, objectives, nature, importance, steps, planning process, advantages and disadvantages; Forecasting: definition, techniques, advantages and disadvantages; Objectives and MBO-meaning of objective, MBO, process of MBO, benefits of MBO; strategies, policies and planning premises- nature & purpose, the strategic planning process, TOWS matrix, Portfolio matrix, porter's competitive strategies, implementation. Decision making-meaning, characteristics, process, the systems approach

Unit 3: Organizing

Organizing- concepts, structure (formal & informal, line & staff and matrix), meaning, advantages and limitations; Departmentation - formal and informal organization, Organizational division-the department, the structure and process of organizing, the span of management; departmentation by time, enterprise function, geography, product, customer, matrix organization; Strategic Business Units, line and staff concepts, Delegation- authority & responsibility relationship. Staffing- overview of the staffing function, situational factors affecting staffing

Unit 4: Motivation and Leadership

Directing- Meaning and Process; Motivation- Theories, Systems and Contingency Approach to Motivation. Leadership- Defining Leadership, Ingredients of Leadership, Styles and Functions of Leadership, Trait Approach to Leadership, Situational or Contingency Approaches to Leadership, Communication.

Unit 5: Coordination and controlling

Co-Ordination- Feature, Types, Problems, Steps, Co-Ordination and Co-Operation; Controlling- The Basic Control Process, Initial Control Points and Standards, Control as A Feedback System, Requirement for Effective Control; Control Techniques - The Budget, Traditional Non-Budgetary Control Devices

Text and references:

1. Essentials of Management. Author Harold Koontz, McGraw-Hill series in management
2. Management. Stephen P. Robbins, Mary Coulter. — 11th ed
3. Tripathy PC And Reddy PN, "Principles of Management", Tata McGraw-Hill, 1999.
4. Decenzo David, Robbin Stephen A, "Personnel and Human Reasons Management", Prentice Hall of India, 1996
5. Goel, R. K. S. (2007). Hospital administration and management: Theory and practice. Deep and Deep Publications.

Healthcare Delivery System and National Health Policy

Paper Code- MHM 102

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course will provide the requisite knowledge and understanding of health systems and policies, disease burden, health inequalities and global health scenario.

Course Objective: The objectives of this course is:

To provide the students a basic insight into the main features of Indian health care delivery system and how it compares with the other systems of the world.

Course Outcomes: After completing the course, students would be able to:

CO1 Analyze the impact of health care policies on services delivery provided by the industry.

CO2 Conceptualize the role of Indian health care delivery system and how it compares with the other systems of the world; and also the role of hospitals as a supportive & referral services to the national goal.

CO3 Identify major trends in the Indian healthcare system.

CO4 To emphasize the concept of health & factors responsible for disease causation, its prevention & estimation of disease load in the community.

CO5 Identify concerns of the Indian healthcare system like health disparities etc

CO6 Design alternative approaches to address significant health care issues.

Course Content:

Unit 1: Health and Development

Concept of Health and disease, health and its determinants, Public Health indicators - Mortality Rates and Morbidity (Incidence and Prevalence), Disease burden in terms DALY, Disease dynamics, Holistic approach to Health.

Unit 2: Social Determinants of Health

Female feticide, Child Labour, Substance Abuse, Suicidal patterns, Civil Unrest, Domestic Violence, Corruption and Health, Gender and Health, Effect of Urbanization on Health, Ageing population

Unit 3: Indian Healthcare System and Delivery

Evolution of Health Planning in India, Concept and Elements of Primary Health Care, Rural Healthcare Structure of India, Rural Health Statistics, Indian Public Health Standards, National Health Policy 2017 and overview of National Health Mission.

Unit 4: Global Trends

Sustainable Development Goals and Millennium Development Goals, Changing global health policy environment and Factors influencing public policies, Role of International Agencies viz. WHO, UNFPA, UNICEF services in health sector.

Text & References:

1. K Park, Preventive and Social Medicine, BansaridasBhanot Publishing House.
2. Brijesh C Purohit. Health Care System in India: Towards Measuring Efficiency in Delivery of Services.
3. Maxcy-Rosenau-Last, Public Health & Preventive Medicine, 14th Edition Ed Robert Wallace.

Health Economics

Paper Code- MHM 103

Contacts: 3L + 1T

Credits: 4

Course Overview: The course equips students with basic economic concepts and principles for better resource management in the hospitals. The rationale behind economics is to demonstrate the application of the economic principles and methodologies to key management decisions within organization.

Course Objectives: The objectives of this course are:

- To describe basic concepts of health economics
- To develop an understanding of healthcare market and the relationship between economics health development;
- To analyse the cost and cost behaviour in hospital environment;

Course Outcomes: After completing the course students would be able to:

CO1 Asses how uncertainty and asymmetric information affect demand for healthcare.

CO2 Assess the value of health and its implications for decisions allocating scarce resources.

CO3 Describe basic economic concepts, such as supply, demand, free & chained markets and price elasticity.

CO4 Demonstrate management of organizational costs within the economic environment of various health care industries.

CO5 Apply economic tools to improve decision making in healthcare.

CO6 Acquaintance to the concepts of Health insurance.

CO7 Demonstrate knowledge of various types private, public and community based insurance.

CO8 Demonstrate knowledge of the operation and management of insurance entities, and the economic implications of organizational design and structure.

Course Content:

Unit 1: Key concepts of Economics

Definitions of Wealth, Health Economics, Scarcity and Growth; Scope of Economics - Theoretical, applied and Descriptive; Micro and Macroeconomics; Perspectives of Health: as a right, as consumption good and as an investment; Economic Agents, Free market mechanism and chained market Mechanism; Law of diminishing returns.

Unit 2: Basic concepts of Supply and Demand

Law of Demand and Supply, Demand Curve, Supply Curve, Shifts in demand and supply curve; Price Elasticity of demand; Distinction between Need, Want and Demand; Factors determining Demand for healthcare – Price factors, Patient factors and Physician factors (Supplier Induced Demand)

Unit 3: Healthcare Market:

Market Failure: Imperfect Competition, Risk and Uncertainties, Unequal Information, concern of equity, Externalities; Concepts of efficiency, effectiveness, Market of unqualified medical care providers; Grover C. Wirick factors of demand for Healthcare.

Unit 4: Concepts of Costs and Healthcare Expenditure

Classification of Costs on the basis of Traceability, cost behaviour, controllability and selection among alternatives; Calculations and curves of Total Costs, Fixed costs, Variable costs, Average Costs and Marginal cost; Types of economic evaluation in health care; Public Health Expenditure on Health; National Health Accounts – Financing Sources, Financing agents, Providers and functions.

Unit 5: Health Insurance

Insurance and demand for healthcare, Adverse Selection, Moral Hazard; Health Insurance in other countries; Private Health Insurance

– Mediciam, Third Party Administration (TPA) Management; Social Health Insurance – ESI, CGHS, RSBY, Ayushman Bharat; Microfinance

Text & References:

1. Dutta ShuvenduBikash, Health Economics for Hospital Management, Jaypee publications.
2. Brijesh C Purohit, Economics of Public health and Private Healthcare and Health Insurance in India, Sage publications.
3. Ceri J Phillips. Health Economics- An introduction for health professionals, Blackwell publishing.
4. Clewer Ann and D Perkins. Economics for healthcare management, Prentice Hall.
5. Folland S, A.C. Goodman, and M. Stano, The economics of health & Healthcare, Prentice Hall
6. Usha Mehta, A.D. Narde. Health Insurance in India and Abroad, Allied Publishers.
7. Thomas K. T., Sakthivel R. Health Insurance In India: Overcoming Challenges and Looking Ahead, Lambert Academic Publishing, 2012

Human Resource Management Paper Code- MHM 104

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course aims at developing the skills of managing people in the health organizations and systems. It also Introduces concepts of human resource management in the context of organization, organizational characteristics, learning organization, human resource planning, recruitment and selection, job analysis and evaluation, performance appraisal, career planning, motivation, leadership, team work, and managing employees relations.

Course Objectives: The objectives of this course are to:

- Provide an understanding of the dimensions of the management of human resources, with particular reference to HRM policies and practices in India.
- Explain the development, implementation, and evaluation of employee recruitment, selection, and retention plans and processes.

Course Outcomes: After completing the course, students would be able to:

CO1 To describe the organizational context in which human resource management activities take place.

CO2 Describe human resource planning as a systematic approach to the acquisition, use and deployment of people in the organization

CO3 Conduct job analysis and job responsibilities; outline the nature of the contract between the employer and an employee

CO4 Identify key issues in performance appraisal, training and development of the employees

CO5 Describe the main features of the collective relationships between employers and employees and describe organizational characteristics and learning organization

Course Content:

Unit 1: Overview of HRM

Introduction of HRM, Overview of HRM, Scope of HR, Nature of HR, Need for HR Planning, Organization culture- Induction and Socialisation, Roles and Responsibilities of HR Manager, Challenges Issues in HRM, HR Information Systems- EHRM, International trends in HR Management

Unit 2: Human Resource Planning, Training and Development

Recruitment and Selection, placement and planning staffing. Job Analysis & Design- job description- job specification- job enlargement- job enrichment

Appraising & Managing Performance-different methods- Traditional and modern- and other methods-potential appraisal -succession planning, Promotion procedure and policies, Employee Training & Development, Career Planning & Development.

Unit 3: Wages and Compensation and Employee Grievances

Wages and compensation -Employee Remuneration, Administrative job evaluation, Designing and administering the wage and salary structure- Non financial rewards, Employee grievance Handling- Counselling and mentoring, Downsizing separation processes, Turnover retirement, Layoff discharge, VRS, Evaluation of HR effectiveness-HR audit

Unit 4: Industrial Relations

History- purpose-scope-objectives, Relationship of Industrial Relations with Employee Relations, Theories of Industrial Relations, Industrial Relations in Globalised Economy. The role of Government in Industrial Relations. National Commission on Industrial Relations Recommendations. HRM & IR

Unit 5: Trade Unions

History of Trade Unions -Structure-Organizations –Problems, Trade Unions -Theories, functions, methods. Trade Unions ACT 1926, Management of Trade Unions in India, Trade Unions in a liberalized era, Collective bargaining, workers’ participation movement, managing employee Safety and Health, ILO and India

Text and References:

1. Human Resource Management, Ashwatthapa. 8th edition.
2. Human Resource Management – Gary Dessler
3. Fundamentals of Human Resource Management, 9th Edition
4. David A. DeCenzo (Coastal Carolina University), Stephen P. Robbins
5. Human Resource Management Text and Cases (Paperback)- VSP RAO
6. Hospital Administration And Human Resource Management R.C. Goyal
7. Designing and Managing Human Resource Systems- UdaiPareek& T. V. Rao (Oxford& IBH Pub. Co. Ltd., New Delhi)

Research Methodology Paper Code - MHM 105

Contacts: 3L + 1T

Credits: 4

Course overview:

The course introduces the concepts of research, ethical principles and challenges and the elements of the research process within quantitative, qualitative, and mixed methods approaches. The rigorous curriculum prepares students to become leading public health professionals capable of addressing current global health problems with multidisciplinary, evidence-based approaches. Students will use these theoretical learnings to review literature relevant to their field or interests.

Course Objectives: The objectives of this course are to:

- Develop understanding on various kinds of research, objectives of doing research, research process, research designs and sampling.
- Impart knowledge for enabling students to develop data analytics skills and meaningful interpretation to the data sets so as to solve the organizational problems.
- Describe the participants in conducting research work and formulating research synopsis and report.

Course Outcomes: After completing this course, students would be able to:

CO1 Critically analyze research and evaluation studies from the literature in terms of the appropriateness of their research questions, designs, methodologies, results and conclusions

CO2 Develop a comprehensive evaluation plan for an intervention or program.

CO3 Conceptualize a research problem or an evaluation issue and design and carry out a study to address that problem/issue using appropriate research and analytic methods.

CO4 Gain a better understanding of data analysis and statistical issues in design of experiments, as well as the techniques and terminology commonly used to elicit and communicate evidence concerning scientific hypotheses.

CO5 Learn to properly interpret the strength of statistical arguments made by researchers, and how to weigh statistical and clinical evidence in assessing a scientific hypothesis.

Course Content:

Unit 1: Basics of Research

Definitions & uses of research in healthcare, Steps Involved in Research Process, Variables in research, Formulation of research problems, writing research questions, Development of conceptual framework.

Unit 2: Sampling & Research Designs

Sampling, Sampling Procedure, types of Sampling Techniques, reliability & validity in research, Research Designs- Non-experimental & experimental research designs.

Unit 3: Review of Literature & Hypothesis

Sources of literature review, Writing literature review, Hypothesis- Meaning and types of hypothesis, Type I & Type II errors in hypothesis testing.

Unit 4: Data Collection

Different methods of data collection- Observation method, interview method, Questionnaire and schedule, Data Management: editing, entry and preparing data sets for analysis; Design and development of questionnaire.

Unit 5: Research Report

Structure and Components of Research Report, Types of Reports, Layout of Research Report, Method of writing a research report.

Unit 6: Research Ethics & Reference Writing

Ethics in health research, confidentiality and privacy, informed consent, vulnerable subjects and special treatments; Vancouver style of reference writing

Text and References:

1. Uma Sekaran & Roger Bougie, *Research Methods for Business: A skill building Approach* 7th edition.
2. RC Goyal, *Research Methodology for Health Professionals*, Jaypee Brothers.
3. Ranjit Kumar, *Research Methodology – a step by step guide for beginners*, Sage Publications.
4. Gummerrsson, E. *Qualitative methods in Management Research*, Sage publications
5. *Designing and conducting Health surveys*, Jossey Bass Publishers.
6. Varkevisser, C. M., Pathmanathan, I., & Brownlee, A. T. (2003). *Designing and conducting health systems research projects* (Vol. 1). IDRC.
7. John Creswell (2013). *Research Design: Qualitative, Quantitative, and mixed methods approaches*. Fourth edition, Sage Publications
8. Kothari, C.R., 1990. *Research Methodology: Methods and Techniques*. New Age International. 418p.
9. Ulin P, Robinson E, Tolley E. (2005), *Qualitative Methods in Public Health : A field guide for Applied Research*, Jossey Bass Pub.
10. Russell Bernard H., Gery W. Ryan (2010), *Analyzing Qualitative Data: Systematic Approaches*, SAGE Publications.

Demography

Paper Code- MHM 106

Contacts: 3L + 1T

Credits: 4

Course Overview:

This course intends to teach global population trends and patterns, population and health, enhance the technical skill and knowledge regarding use of demographic data for policy analysis, program strategies and priorities. It would cover measures and indicators of nuptiality, fertility, mortality and migration and migrant health issues and provide skills in making population estimation and projection.

Course Objectives: The objectives of this course are to:

- Discuss basic techniques and concepts in population sciences.
- Explain students the fundamentals of population studies and its links with health.
- Apply practical knowledge and skills of demographic and health data sources.

Course Outcomes: After completing this course, students would be able to:

CO1: Provide necessary skill to evaluate the impact and consequence of population growth on society.

CO2: To give the knowledge of population policy, population measures, population dynamics, discuss population composition and characteristics; and basic concepts in population dynamics,

CO3: To provide the knowledge of causes of population growth and government's efforts to check it.

CO4: To know the causes of urbanization and its related problems.

Course Content:

Unit 1: Population Fundamentals

Science of demography, Demographic cycle, Population trends and demographic indicators, Factors affecting population, Demography and Family Planning and its role in population policy of India.

Unit 2: Demographic Studies

Fundamentals of population studies and its links with health. Methods of demographic data collection, sources of data, population census, population composition, world population growth, growth of Indian population, morbidity, mortality, ageing, migration/urbanization, population projections life tables.

Unit 3: Family Planning

Fertility and fertility factors, Family planning, Population policies & programmes and National Population Policy, Family planning 2020 India commitment

Text & References:

1. Asha Bhende and Tara Kanitkar. Principles of population Studies, Himalaya Pub Houses,
2. John Weeks, Population, Wordsworth pub, 1994.
3. S.N.Singh, M.K.Premi, P.S.Bhatia. Population Transition In India, B. R. Publishing Corporation.
4. P.B. Desai. Population in the context of India's development, UGC – UNFPA project.
5. Peter Cox. Demography, Cambridge University Press
6. K.B. Pathak, F. Ram. Techniques of Demographic Analysis, Himalaya Publishing Houses.
7. Health Monitor, Foundation for Research in Health S.
8. International Institute for Population Sciences. National Family Health Survey – 1, 2 and 3, Mumbai.
9. K. Srinivasan. Basic graphic Techniques and Applications, Sage Publications, 1998

Communication Skills – I

Paper Code- MHM 107

Contacts: 2L

Credits: 2

Course Overview:

This course is designed to facilitate the students to communicate effectively by emphasizing on practical communication through refurbishing their existing language skills and also to bring one and all to a common take-of level

Course Objective:

To enable students to be an integral part of corporate communication network

Course Outcomes: After completing this course students should be able to:

CO1 Understand the scope and importance of communication

CO2 Enhance their oral and written communication skills and use different forms of written communication techniques to make effective internal and external business correspondence.

CO3 Understand the importance of listening and speaking.

CO4 Produce different types of reports with appropriate format, organization and language

CO5 Use of technology for improving the communication process.

Course Content:

Unit 1

Communication Skills-Meaning and Introduction- Process of Communication-Types of Communication-Verbal- Non-verbal -

Advantages ,Disadvantages Body Language-Channels of Communication- Formal and Informal -Directions of Communication within organisation –Barriers to communication-Listening Skills.

Unit 2

Presentation Skills and confidence building, Aids to Correct business Writing, Email writing, Resume writing, Telephone etiquettes, Group Discussion,, Mind mapping, Networking skills, Soft skills,Facing Interviews-Mock interviews-FAQ, Stress management

Text & References:

1. Sharan J.Gerson and Steven M.Gerson – “Technical Writing – Process and Product” – Pearson Education – 2000.
2. Raymond V.Lesikar, John D. Pettit and Mary E.Flatley – Lesikar Basic Communication Tata McGraw Will 8th Edition – 1999.
3. Stevel. E. Pauley, Daniel G.Riordan – Technical Report Writing Today – AITBS Publishing & Distributors, India 5th edition – 2000.
4. Robert L.Shurter, Effective letters in business Third Ed. 1983.
5. Communication Skills by Vasantha Patri
6. McGraith – Basic Managerial Skills for all Prentice Hall of India – 6th Edition 2002.
7. Halliday, M.A. K R .Hasan, Cohesion in English, Longman, London 1976.

Computer Application Lab

Paper Code-MHM 108

Contacts: 4P

Credits: 2

Course Overview:

The course will expose the students to the developments in computer technology and will help the students understand the application of information technology in the healthcare industry.

Course Objectives: The objectives of this course are:

- To develop the end-user IT skills
- To learn various computer applications, databases and statistical tools applicable in hospitals

Course Outcomes: On completion of this course, the students will be able to:

CO1: Understand the concept of Computer's Input/output devices, the concept of databases, data types, MS Word, MS Excel, MS Power Point, array, pointers, string, structures and files.

CO2: Design program logic on real-world industry related problems.

CO3: Apply programming concepts to compile programs to find solutions.

CO4: Apply of IT tools in various functions of pharmaceutical organizations.

Course Content:

Unit 1

Introduction to Windows: Application in Windows – word processing (MS Word) – Spreadsheet (MS Excel) – Presentation (MS Power Point) – Relational databases (MS Access).

Unit 2

Introduction to Databases: Application of Databases – Parts of Databases – Types of Databases – Role of Social Media in today's scenarios-presenting of data-Social Media and Data-Big Data Introduction.

Unit 3

Awareness on the application of IT in Various functions of Hospital; Working knowledge of commonly used hospital software, Application of statistical tools through SPSS in the areas of Health services.

Semester - 2

Semester	Paper Code	Subject	Periods			Credit Units	Evaluation scheme		
			L	T	P		Internal	External	Total
2	MHM 201	Biostatistics	3	1	-	4	20	80	100
	MHM 202	Epidemiology	3	1	-	4	20	80	100
	MHM 203	Organizational Behaviour	3	1	-	4	20	80	100
	MHM 204	Hospital Planning	3	1	-	4	20	80	100
	MHM 205	Hospital Management – I	3	1	-	4	20	80	100
	MHM 206	Hospital Management Information System	3	1	-	4	20	80	100
	MHM 207	Material and Equipment Management	3	1	-	4	20	80	100
	MHM 208	Communication Skills – II	2	-	-	2	50*	-	50
	YGS 104	Yogic Science	2	-	-	2	10	40	50
	YGS 104 (P)	Yogic Science Practical	-	-	4	2	10	40	50
		Total		25	7	4	34	210	640

*Evaluation to be conducted by internal faculty/examiner.

**At the end of 2nd semester mandatory Summer Internship of 4-6 weeks. Internship report will be presented and evaluated during 3rd semester.

Biostatistics

Paper Code- MHM 201

Contacts: 3L + 1T

Credits: 4

Course overview:

This course intends to teach bio-statistical methods and concepts used in the health sciences, emphasizing interpretation and concepts. It also develops the ability to read the scientific literature to critically evaluate study designs and methods of data analysis. The course also introduces basic concepts of statistical inference, including hypothesis testing, p-values, and confidence intervals.

Course Objectives: The objectives of this course are to:

- Develop the understanding of various statistical tools used for decisions making and explain how each tool can be used in the healthcare environment.
- Explain the students different types of data arising in public health studies; interpret differences in data distributions via visual displays; calculate standard normal scores and resulting probabilities.
- Describe the use of statistical software package SPSS for different hypothesis testing procedures covered in the course.

Course Outcomes: After completing the course, the students would be able to:

CO1 Learn different statistical techniques used in healthcare sector.

CO2 Learn to make practical use of statistical computer packages.

CO3 Develop a comprehensive evaluation plan for healthcare services with the help of statistical tools & techniques.

CO4 Gain knowledge of basic statistical tools with emphasis on their application in hospital environment.

CO5 Learn to write research proposals/reports/projects.

CO6 Understand the concepts of statistical inference

Course Content:

Unit 1: Introduction to Biostatistics

Classification of data, Source of data, Variables, Scales of measurement- nominal, ordinal, ratio and interval scale, building composite scales, measuring reliability and validity of scales.

Unit 2: Measures of central tendency and dispersion

Measures of central tendency- Mean, Median, Mode

- Measures of dispersion – Range, Mean deviation & Standard deviation.

Unit 3: Sampling and Probability distributions

- Population, Sample, Sampling frame, Sampling process, Types of sampling, sample size calculation.
- Concepts of Probability distributions– Binomial, Poisson & Normal Probability Distribution.

Unit 4: Hypothesis testing

- Null hypothesis, alternative hypothesis, level of significance, how to choose the statistical test
- Non parametric tests: Chi square test, Mann-Whitney U test
- Parametric tests: Student's T-test (One sample t test, Independent sample t test, Paired t test), ANOVA

Unit 5: Correlation and regression analysis

- Definition, types and degrees of correlation, Karl Pearson's coefficient of correlation, Spearman Rank correlation

- Regression Analysis: Linear regression, multiple regression

Unit 6: Statistical methods and application

SPSS processing, Statistical procedures-descriptive, univariate, bivariate and multivariate statistics; parametric and non-parametric tests; correlation and regression.

Text and references:

1. B.K. Mahajan. Methods in Biostatistics, Jaypee Brothers
2. P.S.S. Sundar Rao. An Introduction to Biostatistics: A manual for students in Health Sciences, J.Richard Prentice Hall, 1996.
3. TR Jain, SC Aggarwal, Quantitative Methods for MBA, VK India Enterprises.
4. Daniel, Wayne.W. Bio-Statistics: A foundation for Analysis in the Health Sciences, John Wiley and Sons Pub, 1991.
5. K. Vishwas Rao. Bio-Statistics: A Manual of statistical methods for use in the Health, Nutrition and Anthropology, Jaypee Brothers Medical Pub, 1996.
6. Verma B.L., Shukla G.D. Bio-Statistics perspective in Health care research and practice, C.B.S. Pub, 1993.
7. Krishnaiah, P.K. Rao, C.R. (ed), Handbook of Statistics, Elsevier Science Pub, 1988.
8. Beri - Business Statistics (Tata Mc Graw Hill 2nd Edition).
9. Chandan J S - Statistics for Business and Economics (Vikas 1998.1st Edition).
10. Render and Stair Jr - Quantitative Analysis for Management (Prentice-Hall, 7th edition)
11. Sharma J K - Business Statistics (Pearson Education 2nd Edition).
12. Gupta C B, Gupta V - An Introduction to Statistical Methods (Vikas1995, 23rd Edition).
13. Levin Rubin - Statistics for Management (Pearson 2000, New Delhi, 7th Edition).

Epidemiology

Paper Code- MHM 202

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course introduces risk measurement, age adjustment and survival analysis and use of morbidity and mortality indicators. It helps students understand the epidemiological study designs, bias, confounding and disease surveillance. The course also equips the students with knowledge and skills regarding general principles of public health research.

Course Objectives:The objectives of this course are to:

- Discuss models and inference underlying observational studies.
- Determine the applications of epidemiology in public health decision making.
- Evaluate the scientific merit and feasibility of epidemiological study designs.
- Describe and recognize potential causes of confounding in epidemiologic studies.

Course Outcomes: After completing the course, the students would be able to:

CO1 To study basic epidemiology principles, concepts and procedures useful in the surveillance and investigation of health-related states or events.

CO2 Describe key features and applications of descriptive and analytic epidemiology.

CO3 Calculate and interpret ratios, proportions, incidence rates, mortality rates, prevalence, and years of potential life lost.

CO4 Describe the processes, uses, and evaluation of public health surveillance.

CO5 Describe the steps of an outbreak investigation.

Course Content:

Unit 1: Basic concepts of epidemiology

Epidemiology: Basic concepts, methods, principles and use of epidemiology. Epidemiological tools for assessment of risks. Investigation of an epidemic and role of hospital in its control.

Unit 2: Descriptive epidemiology

Natural History: History of a disease and its application in planning intervention. Modes of transmission and measures for prevention and control of communicable and non-communicable disease. Diseases: Definition, calculation and interpretation of the measures of frequency of diseases and mortality.

Unit 3: Epidemiological measurement methods

Principal sources of epidemiological data, epidemiological research, summary measures (ratios, proportion and rates), incidence and prevalence, sociometric choice patterns in hospital ward groups. Uses and abuse of Screening Tests: Accuracy and clinical value of diagnostic and screening tests (sensitivity, specificity & predictive values).

Unit- 4: Epidemiological study designs and analysis

Various types of epidemiological study designs. Review of literature for a certain public health problem along with critical comments and formulation of solutions, Epi-info software for epidemiological analysis.

Text and References:

1. Beaglehole. R. Bonita, et. al Basic Epidemiology: WHO Publication, Geneva, 1993.
2. David E., et. al. Foundations of Epidemiology : Oxford University Press, New York, 1984.

3. Epidemiology in health care planning: E.A. Knox (ed), Oxford University Press, New York, 1979.
4. Silman and McFarland: Epidemiological Studies, Practical Guide 2nd Edition
5. Aschengrau and Seage: Essentials of Epidemiology in Public Health
6. Friis Robert: Epidemiology for Public Health Practice, Third Edition
7. Timmreck Thomas C: An Introduction to Epidemiology, Third Edition 2002
8. Text Book of Preventive and Social Medicines - K. Park, M/s Banarasidas Bhanot.
9. Preventive and Social Medicine – Prabhakar Rao.
10. Text book of Social & Preventive Medicine – Mahajan.

Organizational Behaviour

Paper Code -MHM 203

Contacts: 3L + 1T Credits: 4

Course Overview:

Students study the behaviour of individuals and groups as part of the social and technical system in the Hospital ecosystem. They examine individual and group behaviour, communication, conflict and various management styles, motivational techniques and coordination in the work environment and apply these concepts to the development of an organization's human resources.

Course Objectives: The objectives of this course are to:

- Discuss organizational behaviour as well as the roles and responsibilities of management within healthcare organizations through the macro (organization-wide) and micro (individual and team performance) perspectives.
- Analyze and compare different models used to explain individual behaviour related to motivation and rewards, conflict and stress management.
- Understand the concepts like group dynamics, team building, negotiation, leadership styles and the role of leaders in a decision making process.
- Understand organizational strategy and culture, its dimensions, various organizational designs and concept of organizational change.

Course Outcomes: After completing the course, students should be able to

CO1 Identify the impact of individual behaviour on groups and on the organization as whole.

CO2 Analyze and compare various theories of personality and learning theories

CO3 Identify the role and importance of communication and resolving conflicts

CO4 Explain group dynamics and demonstrate skills required for working in groups (team building)

CO5 Identify the various leadership styles and the role of leaders in a decision making process.

CO6 Analyze and compare different models used to explain individual behaviour related to motivation and rewards

Course Content:

Unit 1: Introduction to Organizational Behaviour

Nature Scope and Purpose – Definition of Organizational Behavior, Need, Importance and Emergence of Organizational Behavior — Frame Work – Organizational Behavior Models

The Individual - Foundations of Behaviour, Ability, Personality, Learning. Group and Interpersonal Behaviour, Decision Making, Values, Attitudes, Perception, Applications of Attributes. Individual Values and Ethics-Self-Concept, Self-Esteem and Self-Efficacy-Locus of Control-Abilities and Performance

The Group – Foundations of Group Behaviour, Defining and Classification of Groups, Group Decision Making, Understanding Teams – Types of Teams, Teams and Groups Concepts, Group Dynamics, Emergence of Informal Leaders and Working Norms – Interpersonal Relations – Communication – Control, Team Building

Unit 2: Leadership and Motivation

Meaning – importance – leadership approaches – theories – trait theories, Behavior theories, leaders Vs managers, contemporary issues in leadership., Power and politics - power centers –Organizational politics-tactics. Motivation – concepts, significance, theories: natural, incentive, behaviourist, socio cultural theory, content and cognitive (process) theories, thematic apperception test, attribution theory, approach avoidance, employee motivation- job characteristics model

Unit 3: Organisation Dynamics: Culture and Design

Definition of Organisational Culture, Characteristics of Culture, Strong and Weak types of Culture, Changing Organisational Culture, Differences in Culture and Climate, Assessing Organizational Citizenship Behaviour. Organisational Design - Definition of Organisation, Importance of Organising Process, Organisation Design Process, Internal Contingency Factors: Technology, External Contingency Factor: Environment and Information processing.

Unit 4: Organisational Strategy and Technology

Introduction, Definition of Strategy, Components of Organisational Strategy, Vision and Mission, Strategy Management Process, Organisational Strategy Implementation, Organisational Issues, Innovation Process, Project Groups, Technology Opportunity, Technological Concepts, Introduction of New Technologies in Organisations.

Unit 5: Conflicts, Negotiations & Stress Management

Definition, Transitions in conflict thought, functional Vs dysfunctional conflict, the conflict process. Consequence of Conflict-Stress, Emergence of Stress, Causes-Copying mechanisms, psychosomatic disorders, consequences, managing stress. Negotiating and Resolution- Conflict Management, managing interpersonal and Inter-group conflict-negotiation tactics, change.

Text and References:

1. Organizational Behaviour Stephen P. Robbins, Timothy A. Judge, Neharika Vohra, 16th edition
2. Organizational Behaviour by Stephen P. Robbins
3. Organizational Behaviour by Fred Luthans
4. Hersey, P and Blanchard, K: Management of Organizational Behaviour
5. Behavioural Processes in Organization by D. M. Pesonjee, T. V. Rao and UdaiPareek

Hospital Planning

Paper Code - MHM 204

Contacts: 3L + 1T

Credits: 4

Course Overview:

This course is intended to teach considerations for building healthcare facilities to enhance patient and staff safety and satisfaction. Includes steps in hospital planning, conducting master planning and pre-designing. It will impart understanding of joint commission and its considerations along with planning and designing of various clinical and support departments and their commissioning.

Course Objectives: The objectives of this course are:

- To learn various specifications to be considered while planning for hospital services
- To expose the students to planning of hospitals in a detailed manner this will include all facets of hospital planning activities.

Course Outcomes: After completing the course, students would be able to:

CO1 Strategically evaluate an organization, its present position, long-term direction, resources and competitive capabilities, and its opportunities for sustainable growth.

CO2 Generate a healthcare organizational mission statement, vision, objectives and strategic priorities.

CO3 Understand planning and operation of hospitals in detailed manner

CO4 Analyze salient healthcare industry trends for application to hospital planning.

CO5 Learn the recent advances in hospital planning like green hospitals.

Course Contents

Unit 1: Introduction to Hospital Planning

Conception of idea, formation of hospital planning team, market survey, feasibility study, selection of location, Financial planning of hospitals, Macro level planning,
Conception to commissioning: site development, architects brief working drawings and specifications, engineering drawing, equipment planning, bed distribution, space allocation, interior designing and construction of building - commissioning, shake down period

Unit 2: Planning for Medical and Ancillary services

Out-patient services, Emergency services, Day care services, Inpatient services and Intensive Care Units (ICU), Surgical suites, Labor and delivery suites-LDRP suites.

Unit 3: Planning for Supportive Services

Medical Records department, Laboratory services, Blood Banking, Radiological services, Medical Store, Medical gas system, HVAC, CSSD, Food & Beverages and Laundry & linen services.

Unit 4: Planning for Advanced facilities

Cardiac catheterization laboratory, Endoscopy units, Radiotherapy unit, IVF unit and Dialysis unit.

Unit 5: Recent Advances in Hospital Planning

Green Hospitals, Energy efficiency in hospitals, Robotics in Hospitals, Geriatric Care

Texts & References:

1. Modern Trends in Planning & Designing of Hospitals: Principles and Practice: Shakti Kumar Gupta, Sunil Kant, R Chandrashekhar, SidharthSatpathy, by Jaypee.
2. Principles of Hospital Administration & Planning — B.M.Sakharkar, Jaypee Brothers
3. Hospitals: Facilities Planning and Management, GD Kunders& Gopinath, by Tata Mcgraw Hill
4. Hospital Planning: Charles Butler, Addison Erdman
5. Dr Malhotra's series: Step by Step – Hospital designing & Planning, by Jaypee 2007

Hospital Management – I **Paper Code- MHM 205**

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course covers the concepts of medical tourism, provides basic knowledge of disasters and their consequent effects and basic skills of managing situations during and after disasters.

Course Objectives: The objectives of this course are:

- To acquaint students to the concept medical tourism.
- To learn, identify and assess disasters and set-forth policies and plans for disaster preparedness.
- To learn basic concepts related to medical records and biomedical waste management so that the students are ready for challenges of hospital management.

Course Outcomes: After completing the course, students should be able to:

CO1 Gain insights into the importance, functions, policies and procedures, equipping, controlling, co-ordination, communication, staffing, reporting and documentation of Medical Records Department

CO2 Well versed with the Bio-medical waste management.

CO3 Explain the elements of an organizational crisis and disaster plan.

CO4 Understand foundations of hazards, disasters and associated natural/social phenomena.

CO5 Familiarity with disaster management theory (cycle, phases)

CO6 Methods of community involvement as an essential part of successful DM

CO7: Understand the strength, weaknesses, opportunities and challenges of Medical tourism in India

Course Content:

Unit 1: Hospital System

Introduction to hospitals, Classification and functions of Hospitals, historical development of hospitals, Concept of Modern Hospital, Role of Hospital Administrators.

Unit 2: Medical Records and Hospital Statistics

Types of medical record, Importance of medical record, Organizations & management of Medical Records Department, Role of MRD personnel in Medical Record keeping, Coding, Indexing, Filing and Storage of Medical records, Statistical information and reports generated by MRD, Basic knowledge of legal aspects of Medical Records.

Unit 3: Biomedical Waste Management

Bio medical waste management and Handling Rules, Classification of Biomedical wastes, Color Coding, Segregation, Collection, Transportation and Disposal of different types of BMW, Safe handling and disposal of radioactive waste, Methods of disinfection; Kayakalp Initiative, Guidelines for Handling, Treatment and Disposal of waste generated during treatment / Diagnosis / Quarantine of Covid-19 patients.

Unit 4: Disaster Management

Classification of Disasters, Effects of disasters, Phases of Disaster Management, Fire Safety, Impact of disasters on Hospitals, Hospital Disaster Management Plan.

Unit 5: Medical Tourism

Medical tourism in India, History of medical tourism, Medical Tourism Value Chain, Methods to attract foreign medical tourists, government policy on medical tourism, SWOT Analysis of Medical Tourism in India, Ethical and Social concerns in Medical Tourism.

Text and References:

1. Principles of Hospital Administration & Planning: B.M.Sakharkar, Jaypee brothers Publications.
2. Park's textbook of Preventive & Social medicine.
3. Kunders G.D., Gopinath S., and Katakam A. Hospital Planning, Design and Management, Tata McGraw Hill, New Delhi, 1999
4. Sana's Guidelines for Hospital Infection Control – By Mohd. S. Khan – Jaypee Brothers, New Delhi.
5. Hospital Waste Management & it's Monitoring – By Madhuri Sharma – Jaypee Brothers, New Delhi.
6. Hospital Stores Management – By Shakti Gupta & Sunil Kant - Jaypee Brothers, New Delhi.
7. Medical Records, Organisation & Management – By G.D. Mogli– Jaypee Brothers, New Delhi.
8. Mrinalini Pandey, Disaster Management, Wiley Publications.
9. Hospital Waste Management – By A.G. Chandorkar – Paras Medical Publisher.
10. Arun Kumar, (ed) Encyclopedia of Hospital Administration and Development, Anmol publications, New Delhi, 2000.
11. Srinivasan, A.V. (ed), Managing a Modern Hospital, Chapter 2, Response Books, New Delhi, 2000.
12. Bio medical waste act & Rules, Govt. Of India.

Health Management Information System

Paper Code -MHM 206

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course provides an overview of Health Information Management System, its structure and functions; identifies information needs and indicators in the hospitals; describes uses of information for effective management of hospital services; describes various decision models and reviews decision making process in hospitals; application of information in performance tracking and analysis; monitoring of services and programs, supervision and impact evaluation. The course emphasizes on designing health information system and use of IT.

Course Objectives:The objectives of this course are:

- To provide knowledge on classification of information systems and health informatics
- To develop skills in identifying the information system according to hospital needs.
- To understand the various indicators of health and health information system and health management information system in hospitals.

Course Outcomes:

CO1 Describe the evolution of information technology and its uses in hospital management and delivery.

CO2 Relate the use of data and enabling information technologies in clinical outcomes management.

CO3 Evaluate the roles of information system applications common in hospitals: including electronic medical records; medical decision support; diagnostic information systems, physician practice management systems, claims processing etc

CO4 Conduct an information technology needs assessment of a hospital.

CO5 Diagram the process and critical issues related to identifying information and systems requirements and designing, developing, testing, implementing and evaluating information systems in healthcare settings.

CO6 Analyze and synthesize the ethical issues related to hospital information management and the use of information technology in hospital management and clinical practice; including privacy, confidentiality and security issues.

CO7 Analyze current and future trends in the application of information technology to the healthcare industry.

Course Content:

Unit 1

Health Management Information Systems in India, functional modules of e-hospitals Organizational Arrangements, Evaluation and application for the HMIS in India.

Unit 2

Paperless Hospital management: Health records - functions, privacy and confidentiality, paper records - advantages & disadvantages, Electronic Health Records, advantages, disadvantages, bedside point of care systems, human factors and the EHR, Roadblocks and challenges to EHR implementation.

Unit 3

Telemedicine - Historical perspectives, types of technology, Tele-health delivery models in India, advantages and barriers of telehealth, future trends, knowledge management.

Unit 4

Approaches to Hospital Information System: patient based, functional organisation based, clinical information, nursing info system,

appointment scheduling, dissemination of diagnostic information, registration general administration & productivity. Medical transcription - speech recognition, security, barriers and success factors in to information technology implementation.

Unit 5

Software Applications in Health Care - Awareness on the application of computer software packages in various functions of Hospital. Internet and Intranet and their application in healthcare.

Text and References:

1. Management information systems - Srivastava, Jaypee
2. Management Information Systems – Conceptual foundations, structure and development, Gordon B.Davis and M.H. Olson, McGraw Hill Publishing, 1984.
3. Management Information System, Mahadeo Jaiswal & Monika Mital,Oxford University Press, 2005.
4. Management Information System - Sadagopan.S, Prentice Hall India Private Limited, New Delhi 2004.
5. Management Information System - Kenneth .C.Laudon& Jane P.Laudon Prentice - Hall India Private Limited, New Delhi, 2006.
6. Managing with Information, Jerome Kanter, Prentice Hall – India Private Limited, New Delhi, 2004, 4th Edition.
7. Internet: An Introduction – CIS Series, Tata McGraw Hill.
8. Informatics for Healthcare professional - Kathleen M,
9. Management Information system - James O’Brien, Tate McGraw Hill

Material & Equipment Management Paper Code- MHM 207

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course emphasizes on developing requisite knowledge and skills in managing inventory, equipment, and drug supplies in the hospitals; describes methods of procurement, storage and distribution of drugs.

Course Objective: The objective of this course is:

To make students conversant with purchase management, inventory management and stores management.

Course Outcomes: After completing this course, the students would be able to:

CO1 Describe role and importance of inventory, logistics and supply management in health care.

CO2 Learn various techniques of inventory management including ABC, VED etc and calculating Re-order level, buffer stock and Economic Order Quantity.

CO3 Understand the processes of stock verification, condemnation and disposal.

CO4 Learn the planning, maintenance of biomedical equipments.

CO5 Understand the legal implications of letter of credits, import & export policies and registration and blacklisting of firms.

Course Contents:

Unit 1: Introduction to Material Management and Purchase Management

Scope, importance and objectives of Materials Management, Material Cycle. Procurement procedure, Tendering system, Modes of tenders, Types of purchase orders.

Unit 2: Inventory Management

Types of Inventory, Inventory Control, Lead Time, Buffer stock, Re-order level, Economic Order Quantity, Inventory ordering systems.

Inventory Control Costs –Purchase, cost, shortage cost, inventory carrying cost, inventory acquisition cost.

Inventory Control Techniques like ABC, VED, FSN, SAP and MUSIC-3D

National List of Essential Medicines

Unit 3: Stores Management

Functioning of stores, types of hospital stores, layout and planning of hospital stores, preservation of material, duties of storekeeper and officer-in charge; Jan Aushadhi Stores; Material Codification, Process of Stock Verification, Pilferage, Stock distribution systems, criteria and methods of stock condemnation and disposal.

Unit 4: Equipment Management

Classification of Hospital Equipments, Planning & selection of Equipments, Factors affecting utilization of equipment, History Sheet of equipment, Equipment Failure, Equipment Maintenance and Repair.

Unit 5: Legal Aspects

Contract Administration, Role of Director General of Supplies and Disposal, Registration and blacklisting of firms, Letter of Credit and its types

Text and References:

1. N. Chapman Stephen, Introduction to Materials Management, Pearson Publications.
2. Inventory Control and Management, 2nd Edition by Donald Waters. ISBN: 9781118585214.
3. Essentials of Inventory Management by Max Muller. ISBN: 978-0814416556
4. Inventory Strategy: Maximizing Financial, Service and Operations Performance with
5. Inventory Strategy by Edward H. Frazelle. ISBN: 978-0071847179.
6. Supply Chain Strategy 1st Edition by Edward Frazelle. ISBN: 063-9785330219.
7. Inventory Accuracy: People, Processes, & Technology 1st Edition by David J. Piasecki. ISBN: 978-0972763103.
8. Inventory Management Explained: A focus on Forecasting, Lot Sizing, Safety Stock, and Ordering Systems by David J. Piasecki. ISBN: 978-0-9727631-1-0.
9. Hospital Stores Management- An Integrated Approach, by Dr. Gupta Shakti, Jaypee Brothers.
10. Material Management by Dr. Pawan Arora, Global India Publication Pvt Ltd
11. Handbook of Materials Management, P. Gopalkrishnan, Eastern Economy Edition
12. Procurement and Materials management for Hospitals, Rex H Gregor, Harold C. Mickey

Communication Skills-II

Paper Code- MHM 208

Contacts: 2L

Credits: 2

Course Overview:

This course is designed to facilitate the students to communicate effectively by emphasizing on practical communication through refurbishing their existing language skills and also to bring one and all to a common take-of level

Course Objective: The objective of this course is:

To enable students to be an integral part of corporate communication network.

Course Outcomes: After completing this course students should be able to:

CO1 Understand the scope and importance of communication

CO2 Enhance their oral and written communication skills and use different forms of written communication techniques to make effective internal and external business correspondence.

CO3 Understand the importance of listening and speaking.

CO4 Produce different types of reports with appropriate format, organization and language

CO5 Use of technology for improving the communication process.

Course Content:

Unit 1

Types of personalities- The Assertive personality-Personality Tests;
Goal setting and achievement

Unit 2

EQ and IQ; Aptitude tests; Creative problem solving/Innovative thinking; Transactional analysis

Unit 3

Time management; Managing change; Conflict management; managing meetings; Attitude

Unit 4

Diversity management; Leadership and team building; Personal impact; Corporate etiquettes

Unit 5

Human behaviour and communication, its role in public health problems and solutions

Unit 6

Evidence based advocacy; Consensus building

Text & References:

1. Sharan J.Gerson and Steven M.Gerson – “Technical Writing – Process and Product” – Pearson Education – 2000.
2. Raymond V.Lesikar, John D. Pettit and Mary E.Flatley – Lesikass Basic Communication Tata McGraw Will 8th Edition – 1999.
3. Stevel. E. Pauley, Daniel G.Riordan – Technical Report Writing Today – AITBS Publishing & Distributors, India 5th edition – 2000.
4. Robert L.Shurter, Effective letters in business Third Ed. 1983.
5. Communication Skills by Vasantha Patri
6. McGraith – Basic Managerial Skills for all Prentice Hall of India – 6th Edition 2002
7. Halliday, M.A. K R Hasan, Cohesion in English, Longman, London 1976

Yogic Science **Paper Code -YGS 104**

Contacts: 2L

Credits: 2

Course Overview:

The course imparts overview of history, tradition and branches of Yoga. Students are also oriented about different types of Yoga Asanas, their importance, methods, rules, regulations and limitations.

Course Objectives:The objectives of this course are:

- To understand the basic concepts and types of Yoga
- To apply the principles of Yoga to live healthy and active lifestyle
- Promote the awareness of health through yoga
- Explain Health plans and recipes in different lifestyle diseases

Course Outcomes: On completion of this course, the students will be able to:

CO1: Explain the various definitions of Yoga, history of Yoga and branches of Yoga.

CO2: Describe kinds of Yogasanas, its importance, methods, rules, regulations and limitations.

CO3: Demonstrate knowledge of pranayamas, pranaand lifestyle, breathing and lifespan.

Course Content:

Unit 1: Introduction to yoga

- Yoga – an exact science and practical system of self -culture
History & Tradition of Yoga – Yoga sutra of Pantanjali, Yoga as explained in Bhagvad Gita, Yoga in daily life, Yoga – one of the

Six Darshans (Philosophy), UN resolution and International Yoga Day

- Introduction of Hatha Yoga, Raja Yoga & Kundalini Yoga
- Eight limbs of Yoga as per Yogasutra of Patanjali – Discipline/self restraint (Yama), Observance (Niyama), Posture (Asana), Restraint of breath/exercises of life force (Pranayama), Abstraction of senses/Introversion-of attention (Pratyahara), Concentration (Dharna), Meditation(Dhyana) and Super conscious state/illumination (Samadhi)
- Aphorism from Yoga Sutra: II.29, II.30, III.32, III.46, III.49, III.54, III.1, III.2, III.3 & III.4 defining above terms
- Introduction of Mudras, Bandhas and Shat karmas

Unit 2: Kundalini Yoga

- Seven Chakras – Muladhara (at the anus), Svadhisthana, (at the root of organ of generation), Manipura (at the navel), Anahata (in the heart), Visuddha (at the neck), Ajna (in the space between two eyebrows) & Sahasrara (at the crown of head)
- Nadis – Ida, Pingala, Shushumna
- Awakening of Kundalini by Pranayama, Asanas & Mudras by Hathayogis and through Concentration by Rajayogins

Unit 3: Raja Yoga

- Purification and Control of mind
- Concentration : Power of concentration, Aids to Concentration, Objects for Concentration, Benefits of Concentration
- Meditation : Concrete and Abstract, Types of Meditation viz Gross (Sthoola), Subtle (Sookshma), More Subtle (Sookshanmatrara) and Most subtle (Sookshamatama), Objects of meditation, Obstacles in meditation

Unit 4: Anatomy & Physiology Of Yoga

- Effect of Yoga on skeleton & Muscular system

- Effect of yoga on physiology

Unit 5: Nutrition In Yoga

- Diet according to season (Ritucharya)
- Health plans and recipes in some lifestyle diseases

Text and References:

1. Asana Pranayama Mudra Bandha by Swami SatyanandaSaraswati
. Publisher: Yoga Publication Trust, Munger, Bihar, India
2. Yoga on Hypertension by Swami Shankardevanand.
Publisher: Yoga Publication Trust, Munger, Bihar, India.
3. Essence of Yoga by Swami SivanandaSaraswati.
Publisher: The Divine Life Society, Uttarakhand, India
4. Yoga Sutras of Patanjali by Swami Venkateshananda
Publisher: MotilalBanarsidassPublishers Private Limited, New De
lhi, India
5. Hatha Yoga by Swami Sivananda.
Publisher: The Divine Life Society, Uttarakhand, India
6. GherandaSamhita by Swami NiranjananandaSaraswati.
Publisher: Yoga Publication Trust, Munger, Bihar, India
7. Essence of Pranayama by Dr Shrikrishna.
Publisher: Kaivalyadhama, Pune, India.
8. Dhyana Yoga by Swami SivanandaSaraswati Publisher: The Divi
ne Life Society, Uttarakhand, India

Yogic Science Practical Paper Code- YGS 104P

Contacts:4P

Credits: 2

Course Overview:

The course imparts overview of history, tradition and branches of Yoga. Students are also oriented about different types of Yoga Asanas, their importance, methods, rules, regulations and limitations.

Course Objectives: The objectives of this course are:

- To understand the basic concepts and types of Yoga
- To apply the principles of Yoga to live healthy and active lifestyle
- Promote the awareness of health through yoga
- Explain Health plans and recipes in different lifestyle diseases

Course Outcomes: On completion of this course, the students will be able to:

CO1: Learn the procedures of Pranayama and be able to execute these.

CO2: Introduce a regular and rigorous practice of yoga for lifestyle management.

CO3: Learn the procedures of different Yogasanas, Shatkarmas and be able to execute these and guide others in practice.

Course Content:

Unit 1: Asana

HATH YOGA

Unit 1:Asana

- SukshmaVyayam (Joints Movement)

Backward Bending Asanas

- Sarpasana (snake pose)
- Bhujangasana (cobra pose)
- ArdhaShalabhasana (half locust pose)
- Shalabhasana (locust pose)
- Dhanurasana (bow pose)
- Kandharasana (shoulder pose)

Forward Bending Asanas

- Paschimottanasana (back stretching pose)
- JanuSirshasana (head to knee pose)
- PadaHastasana (forward bending pose)

Meditation Asanas

- Sukhasana (easy pose)
- Padmasana (lotus pose)

Vajrasana Group of Asanas

- Vajrasana (thunderbolt pose)
- Padadhirasana (breath balancing pose)
- ShashankBhujangasana (striking cobra pose)
- Ustrasana (camel pose)

Digestive/Abdominal Asanas

- Pawanmuktasana
- Uttanpadasana (raised legs pose)
- Nukasana (boat pose)

Standing Asanas

- AkarnaDhanurasana (bow and arrow pose)
- Tadasana (palm tree pose)

- TiryakaTadasana (swaying palm tree pose)
- Kati Chakrasana (waist rotating pose)
- Dwikonasana (double angle pose)
- Trikonasana (triangle pose)

Spinal Twisting Asanas

- Bhujanamasana (spinal twist prostration pose)
- ShavaUdarakarshanasana (universal spinal twist)
- ArdhaMatsyendrasana (half spinal twist)

Balancing Asanas

- EkPadaPranamasana (one-legged prayer pose)
- Natarajasana (Lord Shiva's pose)

Relaxation Asanas

- Shavasana (corpse pose)

Advanced Asanas

- Chakrasana (wheel pose)
- Brahmacharyasana (celibate's pose)

Unit 2: Pranayama

- Narishodhan(psychic network purification)
- Ujjayi (psychic breath)
- Kapalbhata (frontal brain cleansing breath)
- Bhastrika(bellows breath)
- Bhramri(humming bee breath)
- Surya Bhedi(vitality stimulating breath)
- Chandra Bhedi
- Sheetali (cooling breath)

Unit 3: Bandh

- JalandharaBandh(throat lock)
- UddiyanBandh (abdominal contraction)
- Moola Bandh (perineum contraction)
- MahaBandh (great lock)

Unit 4: Mudra

- Giyan Mudra (chin mudra)
- Hridaya Mudra (heart gesture)
- Bhoochri Mudra (gazing into nothing)
- Yoga Mudra (Attitude of psychic union)
- Shambhavi Mudra (eyebrow centre gazing)

Unit 5: Shat-karma

- Kapalbhathi
- Neti, Jala (nasal cleaning with water)
- Agnisara (activating the digestive fire)

Summer Project Report On Hospital Practices (Including Hospital Visit)

Credits: 4

Summer Training Objective:

To provide on the job experience, as an understudy in a hospital, to help the student understand systems and procedures and learn to make decisions considering the Hospital as an integral unit.

Duration: 3-4 months

Format for Report Writing

1. Abstract
2. Introduction
3. Aims & Objectives
4. Operational definitions
5. Significance of Study
6. Review of literature
7. Research methodology
8. Data Analysis
9. Results
10. Discussion
11. Conclusion
12. Recommendations
13. Limitations of study
14. Future prospects of study
15. References

Semester - 3

Sem ester	Paper Code	Subject	Periods			Credit Units	Evaluation scheme		
			L	T	P		Internal [#]	External	Total
3	MHM 301	Hospital Management – II	3	1	-	4	20	80	100
	MHM 302	Healthcare Laws, Regulations and Ethics	3	1	-	4	20	80	100
	MHM 303	Quality Management and Patient Safety	3	1	-	4	20	80	100
	MHM 304	Financial Management and Budgeting	3	1	-	4	20	80	100
	MHM 305	Operations Research	3	1	-	4	20	80	100
	MHM 306	Marketing Management in Hospitals	3	1	-	4	20	80	100
	MHM 307	Summer Project Report on Hospital Practices (including hospital visit)*	-	-	-	4	100*	-	100
			Total	18	6	-	28	220	480

***Evaluation for Summer Internship Report will be done by internal faculty/examiner (done after second semester)**

Hospital Management-II

Paper Code- MHM 301

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course provides a framework for health systems and managing Hospital Services; discusses performance improvement techniques. Management role and functions.

Course Objectives: The objectives of this course are:

- To enable the students gain insights into various aspects like importance, functions, policies and procedures, equipping, controlling, co-ordination, communication, staffing, reporting and documentation of hospital services.
- To understand the processes and details related to effective patient care and to further increase the satisfaction level of patients

Course Outcomes:

CO1 Understand the processes and details related to effective patient care and to further increase the satisfaction level of patients

CO2 Gain insights into various aspects like importance, functions, policies and procedures, equipping, controlling, co-ordination, communication, staffing, reporting and documentation of clinical services, support services and utility services of a hospital.

Course Content:

Unit 1: Outpatient and Inpatient care departments

OPD: Overview of the department, its functions, location and physical facilities, Daycare services and domiciliary services

IPD: Overview of the department, its functions, ward design considerations, nursing administration, isolation unit, Bed Occupancy rate, Average Length of stay

Unit 2: Operation Theatres and Intensive Care Units

Organization and management of OT complex, Pre-op & Post-op area and Zoning in operation theatres, Types of ICUs, Specialized ICUs.

Unit 3: Accident and Emergency Care Unit

Physical facilities, Location and Lay-out of Emergency department, Triage, Transportation and ambulance services, Basic Life Support and Advanced Life support ambulances.

Unit 4: Diagnostic Services

Radiology: Types of services, functional areas, radiation hazards and its preventive measures

Laboratory: Functional components of Lab, Lab Information System, laboratory hazards, quality assessment in Labs, NABL accreditation

Blood Bank & Transfusion services: Blood donation criteria, transfusion reaction, blood components, organization of a blood donation camp.

Nuclear Medicine: Imaging Services offered, its planning, administrative and legal considerations

Unit 5: Hospital Support Services

Central Sterile Supply Department (CSSD): Functional areas, different sterilization processes, supply distribution systems.

Pharmacy Services: Role and types of pharmacies, in-patient medication management, Hospital formulary management, drug distribution systems.

Rehabilitation services; and Mortuary Services

Unit 6: Utility Services

Management of Hospital Dietetics services, Hospital Linen and Laundry Systems, Security and Housekeeping services

Basic and Allied Engineering services: Civil Assets, Electricity Supply, Water supply, medical gases, Gas manifold and non-conventional energy devices.

Texts& References:

1. Principles of Hospital Administration & Planning: B M Sakharkar.
2. Modern trends in Planning and designing of Hospitals: Principles and Practice: Shakti Kumar Gupta, Sunil Kant, R Chandrashekhar.
3. Hospitals: Facilities Planning and Management, GD Kunders& Gopinath, by Tata Mcgraw Hill.
4. Management of Hospitals: S L Goel, R Kumar.
5. Hospital Management in Tropics & Subtropics: James A William, McMillan, London

Healthcare Laws, Regulation and Ethics

Paper Code - MHM 302

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course provides a forum for discussion and deliberation about ethical issues in the hospitals, equips students to identify and analyze critical ethical issues and to consider systematically the ethical responsibilities of all parties involved.

Course Objectives: The objectives of this course are:

- To acquaint the students with various legal aspects concerning type and character of the health care organizations and its duties towards patients and its employees.
- To familiarize the students in matters of liability of hospital medical negligence and medical malpractice in diagnosis, administration of drugs, surgery etc.

Course Outcomes: After completing the course, students would be able to:

CO1 Interpret statutes and court decisions affecting healthcare.

CO2 Explain how laws and regulations affect the structure and operation of healthcare organizations, including corporate law, tort law, fraud and abuse laws, etc

CO3 Assess how law protects patient rights and regulates patient-provider relationships, including informed consent, medical malpractice, confidentiality, treatment termination, advance directives, human reproduction, and obligations to provide care.

CO4 Analyze the impact of changing health care regulations on processes and services;

CO5 Advocate for laws that promote health policy values and goals.

CO6 Comprehend the consequences of not adhering to the laws.

Course Contents:

Unit 1: Laws pertaining to hospitals and medical profession

Laws pertaining to establishment of hospitals, legal requirements under MCI, Organ transplantation Act, Central births and death registration act and, Issuance of birth and death certificates, PCPNDT Act, MTP Act, Drugs and Cosmetics Act, Euthanasia, Indian medical degree Act 1916, IMC act & State medical act, Declaration of Geneva, Bio-Medical Waste Management Handling Rules.

Unit 2: Hospital's duties towards patients

Compulsory & voluntary duties of a medical practitioner towards the patient, Doctor patient relationship, Right of patient to modify the medical course of treatment, Parental rights and the rights of mentally unsound patients

Unit 3: Legal liabilities of Hospitals

Criminal, Civil and Tortuous, Absolute liability and vicarious liability, Medical Negligence, Legal remedies available to patients, Informed consent, Confidentiality and Professional Misconduct. Medical Jurisprudence

Unit 4: Medical Ethics

Code of Ethics, Ethical Committee, Ethics and Law, Basic issues, process of developing and implementing ethics and values in an institution, Code of conduct, Hippocrates Oath, Ethics of research, Ethical approval for Clinical trials, Case studies on Medical Ethics

Unit 5: Hospital as an Industry:

Consumer Protection Act and its application in Hospitals, W.B Clinical Establishment Act 2000; Workman Compensation Act.

Text and References:

1. Health Care Ethics by Benedict Ashley, 2006, Georgetown University Press.
2. Ethical Foundations of Health Care: ...by Jane Singleton and Susan Goodinson-McLaren, 1995, Mosby Medical
3. Medico-legal Aspects of Patient Care, 3rd Edition, R. C. Sharma, Peepee Publishers & Distributers- 2008
4. Cross-Cultural Perspectives in Medical Ethics by Robert Veatch, 1997, Harvard University Press
5. An Ethics Casebook for Hospitals by Mark Kuczewski and Rosa Lynn B. Pinkus, 1999 Georgetown University Press
6. An Introduction to Medical Ethics: Patient's Interest First by Arthur Siew Ming Lim, 2008, World Scientific
7. Ethics Under the Knife: Patient Care and Disservice in the Medical Industry by by Matt Koepke
8. Principles of biomedical ethics by Tom Beauchamp, 1979
9. The Immortal Life of Henrietta Lacks by Rebecca Skloot, 2010
10. Medical Ethics: Accounts of Ground-Breaking Cases by Gregory Pence, 19
11. Bioethics: Principles, Issues, and Cases by Lewis Vaughn, 2009
12. Medical Law and Ethics by Bonnie Fremgen, 2002
13. Medical Law and Ethics by Jonathan Herring, 2006
14. Medical ethics in the ancient world by Paul Carrick, 2001
15. Resolving Ethical Dilemmas: A Guide for Clinicians by Mieczysław Klimaszewski, 1995
16. Textbook of Healthcare Ethics by Erich Loewy, 1989
17. Encyclopedia of Bioethics by Warren Reich
18. Doing Right: A Practical Guide to Ethics for Medical Trainees and Physicians by Philip C. Hébert, 2009
19. Kuchhel, M.c, 2003, Marcentile Law; Vikas Publishing Private Ltd. New Delhi (chapter 1-5)
20. P.L Mallick – Industrial Law – Eastern Book Company – Lucknow.
21. Bio-Medical Waste Management Handling Rule 1998.
22. Law & Ethics in Nursing & Health Care, Nelson Thrones

Quality Management and Patient Safety

Paper Code- MHM 303

Contacts: 3L + 1T

Credits: 4

Course Overview:

The course provides basic concepts of quality in health care and approaches and skills to implement sustainable quality assurance program in the hospitals. Various quality improvement approaches, role of standards, use of quality improve tools, methods of quality assessment are discussed in the course.

Course Objective:The objectives of this course are:

- To understand the concept of quality management tools & techniques and to be able to implement those in the hospitals.
- To utilize data to support quality and performance measurement decision-making processes for health care entities.
- To incorporate the principles of quality management for improving outcomes in hospitals.
- To integrate quality improvement and evaluation strategies with systems such as Six Sigma, Lean Management etc.

Course Outcomes: After completing the course, students would be able to:

CO1 Analyze the concepts and measures of health care quality and patient safety.

CO2 Describe factors leading to a greater emphasis on quality measurement and improvement of care.

CO3 Demonstrate an understanding of tools used in quality measurement and improvement.

CO4 Assess how healthcare delivery models can be evaluated.

CO5 Analyze changes to implement in healthcare delivery to make it safe, timely, effective, equitable, efficient, and patient-centered.

CO6 Well versed with the management of nosocomial infections.

Course Content:

Unit1:Basics of Quality Management

Definition of quality, Principles of quality, Need for focus on quality in healthcare;

Dimensions of quality in primary healthcare;

Different Quality Frameworks, Quality Control Circles;

Cost and Quality: Prevention Costs, Appraisal costs, Internal & External failure costs

Unit 2: Quality Approaches

Quality Control, Quality Assurance, QA cycle,

Total Quality Management: Principles of Edward Deming, Joseph Juran& Philip Crosby;

Types and process of Benchmarking

Medical Audit and Prescription Audit.

Unit 3: Quality Management Tools and Techniques

Cause Effect Analysis and Pareto Analysis

Lean management: Lean Principles and its tools (5 S Techniques, 3 M technique);

Six Sigma Methodology: DMAIC methodology, Training and its application in hospitals.

Unit 4: Accreditation

Benefits of Hospital Accreditation, Quality Council of India (QCI), National Accreditation Board for Hospitals & Healthcare Providers (NABH) – its Accreditation procedure and Assessment criteria; Joint Commission International (JCI), ISO 9001.

Unit 5: Patient Safety

Principles and Types of Patient Safety; Hospital Acquired Infections, Control and prevention of Nosocomial Infections; Medical Errors and their prevention.

Text and References:

1. Gyani J Girdhar, Handbook of Healthcare quality and Patient Safety.
2. Brajkishore Rajoriya, Hospital and Healthcare Accreditation, Jaypee publishers.
3. Raandi Schmidt J. Trumbo and R. Jonson, Quality in Health Care Sector – ASQC Quality – Press.
4. Mark Graban, Lean Hospitals: Improving quality, patient safety and employee engagement.
5. Quality Improvement in Health Care, 2nd Ed, Nelson Thrones
6. Health Care Quality Management: Tools and Applications by Thomas K. Ross. ISBN: 978-1-118-50553-3.
7. Introduction to Healthcare Quality Management, Second Edition by Patrice L. Spath. ISBN-13: 978-1567935936.
8. Promising Care: How We Can Rescue Health Care by Improving It by Donald M. Berwick. ISBN: 978-1-118-79588-0.
9. The Healthcare Quality Book: Vision, Strategy, and Tools, 2nd Edition 2nd Edition by Elizabeth R. Ransom, Maulik S. Joshi, David B. Nash, Scott B. Ransom. ISBN-13: 978-1567933017.
10. Quality Management in Hospitals (2nd Edition) by S. K. Joshi, Jaypee Publishers.
11. Total Quality Management – Aswathappa – Himalaya Books House
12. Quality Management – P. C. Tripathy
13. Hospital Quality Assurance: Risk Management & Program evaluation, Jesus J. Pena
14. Donald E. Lighter and Douglas C Fair: Quality Management in Health Care – Principles and Methods, Jones and Bartlett publishers, second edition.
15. Daigh RD. Financial implications of a quality improvement process.

16. McLaughlin CP and Kalauzny AD. Total quality management in health, Healthcare management review.

Financial Management and Budgeting

Paper Code- MHM 304

Contacts: 3L + 1T

Credits:4

Course Overview:

Enable the students to understand the basic concept of Corporate Finance, practical applications of time value of money and evaluating long term investment decisions. Develop analytical skills to select the best source of capital, its structure on the basis of cost of capital. Helps the future managers in understanding the recent trends of primary and secondary market and develop skills for application of various financial services.

Course Objectives: The objectives of this course are:

- To provide the concepts and foundations of managing finance in business enterprises.
- To provide the concepts and foundations of managing finance in business enterprises.
- To orient the students regarding financial management practices in Indian companies and Global enterprises.

Course Outcomes: After completing this course, students should be able to

CO1 Explain components of financial proposals for health care projects/studies

CO2 Describe the balance sheet and income statement in health care settings

CO3 Develop budgets for revenues, staffing and salaries, supplies and services, and equipment

CO4 Evaluate the financial status of a health service unit or department and determine the causes of performance deviation and use a variety of analytical methods to support sound business decision-making.

Course Content:

Unit1:Introduction to Finance & Corporate Finance

Finance & its scope, Financial Decisions, Sources of Finance, Time Value of Money ,Profit maximization vs. Wealth maximization, Functions of Finance Manager in Modern Age, Corporate Finance Introduction:– Nature and Scope . Concept of Risk and Return.

Unit2:Time value of Money

Compounding, Continuous Compounding, Effective Rate of Interest, Discounting – Single Cash Flows &Series of Cash Flows, Annuity – Future Value and Present Value, Present Value of Growing Annuity, Perpetuity – Present Value, Growing Perpetuity – Present value, Equated Annual Instalments, Valuation of bonds and shares.

Unit 3:Investment Decision

Capital Budgeting Decisions: Discounting and Non discounting techniques, Calculation of Net present value (NPV) and IRR, Excel Application in Analyzing Projects.

Cost of Capital: Concept of Opportunity Cost, Cost of Debenture, Preference and Equity capital, Composite Cost of Capital, Cash Flows as Profit and components of Cash Flows, Capital asset pricing model (CAPM).

Financing Decision: CapitalStructure: Relevance and Irrelevancy theory

Leverage analysis – Types and Measurement along with its implications, EBIT EPS Analysis, Point of Indifference.

Unit 4: Working Capital Management

Concept of working capital, factors determining working capital, Sources of working capital, estimating working capital needs, Managing cash, marketable securities, debtors and inventory.

Dividend Decision: Factors affecting Dividend Policy, Forms of Dividends, Types of Dividend Policies, Dividend Models: Walter and Gordon Model, Miller- Modigliani(MM) Hypothesis .

Unit5:Indian Financial System

Role of Financial Institution, Primary and Secondary Market, Lease Financing, Venture Capital, Mutual Funds. Introduction to Derivatives.

Text & References:

1. Khan and Jain - Financial Management (Tata McGraw Hill, 7th Ed.)
2. Pandey I M - Financial Management (Vikas, 11th Ed.)
3. William Hakka BettnerCarcello- Financial and Management Accounting (TMH-16th Ed.)
4. Sheebakapil-Fundamental of financial management (Wiley, 2015)
5. Prasanna Chandra - Fundamentals of Financial Management (TMH, 9th Ed.)
6. V. Rajesh Kumar, “Financial Management”, Mc Graw Hill Education.

7. Singh and Srivastava- Business Finance (Prayagpustakbhavan 3rd Ed.)

Operations Research Paper Code- MHM 305

Contacts: 3L + 1T

Credits: 4

Course Overview:

This course introduces the fundamentals of Operations Research Models including linear programming and applications and learn how to construct models appropriate to particular applications, develop optimal solutions, understand the theory behind solutions and translate solutions into directives for action. The course also aims to introduce quantitative methods and techniques for effective decisions-making; model formulation and applications that are used in solving public health problems.

Course Objectives: The objectives of this course are:

- To provide basic OR approach to problem solving.
- To introduce important analytical tools for managerial decision making.
- To describe the concepts of resource allocation & health service planning.
- To identify and develop operational research models from the verbal description of the real system.

Course Outcomes: After completing this course, students should be able to

CO1 Learn different techniques of managerial decision making.

CO2 Improve the objectivity of analysis

CO3 Develop a comprehensive evaluation plan for healthcare services.

CO4 Develop more effective approaches to programming.

CO5 Create awareness about optimization in utilization of resources.

CO6 Understand and apply operations research techniques in healthcare operations.

Course Content:

Unit 1: Introduction

The OR approach to problem-solving and decision-making, Definition, Scope and limitations of OR in managerial decision-making.

Unit 2: Introduction to OR Techniques

Basics of: Linear Programming, Decision Tree Analysis, Queuing theory, PERT/CPM.

Unit 3: OR Models

Basics of Replacement models, Assignment models, Inventory control models, Forecasting.

Unit 4: Applications of OR in Healthcare organizations

Resource allocation and health services planning, Deployment of health human power, Materials Management.

Text and References:

1. Operations Research Concepts, problems and Solutions, VK Kapoor, Sultan Chand & Sons.
2. Operations Research in Hospitals: Diagnosis and Prognosis, David H. Stimson, Ruth H. Stimson
3. Operations Research and Healthcare: A handbook of methods and Applications, Margaret L. Brandeau, Francois Sainfort, William P. Pierskalla

4. Patients hospitals and Operational Research, Taylor Francis
5. Operations Research by P. Rama Murthy
6. Operations Research: Methods, Models and Applications, Jay E, Aronson and Stanley Zionts
7. Introduction to Operations Research, Frederick S.Hillier and Gerald J. Lieberman, Tata McGraw Hill, 2005, New Delhi.
8. Operations Research – An Introduction”, Hamdy A Taha, Pearson Education, 2009, New Delhi.
9. Operations Research - Theory and Application, J.K.Sharma, Mac Millan India, 2003.
10. Quantitative Techniques in Management, N.D.Vohra, Tata McGraw Hill Publishing Co. Ltd, 2007.
11. Operations Research, R.Paneerselvam, Prentice Hall of India, 2008, New Delhi.

Marketing Management in Hospitals

Paper Code - MHM 306

Contacts: 3L + 1T

Credits: 4

Course Overview:

This subject will provide an exposure to the conceptual framework of marketing in general and specific to hospitals. This learning will enable the students to understand the need, relevance and necessity of marketing in today's competitive market environment, facilitates them operationalizing and implementing marketing as an integral functions in a Healthcare scenario.

Course Objectives: The objectives of this course are:

- To provide the students exposure to modern marketing concepts, tools, and techniques, and help them develop abilities and skills required for the performance of marketing functions in hospitals.
- To give the insight into the application of marketing principles in various situations in a Hospital environment

Course Outcomes: After completing this course, students should be able to:

CO1 State the role and functions of marketing within a range of organisations.

CO2 Describe key marketing concepts, theories and techniques for analysing a variety of marketing situations.

CO3 Identify and demonstrate the dynamic nature of the environment in which marketing Decisions are taken and appreciate the implications for marketing strategy determination and implementation.

CO4 Apply the introduced conceptual frameworks, theory and techniques to various marketing contexts.

CO5Analyze the relevance of marketing concepts and theories in evaluating the impacts of environmental changes on marketing planning, strategies and practices.

Course Content:

Unit 1: Introduction to Marketing

What is healthcare marketing, concepts and scope of marketing management in healthcare, Demand States, Core concepts: Target Markets; Marketing functions, Marketing Mix ; Market Place, Market space and Meta Market; Simple Marketing system, Modern Exchange Economy; Marketers and Prospects; Needs , Wants and Demands; Product Offering and Brand; Value and Satisfaction; Exchange and Transactions; Marketing Channels& their selection; Marketing environment; Marketing Program; Selling Concept vs Marketing Concept

Unit 2: Consumer Behaviour and Market Segmentation

Consumer Behavior- concepts-Evolution of consumer oriented markets- factor influencing consumer behavior –individual factors Market Segmentation- bases for segmenting consumer markets and business markets-Target Marketing- selection of strategies-one to one –one to many marketing - Positioning for Competitive Advantage-marketing information-innovation-cases

Unit 3: Product and Services

Product Classification, Branding, Product Life Cycle, New Product Development, Product Extension Strategies.

Unit 4: Public Relations

Introduction, classification, Evaluation of public relations, public relation process, community opinion surveys and Major decisions in

Marketing PR, public relation tools, role and responsibilities of public relations officer

Unit 5:Pricing

Pricing: Meaning to Buyer & Seller - pricing policies – Objective factors influencing pricing decisions - Competitors action to price changes - multiproduct pricing. Physical Distribution - Management of physical distribution, marketing risks.

Unit 6: Promotion Decisions

Promotion Decisions objectives, promotional mix, Factors affecting sales promotion, trade sales, personal selling, advertising and public relations, creative decisions in advertising.

Text & References

1. Marketing Management, Philip Kotler
2. Marketing Management , RajanSaxena, TMH
3. Marketing, Joel R. Evans, Wiley Dreamtech
4. Marketing Management & Research. P.K.Gupta. EPH.
5. Fundamentals of Health Care Financial Management: A Practical Guide to Fiscal Issues and Activities, 4th Edition by Steven Berger. ISBN: 978-1-118-80168-0.
6. Strategic Health Planning: Methods and Techniques Applied to Marketing and Management by Allen D. Spiegel. ISBN: 978-0893917425.
7. Marketing Management: A Strategic Decision Making Approach by V.S. Ramaswamy. ISBN-13: 978-1259026416.
8. Marketing Management: An Indian Perspective by Vijay PrakashAnand. ISBN-13: 978-9350042489.

Semester-4

Semester	Paper Code	Subject	Periods			Credit Units	Evaluation scheme		
			L	T	P/S		Internal [#]	External	Total
4	Open Elective Subjects								
	MHM 401	KPO Management	2			2	50	-	50
	MHM 402	Hospital Accreditation	2			2	50	-	50
	MHM 403	Entrepreneurship Management	2			2	50	-	50
	(A)	Total				4		-	100*
	Project Work Evaluation								
	MHM 404	Dissertation Report Evaluation(External)			-	6		150	150
		*Internal Assessment				6	150		150
		Viva-Voce				4		100	100
	(B)	Total				16			400
	(A+B)	Overall Total				20			500

***Students can choose 2 elective subjects out of the given 3 subjects. Evaluation is done for 50 marks for each elective subject.**
#Evaluation Scheme for Internal Assessment is tabulated below.

#Internal Assessment

Semester	Details	Credits	Total Marks
4	Journal Club Presentation	1	25
	Synopsis Presentation	1	25
	Conference/Seminars Attended	1	25
	Publications: Submitted: 15/25 Accepted: 20/25 Published: 25/25	1	25
	Thesis Evaluation (Supervisor)	2	50
	Total	6	150

KPO Management

Paper Code- MHM 401

Contacts: 2L

Credits: 2

Course Overview:

The course would acquaint the students with the outsourcing, knowledge process outsourcing, various aspects of outsourcing etc.

Course Objectives: The objectives of this course are:

- To understand the concepts and scope of KPO management.
- To learn about reasoning and aptitude based cases.
- To understand the scope of KPO in Pharmaceutical Management
- To understand the business analytics and competitive intelligence

Course Outcomes: On completion of this course, the students would be able to:

CO1 Understand the concept of high added value process chain in KPOs.

CO2 Attain in depth knowledge on aspects related to KPO in health sector

CO3 Understand role of various processes as market research and R&D in KPO

CO4 Understand the concept of transfer of knowledge intensive business processes

Course Content:

Unit 1: Outsourcing

Introduction to outsourcing, types of outsourcing, Outsourcing Development phases, ICT opportunities, IT and Outsourcing, Need and benefits of Outsourcing, outsourcing risks, Outsourcing success

factors, Process of Outsourcing, Outsourcing Network, Outsourcing Drivers, Trends of Outsourcing, Pricing models in outsourcing, Strategic decision to outsource, Emerging opportunities in outsourcing industry.

Unit 2: Knowledge Process Outsourcing

Introduction, Global Scenario, Knowledge Process Outsourcing in India, Key players in Indian outsourcing industry, Strategic Knowledge process outsourcing, KPO industry of India, Growth drivers of Indian KPOs.

Unit 3: Mental Aptitude and Reasoning

Aptitude Test, Logical Reasoning (Logical Puzzles, Missing letters puzzles, Chain rule, Odd man out series, Time and distance, statement assumption, Letters and symbol series), Case studies, Verbal Ability (spotting errors and ordering of words), Business analytics and forecasting and Competitive Intelligence.

Text & References:

1. Gopal R, Manjrekar Pradip – BPO/KPO Management: An Industry, by Excel Books
2. Amit Singh Sisodiya; Knowledge Process Outsourcing: Advantage India; ICFAI University Press.
3. VivekDeolanker; Business Process Outsourcing and Knowledge Process Outsourcing;

Hospital Accreditation

Paper Code- 402

Contacts: 2L

Credits: 2

Course Overview:

The course introduces the students to the hospital quality accreditations available nationally & globally and the process of getting started on the road to accreditation.

Course Objectives:The objectives of this course are:

- The students would be able to develop norms and standards for hospitals, and adopt means of evaluation of hospitals so as to improve the quality of healthcare in the community.
- To analyse the requirements of accreditation process
- To be able to undertake professional consultancy in the field of Quality and accreditation.

Course Outcomes: After completing this course, students should be able to

CO1Analyze the requirements of accreditation process

CO2 Understand the process of getting started on the road to accreditation

CO3 Learn about the National and International Accreditation bodies, overview of standards, Raising the quality of care for the Patient

Course Content:

Unit 1: NABH Accreditation

Introduction To NABH, Access, Assessment & Continuity of Care (AAC), Care of Patients (COP), Management of Medication

(MOM), Patient Rights & Education (PRE), Hospital Infection Control (HIC), Continual Quality Improvement (CQI), Responsibilities Of Management (ROM), Facility management & Safety (FMS), Human Resource Management (HRM), Information Management System (IMS), Documentation Requirements & Implementation Guidelines, Accreditation Process, Final Assessment

Unit 2: JCI Accreditation

Overview of JCI Accreditation and its process, Comprehensive coverage of JCI accreditation chapters for hospitals, and documentation requirements.

Text and Reference:

1. BrajkishoreRajoriya, Hospital and Healthcare Accreditation, Jaypee publishers
2. Self-Assessment Toolkit, NABH.

Entrepreneurship Management

Paper Code- MHM 403

Contacts: 2L

Credits: 2

Course Overview:

This course enables students to understand the nature and scope of entrepreneurship, Innovation and its role in the current scenario.

Course Objectives:The objectives of this course are:

- To impart basic managerial knowledge and understanding the business environment.
- To develop necessary knowledge and skills to be an entrepreneur.
- To develop, strengthen the entrepreneurial quality and motivation.
- To analyze the environmental issues related to the proposed project and deliver the best in the circumstances.

Course Outcomes: On completion of this course, the students will be able to

CO1 Understand the concept, nature and scope of entrepreneurship

CO2 Understand the function of the entrepreneur in the successful, commercial application of innovations

CO3 Identify personal attributes that enable best use of entrepreneurial opportunities

CO4 Explore entrepreneurial leadership and management style

Course Content:

Unit 1:Entrepreneur and Entrepreneurship

Definition of Entrepreneur, Entrepreneurial motivation and barriers; Internal and external factors; Types of entrepreneurs; Theories of

entrepreneurship; Classification of entrepreneurs. Characteristics of Entrepreneur.

Unit 2: Idea Generation and Project Formulation

Idea Generation, Screening and Project Identification, Feasibility Analysis; Project Planning, Evaluation, Monitoring and Control, Project Report Preparation, Launching and Organizing and organizing an Enterprise; Operation problems: Incubation and Take-off, Problems encountered, Structural, Financial and Managerial Problems, Types of Uncertainty.

Unit 3: Supportive Agencies for Entrepreneurship

Institutional support for new ventures; Supporting organizations; Incentives and facilities; Financial Institutions and Small scale Industries, Govt. Policies for SMEs. Role of SIDBI & NSIC

Text and References:

1. Couger C, Creativity and Innovation, IPP, 1999.
2. Jacob Nina, Creativity in Organisations, Wheeler, 1998.
3. Velasquez, Business Ethics- Concepts and Cases, Prentice-Hall, 5th edition, 2002.
4. Kittson Alan, Ethical Organisation, Palgrave, 2001.

Project Work & Dissertation Report

Paper Code- MHM 404

Credits: 16

Internship Objective:

To impart the practical knowledge through research methods, help formulate a rigorous research problem related to hospital on the basis of their observation, help do an independent study, and encourage working in a team.

Pedagogy:

- Identifying several situations amenable to dissertation work, writing a proposal and making a presentation to the Departmental Research Committee.
- Reporting to the committee on the progress of research work periodically.
- Making use of a variety of research methods.
- Defending the inference before the Examining Committee.

Dissertation Report Contents:

Every student will do a detailed study on the topic selected for the dissertation, and is expected to prepare a two or three proposals which he intends to take up for the Dissertation. The Assigned guide will examine this and decide on the topic of dissertation. Report will comprise of following contents:

1. Abstract
2. Introduction
3. Aims & Objectives
4. Operational definitions
5. Significance of Study
6. Review of literature

7. Research methodology
8. Data Analysis
9. Results
10. Discussion
11. Conclusion
12. Recommendations
13. Limitations of study
14. Future prospects of study
15. References

Activity Calendar

- **January:** 24th January - National Girl Child Day
- **February:** 4th February- World Cancer day,
Sports week celebration
- **March:** 24th March - World TB day (Poster Competition)
- **April:** 7th April – World Health day (Outreach Activity)
- **May:** 5th May – World Hand Hygiene day
- **June:** 25th June – International day against drug abuse & elicit trafficking
- **August:** 13th August – Internal Organ donation day
(Awareness programme)
- **September:** 29th September – World Heart Day (Slogan Writing Competition)
- **October:** 8th October (Friday) – World Mental Health day
(Poster Competition and Work shop)
- **November:** 5th November-Management Forum

**DELHI PHARMACEUTICAL SCIENCES
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(Approved by UGC under section 2f of UGC Act)



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