

- **COURSE REVIEW**
- **SYLLABUS**.....
- **MAINTENANCE OF LOGBOOK**
- **THESIS**
- **SCHEME OF EXAMINATION**
- **EXAMINATION AND EVALUATION**
- **RECOMMENDED BOOKS & JOURNALS**

Course Overview

Duration of the Course

The period of certified study and training for the Post-Graduate MD COMMUNITY MEDICINE shall be Three Academic years.

Attendance

All candidates joining the postgraduate training programme shall work as full time residents during the period of training, attending not less than 80% (eighty percent) of the training during each calendar year, and will be given full time responsibility, assignments and participation in all facets of the educational process.

The period of training for obtaining the degrees shall be three completed years including the period of examination.

3. Course Review

Paper	Epidemiology, Tropical Medicine & Public Health Practice
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I	History and concepts of Public Health and Community Medicine
	The Role of Social Sciences in health
	Concept of Primary Health Care
	Information, Education, Communication and Counselling
	Microbiology including Entomology, Parasitology, Immunology and Zoonotic diseases
	Environmental health and Ecology
	General Epidemiology, Biostatistics and Research methodology
	Principles of Nutrition and Applied Nutrition
	Basics of Health Economics
Epidemiology & Control of Diseases	
Paper II	Epidemiology & control of communicable diseases
	Epidemiology & control of non-communicable diseases
	National Health Programs
	Screening
	Public Health emergencies and Disaster management
Health Care of Special Groups	
Paper III	Maternal and Child Health including Social Paediatrics and Geriatrics
	Demography and Family welfare
	School health, Adolescent health, Tribal health
	Care of Differently abled, Community based Rehabilitation
	Community Mental Health
	Genetics and Health
	Occupational health
Health Care Management and Public Health Administration	
Paper IV	Health care systems & Health care delivery in India
	Health legislation in India
	International Health
	Health Planning, management & Evaluation
	Health information system
	Essential medicines
	Latest developments in public health (recent advances)

Posting schedule - first year

Department	1	Orientation to Community Medicine	1 month
Health Centers	2	Urban Health Training Centre	1 month
	3	Rural Health Training Centre	1 month
	4	Exposure to Tribal Health	1 week
Hospital	5	Medicine	1 month
	6	O.B.G (Social)	1 month
	7	Paediatrics (Social)	1 month
	8	Dermatology	15 days
	9	Psychiatry	15 days
	10	Pulmonology	15 days
	11	Anaesthesia	15 days
	12	Casualty	15 days
	13	Blood Bank	15 days
	14	Microbiology (ICTC & Central Lab)	15 days
	15	Medical Records Department & Central Sterile & Supply Department	1 week
Dissertation topic finalization			
Speciality Postings I	1	Infectious disease hospital	1 week
	2	TB hospital and DTO	1 week
	3	Leprosy hospital / Control unit	1 week
	4	Vaccine centre	1 week
	5	Malaria Research Centre	1 week
	6	Public Health Laboratory	1 week
Exposure to Health System	1	Government Primary Health Centre	3 weeks
	2	Government Community Health Centre	1 week
Department		Review / revision Dissertation work Exam preparation	8 weeks

Posting schedule - second year

Speciality Postings II	1	Cancer hospital	1 week
	2	District Health Office	1 week
	3	Industrial Visits	1 week
	4	NGOs	1 week

	5	Station Health Office	1 week
	6	Occupational Health Centre	1 week
	7	DRDO	1 week
	8	School of Public Health,PHFI	1 week
	9	MBA, Apollo	1 week
	10	Env. Engineering	1 week
	11	Water & sewage treatment plants	1 week
	12	Food Hygiene & Catering Inspections	1 week
	13	Hospital administration,AIMSR MCH	1 week
	14	Nutrition & Dietetics,AIMSR MCH	1 week
	15	Biomedical Waste Management, AIMSRMCH	1 week
	16	Local governance (village, Panchayat, MANDAL)	1 week

Speciality Postings III	1	Vector Control & Research Centre,	1 week
	2	BHEL	1 week
	3	FEVER HOSPITAL	1 week
	4	NIN, Hyderabad	1 week
	5	Sweekar Upkar,Secunderabad	1 week

Dissertation work / Health Centers	1	Urban Health Training Center	12 weeks
	2	Rural Health Training Center	12 weeks

Posting schedule - third year			
Dissertation to be submitted within 6 months			
Health Centers	1	Urban Health Training Center	6 weeks
	2	Rural Health Training Center	6weeks
Department		Review / revision Dissertation work Exam preparation	24 weeks

4. Themes and Topics

The broad areas the learner would be exposed during the 3 years to include

History and Concepts in Public Health	Principles of Tropical Medicine
Primary Health Care	Maternal and Child Health Care
The Health Care Systems in India	Demography and Family Welfare Services

	in India
Role of Social and Behavioural sciences in Health	Health care of Special Groups
Biostatistics	Voluntary Sector in Health
Principles and Application of Epidemiology	Health Care Management
Research Methodology	Health Information System
Environmental Health	Medical Ethics
Disaster Management and public health emergencies	Principles and Practice of Information, Education and Communication
Epidemiology, prevention & control of Communicable diseases	Epidemiology of Chronic Non communicable diseases and conditions
Rehabilitation Services	Principles of Nutrition and Applied Nutrition
National Health Programs	Genetics and Health
Health Legislation	Community Mental Health
Urban Health	Social Paediatrics and School Health Services
Principles of Educational Science and Technology	Biomedical waste management and infection control
Medical Entomology	Essential Drugs and Rational use of drugs
Occupational Health	

Additional topics of current interest

Components of National Health Policy	Writing of a Research Protocol.
Importance of Health seeking Behaviour	Health Insurance
Basis of formulating rational drug policy	National Rural Health Mission (NRHM)
Relevance of Evidence Based Medicine in the planning of Disease control Programs	Role of Clinical Specialists in Community Health Care Programs
Use of Computers in Public Health	Selected Methods in Operation Research.
Principles of Counselling	
Nosocomial infection and Hospital Infection Control	Impact of Macro-Climatic changes (eg: Global Warming, etc) on Health.
Organizing health component of Relief camps during war, mass migration.	Development of Appropriate Technologies which is Cost Effective
Setting up and Implementing Quality Control of Health care programs.	Planning of public Health measures during pandemics of new diseases.
Concept of Hospital Management / System	Modern Management Approaches
Human Resource and material Management	Problem Solving Approaches and Managerial Decision Making

The Teaching-learning process would be facilitated through

1. Lecture discussions
2. Practical Demonstrations
3. Field visits – Family Studies / Clinico-Social Case Studies / Site Visits
4. Institutional visits
5. Seminars
6. Journal Clubs
7. Epidemiological Exercises
8. Assignment writing.
9. Field and Health centre activity Review reports
10. Work-diary analysis
11. Supervised Training of undergraduates including Lesson Planning
12. Involvement in Specific Departmental Project works
13. Conducting of Surveys / epidemiological projects
14. Planning and Organizing Health Education activities.

Teaching session	Hours / week	Total hours
Lectures	1 hr / week	52 hrs
Seminars	1.5 hrs / week	78 hrs
Journal Clubs	1.5 hrs / week	78 hrs
Clinico Social case	1 hr / week	52 hrs
Undergraduate class	3 hr / week	156 hrs
Academic society meet	1 hr / week	52 hrs
TOTAL	10 hrs / week	468 hrs

FIRST YEAR		
	Journal Club	Weekly
	Seminar	Weekly
	<small>Clinico-Social Case Study</small>	Weekly
	Lectures	Weekly
	Undergraduate class	Weekly thrice
	Conferences / Symposia / Workshops	
SECOND YEAR		
	Thesis Work	
	Journal Club	Weekly
	Seminar	Weekly
	<small>Clinico-Social Case Study</small>	Weekly
	Lectures	Weekly
	Undergraduate class	Weekly thrice
	Conferences / Symposia / Workshops	

THIRD YEAR		
	Journal Club	Fortnightly
	Seminar	Fortnightly
	Clinico-Social Case	Fortnightly
	Family Study	Fortnightly
	Lectures	Weekly
	Conferences / Symposia / Workshops	

5. Detailed Syllabus

5a - Theory

1. History of Public Health

Historical Lessons Learnt from the success and failure of Public Health strategies in India.
Historical influence and importance of Indigenous System of Medicines in Health Care in India
Historical Review of Implementation of the Bhole committee's and other Committee Reports on Health Services, Health Care and Health Professional Education in India.
Historical Review of the development of National Health Policies.
The trend of achievements of the country vis-à-vis the Health for All concept.
Study of development of Health System models in India
Contribution of Important scientists for public health

2. Concepts in Public Health

Concept of Disease control strategies.
Public Health importance of the Health Promotion Approach.
Concept of Health for All, Millennium development goals.
Multi-sector approach in Health care programs.
Health Care as part of Community Development
Advantages of Community Participation in health care programs.
Changing patterns of diseases.

3. Primary Health Care

Need and importance for prioritizing of Primary Health Care
Principles of Primary Health Care
Elements of Primary Health Care
Models of Delivery of Primary Health Care & Public health care in UK, USA

4. The Health Care Systems in India

Organizational Structure and Functions of the Govt. Health care System at the Central, State, district, Primary Health centre, Community Health Centre, Peripheral areas as also the urban areas.
Health Care systems for Factories / Mines / Plantations.
Role of N.G.O. sector in health care system.
Corporate and Private Health Insurance systems. Family Medicine, General Practitioners.
Indigenous Medicine system.
Feasibility of Networking the Govt. and NGO sectors (Public Private Partnership) for better coverage of health programs.

5. Role of Social and Behavioural sciences in Health

Need and Importance and Role of Medico- Social work in Public Health
Behavioural sciences – Health Seeking Behaviour in implementing Health care programs.
Meaning and relationship of Behavioural Sciences to Health.
Principles of Social Psychology as applicable to Health.
Principles of social Anthropology as applicable to Health Sociology
Relevance and use of Social structures, social organizations and cultural factors in addressing problems in Health as part of Community Development.
Influence of social & cultural factors in Health & disease
Social problems in health & disease
Gender based issues and its relevance to impact of health care programs. Impact of Urbanization and Industrialization on Health.
Difference between Advising and Counselling
Importance of Motivation in Health care.

6. Health Legislation

Review of provisions available under the various Acts related to health. This covers MCH, Industries, Mines, hospitals, plantations, labour, adoption, rail / road / air travel, waste treatment, child labour, handicapped, food safety, housing and public utilities, pollution, reporting of notified diseases, quarantine, medical negligence, etc.

7. Urban Health

Accessibility of health care Facilities.

Health advisory Role on Water and Waste Treatment planning Boards.

Recommendations on Pollution control planning and monitoring systems, as related to health

Urban Ecology such as housing, slum formations, social issues, road safety, urban stress factors, micro-climatic changes, etc which impact all dimensions of health.

8. Principles of Educational Science and

Technology Curriculum Planning, Educational

Objectives. Principles of Learning.

Teaching / Learning methods.

Teaching skills including Micro Teaching.

Pedagogy Skills

Preparation and Use of Teaching Aids and Learning Research

Materials. Methods of Evaluation

9. Principles and Practice of Information, Education and Communication

Principles of IEC / Health Education / communication for behavioural change

Objectives of Health Education

Content of Health Education.

Relevance of using Communication Methods in the implementation of Health care.

Meaning of Communication.

Principles of effective Communication, relevant to health.

Communication Blocks/ barriers and means of overcoming the blocks.
Communication strategies for facilitating effective implementation of Health programs at individual and community levels.
The use and influence of Mass Media for IEC.
Practice (Methods) of IEC and its application in Community Health.
Quantitative and Qualitative Evaluation of impact of IEC programs.

10. Principles of Nutrition and Applied Nutrition

Nutrients and their daily Requirements.
Classification of Foods
Balanced Diet
Nutritional Profiles of Major Foods
Nutritional Deficiencies & Nutritional disorders
Protein Energy Malnutrition
Nutritional Importance of Trace elements
Assessment of an individual's Nutritional Status
Assessment of Community Nutritional Status
Nutritional Problems in India including Food Borne Diseases
Community Nutritional Programmes in India
Methods and impact of nutritional Surveillance
Social Problems in Nutrition
Food Hygiene – domestic and commercial levels
Food Adulteration including PFA Act - review of implementation
Primordial Prevention of Lifestyle related nutritional diseases.
National Nutritional policy, Food security

11. Environmental

Health a) Water
Applied importance of Sources of water
Water Pollution and review of control and monitoring methods
Purification of water and its storage and distribution
Water quality standards – its implementation and monitoring
Epidemiology and Control of Water borne diseases
Epidemiological Investigation of outbreak of water borne disease

	Rain water harvesting / water conservation.
b) Air	
	Indices of thermal comfort and their applied importance
	Air Pollution including monitoring, control and prevention
	Ventilation and its applied importance
c)	Importance of domestic and industrial Housing standards
d)	Impact and control of Noise Pollution
e)	Radiation devices Hazards from natural, industrial, hospital, communication
f)	Meteorological Environment and its Health impact
g)	Domestic and industrial Lighting Standards
h)	Disposal of Waste and Sanitation
i)	Guidelines on Industrial Toxic wastes, nuclear wastes disposal.
j)	Role & importance of pollution control boards.

12. Medical Entomology

Identification of the arthropods as classified below:-

a)	Insecta: Mosquito, Flies, Lice, Fleas, and other insects.
b)	Arachnida: Ticks and Mites
c)	Crustacea: Cyclops
	Diseases transmitted and Modes of Transmission of diseases by arthropods
	Control of Arthropods and diseases borne by them
	Integrated Vector Control
	Types, Mode of application and effectivity of Insecticides & Rodenticides.
	Types and mechanism of Insecticide Resistance and modes of Resistance prevention

13. Communicable diseases: Epidemiology, prevention &

control Respiratory Infections

Small pox	Mumps	Chicken pox	Measles	Meningococcal meningitis
Influenza	Diphtheria	Whooping cough	Tuberculosis	Acute respiratory infections
SARS	Rubella	Others		

Intestinal Infections

Poliomyelitis	Viral Hepatitis	Cholera	Acute Diarrhoeal diseases	Typhoid fever
Food Poisoning	Amoebiasis	Ascariasis	Hookworm infection	Dracunculiasis

Arthropod-borne Infections

Dengue syndrome	Malaria	Lymphatic filariasis	Others
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Zoonoses

<i>Viral</i>	Rabies	Yellow fever	Japanese encephalitis	KFD	Others
<i>Bacterial</i>	Brucellosis	Leptospirosis	Human salmonellosis	Plague	Others
<i>Rickettsial</i>	Scrub typhus	Murine typhus	Rickettsial Zoonoses	Tick typhus	Others
<i>Parasitic</i>	Taeniasis	Leishmaniasis	Hydatid disease	Q fever	Others

Surface Infections

Trachoma	Tetanus	Leprosy	STD	AIDS
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Emerging and Re-emerging infectious diseases

Hospital Acquired Infections

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14. Epidemiology of Chronic Non communicable diseases and

conditions Cardiovascular diseases

Coronary Heart

disease Hypertension

Stroke

Rheumatic heart

disease Cancer

Obesity Diabetes

Blindness Accidents

and Injuries

15. Rehabilitation Services

Concepts of rehabilitation, Types of rehabilitation

Role of rehabilitation services in various diseases

Approaches to rehabilitation – institution based and community based rehabilitation

Rehabilitation services – Govt, NGOs and other care providers

16. National Health Programs

Components of individual National health Programs

Review of factors associated with the success / failure / stagnation of the present status of these National Health Programs.

Needs Assessments for New Programmes

17. Principles of Tropical Medicine

Present problem statement of diseases of public health importance.

Descriptive epidemiological factors of specific diseases of public health importance.

Causes and factors related to increasing or decreasing trends of these diseases.

Factors responsible for emergence of new diseases.

Review of changing disease control strategies for diseases of public health importance.

Accessibility and availability of Health Care services in Desert and Tribal areas

18. Maternal and Child Health Care

Meaning and relevance of Risk Approach to Maternal and Child Health

Review of the public health relevance of Maternal and Child health physical, mental, social and behavioural problems

Rationale, Components and Implementation of Antenatal, Intranatal and Postnatal Care

Rationale, Components and Implementation of Child Health Care

Maternal and Childhood Disease control strategies Indicators of MCH care and their interpretation

Organizational and Functional components of the Maternal and Child Health related Programs in India Eg. RCH, ICDS, IMNCI etc.

19. Demography and Family Welfare Services in

India Significance of Demography in public health

Interpretation and implications of Demographic Cycles on global and Indian context.

Demographic trends in India and its application in the planning of Health programmes

Fertility indicators

Meaning and relevance of Family Planning, Family welfare and Population Control

Methods of Family Planning – Review of mechanism, effectivity, factors for non-compliance of usage, contraindications and side-effects.

Formulation and Evaluation of Implementation strategies of Family planning programs.

National population policy

Legislations

20. Genetics and Health

Relevance and Impact of population Genetics

Preventive and Social Measures in Genetics

Implication of Gene therapy, Stem-cell research on future disease control program strategies.

21. Social Paediatrics and School Health

Services Objectives of school health services
Planning for components of school health service and their implementation strategies (including child– parent– teacher and community roles)
School level counselling for chronic absenteeism, drug abuse, and gender based issues, behavioural and learning problems.
Monitoring Health of school children and school staff
Interventional strategies for Juvenile Delinquency, Child Abuse, Child Labour, Street Children, Child Marriage.
Child Guidance Clinic
Child Placement
Disabled / Handicapped children

22. Biostatistics

Collection / Organization of data / Measurement scales
Presentation of data and Record keeping
Measures of central tendency
Measures of variability
Sampling and Planning of health survey
Probability, Normal distribution and inductive statistics
Estimating population values
Tests of significance (Parametric / Non-parametric)
Analysis of variance
Multi-variate Analysis and Meta-analysis
Association and correlation and Regression
Vital Statistics & Registration
Evaluation of health and measurement of morbidity / mortality
Life table and its uses
Use of computers (SPSS, Epi-info etc)
Census, SRS
Qualitative Research methodologies
Evaluation methodologies

23. Principles and Application of

Epidemiology. Principles of Epidemiology

Types and detailed methodologies of Epidemiological studies such as Descriptive, Analytical, Experimental and importance of Multi-Centric studies.

Appropriate choice of epidemiologic approach for given situations.

Interpretation of Epidemiological studies.

Screening for diseases, Evaluation of screening tests.

24. Research Methodology

Preparing dissertation synopsis

Identifying need for research study

Problem statement

Formulating Objectives

Methods of Literature Review (References and Bibliography)

Conceptual framework of study

Research design choice

Choice of Methodologies

Analysis and discussion and presentation

25. Community Mental Health

Principles of Community Mental Health

Epidemiological factors associated with the current and emerging mental disorders of public health importance.

Emerging mental health issues of marital, family based problems, travel related, migration, resettlement and urbanization problems.

Planning and Intervention strategies for community based mental health programs

Drug Abuse, Tobacco and Alcohol Addiction and its Prevention.

26. Occupational Health

Relevance of Occupational Environment to Health Hazards

Surveying for identifying Industrial Health hazards

Surveying for identifying Health Hazards in Home based cottage Industries.

Basic principles of ergonomics and work-physiology

Relevance and meaning of Industrial Toxicology in the management of Health hazards.
Basic scope of occupational health legislation such as ESI Act, Factories Act, Mines Safety Act
Causes, consequences and Intervention Strategies for occupation related diseases
Principles of Industrial Safety measures and Industrial house-keeping.
Causes and reduction of Sickness Absenteeism.
Principles of Industrial Psychology including work related stress management.
Gender Issues in work environment.
Providing Social security for industrial workers by the Industrial Corporate Sector in view of Globalization and Outsourcing of work.

27 Health care of Special Groups

Aged

Public health implications of increasing trends in longevity of life.
Health planning strategies for enhancing quality of life of senior citizens.
Need, relevance and components of Community Based Geriatrics care Programs.
Social Security for the Aged.

Physically, Mentally and the socioeconomically Challenged

Vulnerability factors in health, for the physically and Socioeconomically challenged people.
Strategies for Behavioural change in the community towards the physically challenged.
Multi-disciplinary approach in the health care of the physically challenged.
Community Based Rehabilitation for the physically challenged
Care of Refugees, Marginalized and other vulnerable groups

Emporiatics – Traveller's health and International Health

28. Voluntary Sector in Health

Roles of the Voluntary Sector in Health Care
Case Studies of Health care strategies adopted by NGOs.
Networking strategies for Govt. and NGO sectors in Health Program Implementation

29. Health Care Management

Relationship of Planning to Management
Situational Analysis Methods
Vision, Mission, Goal setting and objective formulation
Criteria setting for Prioritization
Resource Generation Methods
Strategies Formulation
Participatory Approaches to plan execution
Monitoring and Evaluation Parameters selection and implementation
Project Report Writing and Reporting
Selected Management Techniques relevant to Health care.
Relevance of Qualitative methods in Health Management
Basics of Health Economics
Importance of Operation Research Methods in Health care Management.
Basis of Health Systems Research.

30. Health Information System.

Uses of Health Information System in Health planning including Situational analysis, Prioritization, Monitoring and Evaluation.
Sources and methods of data acquisition.
Applications of health information on National and International Notification of Diseases.
Use of Internet and Intranets including NICNET, etc.

31. Disaster Management and public health emergencies Brief

Review of definition, types and causes of Disaster. Understanding the short and long term Health Impact of Disasters Assessing priorities for Disaster Response.
Planning for Administrative, Operational, and Technical Intervention for Disaster Relief program including Multi-Sectoral Co-ordination.
Community Disaster Preparedness training needs for Health Providers and Beneficiaries.
Post Disaster Follow up care

32. Biomedical waste management and infection

control Sources and types of biomedical waste

Hazards of biomedical waste

Methods of disposal of biomedical waste

Guidelines for collection and disposal of biomedical waste

Legislations pertaining to biomedical waste disposal in India

Infection control – Biohazards and universal barrier precautions

Nosocomial and iatrogenic infections

33. Medical Ethics

Introduction to medical ethics

Professionalism, doctor-patient relationship

Ethical issues and dilemmas in health care settings

Ethical issues in public health and health promotion

Research ethics

Special topics – genetics, organ donation & transplantation, mental health & child care, alternative systems of health care

34. Essential Drugs and Rational use of

drugs Concepts and principles of essential

drugs Essential drug list – WHO, National

and State Benefits of essential drugs

Concept of rational use of drugs

Approaches to rational use of drugs

Benefits of rational use of drugs

5b - Practicals

1. Microbiology applied to Public Health (Dept. of Microbiology)					
	Hand on experience in staining techniques and interpretation of:				
	<table border="1"> <tr> <td>Grams Stain</td> <td>JSB Stain</td> </tr> <tr> <td>Ziehl-Neilson Stain</td> <td>Microscopic examination of stools and interpretation</td> </tr> </table>	Grams Stain	JSB Stain	Ziehl-Neilson Stain	Microscopic examination of stools and interpretation
Grams Stain	JSB Stain				
Ziehl-Neilson Stain	Microscopic examination of stools and interpretation				
	Peripheral blood examination of Thick and Thin Smears and Reporting				
	Demonstration of Collection, storage and Dispatch of water, stools, body fluids Samples to Laboratory				
	Interpretation of commonly used serological tests such as Physical / Biological / Chemical water analysis reports / Widal / HIV / Hepatitis B / VDRL / Viral Antibody Titres				
2. Medical Entomology					
	Demonstration of Collection and transportation of Entomological specimens				
	Identification of mosquitoes/fleas/ticks/others				
	Demonstration of mounting entomological specimens and reporting				
	Interpretation of Entomological Survey findings and Vector indices calculation				
3	Epidemiological (including outbreaks of disease) and Statistical Exercises				
4	Clinico Social Case Studies and family studies to illustrate principles and practice of Community Health				
5	Investigation of an Outbreak of a disease and suggestion of control Measures.				
6. Field and simulated Exercises in					
	PRA Techniques and Interpretive Reporting				
	IEC Field Exercises organization, execution and evaluation				
	Planning for simulated public health intervention programs including disaster relief measures.				
	VED Analysis etc.				
	Assessment of Health Needs.				
	Simulated exercises in Preparation of Budgeting at the PHC level				

	Demonstration of Supervisory methods and Performance Appraisal at PHC/SC and field level.
	Simulated calculation of Requirement of Vaccines, Medicines, transport schedules, lab supplies, equipment, staff deployment, stationary, etc. at the PHC level
	Simulated exercises for Organization of field and centre based camps for Family Welfare, MCH, IEC, Specialist camp, Immunization camps.
7	Diet and Nutritional Survey of a Community
8	Collection and Dispatch of Food Samples for Lab Investigations
9	Situational analysis of selected potentially health hazardous Environments and its influence on health
10	Industrial Health Survey and recommendation reports for Work places. Include interpretation of reports quantifying air pollution, noise pollution, temperature, humidity and other meteorological factors and their effect on health.
11	Socio-Economic surveys in Urban and Rural areas and their interpretation on direct and indirect health care needs and usage.
12	School Health Surveys with recommendations.
13	Observation of Family Counselling by MSW

14. Situational status reporting on visits / Postings to the following institutions

(organizational structure and functioning with feasible recommendations)

District Health Office	District Hospital
Taluk Hospital	PHC / SC / CHC
Field Publicity Office	ICDS office/ Anganwadi Centre
Public Health Laboratory	Sewage Treatment Plant
Vector control centre	Any large NGO
Family Welfare Camps	Infectious disease hospital
Malaria/DTC/ Filarial units	National Tuberculosis Institute / DOTS centre
Lepratorium	Cancer Hospital

Malaria Research Centre	Polio Surveillance Office
Visit to factory / inspectorate of factories	Home for the aged
Blindness Rehabilitation schools	Deaf and Dumb schools
Spastic society	Physically Handicapped Centre
Market place	Slaughter House
Hotel food storage, cooking and food waste disposal	Milk Dairy
Water supply and water treatment plant	Food and Beverages Processing Units

Postings to Urban and Rural Health Centres with emphasis on:-

- ❖ Observing and participation in Antenatal care
- ❖ High risk pregnancy identification
- ❖ Registration and participation in care of Antenatal and under-fives
- ❖ Nutrition Status calculation, Growth and Development monitoring through analysis of cumulative under-five and Antenatal cards and follow-up programs for drop-outs, etc
- ❖ Records design, recording procedures, data compilation and reporting procedures for National health programs
- ❖ Disinfection and Infection control methods
- ❖ Field visits with peripheral health care staff to review problems associated with Implementation of Health programs.
- ❖ Participation in organization and management of health camps
- ❖ Observation and reviewing methods of motivating for Family welfare
- ❖ Health Information preparation using MCH indicators and their interpretation
- ❖ Measuring Health care service Utilization rates for the centre
- ❖ Observation and participation in the Laboratory work with emphasis on result interpretation
- ❖ Medical Waste management observation and review report

- ❖ Immunization coverage calculation and follow up
- ❖ Cold Chain observation up to vaccine administration at field level
- ❖ Collection and dispatching and follow-up for Vaccine Potency testing

MAINTENANCE OF LOGBOOK

Log book - The log book is a record of the important activities and their critical review by the candidates during his / her training. The log book entries include academic activities, seminars & presentations attended, procedures learnt as well as casual notes on

- ❖ The Problems encountered
- ❖ Alternative solutions
- ❖ Innovation
- ❖ Organizational work
- ❖ Recommendation by student
- ❖ Inter-sectoral work
- ❖ Self-assessment done.

The log book shall be periodically reviewed by the professors / Head.

Internal assessment should be based on the evaluation of the log book review.

Collectively, log books are a tool for the evaluation of the training programme of the institution by the University.

1. Self-Evaluation--Through daily Work Diary
2. Faculty Evaluation --Through scrutiny of work diary by Head of Dept and staff
3. Technique of skills in Pedagogy - Through lesson plans and supervised taking of classes for undergraduates
4. Skill evaluation - through demonstration and Practicals and field reports
5. Knowledge Evaluation-- through journal clubs, seminars and tests

THESIS

Every candidate registered as post graduate shall carry out work on an assigned research project under the guidance of a recognized post graduate teacher, the result of which shall be written up and submitted in the form of a thesis.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical and clinical / practical examination.

The thesis shall be a bound volume of a minimum of 50 pages and not exceeding 75 pages of typed matter (Double line spacing and on one side only) excluding certification, acknowledgements, annexure and bibliography.

Thesis should consist of

- (a) Introduction
- (b) Review of literature
- (c) Aims and objectives
- (d) Material and methods
- (e) Result
- (f) Discussion
- (g) Summary and conclusion
- (h) Tables
- (i) Annexure
- (j) Bibliography

Four copies of thesis shall be submitted six months prior to the commencement of the theory examinations on the date prescribed by the Controller of Examinations of this University. The thesis should be approved by

the Professor and the same has to be forwarded to the controller of examinations, by the head of the department through the Dean of the college.

Two copies in addition are to be submitted as an electronic version of the entire dissertation in a standard C.D. format by mentioning the details and technicalities used in the C.D. format.

The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and clinical; and on the acceptance of the thesis by two examiners, the candidate shall appear for the final examination.

EVALUATION OF THESIS :

ACCEPTED / NOT ACCEPTED

No marks will be given

Thesis (guidelines to students)

Step 1	Identifying guide and co guide
Step 2	Review of available literature
Step 3	Short listing of topic of interest
Step 4	Workup in detail on few topics keeping in mind the feasibility and discussion at the dept level
Step 5	Selection and finalization of the topic and submission of protocol
Step 6	Preparation and submission of synopsis six months after the date of admission and as notified by the University
Step 7	Preparation of study instrument
Step 8	Pilot survey
Step 9	Finalizing the study
Step 10	Data collection
Step 11	Data entry, compilation and processing
Step 12	Analysis and interpretation
Step 13	Presentation and Discussion at the Dept level
Step 14	Preparation and submission of dissertation to Registrar Evaluation six months prior to university examination as notified by the University

7. University Examination Pattern

The University theory and practical exams would be at the end of Year III

Theory	
Paper I	Epidemiology, Tropical Medicine & Public Health Practice
Paper II	Epidemiology & Control of Diseases
Paper III	Health Care of Special Groups
Paper IV	Health Care Management and Public Health Administration including recent advances

Practicals	
1.	Clinico-Social Case study
2.	Family health appraisal & Clinico-social case study
3.	Problem on Epidemiology and Biostatistics
4.	Spotters
5.	Viva-Voce Examination
6.	Pedagogy Exercise

Practicals

1. Clinico- social case study

One clinical case will be allotted to the student; he should examine the given case, give his provisional diagnosis and discuss the line of investigations, clinic-social aspects and comprehensive management of the case.

2. Family health appraisal & clinico-social case study:

One family will be allotted in rural/urban field practice area. Presentation and discussion will be on the health status of the family and of any case/individual in the family and on factors that contributed towards maintenance of health and occurrence of disease; management at individual, family, and community levels.

3. Problem on Epidemiology and Biostatistics

Based on situation analysis from communicable or non-communicable diseases, MCH & FP including demography. Environmental health including Entomology and Occupational Health

4. Spotters

Identification and description of relevant public health aspects of the spotters/specimen by the student. Spotters shall be from Nutrition, Environmental health including Entomology & Occupational health, MCH & FP; Microbiology including parasites; vaccines, sera and other immunobiologicals

5. Viva-Voce Examination:

Students will be examined by all the examiners together about student's comprehension, analytical approach, expression and interpretation of data. Student shall also be given case reports, charts for interpretation. It includes discussion on dissertation.

6. Pedagogy Exercise:

A topic would be given to each candidate along with the Practical Examination question paper on the first day. The Student would be asked to make a presentation on the topic on the second day for 20 minutes.

Distribution of Marks

Section	Details	Marks	Time		
Theory	Paper I, II, III & IV (100 marks each)	100 marks	3 hours	400	
	Short Answers (10 x 6 = 60 marks)				
	Essay Questions (2 x 20 = 40 marks)				
Practicals	DAY I			170	
	Clinico Social Case study	50 marks	60 mins		
	Family based Clinico-social case study	50 marks	60 mins		
	Epidemiology & Biostatistics exercises (2 x 25)	50 marks	60 mins		
	Structured Spotters (5 x 4)	20marks	30 mins		
	Topic allocation for pedagogy				
	DAY II				130
	Pedagogy	50 marks	60 mins		
	Viva-Voce Examination	80 marks	60 mins		
	Dissertation discussion				
TOTAL				700	

MARKS QUALIFYING FOR A PASS

MARKS QUALIFYING FOR A PASS	MAXIMUM MARKS	QUALIFYING FOR A PASS 50% MARKS
Theory Examination	400	200
Practical Including clinical and Viva voce examination	300	150

A candidate shall secure not less than 50% marks in each head of passing, which shall include 1.Theory, 2.Practical including clinical and viva voce examination.

EXAMINATION AND EVALUATION

(1) EXAMINERS

(a) All the Post Graduate Examiners shall be recognised Post Graduate Teachers holding recognised Post Graduate qualifications in the subject concerned.

(b) For all Post Graduate Examinations, the minimum number of Examiners shall be four, out of which at least two (50%) shall be External Examiners, who shall be invited from other recognised universities from outside the State and other two will be internal examiners for M.D.

(c) Under exceptional circumstances, examinations may be held with 3 (three) examiners provided two of them are external and Medical Council of India is intimated the justification of such action prior to publication of result for approval. Under no circumstances, result shall be published in such cases without the approval of Medical Council of India.

(d) In the event of there being more than one centre in one city, the external examiners at all the centres in that city shall be the same. Where there is more than one centre of examination, the University shall appoint a Supervisor to coordinate the examination on its behalf.

(e) The guidelines regarding appointment of examiners are as follows;-

1. No person shall be appointed as an examiner in any subject unless he fulfils the minimum requirements for recognition as a Post Graduate teacher as laid down by the Medical Council of India and has teaching experience of 8 (Eight) years as a Lecturer / Assistant Professor out of which he has not less than 5 (Five) years teaching experience after obtaining Post Graduate degree. For external examiners, he should have minimum three years experience of examinership for Post Graduate diploma in the concerned subject. Out of internal examiners, one examiner shall be a professor and Head of Department or Head of Department.
2. There shall be at least four examiners in each subject at an examination out of which at least 50% (Fifty percent) shall be external examiners. The external examiner who fulfils the condition laid down in clause – 1 above shall ordinarily be invited from another recognised university, from

outside the State: provided that in exceptional circumstances examinations may be held with 3 (three) examiners if two of them are external and Medical council of India is intimated with the justification of such examination and the result shall be published in such a case with the approval of Medical council of India.

3. An external examiner may be ordinarily been appointed for not more than three years consecutively. Thereafter he may be reappointed after an interval of two years.
4. The internal examiner in a subject shall not accept external examinership for a college from which external examiner is appointed in his subject.
5. The same set of examiners shall ordinarily be responsible for the written, practical or part of examination.
6. In the event of there being more than one centre in one city, the external examiners at all the centres in the city shall be the same.
7. There shall be a Chairman of the Board of paper – setters who shall be an external examiner and shall moderate the question papers.
8. Where there is more than one centre of examination, there shall be Co-ordinator appointed by the University who shall supervise and Co-ordinate the examination on behalf of the University with independent authority.
9. The Head of the Department of the institution concerned shall ordinarily be one of the internal examiners and second internal examiner shall rotate after every two year.

(2) Number of candidates

The maximum number of candidates to be examined in Clinical / practical and Oral on any day shall not exceed eight for M.D. degree examination.

3) Number of examinations

The university shall conduct not more than two examinations in a year, for any subject, with an interval of not less than 4 and not more than 6 months between the two examinations.

(4) Doctor of Medicine (M.D) Community Medicine

M.D. examination shall consist of Thesis, Theory Papers, and clinical/Practical and Oral examinations.

(a) Thesis

Every candidate shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis.

Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the theoretical and clinical / practical examination.

The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical; and on the acceptance of the thesis by two examiners, the candidate shall appear for the final examination.

(b) Theory

- (i) There shall be four theory papers.
- (ii) Out of these one shall be of Basic Medical Sciences and one shall be of recent advances.
- (iii) The theory examinations shall be held sufficiently earlier than the Clinical and Practical examination, so that the answer books can be assessed and evaluated before the start of the Clinical/Practical and Oral examination.

(c) Clinical / Practical and Oral

(i) Clinical examination for the subjects in Clinical Sciences shall be conducted to test the knowledge and competence of the candidates for undertaking independent work as a specialist/Teacher, for which candidates shall examine a minimum one long case and two short cases.

(ii) Practical examination for the subjects in Basic Medical Sciences shall be conducted to test the knowledge and competence of the candidates for making valid and relevant observations based on the experimental/Laboratory studies and his ability to perform such studies as are relevant to his subject.

(iii) The Oral examination shall be thorough and shall aim at assessing the candidate knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which form a part of the examination.

A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and viva voce examination.

Evaluation of Answer Scripts

The answer books will be valued by two examiners. One of the two examiners will be from this university and the other will be from any other university. The Average of the two marks secured by the candidate will be taken into account. If the difference between two marks exceeds 10%, the answer scripts shall be valued by the third examiner. The average of the nearest two marks shall be considered as the final mark.

Recommended Books & Journals

BOOKS

1. Park's Text Book of Preventive & Social Medicine, 25th Edition Banarsidas Bharot, Jabalpur, 2011.
2. Maxcy-Rosenau-Last Public Health & Preventive Medicine, 15th Edition McGraw Hill, Cakutta, 2008.
3. Oxford Textbook of Public health, 4th Edition Oxford, New York, 2002.
4. Manson's tropical diseases, 22nd Edition Saunders, Philadelphia, 2009.
5. Epidemiology: By Leon Gordis, 3rd Edition BI Publication, New Delhi, 2004.
6. Epidemiology, Biostatistics and Preventive Medicine. 2nd Edition Saunders, Philadelphia, 2001. James F Jekel, 3rd Edition David L Katz, Joann G Elmore (W.B.Saunders Company), 2007.
7. Methods in Biostatistics, BK Mahajan, 6th Edition Jaypee, 1997.
8. Introduction to Biostatistics and Research Methods, PSS Sundar Rao, 4th Editon Prentice Hall, Publication New Delhi, 2007.
9. Hunter's Diseases of Occupations, Baxter, Peter.J, 10th Edition Hodder Arnold, 2010.
10. Text Book of Preventive & Social Medicine Mahajan B K and M.C.Gupta, 3rd Edition Jaypee Brothers, New Delhi, 2003.
11. Modern Nutrition in Health, SHILS, Maurice. 9th Edition Lippincott, Philadelphia, 1999.
12. Mawner & Kramer, Epid : An Introductory Text, 1985, W.B.Sanuders Co.

13. Last J M. A Dictionary of Epidemiology, 4th Edition, Oxford University Press, New York, 2001.
14. Kishore J, A Dictionary of Public Health, Central Book Agency, Calcutta, 2007.
15. Beaglehole R, Bonita R and Kjellstrom T. Basic Epidemiology, World Health Organization, Geneva, 1994.
16. Basic Epidemiology. R. Beaglehole, R. Bonita, T.Kjellstrom [WHO Geneva] 1994.
17. Epidemiology - Leon Gordis (Elsevier Sanders). 3rd Edition BI Publication, New Delhi, 2004.
18. Epidemiology, Biostatistics and Preventive Medicine. James F Jekel, David L Katz, Joann G Elmore 2nd Edition Saunder Philadelphia, 2001.
19. Textbook of Community Medicine. By Dr. A.P .Kulkarni and Dr. J.P Baride. (Vora Medical Publication – Mumbai), 3rd Edition, 2007.
20. Epidemiology and Biostatistics By Robert Nordness, M.D, (Mosby Elsevier) Mosby, Edinburgh. 2006
21. Public Health Nutrition (The Nutrition Society Textbook) (Paperback) by Michael J. Gibney (Editor), Blackwell Publishing, 2005.
22. Public Health Administration: Principles for Population-Based Management By Novick Liyod Cynthia R Morrow Glen P Mays

JOURNALS

Indian Journals

1. Indian Journal of Public Health
2. Indian Journal of Community Medicine
3. Indian Journal of Occupational and Environmental Health
4. Indian Journal of Infectious Diseases.
5. Indian Journal of Epidemiology
6. Indian journal of Malaria & Other vector borne diseases
7. Indian Journal of Maternal & Child Health.
8. Indian Journal of Preventive and Social Medicine.
9. Indian Journal of Medical Research.
10. Indian Journal of Malariology.
11. Indian Journal of Medical Education.
12. Journal of Indian Medical Association.
13. ICMR Bulletin

International Journals

1. Bulletin of the WHO
2. Journal of Epidemiology and Community Health
3. American Journal of Public Health
4. Journal of Public Health (Oxford)
5. The Lancet
6. British Medical Journal
7. Annals of tropical medicine and public health
8. Tropical Disease Bulletin
9. New England Journal of Medicine
10. POPLINE – CDROM version of Medline

Success is often a mis-step in the right direction

- Albernstein