



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed to be University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

Sector-01, Kamothe, Navi Mumbai -410 209

Tel 022-27432471, 022-27432994, Fax 022 -27431094

E-mail: registrar@mgmuhs.com; Website :www.mgmuhs.com

Curriculum for Doctor of Medicine Community Medicine

Amended upto BOM- 57/2019, Dated 26/04/2019

Amended History

1. Approved as per BOM– 04/2007, Item 12.1, Dated 14/12/2007.
2. Amended as per BOM- 48/2017, [Resolution No. 5.25]; Dated 24/01/2017.
3. Amended as per BOM-51/2017, [Resolution No. 1.3.7.11 (i)], [Resolution No.1.3.23]; Dated 28/08/2017.
4. Amended as per BOM-55/2018, [Resolution No. 4.13], [Resolution No. 4.5.4.2], Dated 27/11/2018.
5. Amended as per BOM-57/2019, [Resolution No. 3.1.4.2], Dated 26/04/2019.

INSPIRING MINDS



Mission

To improve quality of the life for individuals and community by promoting health, preventing and curing disease, advancing biomedical and clinical research and educating tomorrow's Physicians and Scientists.

Vision

By 2020 the MGM University of Health Sciences will rank one of the top private Medical Institution. This will be achieved through ground breaking **discoveries in basic sciences and clinical research** targeted to prevent and relieve human suffering, **excellence in Medical Education** of the next generation of academic clinicians and intrinsic scientists.

MGM University of Health Sciences will transform the **Education of tomorrow's Physicians and Scientists** conducting **Medical Research** to advance health and improving lives by providing world-class patient care.

Many see the 21st Century as the golden age of biomedical research. The MGM University of Health Sciences will position for leadership at the horizon of this new era to promote and stabilise stand human health with a standard of excellence.

Proposed Posting Scheme

MD – Community Medicine

MGM Medical College, Navi Mumbai

The total duration of 3 years shall be divided in 6 monthly semester format. Broad division of these 6 semesters is as follows:

Semester	Duration	Place of posting	Purpose
1 st	6 months	Department of PSM	Lectures, Practical, Visits
2 nd	6 months	RHTC/UHC/PHC	Community field exposure
3 rd	6 months	OBGY/MED/PED	Allied posting
4 th	6 months	ID Hospital/CLI/PHL/DHO	Institute of public health importance
5 th	6 months	Selected place of dissertation	Dissertation
6 th	6 months	Department of PSM	Dissertation

Details of each of the above activity/posting are available in the curriculum/syllabus of MD-Community Medicine.

The above scheme is purely a tentative one which needs further exclusions and inclusions. The overall purpose is to provide a varied kind of public health exposure to the MD candidate so as to make him acquainted and trained in handling community based public health issues with confidence.

MGM Institute of Health Sciences

(Deemed University)

Syllabus and Examination pattern for Post - Graduate Medical Course (MD)
(Proposed)

Community Medicine

(Preventive & Social Medicine)

M.D. Community Medicine

General Objectives

The General objectives of the training programme in Community Medicine will be to enable a candidate to be a-

Teacher / trainer to

1. Plan and conduct an educational session/programme. He/She will be able to draw up lesson plan with details of educational objectives.
2. Content, process and essential inputs.
3. Assist in development of curriculum, teaching and learning activities and methods of evaluation.
4. Assist in manpower planning and development. He/She should be able to participate in programmes for the selection, training and supervisions of various cadres of health personnel.

Researcher to

1. Plan and execute a research study including clinical trials. Use/Organize biostatistical analysis using computers and software's and prepare reports/papers.
2. Critically evaluate research activities.
3. Make recommendations on policy and procedures.
4. Update knowledge using library.

Public Health Specialist to

1. Define and manage the health problems of the community, which he/she serves. He/She should be able to organize epidemiological studies to identify health problems.

2. Plan, implement and evaluate various health programs in his/her area, especially National Health, Family Welfare and disease control/ eradication programmes.
3. Select, train, supervise and manage various categories of health personnel working with him/her.
4. Organize health care services, routine and for special groups and during period of special needs such as disasters/ calamities and epidemics.

Specific Objective

At the end of the MD programme in Community Medicine the student will -

1. Know the structure and functioning of the health system at the National and International levels and its historical perspectives.
2. Know the principles of nutrition, maternal health, and family welfare and put the same into practice.
3. Apply the principles of Epidemiology and Biostatistics to health practice including the design and implementation of health related research studies and clinical preventive medicine trials.
4. Know the principles of Communicable and Non-communicable diseases control and assist in the implementation of National Health programmes at a peripheral level.
5. Identify the socio-cultural dimension in Health and disease and apply this knowledge in the design and implementation of an integrated Health and development programme.
6. Apply the principles of environmental and occupational health in the design of health programmes aimed at improving health status.
7. Assess specific health situations in a population, plan, organize, implement and evaluate programs aimed at improving health situations.
8. Identify the health needs of the special groups within populations especially the aged, the disabled and the worker and to respond to that need.
9. Know the principles of learning and apply this knowledge in facilitating the learning process in groups of people involved in health.
10. Relate his/her knowledge of curative medicine to the improvement of the health status of a given population.
11. To understand principles of management and develop leadership qualities.
12. Identify the role of the Government, Private and Voluntary Sector in health and understand the principles innovations in health practices and research.

Course Contents

Health Systems in India and The World - Historical Perspective-

1. History of Public Health in India
 - History of Health Services in India
 - Indigenous System of Medicines in India
 - Bhole Committee's and other Committee Reports on health services, health care, and health professional education in India
 - National health policy
 - An update of achievements of the country vis-à-vis the health for all indicators
2. Primary Health Care
 - Concept of Primary Health Care
 - Principles of primary health care
 - Elements of primary health care
 - Models of Delivery of primary health care
 - Current status of primary health care the world over

3. The Health Care System in India - Structure and Function

- Central Level
- State Level
- District Level
- Taluka Level
- Primary Health Centre Level
- Village Level
- Urban Level

Socio Cultural Dimensions in Health

1. Principles of Sociology and the Behavioral Sciences
 - Concept of Sociology and Behavioral Sciences
 - Influence of Social and Cultural Factors on Health and Disease.
 - Social structures and social organization
2. Principles of Social Psychology
 - Principles of Psychology
 - Principles of behavioral sciences
 - Principles of social anthropology
3. Application of Sociology in Health and Development
 - Social problems in health and disease
 - Use of Sociology in addressing problems in Health and Disease

Principles of Educational Science and Technology

- Curriculum Planning, Educational Objective
- Principles of Learning
- Teaching / Learning Methods
- Teaching skills including Micro teaching
- Preparation and use of teaching Aids and learning research materials
- Methods of Evaluation

Principles and Practice of Information, Education and Communication

1. Principle of IEC Health Education
 - Objectives of Health Educations
 - Content of Health Educations
2. Communications Skills
 - Principles of Communications
 - Communications blocks
 - Body language
3. The use of Media for IEC
4. Practice (Methods) of EIC and its application in Community Health
5. Evaluation of impact

Principles of Nutrition and Applied Nutrition

Nutrients, Daily requirements, Balanced Diet, Primordial Prevention of lifestyle related disease.

- Classification of Foods
- Daily requirements of Nutrients
- Balanced Diet
- Nutritional Profiles of Major Foods

Nutritional Deficiencies

- Nutritional requirements

- Protein Energy Malnutrition
 - Vitamin Deficiencies
 - Mineral Deficiencies
 - Deficiencies of TRACE elements
3. Assessment of Nutritional status in a community and approach to a programme
 - Assessment of an individual's Nutritional status
 - Assessment of Community Nutritional status
 4. Nutritional Programmes in India Critical review
 - Nutritional problems in India
 - Programmes to combat these problems
 - Nutritional surveillance
 - Social problems in Nutrition
 5. Other aspects of Nutritions
 - Food Borne Diseases
 - Food Hygiene
 - Food Adulteration including PFA Act

Principles of Environmental Health

1. **Water**
 - Sources of Water
 - Water Pollution
 - Purification water
 - Water borne disease - Epidemiology and control investigation of outbreak of water borne disease and report including water testing.
2. **Air**
 - Indices of thermal comfort
 - Air Pollution including monitoring
 - Effects of air pollution and prevention and control
 - Ventilation
3. **Housing including domestic and industrial housing standards**
4. **Noise and noise pollution**
5. **Radiation**
6. **Meteorological Environment including temperature, humidity and rainfall**
7. **Lighting**
8. **Disposal of Waste and Sanitation**
 - Sources and Classification of Wastes
 - Disposal of Solid Wastes
 - Excreta Disposal
 - Sewage Treatment
 - Health care and Hospital Waste Management
9. **Environmental Pollution**
 - Sources of Environmental Pollution
 - Monitoring of Environmental Pollution
 - Prevention and Management of Environmental Pollution
10. **Medical Entomology**
 - Insects: Mosquito, Flies, Lice, Fleas and Bugs
 - Arachnida: Ticks and Mites
 - Crustacea: Cyclopa
 - Identification of the arthropods
 - Diseases transmitted by arthropods

- Control of Arthropods and diseases borne by them
- Insecticides and insecticide resistance
- Rodents and anti rodent measures
- Integrated Vector Control

Maternal Health, Child Health and Family Welfare

1. Common Maternal and child health problems at an individual level

- Antenatal care
- Risk approach
- Antenatal visits
- Preventive Services
- Postnatal care
- Care of Mother
- Child health problem
- Low birth weight
- Growth and development
- Childhood infections
- Care of the infant

2. Genetics and Health

- Common genetic problems
- Management of Genetic Problems
- Preventive and Social Measures in Genetics

3. Structure of MCH and Family Welfare Services in India

- Problems of Maternal Health in India
- Delivery of Maternal and child health services
- Trends in the MCH services
- MCH related programmes in India e.g. RCH, CSSM, ICDS
- Family Planning
- Methods of Family Planning
- Indicators of MCH care.

4. Demographic trends in India

- Demographic cycle
- Trends in the world
- Demography related indicators
- Demographic trends In India

5. School Health services

- Objectives
- Components of school health services
- Planning of school health services
- Care of handicapped children
- Behavioural and learning problems in children

6. Social Paediatrics

- Juvenile Delinquency
- Child abuse
- Child labour
- Street children
- Child guidance clinic
- Child marriage
- Child placement

Principles and Applications of Epidemiologic Methods in Health Research

1. Research Methodology
2. Principles of Epidemiology
3. Epidemiological studies
 - Descriptive
 - Analytical
 - Experimental

Biostatistics

- Collection/Organization of data / measurement scales.
- Presentation of Data
- Measurement of central tendency
- Measures of Variability
- Sampling and planning of health survey
- Probability, Normal distribution and inductive statistics
- Estimating population values
- Test of significance (Parametric/ Non-parametric including qualitative methods)
- Analysis of variance
- Association, Correlation and regression
- Vital statistics
- Evaluation of health and measurement of morbidity / mortality
- Life table and its uses
- Use of computers
- Census

Principles of Tropical Medicine

1. Infectious and non-infectious disease epidemiology
 - Respiratory diseases such as small pox, Measles, Mumps, Rubella
 - Diphtheria, pertussis, influenza, Tuberculosis, ARI etc.
 - Intestinal infections such as Poliomyelitis, Hepatitis, Food poisoning, Cholera, Enteric Fever, Amoebiasis, Worm infestations etc
 - Arthropod borne infections such as Malaria, Falaria, Dengue and others
 - Zoonotic Diseases such as brucellosis, rickettsial, diseases, parasitic
 - Surface infectious including AIDS, STDs, Leprosy, Tetanus, Trachoma among others
 - Non-infectious diseases of public health importance
 - Cardiovascular diseases, diabetes, blindness, accidents, cancers.
2. National Health Programs
 - The origin, historical development, interventions, current state and critique of the different National Health Programmes-
 - National Family Welfare Programme (NFWP)
 - National Tuberculosis Control Programme
 - National Leprosy Eradication programme
 - National Diarrhoeal Diseases control Programme
 - National Malaria Eradication programme
 - National Filariasis control programme
 - National Acute Respiratory infections (ARI) Control programme
 - National AIDS control Programme
 - National Guinea Worm Eradication Programme
 - National Kala Azar Control Programme
 - National Japanese Encephalitis (JE) control programme

- National Iodine Deficiency Disorders (DD) control programme
- National programme for the control of blindness
- National Cancer control programme
- National Mental Health Programme
- National Diabetes Control Programme
- Child survival and safe motherhood (CSSM)
- Reproductive Child Health (RCH)
- Universal Immunization programme (UIP)
- National water supply and sanitation programme
- Minimum needs programme

The implementation of NHPs at a programme level and in the community.

Community Mental Health

1. Principles of Mental Health
 - Types, Causes, and Warning Signals of Mental illness.
 - Preventive aspects of mental health
2. The approach to mental health problems in a community
 - Primary health care approach to mental health problems
 - Mental health services in the country

Occupational Health

1. Principles of Occupational Health
 - Occupational Environment
 - Occupational Hazards
 - Absenteeism
 - Problems of industrialization
 - Health protection of workers
 - Prevention of Occupational diseases
2. Legislation in Occupational Health
 - Factories Act
 - Employees state insurance Act
 - Workman's compensation Act
 - Mines Act
 - Plantation Labour Act
3. Basic of Industrial Toxicology
4. Principles of Industrial Psychology
5. Basic of Ergonomics

Health Care of The Aged and The Disabled

1. Community Geriatrics
 - Implications of demographic changes in Indian population
 - Health problems of the aged
 - Preventive health services for the aged
2. The disabled and Rehabilitation
 - Problem of disabled in the country
 - Types of disabilities and their management
 - Rehabilitation of the disabled
 - Community based Rehabilitation

Health care of Tribal people Desert Medicine

Voluntary Sector in Health

1. Role of the Voluntary Sector in Health
 - Activities undertaken by Vos in the health sector
 - Activities of specific VOS in health
 - Innovative approaches in the voluntary efforts in health

Health Care Administration and Health Management

1. Principles of Planning and Evaluation
 - Plan formulation
 - Execution
 - Evaluation
 - Planning cycle
2. Health Management
 - Methods and Techniques of Health Management
 - Behavioural Sciences in Management
 - Quantitative methods in Health Management
3. Basic of health system research
4. Basic of health economics
5. Basic of health information system

Recent Advances and Topics of Current Interest

1. Rational drug policy
2. Computers In Health
3. Agricultural Medicine and plantation health
4. Introduction to Counseling
5. Community Ophthalmology
6. Qualitative Research
7. Disaster Management and Public Health emergencies
8. Nosocomial infection and hospital infection control
9. Others free topic

Course Contents for Practicals

1. Microbiology applied to public health (dept. of Microbiology)
 - Hands on experience in staining techniques and interpretation of -
 - Leishmann Stain
 - Grams stain
 - JSB stain
 - Alberts stain
 - Ziehl-Neilson stain
 - Peripheral blood examination of Thick and Thin smears and reporting
 - Microscopic examination of stools and interpretation
 - Collection and Dispatch of samples to Laboratory
 - Experience in the collection, examination and interpretation of simple laboratory tests on blood, stool and urine
 - Interpretation of commonly used serological tests such as Widal/HIV/Hepatitis B/VDRL/Viral antibody titres
2. Medical Entomology
 - Collection of mosquitoes/fleas/ticks/others
 - Hands on experience on mounting and reporting

- Entomological survey
- 3. Epidemiological Exercises and case studies (including family studies) to illustrate principles and practices of Community Health.
 - Statistical exercises to illustrate principles and practice
 - Investigation of an Outbreak of a disease and Measures to control
- 4. Exercises in Public Health Administration
 - Planning exercises
 - VED Analysis etc
 - Beneficiary need Analysis
 - Preparation of Annual plan
 - Budgeting of the PHC level
 - Supervision of a PHC/SC
 - Requirement of Vaccines medicine, stationary at the PHC level
 - Organization of a family welfare camp
 - Conduction of an Immunization camp
- 5. Diet and Nutritional survey of a community
 - Collection and Dispatch of Food samples
- 6. Study of Environment and its influence on health in
 - Work place
 - House hold
 - Community
 - This includes the study of air pollution, noise pollution, temperature, humidity and other meteorological factors and their effect on health
- 7. Study of sanitation problems to illustrate the principles and practices of community health.
- 8. Environment Sanitation
 - Collection of water sample / analysis / reporting
 - Analysis of physical, Chemical and Microbiological quality of water
 - Study of waste Management methods
 - Adaptation of water supply Methods and waste disposal methods to an industry or plantation setting
 - Study of requirement of water in Urban and rural setting
- 9. Visit / Postings to the following institutions
 - District Health Office
 - District Hospital
 - Taluka Hospital
 - PHC/HC/CHC
 - Field Publicity Office
 - ICDS office/ Anaganwadi center
 - Public Health Laboratory
 - Sewage treat plant
 - HUDCO
 - Vector control center (Hosur)
 - Meteorology department
 - Age large NGO
 - UFWC family welfare campus
 - Infectious disease hospital
 - Malaria /DTC/filarial units
 - National tuberculosis institute

- Leprosorium
- Malaria research center
- Polio surveillance office
- Visit to factory / inspectorate of factories
- Home for the age
- Blindness rehabilitation school
- Deaf and dumb schools
- Spastic society
- Physically handicapped center
- Market place
- Slaughter house
- Hotel
- Milk dairy
- Cinema house
- Food and beverages processing units

Posting to Obstetric and Gynecology

1. Obstetrics (Urban and Rural Health Center)

- Antenatal care
- High risk pregnancy
- Intranatal care - the management of normal labour
- Postnatal care
- Family welfare

2. Gynecology

- Adolescent health
- Reproductive tract infections
- Cancer of the reproductive tract especially carcinoma cervix

Posting to Paediatrics (Hospital and ICDS)

- Paediatrics infectious diseases
- Nutritional problems
- Immunization
- Neonatal problems
- Growth and development monitoring

Training activities

The entire training and the facilitation of the learning process will be aided through the following methods of learning:

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. Supervised Training of undergraduates including lesson planning
9. Involvement in specific Departmental project works
10. Conducting of surveys

Methods of Monitoring (Please see chapter IV also)

1. Self Evaluation Through daily work diary
2. Faculty evaluation through scrutiny of work diary by Head of Dept. and P.G. Guide.

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

Dissertations (Guideline to Student) (Please see also S.L. No. 9 Chapter No. 1)

- Step 1 Identifying guide and coguide
- Step 2 Review of available literature
- Step 3 Shortlisting of topic of interest
- Step 4 Workup in details 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 month after the date of admission and as notified by the University
- Step 7 Preparation of study instrument
- Step 8 Pilot Surveys
- 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 submission of dissertation to Registrar Evaluation.
- Step 14 Preparation prior to university examination as notified by the University

Scheme Of Examination

A. Theory written examination

There shall be four question papers, each of three hours duration. Each Paper shall consist of two long essay questions each question carrying 20 marks and six short essay questions each carrying 10 marks. Total marks for each paper will be 100. Questions on recent advances may be asked in any or all the papers.

Paper I:

- History of Public Health and Community Medicine
- Behavioural sciences and health
- Information, Education, Communication and Counseling
- Microbiology including Entomology, Parasitology & Immunology.
- Environmental health and ecology
- General Epidemiology, Biostatistics and research Methodology

Paper II

- Diet and nutrition in health and disease.
- Epidemiology of communicable diseases and Non-communicable diseases.
- Occupational Health

Paper III

- Maternal Health & Child Health
- Demography & Family Welfare.
- Care of special groups viz. school health, adolescent health, and Geriatrics.
- Care of disabled, Community based Rehabilitation Tribal health, Desert Medicine
- Public health emergencies and calamities.

Paper IV

- Health and hospital administration
- Health care delivery including National health programmes
- Public Health legislation.
- Genetics and Counseling
- Mental Health
- International Health
- Voluntary Health Organisations, NGOs

B. Practical 200 Marks

1. Family Study:(One) 100 marks

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.

2. Clinico-social case study One long (30) One short (25)

Basic clinical presentation and discussion of diagnosis, treatment and Management of common communicable or non-communicable Diseases/conditions with emphasis on social and community aspects.

3. Public Health Laboratory (Two) (25 marks)

Staining of smears, interpretation of common serological diagnostic tests, & milk analysis or interpretation of given results of any above tests.

4. Problem on Epidemiology and Biostatistics (one) (50 marks)

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

5. Spotters (6x5) 30

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.

6. Pedagogy Exercise: (20 marks)

A topic is given to each candidate along with the practical Examination question paper on the first day. Student is asked to make a Presentation on the topic on the second day for 20 minutes.

VIVA-VOCE- (100 Marks)

1) Viva Voce Examination (100 marks)

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

Max.Marks in M.D. Community Medicine	Theory	Practicals	Viva-voce	Total
	400	300	100	700

Recommended books and journals

1. Maxy Roseman John M. Last, Maxcy-Roseman Public Health & Preventive Medicine, Applied -Century-Crofts, Newyork.
2. Hobson W. The Theory and practice of public Health, Oxford Med Publication.
3. Barker D.J P, Practical Epidemiology, Churchill Livingstone
4. Park J.E. & K. Park, Text book of P. & S. M, M/S. Banarsidasm Bhanot, Jabalpur
5. Mahajan B.K. and M.C. Gupta, Text book of P& S.M., Jaypee Publications.
6. Bradford Hill, Principles of Medical Statistics, Lancet Ltd.No.7 Adarn Street, Adelphine, London.,1967
7. John J. Hanlon, Public Health Administration and practice, MOSBY
8. Mac. Mahon & Pugh, Epidemiology Principles and Methods, LittleBrown& Co. Boston, U.S.A.
9. Robert S Goodheart Maulice E. Shills, Modern Nutrition in Health, K.M. Varghese & co.
10. Mawner & Karamar, Epid: An introductory Text, 1685 W.B.Sunuders Co.
11. Hunter's Diseases of Occupations, edited by P.A.B. Raffle, P.H. Adams, P.J.Baxter & W.R. Lee Edward Arnold Publishers (1994) Great Britain. J. Kishore
12. A Dictionary of Public Health, Century Publications New Delhi
13. Ghai
14. Bhaderrao.
15. Dher
16. J Kishore National Health Program
17. Clinical Epidemiology.

Committee reports and policy documents- medical education and health policy

- * Bhore Committee Report (1946) Health Survey & Development Committee, Govt. of India , Delhi.
- Mudaliar Committee Report (1961) Health Survey and Planning Committee, Govt. of India, Delhi.
- * Shrivastav Report(1974).Health Survices & Medical Education-A programme for immediate action,group on Medical Education and support manpower,Ministry of Health & Family Welfare, Govt. of India New Delhi.
- ICSSR/JCMR(1981) Health for All-AN Alternative strategy-Report of Joint Study group of ICSSR/ICMR, Indian institute of education, Pune.
- National Health Policy, (1982) Ministry of Health and Family Welfare Govt of India New Delhi
- Compendium of Recomm3endations of various committees on health & Development (1943-1975) Central ureau of Health Intelligence (1985) Directorate General of Health Services, Ministry of Health and Family Planning, New Delhi
- Bajaj, J.S. etal (1990) Draft National Educational Policy for Health Sciences, I.J.M.E. Vol..29 No.1 & 2(Jan-August 1990)

Journals

1. Indian Journal of Community Medicine.
2. Indian Journal of Public Health.
3. Indian Journal of Community Health.
4. Journal of Communicable Diseases.
5. Indian Journal of Maternal & Child Health.

6. Indian Journal of Preventive & Social Medicine.
7. Indian Journal of Occupational Health & Industrial Medicine.
8. Indian Journal of Medical Research.
9. National Medical Journal of India.
10. Indian Journal of Malariology.
11. Indian Journal of Environmental Health.
12. Indian Journal of Medical Education.
13. Journal of Indian Medical Association.
14. Journals of Medicine, Paediatrics, OBG, Skin & STD, leprosy, Tuberculosis & Chest Diseases (For Reference)

International Journals

1. WHO Publications - All
2. Journal of Epidemiology & Community Health
3. Tropical Diseases Bulletin.
4. Vaccine
5. American Journal of Public Health
6. Lancet
7. New England Journal of Medicine.

Additional Reading

1. Compendium of recommendations of various committees on health and Development (1943-1975) DGHS, Central Bureau of Health Intelligence, Directorate General of Health Services, min. of Health and Family Welfare, Govt of India, Nirman Bhavan New Delhi P.335
2. National Health Policy, Min. of Health & Family Welfare, Nirman Bhavan, New Delhi. 1983.
3. Santosh Kumar. The elements of Research, writing and editing 1994. Dept. of Urology, JIPMER, Pondicherry.
4. Srinivasa D.K. et al, Medical Education Principles and Practice, 1995. National Teacher Training Centre, JIPMER, Pondicherry.
5. Indian Council of Medical Research. "Policy Statement of Ethical considerations Involved in Research on Human Subjects"., ICMER, New Delhi.
6. Code of Medical Ethics framed under section 33 of the Indian Medical Council Act 1956. Medical Council of India, Kotla Road, New Delhi.
7. Francis C.M. Medical Ethics, J P Publications, Bangalore, 1993
8. Indian National Science Academy, Guidelines for care and use of animals in Scientific Research, New Delhi, 1994.
9. Internal National Committee of Medical Journal Editors, Uniform requirements for Manuscripts submitted to biomedical journals, N Engl J Med 1991: 424-8
10. Kirkwood B.R. Essentials of Medical Statistics, 1 st Ed. Oxford: Blackwell Scientific Publications 1988.
11. Mahajan B.K. Methods in Bio statistics for medical students, 5 th Ed. New Delhi, Jaypee Brothers Medical Publishers, 1989.
12. Raveendran B Gitanjali. A Practical approach to PG dissertation, New Delhi, J.P Publications, 1998.
 - 1 Hunter (Donald), Diseases of the Occupations, 6 th edition, Hodder and Stoughton 1978.
 - 2 Schilling (1978), Occupational Health Practice, Butterworth & company Great Britain.

3. Plunkett (E.R), Occupational Diseases, Barret Book Company, Stamford (1977)
4. Johnstone (R.T.) Occupational Diseases and Industrial Medicine, Saunders, Philadelphia (1960).
5. French (Geoffrey) Occupational Health, Medical Technical Publishers, Lancaster
6. Mayer (May R), Occupational Health etc. Williams and Wilkins, Baltimore (1969).
7. Government of India, Ministry of HRD, Occupational Health: Issues of women in the Unrecognized sector, New Delhi. (1988).
8. Plunkett (E.R) Handbook of Industrial Toxicology, 3 rd edition, Arnold Publishers U.S.A.(1987).
9. Charles Wn Sharp and L Thomas Carroll, Voluntary Inhalations of Industrial Solvents, U.S.Department of Health, Education and Welfare, National Institute on Drug abuse. U.S.A. (1978).
10. 10 Patrick Kinnersly (1979), The Hazards of Work, How to fight Them, Pluto Press, U.K.
11. Plunkett (E.R) (1977), Occupational Diseases, A Syllabus of signs and Symptoms, Barret Book Company, Stamford, Connecticut (1977).
12. Edited by Robert J.Mc. Cunney. Handbook of Occupational Medicine, little Brown and Company, Boston/Toronto (1988).
13. WHO (1986) Geneva, Early detection of Occupational Diseases.
14. Hunter's Diseases of Occupations, Edited by P.A.B.Raffle, P.H. Adarns, P.J.Baxter.
15. Carl Zenz (1994), Occupational Medicine, 3 rd Edition Mosby, U.S.A.
16. ILO Publications Geneva, Encycloperia of Occupational Health & Safety, (1983) 3rd Edition Vol.122.

MGM INSTITUTE OF HEALTH SCIENCES, NAVI MUMBAI

MARKLIST FOR PRACTICAL AND VIVA-VOCE EXAMINATION

EXAM CENTRE: _____ COURSE / EXAM: PG --

DATE OF EXAMINATION: _____ EXAMINATION FOR: MD (COMMUNITY MEDICINE)

Seat No	1 Practical / Clinical Examination							2 Viva Examination			GRAND TOTAL (1+2) 400
	Family Study	Clinico - Social Case Study Long Case	Clinico - Social Case Study Short Case	Public Health Laboratory	Problems on Epidemiology & Biostatistics	Spotters	Pedagogy Exercise	Practical/ Clinical Total	Viva-Voce	Dissertation Viva	
	100	40	20	40	50	30	20	300	90	10	100

NAME OF EXAMINER	COLLEGE	SIGNATURE WITH DATE
1.		
2.		
3.		
4.		

Paper wise Distribution of Topic

SN	COURSE TITLE	SUBJECT NAME	PAPER NO. & TOPICS	
	MD	Community Medicine	I	History of Public Health and Community Medicine Behavioural Sciences & Health, Information, Education, Communication & counseling, Microbiology including Entomology, Parasitology & Immunology. Environmental Health and ecology, General Epidemiology, Biostatistics and research Methodology
			II	Diet & nutrition in health and disease, Epidemiology of communicable diseases and Non-communicable diseases, Occupational Health
			III	Maternal Health & Child Health, Demography & Family welfare, Cares of special groups viz. school health, adolescent health and geriatrics, Care of disabled, community based Rehabilitation Tribal health, Desert Medicine. Public Health emergencies and calamities
			IV	Health & Hospital administration, Health Care delivery including National health programmes, Public Health legislation, Genetics and counseling, Mental Health, International Health, Voluntary Health Organisations, NGOs.
	MD	ENT	I	Basic Sciences related Otolaryngology
			II	Principles and practices of Otolaryngology
			III	Recent advances in Otolaryngology and Head Neck Surgery
			IV	General Surgical principles & Head Neck Surgery
	MD	MD Dermatology	I	Basic sciences, anatomy physiology, biochemistry, pathology etc. in relation to specialty
			II	Principals of dermatology diagnosis and therapeutics
			III	Venereology and Leprology principals of diagnosis and therapeutics
			IV	Dermatology in internal medicine, including applied clinical aspects, therapeutics, pathology, immunopathology, bacteriology and recent advances.

IN PURSUIT OF EXCELLENCE

MGM DEEMED UNIVERSITY OF HEALTH SCIENCES

Constituent Colleges

Navi Mumbai

M.G.M. Medical College
M.G.M School of Biomedical Science
M.G.M School of Physiotherapy
M.G.M New Bombay College of Nursing
M.G.M College of Nursing

Aurangabad

M.G.M. Medical College
M.G.M School of Biomedical Science
M.G.M School of Physiotherapy
M.G.M College of Nursing



MAHATMA GANDHI MISSION

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- MGM's Inst. of Hotel Management & Catering Tech.
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- MGM's School of Biomedical Sciences

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- MGM's Dental College & Hospital
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- MGM's College of Media Science
- MGM's Institute of Research
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- MGM's Hospital, CBD
- MGM's Hospital, Kamothe
- MGM's Hospital, Kalamboli
- MGM's Infotech & Research Centre
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- MGM's Primary & Secondary School (Eng. & Mar.)
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- MGM's Junior College of Vocational Courses
- MGM's Florence Nightingale Inst. Nursing Edu.
- MGM's College of Nursing
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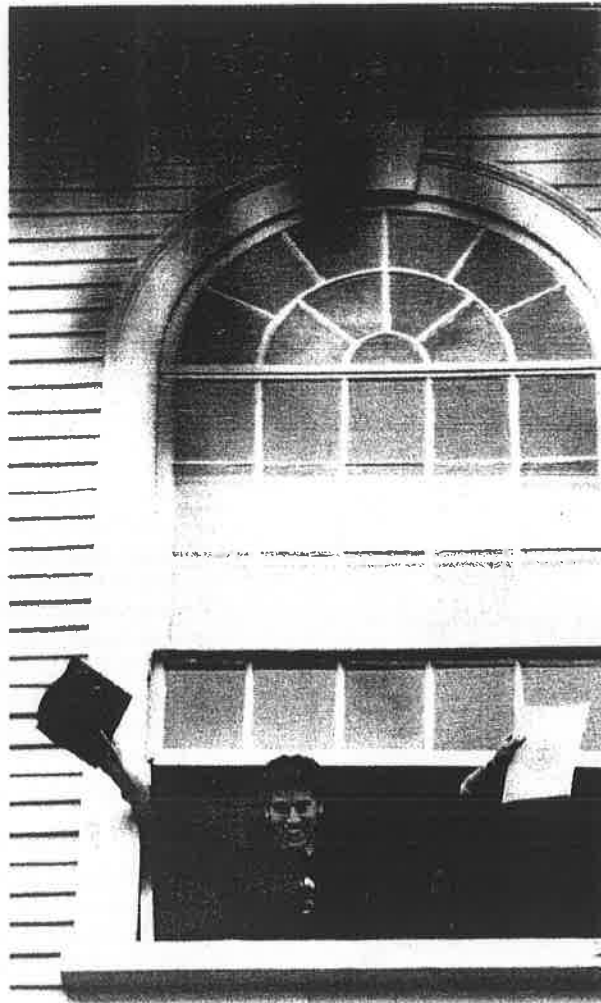
- MGM's College of Engineering
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MGM University of Health Sciences
(Education - Health Services - Research)
A Mission started, nurtured and Managed
by Professional Doctors, Scientists Engineers...



MGM INSTITUTE OF HEALTH SCIENCES
(Deemed University u/s 3 of UGC Act, 1956)



Post Box -6, MGM Educational Complex, Sector-18,
Kamothe, Navi Mumbai - 410209
Ph : - 022-27422471, 65168127, 65138121 Fax : 022-27420320
E-mail : mgmuniversity@mgmuhs.com
Website: www.mgmuhs.com

Resolution passed in BOM – 48/2017, dated 24/01/2017

Resolution No. 5.25: Resolved to institute 6 monthly progress Report for PG Students of all Courses from the batches admitted in 2016-17. **[Annexure-XVII of BOM-48/2017]**

**Mahatma Gandhi Mission's Medical College and Hospital
Navi Mumbai**

Six monthly Progress Report for Postgraduate Students

PART A

Name of the PG student:

Department:

Admitted in (Month and Year):

Name of the PG guide:

Report for the period: to

Attendance: days (..... %)

PART B

Grading as per performance

Grade	Percentage
A	80% and above
B	65% to 79%
C	50% to 64%
D	Below 50%

1. OPD work:
2. Ward work:
3. Lab work:
4. OT work:
5. ICU work:
6. Teaching assignments:

PART C

Progress of Thesis

.....

.....

.....

PART D

Activities from serial No. 1 to 5 should be rated on a scale of 0 to 10.

1. Case Presentations

Sr. No.	Topic	Date	Guide	Marks

2. Microteaching

Sr. No.	Topic	Date	Guide	Marks

3. Recent Advances

Sr. No.	Topic	Date	Guide	Marks

4. Seminars

Sr. No.	Topic	Date	Guide	Marks

5. Journal Clubs

Sr. No.	Journal	Title of Paper	Date	Guide	Marks

6. Marks obtained in tests

Sr. No.	Date	Theory / Practical	Marks obtained

7. Any other academic activity conducted:

PART E

1. Papers presented

Sr. No.	Title of Paper	Authors	Event	Date

2. Posters presented

Sr. No.	Title of Poster	Authors	Event	Date

3. Publications

(Note: Mention only those publications that are published or are accepted for publication during the said period only)

Sr. No.	Title of Paper	Authors	Journal	Year/Vol/ Issue	Page Nos	Indexed/ Non-Indexed	Status

Certificate by the PG Guide

This is to certify that Dr. _____ has an attendance of _____% , during the period _____ to _____. His /Her performance during the said period has been **satisfactory/ average / unsatisfactory**.

Overall Grading: _____

Date: _____

Name and Signature of PG guide:

Certificate by the Head of Department

This is to certify that the performance of Dr. _____ during the period _____ to _____ has been **satisfactory/ average / unsatisfactory**.

Overall Grading: _____

Date: _____

Name and Signature of HOD:

Final Remarks

Satisfactory / Average / Unsatisfactory

Director (Academics)

Dean

Date:

Resolution No. 1.3.7.11 (i) of BOM-51/2017: Resolved that the following Bioethics topics in PG Curriculum are to be included for PG students of all specialization and a sensitization of these topics can be done during PG Induction programme:

- Concept of Autonomy
- Informed Consent
- Confidentiality
- Communication Skills
- Patient rights
- Withholding / Withdrawing life-saving treatment
- Palliative Care
- Issues related to Organ Transplantation
- Surgical Research and Surgical Innovation
- Hospital Ethics Committee
- Doctor-Patient relationship

Page PG.

30/08/2017

Resolution No. 1.3.23 of BOM-51/2017: Resolved to implement a Structured Induction programme (07 days) for PG students. [Annexure-XLIV]

MGM INSTITUTE OF HEALTH SCIENCES
Navi Mumbai

Induction Program for newly admitted Postgraduate students

Day 1	<ul style="list-style-type: none">• Address by Dean, Medical Suptd, Director (Academics)• Pre-test• Communication Skills• Universal Safety Precautions• Biomedical Waste Management• Infection Control Policy
Day 2	<ul style="list-style-type: none">• Emergency services• Laboratory services ✓• Blood Bank services• Medicolegal issues• Prescription writing• Adverse Drug Reaction• Handling surgical specimens
Day 3	<ul style="list-style-type: none">• Principles of Ethics• Professionalism• Research Ethics• Informed Consent• Confidentiality• Doctor-Patient relationship
Day 4	<ul style="list-style-type: none">• Research Methodology
Day 5	<ul style="list-style-type: none">• Synopsis writing
Day 6	<ul style="list-style-type: none">• Dissertation writing• Statistics
Day 7	<ul style="list-style-type: none">• ATLS• Post-test

The Induction Program will be conducted in the first week of June.

Timing: 9.30 am to 3.30 pm

(Prof. Dr. Siddharth P. Dubhashi)
Director (Academics)

Resolution No. 4.5.4.2 of BOM-55/2018: Resolved to have 10 short notes out of 11 (10 marks each) in all the papers in university examination for PG courses including superspeciality. To be implemented from batch appearing in April/May 2019 examination onwards for MD/MS/Diploma and August/September 2019 examination onwards for superspeciality.

Resolution No. 4.13 of BOM-55/2018: Resolved as follows:-

- (i) Slow learners must be re-designated as potential learners.
- (ii) Students scoring less than 35% marks in a particular subjects/course in the 1st formative exam are to be listed as potential learners. These learners must be constantly encouraged to perform better with the help of various remedial measures.
- (iii) Students scoring more than 75% marks in a particular subjects/course in the 1st formative exam are to be listed as advanced learners. These learners must be constantly encouraged to participate in various scholarly activities.

Resolution No. 3.1.4.2 of BOM-57/2019:

- i.** Resolved to include “Gender Sensitization” into UG (from new batch 2019-2020) and PG (from existing batches) curricula. [**Annexure-21**]
- ii.** Resolved to align the module of “Gender Sensitization” with MCI CBME pattern for MBBS students.
- iii.** Resolved that Dr. Swati Shiradkar, Prof., Dept. of OBGY., MGM Medical College, Aurangabad will coordinate this activity at both campuses.

Annexure - 21

Gender sensitization for UG (2nd , 3rd , 8th semesters) and PG (3 hours)

INCLUSION OF “ GENDER SENSATIZATION” IN CURRICULUM

Introduction :

The health care provider should have a healthy gender attitude, so that discrimination, stigmatization, bias while providing health care will be avoided. The health care provider should also be aware of certain medico legal issues related with sex & gender.

Society particularly youth & adolescents need medically accurate, culturally & agewise appropriate knowledge about sex, gender & sexuality. So we can train the trainers for the same. It is need of the hour to prevent sexual harassment & abuse .

To fulfill these objectives, some suggestions are there for approval of BOS.

Outline

- 1)For undergraduates :- Three sessions of two hours each, one in 2nd term, one in 3rd term & one in 8th term.
- 2)For Faculties and postgraduates :- One session of two hrs .
- 3)For those want to be trainers or interested for their ownself, value added course, which is optional about sex, gender, sexuality & related issues.

Responsibility

ICC of MGM, MCHA , with necessary support from IQAC & respective departments.

Details of undergraduate sessions

1)First session in 2nd term

Aim – To make Students aware about the concept of sexuality & gender.

To check accuracy of knowledge they have,

To make them comfortable with their own gender identify & related issues.

To make them aware about ICC & it is functioning.

Mode – Brain storming , Interactive power point presentation experience sharing.

Duration – Around two hours

Evaluation – Feedback from participants.

2)Second session in 3rd / 4th term

Aim – To ensure healthy gender attitude in these students as now they start interacting with patients.

To ensure that the maintain dignity privacy while interacting with patients and relatives, particularly gender related.

To make them aware about importance of confidentiality related with gender issues.

To encourage them to note gender related issues affecting health care & seek solutions.

Mode – focused group discussions on case studies, Role plays & discussion.

--3--

Duration – Around two hours.

Evaluation – Feedback from participants.

Third session in 8th term.

Aim – To understand effect of gender attitudes on health care in various subjects.

To develop healthy gender attitude while dealing with these issues.

Mode – Suggested PBL by departments individually. (In collaboration with ICC till faculty sensitization is complete)

Evaluation – Feedback

FOR POSTGRADUATES

Session of 2-3 hrs preferably in induction program.

Aim – To introduce medically accurate concept of gender, sex, gender role & sex role.

To ensure healthy gender attitude at workplace.

To understand gender associated concepts on health related issues & avoid such bias while providing health care.

To make them aware about ICC & its functioning.

Mode – Interactive PPT

Role plays & discussion

Duration – 2 to 3 hrs

Evaluation – Feedback.

FOR FACULTIES

Session of 2 hours may be during combined activities.

Aim – To ensure clarity of concept about gender & sex.

To discuss effect of these concepts on health-related issues.

To identify such gender & sex-related issues in individual subject specialties.

To discuss methodology like PBL for undergraduate students when they are in 7th-8th semester.

Mode – Role play

 Focused group discussion

 Case studies

Evaluation – Feedback.

Sdp-Pimple/joshi-obgy

Resolution No.3.1.3.5 of BOM-59/2019: Competency based PG curriculum is approved alongwith the proposed changes in topics for Paper 1-4 for MD Community Medicine Examination from batch appearing in April 2020 University examination onwards. [**Annexure-14**]

**COMPETENCY BASED POSTGRADUATE TRAINING
FOR MD IN COMMUNITY MEDICINE
BASED ON MCI GUIDELINES - 2017**

SUBJECT SPECIFIC OBJECTIVES

1. To create a skilled cadre of medical professionals having expertise in application of principles of Public Health, Community Medicine and applied epidemiology, contributing meaningfully in formulating National Health Policies & Programmes with a systems approach for overall human development.
2. To standardize the teaching & training approaches at post- graduate level, for Community Medicine
3. Research: To formulate research questions, do literature search, conduct study with an appropriate study design and study tool; conduct data collection and management, data analysis and report.

SUBJECT SPECIFIC COMPETENCIES

At the end of the course the student should be able to acquire the following competencies under the three domains, Cognitive, Affective and Psychomotor:

A. Cognitive domain: The student should be able to:

- a. Describe conceptual (and applied) understanding of Public Health, Community Medicine, clinical and disease-oriented approach, preventive approach & health promotion, disease control & promotion.
- b. Have knowledge about communicable and non-communicable diseases, emerging and re- emerging diseases, their epidemiology, control and prevention.
- c. Apply the principles of epidemiology, health research and Bio-statistics, application of qualitative research methods
- d. Calculate Odds Ratio, Relative Risk, Attributable risk and other relevant health and morbidity indicators.

- e. To describe nutritional problems of the country, role of nutrition in health and disease and to describe common nutritional disorders
- f. Develop nutrition plan for an individual based on his requirements and with concerns to special situations if applicable
- g. Plan comprehensive programme to address issue of malnutrition in a given area for a specific group
- h. To describe the concept of Environmental Health and its various determinants.
- i. Identify environmental health issues in a given area/community
- j. Assess impact of adverse environmental conditions on health of human beings
- k. Plan awareness programmes at various levels on environmental issues and mobilize community resources and participation to safeguard from local adverse environmental conditions
- l. Should be able to provide technical advice for water purification, chlorination, installing gobargas plant, construction of soakage pits etc
- m. Be a technical expert to advice on protection measures from adverse environmental exposure
- n. To describe the working of Primary Health Care system, Panchayat Raj system, National Health Programmes, urban/rural differences, RCH, Demography and Family Welfare.
- o. Do orientation of the inter-linkage of health sector and non-health sector for promotion of Health & control and prevention of diseases.
- p. Have familiarity with administrative procedures and protocols
- q. Have knowledge about role of media and its use in health
- r. Have knowledge of Health Care Administration, Health Management and Public Health Leadership
- s. To describe Health Policy planning, Medical Education technology, Information Technology and integration of alternative Health system including AYUSH.
- t. To describe the intricacies of Social & Behavioral sciences and their applications.
- u. To describe Public Health Legislations
- v. To understand and describe International Health & Global Diseases surveillance.
- w. To relate the history of symptoms with specific occupation, diagnostic criteria, preventive measures, identification of various hazards in a specific occupational environment and legislations.

- x. To keep abreast of recent advances in Public Health & formulate feasible, optimal, sustainable, cost effective strategies in response to the advances in public health & development.
- y. To describe the principles of Health Economics and apply it in various public health settings.
- z. To explain and correlate common health problems (medical, social, environmental, economic, psychological) of urban slum dwellers, organization of health services in urban slum areas
- aa. Develop workable interventions for control and prevention of emerging and re-emerging diseases at local, national and global level.
- bb. Identify behavior pattern of individual or group of individuals detrimental or adversely affecting their health
- cc. Define and identify vulnerable, under-privileged high risk communities and their special needs
- dd. To create awareness about various public health laws
- ee. Evaluate cost effectiveness and cost benefits of a Health Program
- ff. Understand and express implications of 'Poverty Line', 'Social Inclusion', 'Equity', 'taxations', 'Insurance' on Health care management.
- gg. To categorize hospital waste and be able to guide for proper disposal.
- hh. To provide a comprehensive plan for disaster management and mitigation of sufferings.

B. Affective domain:

- a. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
- b. Always adopt ethical principles and maintain proper etiquette in dealings with patients, relatives and other health personnel and to respect the rights of the patient including the right to information and second opinion.
- c. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

C. Psychomotor domain:

The student should be able to perform independently the following:

- a. Conduct community surveys for assessment of health & morbidity profile, epidemiological determinants, assessment of health needs, disease surveillance, evaluation of health programmes and community diagnosis
- b. Conduct epidemic investigations, spot maps, predict disease trends, preparation of reports, planning and implementation of control measures
- c. Demonstrate clinical skills of preparing case history, examination, provisional diagnosis, treatment and clinical case management and interpretation of laboratory findings. Conduct common procedures such as incision, drainage, dressings & injections.
- d. Do data collection, compilation, tabular and graphical presentation, analysis and interpretation, applying appropriate statistical tests, using computer-based software application for validation of findings
- e. Conduct epidemiological research studies to establish cause-effect relationships in elaborating the epidemiology of diseases and health events
- f. Develop appropriate IEC Material, assessment of community communication needs, training skills, counseling skills, conduct Health Education Programmes in urban and rural settings
- g. Conduct dietary surveys, assessment of nutritional status, nutritive values of common food menus, detection of food adulterants, use of lactometer, recording and interpretation of growth and development charts.
- h. Use and apply various instruments and processes concerned with environmental health and biological waste management eg. waste collection, segregation and disposal as per protocols, needle-disposers, disinfection procedures. Also use of Dosi-meters, Kata / Globe Thermometer, Slings Psychrometer, Gobar Gas Plant, Soakage pit, Solar Energy, functioning of ILRs, Deep Freezers, Cold Boxes, Vaccine Carriers.
- i. identify different types of mosquitoes, detect vector breeding places and orientation of the methods of elimination of breeding places and placement of a mosquito-proof water tank.
- j. Conduct clinical screening of various diseases and organize community health camps involving community participation in urban and rural settings. Use of

- Snellen charts for vision, Ischiara's chart for colour blindness, tourniquet tests for dengue diagnosis in fever, BMI and other physical measurements of infants, children and adults etc., copper-T insertions and preparation of pap smear.
- k. Conduct tests for assessment of chlorine demand of water (Horrock's Apparatus), procedure of well-water and urban water-tank chlorination, assessment of chlorination levels, physical examination of water, methods domestic water purification, oriented in use of water filters.
 - l. Prepare health project proposals with budgeting based on the project objectives.

Miscellaneous skills:

The student should be able to

- a. Devise appropriate health education messages for public health awareness using various health communications strategies.
- b. Identify family level and community level interventions and facilitate the implementation of the same e.g. food hygiene, food storage, cooking demonstrations, community kitchen, kitchen garden, empowerment of women for promoting nutritional health etc.
- c. Demonstrate counselling skills for family planning services.
- d. Plan and execute BCC strategy for individuals.
- e. Conduct measurement of occupational exposure to harmful influences.
- f. Diagnose occupational hazards and undertake surveys to identify occupational exposures as and when necessary.
- g. Elicit appropriate response at individual and community level to prevent occupational hazards including IEC activities at different levels.
- h. Use modern IT applications especially internet & internet-based applications.

1. Conceptual (and applied) understanding of Public Health, Community Medicine, clinical disease-oriented approach, Preventive approach & Health promotion, disease control & promotion.

Learning objectives: At the end of this course topic, the student should be able to:-

- i. Understand and explain the concept & application and give suitable analogies/examples related to Public Health/Community Medicine (with differences), Disease-oriented v/s Preventive approach, health promotion disease control & prevention.
- ii. Explain correlation between health and human development with analogies/ examples.
- iii. Explain concept of Primordial, Primary, Secondary and Tertiary prevention with examples.
- iv. Evolutionary History and mile-stones in Public Health – National and International levels.

2. Communicable and Non-Communicable diseases, emerging and re-emerging diseases

Learning objectives: At the end of this course, the student should be able to:-

- i. Understand and explain Epidemiology of Communicable/Non-communicable diseases- its causes, precipitating factors, social & other non- health causes, mechanisms of transmission, signs/systems, management, control & prevention measures, related national Health Programmes & national Guidelines, Directives, special projects, if any.
- ii. Explain application of Disease surveillance system in control of Communicable/Non-communicable diseases.
- iii. Explain & undertake steps to investigate & control outbreaks, epidemics and take measures to prevent the same.
- iv. Evolve prevention & control measures based on local & regional epidemiological funding, synchronizing with National guidelines.

3. Applied Epidemiology, Health research, Bio-statistics

Learning objectives: At the end of this course, the student should be able to:-

- i. Explain the concept & application of Epidemiology of Disease and Health giving suitable examples.
- ii. Explain Epidemiological approach, the terms Distribution & Determinants, uses, types of Epidemiological studies, interpretation, merits/demerits and limitations, odds ratio, relative risk, attributable & population attributable risks, Hybrid designs (with

- examples), validity of Epidemiological Data and application in practice at field level.
- iii. Explain Epidemiological Research methods, Research related protocols, Literature review, estimating sample size, data collection/ compilation/Analysis/ Research, interpretation.
 - iv. Develop Health interventional programs based on Epidemiological Finding & create evidence for Public Health action.
 - v. Understand difference between data, information & intelligence, types of data, survey methods, formulating questionnaires, interview schedule, data presentation types & analysis.
 - vi. Apply computer based software application for data designing, data management & collation analysis e.g. SPSS, Epi-info, MS office and other advanced versions.

4. Nutrition

Learning objectives: At the end of this course, the student should be able to:-

- i. Identify various nutritional problems in the region, state and country and contributing factors for the same, with due emphasis on ecology perspectives.
- ii. Explain importance of various nutrients (including micronutrients) in health, their sources, requirements and problems associated with their deficiencies as well as overconsumption.
- iii. Plan balanced diet and dietary requirements of various age and sex groups.
- iv. Dietary/nutritional concerns of vulnerable groups – young children, adolescents, ANC/PNC/Lactating mothers/senior citizens/individuals with various health problems e.g hypertension, diabetes, renal problems
- v. Classification of food, food additives, food fortification, food enrichment, food toxins and food adulteration.
- vi. Explain Food production, Food hygiene and safety, food storage, food preparation, food wastage and feeding practices.
- vii. Assessment of nutritional status of a community by adopting different methodologies.
- viii. Nutritional supplementation, surveillance, education and rehabilitation.
- ix. National programmes in nutrition and their evaluation
- x. National nutrition policy.

5. Environmental health

Learning objectives: At the end of this course, the student should be able to:-

- i. Highlight importance of external environment (air, water, noise, radiation, temperature, ventilation, solid waste disposal, insects and vectors, domestic and country yard pests, industrial waste disposal etc. and its impact on ecology and human health.
- ii. Elaborate on health issues related to housing, air, water, noise, radiation pollution i.e. size of problems, area and specific groups affected, measurement of pollution levels and health impact of the same, corrective measures
- iii. Elaborate on requirements of water, water chlorination and household purification measures, measurement of chlorine demand, Break-point chlorination levels, water quality.
- iv. Assessment of quality of water and air, control of air pollution
- v. Explain environmental sanitation and control measures (including appropriate technologies) – modern methods of sewage disposal, mechanical ventilation, soakage pits, gobar gas plants, smokeless Chula, solar energy, rainwater harvesting, sewage water recycling plants at society level etc.
- vi. Explain global warming and its health impact.
- vii. Elaborate on forest reserves, social forestry and health
- viii. Study vectors of medical importance and integrated control measures against them.
- ix. Explain dynamics of transmission of vector borne diseases
- x. Explain pest control measures
- xi. Explain environmental health issues in urban and rural areas
- xii. Understand functioning of public sector measures to safeguard environmental health e.g water purification plant
- xiii. Explain Legislative measures for protection of environmental health

6. Primary Health Care System, Panchayat Raj, National Health Programmes including RCH, Demography & Family Welfare:

Learning Objectives: At the end of this course, the student should be able to:-

- i. Explain the meaning of Primary Health Care with suitable analogies with reference to India, and be able to define the systems approach for implementation of Primary Health Care.
- ii. Enumerate the elements, principles, population coverage norms, staff patterns, day to day activities, programme schedule, stakeholders at PHC level.
- iii. Explain the scope and implications of 3-tier system of Primary Health Care.

- iv. Understand functioning of Rural Panchayat Raj system of development and its co-relation with health.
- v. Promote community participation in Primary Health Care programme and motivate various stakeholders for the same.
- vi. Understand and comply with medico-legal procedures related to Primary Health Care activities.
- vii. Integrate, coordinate both health and non-health sectors for implementing various national health programmes.
- viii. Deliver the provisions of various health schemes to eligible beneficiaries such as Janani Suraksha Yojana, Rashtriya Swasthya Beema Yojana, Rajiv Gandhi Jeevandayi Arogya Yojana etc.
- ix. Impart training in health programmes for paramedical workers, lab technicians, community health volunteer's, interns and provide health education in the community.
- x. Implement Public Health Skills for investigations and containment of outbreaks & epidemics.
- xi. Understand history of evolution of public health, important milestones in the world and in India.
- xii. Enumerate the various health committees established and their major recommendations since 1947-48 to till date.

7. Health Care Administration, Health Management and Public Health Leadership

Learning Objectives: At the end of this course, the student should be able to:-

- i. Explain the conceptual difference between Administration and Management, Power and Authority with reference to health care.
- ii. Explain the role of fundamental principles of constitution, principles of Democracy and its correlation with health care administration.
- iii. Explain the role of Bureaucracy, Technocracy, Political system, Judiciary, Media and people in health care administration.
- iv. Explain and identify the key positions and their role in health administration at State, District, Taluka (Tehsil block) and village level.
- v. Explain the frame work of health care system at State, District, Taluka & village level and understand the mechanism of coordination between bureaucrats, technocrats, political, judiciary and media at each of these levels.
- vi. Enumerate functions of a manager, explain concepts of management and leadership styles, various management techniques, planning process, monitoring & evaluation

skills.

- vii. Should be sensitive to quality issues in health care management and comply with relevant quality management techniques.
- viii. Formulate and manage team approach for implementing health programmes.
- ix. Apply skills of effective human resource management and identify relevant roles, responsibilities and duties of functionaries.
- x. Implement skills of motivation, communication, negotiation and conflict management at PHC level.
- xi. Develop budgetary statements based on evidence of needs assessment and be able to maintain account of expenditure as per norms.
- xii. Undertake community health needs survey, conduct training & communication needs assessment of paramedical and health workers, identify vulnerable, underprivileged communities, implements high risk approach

8. Health Policy, Medical Education, Integrating Alternative system of Medicine

Learning Objectives At the end of this course, the student should be able to:-

- i. Understand and elaborate implications of the policy provision with reference to the current health scenario in the country.
- ii. Explain the role of health policy in promotion of Primary Health care, ensuring equity, inter- sectoral co-ordination, appropriate technology and community participation.
- iii. Explain the various provisions for promotion of preventive and curative health services including National Health Mission, National Health Programs, Quality Hospital based services, Medical Education and AYUSH.
- iv. Critically appreciate merits and demerits of the Health Policy.
- v. Explain SWOT analysis of the policy and debate on evidence based recommendations, additions, deletions.
- vi. Debate on suggestions or recommendations for future inclusions.

9. Social and behavioral sciences

Learning objectives: At the end of this course, the student should be able to:-

- i. Understand influence of social and behavioral practices on health.
- ii. Understand principles of behavior change of an individual and community. Clearly understand difference between knowledge, attitude and practices.
- iii. Understand importance of social medicine and health.

- iv. Importance of behavior change communication (BCC).
- v. Socio-cultural factors influencing behavior change.
- vi. Formal and informal organizations in the community.
- vii. Influence of peer pressure.
- viii. Know the health problems, where BCC interventions are necessary.
- ix. Understand factors promoting and detrimental to BCC.

10. Public Health Legislations

Learning objectives: At the end of this course, the student should be able to:-

- i. Explain public health legislations and need for the same.
- ii. Know in detail each public health law – when, why, implementation, impact, issues etc.
- iii. Enforcement of various public health laws.
- iv. Judiciary mechanism for ensuring proper implementation of public health laws.
- v. Scope for integrated approach for implementation of public health laws.

11. International Health

Learning Objectives: At the end of this course, the student should be able to:-

- i. Understand the need and scope for international health measures.
- ii. Enlist and understand functioning of various UN agencies (including WHO) playing key role in international health.
- iii. Enlist and understand functioning of bilateral vs multilateral international donor agencies.
- iv. Provide advice to international travelers and vaccination requirements,
- v. Understand International health control measures e.g. quarantine, airport management etc.
- vi. Understand the management of international ports from health perspectives.

12. Occupational Health

Learning Objectives: At the end of this course, the student should be able to:-

- i. Understand the concept of occupational health and its importance, Occupational environment and work dynamics.
- ii. Know different types of occupational exposures at various settings.
- iii. Enlist various occupational hazards and their relative magnitude.
- iv. Understand measurement of exposure levels to harmful influences during occupation.
- v. Understand preventive and control measures against various occupational hazards –global, national and local level measures.

- vi. Understand individual and community responses towards preventing exposure to occupational hazards.
- vii. Understand and advise occupational safety measures.
- viii. Understand legislative measures to prevent exposures to occupational hazards.
- ix. Advise compensation provisions to persons exposed to various occupational hazards.
- x. Understand occupational health problems amongst people in unorganized sector
- xi. Understand and advise social security and welfare provisions for workers – ESIS, Factory's Act, Role of ILO, Ministry of Labor, DGFASLI.

14. The recent advances in Public Health & miscellaneous issues

Learning Objectives: At the end of this course, the student should be able to:-

- i. identify & enlist events at local, district, national & global levels influencing or adversely affecting health /medical issues of the population.
- ii. Adopt & practise skills related to utilization of modern technology, software, IT application in the interest of health promotion & disease prevention.

15. Health Economics

Learning Objectives: At the end of this course, the student should be able to: -

- i. Describe the scope of health economics.
- ii. Understand health market & its characteristics.
- iii. Understand & apply economic evaluation techniques.
- iv. Assess the mechanism of Funding Health Care services, especially health insurance.
- v. Advise on allocation of resources appropriately in their work area.

Orientation Training/Field postings for students of MD Community Medicine

No.	Field Posting and work	Duration
01	Posting at Sub-centers & PHCs at RHTC and UHTC attached to Dept of Community Medicine as per MCI norm	Total period of ONE year. Posting at RHTC should be residential.
02	Posting in the teaching hospital for exposure to clinical departments namely Pediatrics, OBGY & General medicine to acquire clinical skills for diagnosis and management of Communicable and Non-Communicable Diseases	Total - Two months General Medicine - 2 wks Pediatrics - 2 wk Obstetrics & Gynecology - 2 wk Elective – 2 wk Time shall be at the discretion of feasibility
03	Work attachment to gain hands- on skills based, training in public health department & orientation in Health Administration and Management of various National Health Programmes and aspects of public health management at the offices of the DHO/DHS/THO/DTO/DMO/CDPO/MOH of Local Civic Body or district health authorities.	Total - One month Place & time of 2 postings of 2 wks each shall be at discretion of local feasibility.
04	Short duration posting in various camps, melas, public health emergencies, investigation of epidemics, implementation of NHP, linen dept of hospital, Hospital kitchen, Hospital record section, central drug store, Medical Supdt. Office, blood bank, casualty dept., CCL, Hospital waste management, ART-VCTC, Matron Office (HRD), HMIS etc.	Total - One month Minimum of four postings of 1wk duration each shall be done subject to local feasibility.
05	Visits to various institutions of Public Health Importance	Subject to local feasibility

ASSESSMENT

FORMATIVE ASSESSMENT, ie., during the training may be as follows:

Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self directed learning and ability to practice in the system.

Assessment during the MD training should be based on:

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and Outreach Activities / CMEs

SUMMATIVE ASSESSMENT, ie., at the end of training

The examination shall be in three parts:

1. Thesis

Thesis shall be submitted at least six months before the Theory 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 examination. A post graduate student shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

2. Theory Examination:

The examinations shall be organised on the basis of 'Grading' or 'Marking system' to evaluate and to certify post graduate student's level of knowledge, skill and competence at the end of the training. Obtaining a minimum of 50% marks in 'Theory' as well as 'Practical' separately shall be mandatory for passing examination as a whole. The examination shall be held at the end of 3rd academic year. An academic term shall mean six month's training period.

There shall be four theory papers as follows:

Paper I: Conceptual (and applied) understanding of Public Health, Community Medicine, Communicable and Non- Communicable diseases, emerging and re-emerging diseases, Applied Epidemiology, Health research, Bio-statistics.

Paper II: Nutrition, Environmental Health, Primary Health Care system, Panchayat Raj

system, National health Programs, RCH, Demography and Family Welfare, Health Care Administration, Health Management and Public Health Leadership.

Paper III: Social & Behavioral sciences- applied aspects, Scientific communications & Medical writing, Research Methodology, Public Health Legislations, International Health & Global Diseases surveillance.

Paper IV: Health Policy planning, Medical Education technology, Information Technology, Integration of alternative Health system including AYUSH, Occupational Health, Recent advances in Public Health & Miscellaneous issues, Health Economics.

Paper Pattern: 10 Short Answer Questions out of 11, 10 Marks each – Total 100 Marks

Total 4 Papers – Total theory marks – 400

3. Practical/Clinical and oral examination:

The practical examination should be conducted over two days, not more than 8 post graduate students per batch, per day as follows:

1. One long Family case from the community (45 minutes): 60 Marks

Socio-economic, demographic, cultural and holistic history taking, of the family to understand the various risk factors affecting health and quality of life, assessment of social support system, assessment of present morbidity and its implications, evolve interventions for medical relief and social empowerment and role of family, community and primary health care system in resolving family issues. This shall be conducted preferably in the community setting.

2. One long Case (45 minutes) & 2 short cases (20 minutes each) – Cases with

Communicable Diseases: Long Case – 60 Marks, Each Short Case – 30 Marks

Students will elaborate on clinico-epidemiological case history to assess the epidemiological factors, precipitating factors, probable source of infection and evolve measures for diagnosis, treatment, management with reference to the case as well as major public health concerns, i.e. Control, prevention of the diagnosed disease and interventions in case of eminent outbreak / epidemic situations. Short cases may be assessed without presentation of detailed history, beginning with Differential Diagnosis in the given time.

3. Epidemiology and Statistics problem-solving exercises (5):

Epidemiological – 3, Statistical – 2:

Each Exercise – 6 Marks

4. Public Health Spots (5) :

Each Spot – 6 Marks

5. Public Health Lab Exercises (2):

Including interpretation of analytical reports of water, food, environmental assessment and public health micro-biology

Each Exercise – 20 Marks

6. Pedagogy Exercise (1): 20 Marks

7. Viva-voce Examination: 100 Marks

Oral/ Viva-Voce Examination shall be comprehensive enough to test the post graduate student's overall knowledge of the subject.

Total Practical Marks – 400

Total Summative Assessment: Theory + Practical = 400 + 400 = 800 Marks

Recommended reading:

A. Books (latest edition)

1. *Public Health and Preventive Medicine* (Maxcy-Rosenau-Last Public Health and Preventive Medicine) by Robert B. Wallace
2. *Basic Epidemiology*. R Bonita, R Beaglehole, T Kjellstrom. World Health Organization Geneva.
3. *Epidemiology*, by Leon Gordis.
4. *Oxford Textbook of Public Health*. Holland W, Detel R, Know G.
5. *Practical Epidemiology*, by D. J. P Barker
6. *Park's Textbook of Preventive and Social Medicine*, by K.Park
7. *Principles of Medical Statistics*, by A. Bradford Hill
8. *Interpretation and Uses of Medical Statistics*, by Leslie E Daly, Geoffrey J Bourke, James MC Gilvray.
9. *Epidemiology, Principles and Methods*, by B. MacMahon, D. Trichopoulos
10. *Hunter's Diseases of Occupations*, by Donald Hunter, PAB Raffle, PH Adams, Peter J. Baxter,

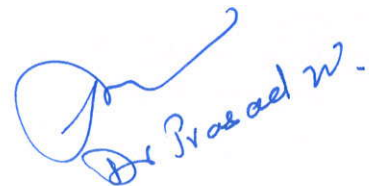
B. Journals

3 – 5 International Journals

3 – 5 National Journals including –

Indian Journal of Public Health &

Indian Journal of Community Medicine


Dr. Prasad W.



MGM INSTITUTE OF HEALTH SCIENCES

(Deemed to be University u/s 3 of UGC Act, 1956)

Grade 'A' Accredited by NAAC

Sector-01, Kamothe, Navi Mumbai - 410209

Tel 022-27432471, 022-27432994, Fax 022-27431094

E-mail- registrar@mgsuhs.com Website : www.mgsuhs.com

