REGULATIONS AND CURRICULUM GOVERNING

MD COMMUNITY MEDICINE PROGRAM

(2024-25)

Name of the Constituent Unit/Centre: Yenepoya Medical College



Deralakatte, Mangalore, Karnataka.

YENEPOYA
Deemed to be University

NOTIFICATION FROM THE UNIVERSITY

YENEPOYA
(DEEMED TO BE UNIVERSITY)
Recognized under Sec 3(A) of the UGC Act 1956
Accredited by NAAC with 'A' Grade

NOTIFICATION – 34-ACM/2019 dtd. 20.02.2019

Sub:- Implementation of Competency Based Medical Education PG Curriculum

Ref. : Resolution of the Academic Council at its 34th Meeting held on 08.02.2019 vide Agenda 33

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The Academic Council at its 34th Meeting held on 08.02.2019 and subsequently the 45th meetings of Board of Management held on 09.02.2019 have accepted the proposal for implementation of Competency Based Medical Education (CBME) for the PG Curricula of the following programs as per the MCI Norms.

1. MD in Pathology
2. MD in General Medicine
3. MD in Anaesthesiology
4. MD in Paediatrics
5. MD in Respiratory Medicine
6. MD in Radio-diagnosis
7. MD in Anatomy
8. MD in Physiology
9. MD in Biochemistry
10. MD in Microbiology
11. MD in Pharmacology
12. MD in Forensic Medicine
13. MD in Psychiatry
14. MD in Dermatology
15. MD in Community Medicine
16. MS in General Surgery
17. MS in OBG
18. MS in Otorhinolaryngology
19. MS in Ophthalmology
20. MS in Orthopaedics

This revised curriculum shall come into effect from the academic year 2019-2020 onwards.

REGISTRAR

Yenepoya (Deemed to be University)
University Road, Deralakatte
Mangalore 575 018

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CONTENTS

S. No.	Particulars	Page numbers
1.	Preamble	3
2.	Goal	3
3.	Subject Specific Learning Objectives/Learning Objectives	4
4.	Subject specific competencies	4-9
5.	Syllabus/Course Content	10-18
6.	Teaching & Learning Methods	19-22
7.	Assessment	23-28
8.	Recommended Books	29-31
	Annexure	
9.	Blue Print	32-33
10.	Model Question papers	34-37
11.	Checklist	38

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MD COMMUNITY MEDICINE

Preamble

The purpose of postgraduate education is to create specialists who would provide high quality health care and advance the cause of science through research & training.

Community Medicine is a branch of Medicine which deals with promotion of health and prevention of diseases, involving people's participation, utilizing professional management skills. The Community Medicine specialist, will inculcate a holistic view of health and medical interventions primarily focused on Community Health/Population Health. Thus, he/she should be equipped with the knowledge, skills, competencies in primary, secondary & tertiary care, control and prevention of outbreaks/epidemics, community diagnosis, health needs assessment, epidemiological assessment, research and planning evidence-based health policies and programs.

The guidelines for teaching Community Medicine, therefore, should be designed to create a cadre of professionals who are competent to meaningfully contribute their expertise in planning, implementation, co-ordination, monitoring, evaluation of Primary Health Care Programs based on scientific evidence. The competencies must cover a wide spectrum of skills viz., technical, managerial, administrative, organizational skills, applied skills in Health Information Management, software application and soft skills of communication, motivation, decision-making, team building, training in scientific communication and medical writing.

The purpose of this document is to provide teachers and learners illustrative guidelines to achieve defined outcomes through learning and assessment. This document was prepared by various subject- content specialists. The Reconciliation Board of the Academic Committee has attempted to render uniformity without compromise to purpose and content of the document. Compromise in purity of syntax has been made in order to preserve the purpose and content. This has necessitated retention of "domains of learning" under the heading "competencies".

OBJECTIVES

At the end of the postgraduate training in Community Medicine (Preventive and Social Medicine/ Social and Preventive Medicine), the skilled cadre of medical professionalsshall be able to:

1. Apply principles of Community Medicine, Public Health and Applied Epidemiology in formulating National Health Policies and Programs with a systems approach for overall human development.

2. Standardize the teaching and training approaches at undergraduate and post-graduate level, for Community Medicine

3. Formulate scientifically sound research questions, conduct study with an appropriate study design and tool, manage the data and report the findings.

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

1. Describe conceptual (and applied) understanding of Public Health, Community Medicine, clinical and disease-oriented approach, preventive approach & health promotion, disease control &promotion.

2. Apply the knowledge about communicable and non-communicable diseases, emerging and re- emerging diseases in their control and prevention.

3. Apply the principles of epidemiology, health research and Bio-statistics, application of qualitative research methods

4. Calculate Odds Ratio, Relative Risk, Attributable risk and other relevant health

and morbidity indicators.

5. Describe nutritional problems of the country, role of nutrition in health and disease and to describe common nutritional disorders

6. Develop nutrition plan for an individual based on his requirements and with concerns tospecial situations if applicable

7. Plan comprehensive program to address issue of malnutrition in a given area for a specific group

8. Describe the concept of Environmental Health and its various determinants.

9. Identify environmental health issues in a given area/community

10. Assess impact of adverse environmental conditions on health of human beings

11. Plan awareness programs at various levels on environmental issues and mobilize community resources and participation to safeguard from local adverse environmental conditions

12. Provide technical advice for water purification, chlorination and other public health interventions related to environment and health.

13. Be a technical expert to advice on protection measures from adverse environmental exposure

14. Describe the working of Primary Health Care system, Panchayat Raj system, National Health Programs, urban/rural differences, RCH, Demography and Family Welfare.

15. Do orientation of the inter-linkage of health sector and non-health sector for promotion of Health & control and prevention of diseases.

16. Have familiarity with administrative procedures and protocols

17. Have knowledge about role of media and its use in health.

18. Have knowledge of Health Care Administration, Health Management and Public Health Leadership

19. Describe Health Policy planning, Medical Education technology, Information Technology and integration of alternative Health system including AYUSH.

20. Describe the intricacies of Social & Behavioral sciences and their applications.

21. Describe Public Health Legislations and create awareness about various public health laws

22. Understand and describe International Health and Global Diseases surveillance.

23. Relate the history of symptoms with specific occupation, diagnostic criteria, preventive measures, identification of various hazards in a specific occupational environment and legislations.

24. Keep abreast of recent advances in Public Health & formulate feasible, optimal, sustainable, cost effective strategies in response to the advances in public health &development.

25. Describe the principles of Health Economics and apply it in various public health settings.

26. Explain and correlate common health problems (medical, social, environmental, economic, psychological) of urban slum dwellers, organization of health services in urban slum areas

27. Develop workable interventions for control and prevention of emerging and re-emerging diseases at local, national and global level.

28. Identify behavior patterns of individual or group of individuals detrimental or adversely affecting their health

29. Define and identify vulnerable, under-privileged high risk communities and their special needs

30. Evaluate cost effectiveness and cost benefits of a Health Program

31. Understand and express implications of 'Poverty Line', 'Social Inclusion', 'Equity', 'taxations', 'Insurance' on Health care management.

32. Categorize hospital waste and be able to guide for proper disposal.

33. Provide a comprehensive plan for disaster management and mitigation of sufferings.

B. Affective domain:

The student should be able to

1. 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.
2. 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.
3. 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:

- Conduct community surveys for assessment of health & morbidity profile, epidemiological determinants, assessment of health needs, disease surveillance, evaluation of health programs and community diagnosis
- Conduct epidemic investigations, prepare spot maps, predict disease trends, preparation of reports, planning and implementation of control measures
- 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.

- Perform data collection, compilation, tabular and graphical presentation, analysis and interpretation, applying appropriate statistical tests, using computer-based software application for validation of findings
- Conduct epidemiological research studies to establish cause-effect relationships in elaborating the epidemiology of diseases and health events
- Develop appropriate IEC Material, assessment of community communication needs, training skills, counseling skills, conduct Health Education Programs in urban and rural settings
- 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.
- Use and apply various instruments and processes concerned with environmental health and biomedical waste management eg. waste collection, segregation and disposal as per protocols, needle-disposers, disinfection procedures, use of Dosi-meters, Kata/ Globe Thermometer, Slings Psychrometer, Bio Gas Plant, Soakage pit, Solar Energy, functioning of ILRs, Deep Freezers, Cold Boxes, Vaccine Carriers.
- 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 watertank.
- 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.
- 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.
- Prepare health project proposals with budgeting based on the project to objectives.

Other skills:

The student should be able to

1. Devise appropriate health education messages for public health awareness using various health communications strategies.
2. 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.
3. Demonstrate counselling skills for family planning services.
4. Plan and execute BCC strategy for individuals.
5. Conduct measurement of occupational exposure to harmful influences.
6. Diagnose occupational hazards and undertake surveys to identify occupational exposures as and when necessary.
7. Elicit appropriate response at individual and community level to prevent occupational hazards including IEC activities at different levels.
8. Use modern IT applications especially internet & internet-based applications.

SYLLABUS

THEORY

Course contents:

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 Programs& 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.

v. Explain the rationale of One Health in epidemiology of disease and its public health importance (discussed and approved in BOS meeting held on 24.09.2020)

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 health and disease 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.

vii. Use statistical software for data management (Approved Notification-34-ACM/2019 dtd.20.03.2019)

viii. Understand & conduct Literature search using Pub Med

ix. Understand & conduct Reference Management using Mandeley

x. Understand & conduct Qualitative data capture using smart phone with Epicollect application (Approved Notification-34-ACM/2019 dtd.20.03.2019)

xi. Understand & use G power software for sample size estimation

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 etc.
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 programs 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 Programs 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 HealthCare.

ii. Enumerate the elements, principles, population coverage norms, staff patterns, day to day activities, program schedule, stakeholders at PHC level.

iii. Explain the scope and implications of 3-tier system of Primary HealthCare.

iv. Understand functioning of Rural Panchayat Raj system of development and its co-relation with health.

v. Promote community participation in Primary Health Care program 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 programs.

viii. Deliver the provisions of various health schemes to eligible be beneficiaries such as Janani Suraksha Yojana, Rashtriya Bal Swastya Karyakram, etc.

ix. Impart training in health programs 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.

xiii. Nutritional Evaluation in Maternal Health: To evaluate maternal nutrition area as a part of Clinico-social and family case taking (discussed and approved in BOS meeting held on 24.09.2020).

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 healthcare.
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 programs.
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 systems 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.

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.

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, Factories Act, Role of ILO, Ministry of Labor.

13. Recent advances in Public Health & miscellaneous topics

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 &practice skills related to utilization of modern technology, software, IT application in the interest of health promotion & disease prevention.

14. 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.

TEACHING PROGRAM

Teaching methodology

The following is the guideline for various teaching/learning activities:

- **Journal Club:** Critical appreciation and discussion of research articles in indexed journals
- **Seminar**
- **Faculty Lecture/Discussion:** Lectures on newer topics by faculty
- **Case presentation:** Communicable disease case presentation (focus on epidemiology, control, prevention) or Family case (focus on health needs assessment, SWOT analysis of family, social determinants and social empowerment, community management, role of primary health care and mobilizing resources for empowerment of the family). PG students will present the cases in presence faculty and discuss various modalities of management (Family case presentation, clinico social case presentation, short case presentation

  Story Telling for case presentation: Clinico social and family cases with social determinants will be presented in story telling form.(discussed and approved in BOS meeting held on 24.09.2020)
- **Problem Based Learning for 2nd& 3rd year PGs:** Problem Based learning on communicable and non-communicable disease, outbreak investigation and research methodology will be conducted on quarterly basis. (Approved Notification-34-ACM/2019 dtd.20.03.2019).
- **Public Health Management training** in Immunization clinics, Disease Surveillance Units, General Preventive OPD, hands-on training in management of national health programs at urban health centre and rural health centre along with orientation in health administrative system.
- The PG student shall be required to participate in the teaching and training programme of Undergraduate students and interns.
- The PG student must have attended Mandatory training in Research Methodology

during his tenure.

- A postgraduate student of a postgraduate degree course in broad specialties/super specialties would be required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
- **Special Seminars / Workshops:** conducted by External Faculty on cross-cutting subjects directly or indirectly concerned with Health. eg. Critical appreciation of National Developmental Budget, delivered by prominent Economist.
- **Log Book:** Postgraduate students shall maintain a log book of the work carried out by them and the training programme undergone during the period of training including details of work experience during their postings, including programs implemented under supervision and those performed independently. The log book shall be checked and assessed periodically by the faculty members imparting the training.
- E-learning activities.
- Epidemiological exercises
- Public health exercises
- Biostatistics exercises
- Field visits
- Participation in National Health Programmes
- Group discussion
- Pedagogy sessions
- Discussion on recent advances in public health

Recommended schedule for three years training

Field postings for students of MD Community Medicine

Sl. No.	Field posting and work	Duration
1	Posting at sub centres & PHCs under & at	Total period of One year during the

	RHTC and UHTC attached to dept. Of Community Medicine as per MCI norm	3 year period of PG course. Posting at RHTC should be residential
2	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-One month General Medicine-2weeks Paediatrics-1 weeks OBGY-1 week Time of posting shall be at the discretion of local feasibility
3	Work attachment to gain hands-on skills based, training in public health department & orientation in Health Administration and management of various National Health programs 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 posting shall be at the discretion of local feasibility
4	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 Superintendent office, blood bank, casualty dept., CCL, Hospital waste management, ART-VCTC, Matron office(HRD),HMIS etc.	Total-one month Minimum of four posting of 1 week duration each shall be done subject to local feasibility
5	Visits to various institutions of Public Health Importance	

During the training program, patient safety is of paramount importance; therefore, skills are to be learnt initially on the models, later to be performed under supervision followed by performing independently; for this purpose, provision of skills laboratories in medical colleges is mandatory.

District Residency Program (DRP) in District Health posting for PGs from academic session 2020-2021 to be started with the consultation from the district authorities. PGs will be posted in the 2nd academic year of post-graduation.

Teaching Schedule

The suggested departmental teaching schedule is as follows:

1	Journal clubs	Once a week
2	Seminar	
3	Family / Clinico-Social Case Presentation	
4	Lecture by faculty	
5	Group Discussion	
6	Guest lecture	Regularly, minimum once in a month at college or University level

Each PG should present minimum of 04 journal clubs, 04 seminars, 04 case presentations (family/clinic social case) in each year of their course, 04 pedagogy sessions over 3 years and dissertation progress every 6 monthly.

Note:

- All sessions are to be attended by the available faculty members.
- All the teaching sessions are to be assessed by the faculty at the end of session.

ASSESSMENT

FORMATIVE ASSESSMENT, i.e., 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.

Quarterly assessment during the MD training should be based on:

1. Community based learning
2. Patient based /Laboratory or Skill based learning

3. Journal based/ recent advances learning
4. Data management skills
5. Self-directed learning and teaching
6. Departmental and interdepartmental learning activity
7. External and Outreach Activities /CMEs

Assessment Plan

All the PG residents are to be assessed daily for their academic activities and also periodically.

1. General Principles

- The assessment is valid, objective, and reliable.
- It covers cognitive, psychomotor and affective domains.
- Formative, continuing and summative (final) assessment is also conducted in theory as well as practical /clinical. In addition, thesis is also assessed separately.

2. Formative Assessment

The formative assessment is continuous as well as end-of-term. The former is based on the feedback from the faculty of the department and guides. End-of term assessment is held at the end of each semester (up to the 5th semester).

Formative assessment will not count towards pass/fail at the end of the program, but will provide feedback to the candidate.

3. Internal Assessment

The performance of the Postgraduate student during the training period should be monitored throughout the course and duly recorded in the log books as evidence of the ability and daily work of the student. Marks should be allotted out of 100 as followed.

Items	Marks
a. Personal Attributes	20
b. Practical Work	20
c. Academic activities	20

d. End of term theory examination	20
e. End of term practical examination	20

a. Personal attributes:

Discipline: Dress, appearance, punctuality, follows orders and reports, etc (10Marks)

Honesty and Integrity: Assess the student for honesty in terms of his hard work and compliance (10Marks)

b. Practical Work:

Professional etiquettes: Behavior with patients, community members, colleagues, respect for seniors and general good manners (10 Marks)

Research related Activities: Dissertation progress presentation, presentation of articles submitted for conference (10Marks)

c. Academic Activity: Performance during presentation at Journal club/ Seminar/ Case discussion/ family studies and other academic sessions. Proficiency in skills as mentioned in job responsibilities.

d. End of term theory examinations conducted at end of 1st, 2nd year and after 2 years 9 months.

e. End of term practical/oral examinations conducted at end of 1st, 2nd year and after 2 years 9 months.

Marks for **personal attributes** and **work done** should be given annually by all the faculty under whom the resident was posted during the year. Average of the three years should be put as the final marks out of 20. Marks for **academic activity** should be given by the all faculty who have attended the session presented by the residents.

The Internal assessment should be presented to the Board of examiners for due consideration at the time of Final Examinations.

SUMMATIVE ASSESSMENT

The summative examination would be carried out as per the Rules given in Postgraduate Medical Education Regulations. The examinations shall be organized 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 for M.D. shall be held at the end of 3rd academic year.

Eligibility criterion to appear in university examination

- A minimum of 80% of attendance cumulative across three years as per NMC norms.
- A minimum of 40% internal assessment
- A minimum of one poster presentation and one paper read in national/state/conference
- A minimum of one research paper and published/ accepted for publication
- Submission of Dissertation to the University before the deadline

Criteria for passing the university examination

- The pass percentage will be 50%.
- Candidate will have to pass i) theory and ii) practical examinations separately
- Every paper should get 40% marks minimum and aggregate marks for theory (all four papers) should be 50% for passing

Scheme of Examination

A. Theory written Examination

There shall be four question papers, each of three hours duration. Every paper shall consist of 10 questions, carrying 10 marks each. Total marks for each paper will be 100.

Paper 1

- 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 2

- Nutrition,
- Environmental Health
- Primary Health Care System
- Pachayati Raj system
- National health Programs
- Reproductive and Child Health
- Demography and Family Welfare
- Health Care Administration
- Health Management and Public Health Leadership

Paper 3

- Social and Behavioral Sciences and applied aspects
- Scientific communication and Medical Writing
- Research Methodology
- Public Health Legislations
- International Health and Global diseases Surveillance

Paper 4

- Health Policy Planning
- Medical Education technology
- Information Technology
- Integration of Alternative Health Systems including AYUSH
- Occupational Health
- Recent advances in Public Health and Miscellaneous issues
- Health economics

B. 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 study from the community (70marks): 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 Clinico-social case study (30 minutes-50 marks) and 1 short case (20 minutes-30 marks): Cases with Communicable Diseases 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 Biostatistics problem-solving exercises (03): (Epidemiological – 2, Statistical – 1) **(10 marks each)**

4. Data analysis by statistical software: 01 **(25marks)**

5. Water and milk exercises:02**(05marks each)**

6. Pedagogy (25 marks)

7. OSPE

A. Response stations: 04 (05marks each)

i. Insecticides, Disinfecting agents, Environmental sanitation, Medical entomology, Immunizing agent: 2
ii. Nutrition, Drugs in Public health practice, Family planning devices: 2

B. Observer Station: 01 (20 marks)

i. Public health Lab staining**(10 marks)**
ii. Demonstration & interpretation**(10 marks)**

8. Dissertation Viva(20 Marks to be awarded by the External Examiner outside the state)

9. 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.

SUGGESTED BOOKS

Core books

- Park K. Park's Textbook of Preventive and Social Medicine, 28th Edition, Banarsidas Bhanot, 2025 (28th Ed.)
- Maxcy-Rosenau-Last. Public Health and Preventive Medicine.
  Edited by Matthew L. Boulton & Robert B. Wallace McGraw Hill, 2021 (16th Ed.).
- Gordis Epidemiology, Elsevier / Saunders, 2025 (7th Ed.).
- Lal S, Adarsh, Pankaj. Textbook of Community Medicine: Preventive and Social Medicine. 8th ed. New Delhi: CBS Publishers & Distributors; 2023
- Methods in Biostatistics for Medical Students and Research Workers, 11th Edition
  B.K. Mahajan (Yogesh K. Singhal), Jaypee Brothers Medical Publishers, 2026 (11th Ed.)
- Sathe PV, Sathe AP. Epidemiology and Management for Health Care for All. 7th edition (2025)
- Barker DJP. Practical Epidemiology. 1976, 2nd edition
- Bradford Hill A. Principles of Medical Statistics. 1991;12th edition
- Wayne W. Daniel & Chad L. CrossBiostatistics: A Foundation for Analysis in the Health Sciences. Wiley-Blackwell, 11th edition
- Bhushan & SachdevaAn Introduction to Sociology. 2014; 48th edition
- Kishore J. National Health Programmes of India, 15th edition

Reference Books

- Oxford Textbook of Public Health, 6th Edition (Multi-volume). Edited by Walter W. Holland, Roger Detels & George Knox. Oxford Univ. Press, 2020-2022 (Vol. 1-3)
- R Bonita, R Beaglehole, T Kjellstrom. Basic Epidemiology, 3rd Edition World Health Organization, Geneva; 3rd Ed.
- B. MacMahon & D. Trichopoulos. Epidemiology: Principles and Methods, 1970
- Control of Communicable Diseases Manual. James Chin (Editor), originally by A.S. Benenson, 21st edition
- Manson's Tropical Diseases, Edited by G. Cook & A. Zumla (Elsevier), 24th Edition
- Peter J. Baxter & P.H. Adams, et al. Hunter's Diseases of Occupations

10th edition

- Hunters Tropical Medicine and emerging infectious diseases: Strickland GT, 10th edition
- Robert H. Fletcher & Suzanne W. Fletcher, Clinical Epidemiology: The Essentials, 6th edition
- Stanley A. Plotkin, Paul A. Offit, Walter A. Orenstein & Kathryn M. Edwards Plotkin's Vaccines, 8th Edition, 2023
- Training modules of various national and international institutes and national health programs

Journals

- Indian Journal of Community Medicine
- Indian Journal of Public Health
- Indian Journal of Occupational and Environmental Medicine
- Indian Journal of Medical Research
- National Journal of Community medicine
- Indian Journal of Community Health
- National journal of Family medicine and Primary care
- American Journal of Preventive Medicine
- Annals of epidemiology
- The Lancet
- WHO Bulletin
- American Journal of Epidemiology
- Annals of tropical Medicine and Public Health
- American Journal of Public Health
- International Journal of Epidemiology
- Journal of Epidemiology and Community Health
- BMC Pregnancy and Child Birth
- Scientific World Journals
- Indian Journal of Cancer
- Journal of Vector Borne Diseases
- Indian Journal of Medical Ethics

- Advances in Preventive Medicine
- Education for Health
- Journal of postgraduate medicine
- National medical journal of India
- Indian journal of tuberculosis
- Public health action
- International journal of Tuberculosis & lung diseases

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ANNEXURES

Blue print for MD Community Medicine theory question papers

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.

Sl.No.	Topics	Weightage	Marks allotted	No. of questions
1.	Conceptual (and applied) understanding of Public Health, Community Medicine	**20%**	**20**	**02**
2.	Communicable diseases, Non-Communicable diseases including mental health and injuries	**40%**	**40**	**04**
3.	Emerging and re-emerging diseases	**10%**	**10**	**01**
4.	Applied Epidemiology, Health research	**20%**	**20**	**02**
5.	Bio-Statistics	**10%**	**10**	**01**
	Total	**100%**	**100**	**10**

Paper II

Nutrition, Environmental Health, Primary Health Care System, Pachayat Raj system, National health Programs, RCH, Demography and Family Welfare, Health Care Administration, Health Management and Public Health Leadership

Sl.No.	Topics	Weightage	Marks allotted	No. of questions
1.	Nutrition	**10%**	**10**	**01**
2.	Environmental Health, Biomedical waste management, Disaster management	**20%**	**20**	**02**
3.	Primary Health Care System and Panchayat Raj system	**10%**	**10**	**01**
4.	National Health Programs	**10%**	**10**	**01**
5.	Reproductive and Child Health and other special groups (adolescent, geriatrics, tribal, etc) Demography and Family Welfare, Genetics	**30%**	**30**	**03**
6.	Health Care Administration, Health Management and Public Health Leadership	**20%**	**20**	**02**
	Total	**100%**	**100**	**10**

Paper III

Social and Behavioral Sciences-applied aspects, Scientific communications & Medical Writing, Research Methodology, Public Health Legislations, International Health & Global diseases Surveillances

Sl.No.	Topics	Weightage	Marks allotted	No. of questions
1.	Social and Behavioral Sciences-applied aspects, Health communication	**20%**	**20**	**02**
2.	Research Methodology (including ethics), Scientific communications & Medical Writing	**40%**	**40**	**04**
3.	Public Health Legislations, SDGs	**20%**	**20**	**02**
4.	International Health & Disease Surveillance (National and Global)	**20%**	**20**	**02**
	Total	**100%**	**100**	**10**

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.

Sl.No.	Topics	Weightage	Marks allotted	No. of questions
1.	Health Policy Planning, Health economics	**20%**	**20**	**02**
2.	Medical Education technology, Information Technology in Public Health	**20%**	**20**	**02**
3.	Occupational Health	**20%**	**20**	**02**
4.	Recent advances in Public Health & Miscellaneous topics, Integration of alternative Health System including AYUSH	**40%**	**40**	**04**
	Total	**100%**	**100**	**10**

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Model Question Paper I

MD Community Medicine

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.

Your answer shall be specific to the question asked
Draw neat labelled diagrams wherever necessary
Answer all questions; each question carries ten marks

Time: 03 hours **Maximum Marks: 100**

1. Define health. Describe in detail the various determinants of health. (2+8)
2. Several cases of fever with jaundice have been reported from a boys' hostel in a degree college. As the Medical Officer of the Primary Health Centre, describe in detail how you would investigate and control the outbreak.
3. Explain the epidemiological determinants of measles. List the complications of measles and write a note on the measles vaccine. (4+2+4)
4. Discuss the reasons for the high prevalence of uncontrolled diabetes mellitus in India. Describe strategies to control the problem. (5+5)
5. Discuss in detail how to prevent and control depression among youth in India.
6. Explain in detail the human factors responsible for road traffic accidents. How can road traffic accidents attributed to mobile phone use be prevented? (6+4)
7. List the important re-emerging diseases of India. Explain the factors contributing to the re-emergence of any two of them. (2+8)
8. Explain the Bradford Hill criteria of causality using suitable examples.
9. Classify epidemiological study designs. Describe the steps involved in conducting a community trial. (2+8)
10. Describe the different methods of diagrammatic representation of quantitative data.

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Model Question Paper II

Nutrition, Environmental Health, Primary Health Care System, Pachayat Raj system, National health Programs, RCH, Demography and Family Welfare, Health Care Administration, Health Management and Public Health Leadership

Your answer shall be specific to the question asked
Draw neat labelled diagrams wherever necessary
Answer all questions; each question carries ten marks

Time: 03 hours **Maximum Marks: 100**

Each question carries 10 marks

11. Explain the principles of primary health care. Write a note on Indian public health standards for a primary health centre. (6+4)
12. Describe the phases in demographic cycle. What is demographic dividend? Add a note on newer family planning methods (3+2+5)
13. What are the effects of air pollution? Describe the measures to prevent and control air pollution (4+6)
14. Describe disaster preparedness using floods as an example.
15. Describe in detail about Nutritional Anaemia.
16. Define low birth weight. Describe the causes and preventive measures for low birth weight (2+8).
17. Briefly describe the measures to prevent genetic disorders.
18. Describe briefly about Ayushman Bharat Programme.
19. Define planning. Describe the steps in the planning cycle using an appropriate example (2+8).
20. What is PERT? Explain in detail.

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MD Model Question Paper III

Social and Behavioral Sciences-applied aspects, Scientific communications & Medical Writing, Research Methodology, Public Health Legislations, International Health & Global diseases Surveillances

Your answer shall be specific to the question asked
Draw neat labelled diagrams wherever necessary
Answer all questions; each question carries ten marks

Time: 03 hours **Maximum Marks: 100**

1. Analyze how socio-cultural factors can act as both barriers and facilitators to behavior change in rural India.
2. With respect to peer influence, construct a school-based intervention to prevent early tobacco use. Justify your approach using behavioral theories.
3. Describe the IMRAD format used in writing scientific articles.
4. Enumerate the core ethical principles in public health research.
5. List five stakeholders in public health and explain why tailored communication is important for each.
6. You are the district surveillance officer during a dengue outbreak. Design a communication plan targeting media, community, and local leaders for prompt action.
7. Discuss the need for public health legislation with examples from environmental sanitation and infectious disease control.
8. Critically examine the legal, administrative, and social challenges in implementing the Pre-Conception and Pre-Natal Diagnostic Techniques (PCPNDT) Act in India.
9. Discuss the scope and significance of International Health Regulations (IHR, 2005) in managing cross-border disease outbreaks.
10. Explain the role of airport health officers in disease surveillance and outbreak containment.

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MD Model Question 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.

Your answer shall be specific to the question asked
Draw neat labelled diagrams wherever necessary
Answer all questions; each question carries ten marks

Time: 03 hours **Maximum Marks: 100**

Each question carries 10 marks

11. Discuss the epidemiology, clinical features, prevention and control of pneumoconiosis.
12. Explain the concept of One Health. Describe its significance in the context of zoonotic diseases. (4+6)
13. Discuss cost-benefit and cost-effective analysis in health programs with suitable examples.
14. Discuss the principles of adult learning. Explain how CBME is integrated into UG medical curriculum. (4+6)
15. Describe the Health Management Information System (HMIS) in India.
16. Explain how you can implement telemedicine services as a Medical Officer of a rural PHC and monitor its effectiveness.
17. Define ergonomics. Write in detail about the Employees' State Insurance Scheme (ESIS). (2+8)
18. Describe Integrated Health Information Platform (IHIP). Explain how it is different from IDSP. (6+4)
19. Explain SWOT analysis with Ayushman Bharat as an example.
20. Explain how AYUSH services can be integrated in service delivery under Health and Wellness Centres (HWCs).

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Postgraduate Students Appraisal Form
Pre / Para /Clinical Disciplines

Name of the Department/Unit :

Name of the PG Student :

Period of Training : FROM……TO……

Sr. No.	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		1 2 3	4 5 6	7 8 9	
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				
6.	Thesis / Research work				
7.	Log Book Maintenance				

Publications **Yes/ No**

Remarks* _____

***REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested. Individual feedback to postgraduate student is strongly recommended.**

SIGNATURE OF ASSESSEE SIGNATURE OF CONSULTANT SIGNATURE OF HOD