

Ordinance Governing MD Community Medicine Curriculum 2019-20

SHRI DHARMASTHALA MANJUNATHESHWARA UNIVERSITY

(A State Private University established under the Shri Dharmasthala Manjunatheshwara University
Act No 19 of 2018 of Government of Karnataka and Notification No. ED 261 URC 2018 dated 19th December 2018)

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|| Om Shri Manjunathaya Namaha ||



Shree Kshethra Dharmasthala

Edition Year: 2019-20

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THE LOGO

Poojya Dr D. Veerendra Heggade, Hon'ble Chancellor of the University, while searching for an appropriate Logo for the University, saw a photograph picked from Temple Architecture showing Wings of a Bird, sculpted in Indian style and wanted it to be incorporated in the logo for the University, as the Wings symbolize 'Spreading of Knowledge beyond Boundaries'. Further it was felt that the Central theme of the logo should be 'Rudra' (The Linga) with three wings on each side. In this way, the logo of the University was conceptualized.

Hence:

- 1. The central part represents **Rudra** who Demolishes Darkness.
- 2. The Three **horizontal lines on The Linga** stand for Samyak Darshan (Right Belief), Samyak Gyan (Right Knowledge) and Samyak Charitra (Right Conduct).
- 3. The Wings symbolize spreading of Knowledge across the boundaries.
- 4. Base line "Truth Liberates" highlights the Purpose of Education: to liberate oneself unconditionally. It shows that it is not discipline, nor knowledge nor the efforts to freedom that liberate but Truth is what liberates you from all your conditioning and ignorance.

The overall significance of Shri Dharmasthala Manjunatheshwara University's Logo is:

Darkness of ignorance is destroyed by the flow of knowledge to bring Liberty to everyone, by realizing the truth. And, it should spread globally without the boundaries as hindrance.



VISION

Shri Dharmasthala Manjunatheshwara University will set the highest standards of teaching and learning by awakening the intelligence of the students and nurturing the creativity hidden in them by creating an environment where the ancient wisdom blends with modern science, to transform them into whole human beings to face the challenges.

MISSION

- ▶ To ensure that the journey of education is inspiring, pleasant and enjoyable.
- Attract the best of teachers and students.
- Achieve high principles of trust, love and spirituality in the students.
- Create a collaborative, diverse and exclusive community.
- Transform the student of today to be a leader of tomorrow and a better human being.
- Produce passionate teachers.
- Evolve innovative teaching techniques.
- Create a peaceful environment.
- Prepare the student to face the social challenges.
- Create a University of which the Nation is proud of.
- Be an effective partner in Nation Building.
- Create an Eco-friendly University.
- Create a University based on the principles of beauty, love and justice.

||Om Shanti! Om Shanti! Om Shanti||



SDMU/ACAD/MED/PG/129A/2019

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Date: 25-04-2019

NOTIFICATION

Ordinance governing Curricula of Medical Postgraduate Degree Courses in Para-clinical Subjects - 2019

Ref:

- Minutes of the 1st Meeting of Academic Council held on 20th March 2019 (Letter No: SDMU/AC/M-01/093/2019; Dated:21-03-2019)
- Minutes of the 2nd Meeting of Board of Management held on 22nd March 2019 (Letter No: SDMU/BOM/M-02/094/2019; Dated:23-03-2019)

In exercise of the powers conferred under Statutes 1.2 (Powers and functions - section viii), 1.4 (Powers and functions - section ix & x) of Shri Dharmasthala Manjunatheshwara University, the Board of Management is pleased to approve and notify the ordinance governing the Curricula of the following Medical Postgraduate Degree Courses in Para-clinical Subjects - 2019:

- 1. MD in Pathology
- 2. MD in Microbiology
- 3. MD in Pharmacology
- 4. MD in Forensic Medicine
- 5. MD in Community Medicine

The ordinance shall be effective for the students joining the course during 2019-20 and onwards.

REGISTRAR REGISTRAR, Shri Dharmasthala Manjunathesiwara University, Dharwad

To: The Principal, SDM College of Medical Sciences & Hospital.

DHARWAD

* 1115

Copy for kind information to:

- Hon'ble Vice Chancellor Shri Dharmasthala Manjunatheshwara University.
- 2. Pro Vice-Chancellor (Academics) Shri Dharmasthala Manjunatheshwara University.
- 3. Controller of Examinations Shri Dharmasthala Manjunatheshwara University.

MD COMMUNITY MEDICINE

PREAMBLE

GOALS

- 1. To create specialists, who would provide high quality health care and advance the cause of science through research and training.
- 2. To inculcate a holistic view of health and medical interventions primarily focused on Community Health/Population Health.
- To equip the post graduate student with the knowledge, skills, competencies in primary, secondary and tertiary care, control and prevention of outbreaks/epidemics, community diagnosis, health needs assessment, epidemiological assessment, research and planning, evidence-based health policies and programs.
- 4. To create a cadre of professionals who are competent to meaningfully contribute their expertise in planning, implementation, co-ordination, monitoring, and evaluation of Primary Health Care Programs based on scientific evidence.

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 in formulating National Health Policies and Programs with a systems approach for overall human development.
- 2. To standardize the teaching and training approaches at postgraduate level.
- 3. 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.

Duration of Study

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

Provided that in the case of students having a MCI/NMC recognised two year postgraduate diploma course in the same subject, the period of training, including the period of examination, shall be two years.

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 and health promotion, disease control and prevention.
- 2. Have knowledge about communicable and non-communicable diseases, emerging and re-emerging diseases, their epidemiology, control and prevention.
- 3. Know the principles of epidemiology, health research, Bio-statistics and application of quantitative and 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 to special situations.
- 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 and chlorination.
- 13. Describe the three tier healthcare system of India.

- 14. Describe the working of Primary Health Care system, Panchayat Raj system, National Health Programs, urban/rural differences, Demography and Family Welfare.
- 15. Describe the inter-linkage of health sector and non-health sector for promotion of Health and control and prevention of diseases.
- 16. Have familiarity with administrative procedures and protocols.
- 17. Describe the role of media and its use in health.
- 18. Have knowledge of Health Care Administration, Health Management and Public Health Leadership.
- Describe Health Policy planning, Medical Education technology, Information Technology and integration of alternative Health system including AYUSH.
- 20. Describe the principles of Social and Behavioral sciences and their applications.
- 21. Describe Public Health Legislations and 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 update of recent advances in Public Health and to formulate feasible, optimal, sustainable, cost effective strategies in response to the advances in public health and 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, and psychological) of urban slum dwellers, organization of health services in urban slum areas.
- 27. Develop interventions for control and prevention of emerging and reemerging diseases at local, national and International level.
- 28. Identify behavior pattern of individual or group adversely affecting their

health.

- 29. Define and identify vulnerable, under-privileged high risk communities and their special needs.
- 30. Understand and express implications of Poverty Line, Social Inclusion, Equity, taxations, Insurance on Health care management.
- 31. Categorize hospital waste and be able to guide for proper disposal.
- 32. 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. 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 for reporting 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)

The student should be able to perform independently the following:

- Conduct community surveys for assessment of health and morbidity profile, epidemiological determinants, assessment of health needs, disease surveillance, evaluation of health programs and community diagnosis.
- 2. Conduct epidemic investigations, spot maps, predict disease trends, preparation of reports, planning and implementation of control measures.
- 3. 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 and injections.
- 4. Do data collection, compilation, tabular and graphical presentation, analysis and interpretation, applying appropriate statistical tests, using computer-based software application for validation of findings.
- 5. Conduct epidemiological research studies to establish cause-effect relationships in elaborating the epidemiology of diseases and health events.
- 6. Develop appropriate IEC Material, assessment of community communication needs, training skills, and counseling skills, conduct Health Education Programs in urban and rural settings.
- 7. Conduct dietary surveys, assessment of nutritional status, nutritive values of common food menus, detection of food adulterants, recording and interpretation of growth and development charts.
- 8. Use and application of various instruments and processes concerned with environmental health and biological waste management e.g., waste collection, segregation and disposal as per protocols, needle-disposers, disinfection procedures. Also use of Kata/Globe Thermometer, Slings Psychrometer, Solar Energy, functioning of ILRs, Deep Freezers, Cold Boxes, Vaccine Carriers.
- 9. 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.
- 10. Conduct clinical screening of various diseases and organize community health camps involving community participation in urban and rural settings. Use of Snellen's charts for vision, Ischihara's chart for colour blindness, tourniquet tests for dengue diagnosis in fever, BMI and other physical measurements of infants, children and adults, copper-T insertions and preparation of pap smear.
- 11. 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.
- 12. Prepare health project proposals with budgeting based on the project objectives.

D. Miscellaneous 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 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.
- 3. Demonstrate counseling 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 and internet-based applications.
- 9. Pedagogical Skills Familiarization with pedagogical techniques in order to perform :
 - a. Curriculum development
 - b. Framing of lesson plan
 - c. Use of evaluation techniques
 - d. Microteaching, lectures, group discussion, workshops, seminars etc.

SYLLABUS

Course contents:

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

Learning objectives:

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

- a. Understand and explain the concept and application and give suitable analogies/examples related to Public Health/Community Medicine (with differences), Disease-oriented v/s Preventive approach, health promotion disease control and prevention.
- b. Explain correlation between health and human development with analogies/ examples.
- c. Explain concept of Primordial, Primary, Secondary and Tertiary prevention with examples.
- d. Evolutionary History and mile-stones in Public Health National and International levels.
- 2. Communicable and Non-Communicable diseases, emerging and reemerging diseases

Learning objectives:

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

a. Understand and explain Epidemiology of Communicable/Noncommunicable diseases- its causes, precipitating factors, social and other non- health causes, mechanisms of transmission, signs/ symptoms, management, control and prevention measures, related national Health Programs and national Guidelines, Directives, special projects.

- b. Explain application of Disease surveillance system in control of Communicable/Non-communicable diseases.
- c. Explain and undertake steps to investigate and control outbreaks, epidemics and take measures to prevent the same.
- d. Evolve prevention and control measures based on local and regional epidemiological funding, synchronizing with National guidelines.

3. Applied Epidemiology, Health research, Bio-statistics

Learning objectives:

- a. Explain the concept and application of Epidemiology of Disease and Health giving suitable examples.
- b. Explain Epidemiological approach, the terms Distribution and Determinants, uses, types of Epidemiological studies, interpretation, merits/demerits and limitations, odds ratio, relative risk, attributable and population attributable risks, Hybrid designs (with examples), validity of Epidemiological Data and application in practice at field level.
- c. Explain Epidemiological Research methods, Research related protocols, Literature review, estimating sample size, data collection/ compilation/Analysis/ Research, interpretation.
- d. Develop Health interventional programs based on Epidemiological Finding and create evidence for Public Health action.
- e. Understand difference between data, information and intelligence, types of data, survey methods, formulating questionnaires, interview schedule, data presentation types and analysis.
- f. Apply computer based software application for data designing, data

management and collation analysis e.g. SPSS, Epi-info, MS office and other advanced versions.

4. Nutrition

Learning objectives:

- a. Identify various nutritional problems in the region, state and country and contributing factors for the same, with due emphasis on ecology perspectives.
- b. Explain importance of various nutrients (including micronutrients) in health, their sources, requirements and problems associated with their deficiencies as well as over consumption.
- c. Plan balanced diet and dietary requirements of various age and sex groups.
- d. 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.
- e. Classification of food, food additives, food fortification, food enrichment, food toxins and food adulteration.
- f. Explain Food production, Food hygiene and safety, food storage, food preparation, food wastage and feeding practices.
- g. Assessment of nutritional status of a community by adopting different methodologies.
- h. Nutritional supplementation, surveillance, education and rehabilitation.
- i. National programs in nutrition and their evaluation
- j. National nutrition policy.

5. Environmental health

Learning objectives:

- a. 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
- b. 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.
- c. Elaborate on requirements of water, water chlorination and household purification measures, measurement of chlorine demand, Break-point chlorination levels, water quality
- d. Assessment of quality of water and air, control of air pollution
- e. Explain environmental sanitation and control measures (including appropriate technologies) modern methods of sewage disposal, mechanical ventilation, soakage pits, solar energy, rainwater harvesting, sewage water recycling plants at community level.
- f. Explain global warming and its health impact.
- g. Elaborate on forest reserves, social forestry and health.
- h. Study vectors of medical importance and integrated control measures against them.
- i. Explain dynamics of transmission of vector borne diseases.
- j. Explain pest control measures.
- k. Explain environmental health issues in urban and rural areas.
- I. Understand functioning of public sector measures to safeguard environmental health e.g. water purification plant.
- m. 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

- a. 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.
- b. Enumerate the elements, principles, population coverage norms, staff patterns, day to day activities, programme schedule, stakeholders at PHC level.
- c. Explain the scope and implications of 3-tier system of Primary Health Care.
- d. Understand functioning of Rural Panchayat Raj system of development and its co-relation with health.
- e. Promote community participation in Primary Health Care programs and motivate various stakeholders for the same.
- f. Understand and comply with medico-legal procedures related to Primary Health Care activities.
- g. Integrate, coordinate both health and non-health sectors for implementing various national health programs.
- h. Deliver the provisions of various health schemes to eligible be beneficiaries such as Janani Suraksha Yojana, Rashtriya Swasthya Beema Yojana, Rajiv Gandhi Jeevandayi Arogya Yojana etc.
- Impart training in health programs for paramedical workers, lab technicians, community health volunteer's, interns and provide health education in the community.
- j. Implement Public Health Skills for investigations and containment of outbreaks and epidemics.
- k. Understand history of evolution of public health, important milestones in the world and in India.

I. 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:

- a. Explain the conceptual difference between administration and management, power and authority with reference to health care.
- b. Explain the role of fundamental principles of constitution, principles of Democracy and its correlation with health care administration.
- c. Explain the role of Bureaucracy, Technocracy, Political system, Judiciary, Media and people in health care administration.
- d. Explain and identify the key positions and their role in health administration at State, District, Taluka (Tehsil/ block) and village level.
- e. Explain the frame work of health care system at State, District, Taluka and village level and understand the mechanism of coordination between bureaucrats, technocrats, political, judiciary and media at each of these levels.
- f. Enumerate functions of a manager, explain concepts of management and leadership styles, various management techniques, planning process, monitoring and evaluation skills.
- g. Should be sensitive to quality issues in health care management and comply with relevant quality management techniques.
- h. Formulate and manage team approach for implementing health programs.
- i. Apply skills of effective human resource management and identify relevant roles, responsibilities and duties of functionaries.
- j. Implement skills of motivation, communication, negotiation and

- conflict management at PHC level.
- k. Develop budgetary statements based on evidence of needs assessment and be able to maintain account of expenditure as per norms.
- Undertake community health needs survey, conduct training and 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:

- a. Understand and elaborate implications of the policy provision with reference to the current health scenario in the country.
- b. Explain the role of health policy in promotion of Primary Health care, ensuring equity, intersectoral co-ordination, appropriate technology and community participation.
- c. 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.
- d. Critically appreciate merits and demerits of the Health Policy.
- e. Explain SWOT analysis of the policy and debate on evidence based recommendations, additions, deletions.
- f. 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:

- a. Understand influence of social and behavioral practices on health.
- b. Understand principles of behavior change of an individual and community. Clearly understand difference between knowledge, attitude and practices.
- c. Understand importance of social medicine and health.
- d. Importance of behavior change communication (BCC).
- e. Socio-cultural factors influencing behavior change.
- f. Formal and informal organizations in the community.
- g. Influence of peer pressure.
- h. Know the health problems, where BCC interventions are necessary.
- i. 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:

- a. Explain public health legislations and need for the same.
- b. Know in detail each public health law when, why, implementation, impact, issues etc.
- c. Enforcement of various public health laws.
- d. Judiciary mechanism for ensuring proper implementation of public health laws.
- e. 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

a. Understand the need and scope for international health measures.

- b. Enlist and understand functioning of various UN agencies (including WHO) playing key role in international health.
- c. Enlist and understand functioning of bilateral versus multilateral international donor agencies.
- d. Provide advice to international travelers and vaccination requirements.
- e. Understand International health control measures e.g. quarantine, airport management etc.
- f. Understand the management of international ports from health perspectives.

12. Occupational Health

Learning Objectives

- a. Understand the concept of occupational health and its importance, Occupational environment and work dynamics.
- b. Know different types of occupational exposures at various settings.
- c. Enlist various occupational hazards and their relative magnitude.
- d. Understand measurement of exposure levels to harmful influences during occupation.
- e. Understand preventive and control measures against various occupational hazards global, national and local level measures.
- f. Understand individual and community responses towards preventing exposure to occupational hazards.
- g. Understand and advise occupational safety measures.
- h. Understand legislative measures to prevent exposures to occupational hazards.
- i. Advice compensation provisions to persons exposed to various occupational hazards.
- Understand occupational health problems amongst people in unorganized sector.
- k. Understand and advise social security and welfare provisions for

workers - ESIS, Factory's Act, Role of ILO, Ministry of Labor, and DGFASLI.

13. The recent advances in Public Health & miscellaneous issues

Learning Objectives

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

- a. Identify and enlist events at local, district, national and global levels influencing or adversely affecting health /medical issues of the population.
- b. Adopt and 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:

- a. Describe the scope of health economics.
- b. Understand health market & its characteristics.
- c. Understand & apply economic evaluation techniques.
- d. Assess the mechanism of Funding Health Care services, especially health insurance.
- e. Advise on a location of resources appropriately in their work area.

TEACHING AND LEARNING METHODS

Teaching methodology

Guidelines to various teaching/learning activities:

1. Journal Club:

Critical appreciation and discussion of research articles in indexed journals.

2. Seminar

3. Lecture/Discussion:

4. Case presentation:

Communicable and non-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). Postgraduate student will present the cases in presence faculty and discuss various modalities of management.

5. Public Health Management training:

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.

- **6.** The Postgraduate student shall be required to participate in the teaching and training programme of Undergraduate students and Interns.
- **7.** The Postgraduate student must have attended mandatory training in Research Methodology during his tenure.
- **8.** A postgraduate student 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.

- 9. Special Seminars/Workshops: conducted by External Faculty on crosscutting subjects directly or indirectly concerned with Health. e.g. Critical appreciation of National Developmental Budget, delivered by prominent Economist.
- **10.** Field visits to various centers of public health importance which are locally feasible.
- 11. 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.
- 12. Department should encourage e-learning activities.

POSTINGS FOR POSTGRADUATES

Schedule for three years training: Orientation Training/Field postings for students of MD Community Medicine

Sr. No	Field Posting and work	Duration
1.	Posting at Sub-centers and PHCs Under and at RHTC and UHTC attached to Department of Community Medicine as per MCI Norm	Total period of ONE year during the 3 year period of PG course. Posting at RHTC is residential.
2.	Posting in the teaching hospital for exposure to clinical departments namely Pediatrics, OBGY and General medicine to acquire clinical skills for diagnosis and management of Communicable and Non- Communicable Diseases	Total - Three months General Medicine - 1month Pediatrics - 1month OBG - 1month
3.	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.
4.	Short duration posting in Microbiology department, 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 department, Hospital waste management, ART-VCTC, Matron Office (HRD), HMIS etc.	Total - Two months Microbiology posting - 15 days Minimum of 6 postings of 1week duration
5.	Visits to various institutions of Public Health Importance (NTI, Bangalore, IVCZ, Hosur, etc.)	Subject to feasibility and permission

Note: During the posting at UHTC & RHTC the residents will work directly under supervision of MOH cum Assistant Professor. PG student will be acquiring skills of Family Physician / Community Physician during their posting at respective centers.

ASSESSMENT

A. FORMATIVE ASSESSMENT

During the training may be as follows:

Formative assessment should be continual and should assess medical knowledge, patient care, procedural and 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. 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

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (Annexure I).

B. SUMMATIVE ASSESSMENT

At the end of training:

The summative examination would be carried out as per the Rules given in **POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000.**

The examination shall be in three parts:

1. Thesis

Thesis shall be submitted six months before the Theory and Clinical/Practical examination or as specified by the extant guidelines of the

University. 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 at least two of the three examiners in accordance with the extant guidelines framed by the University. If the examiners fail to submit their report within the stipulated time, the thesis may be deemed to be accepted with written permission from the University.

2. Theory Examination:

The Post Graduate examination will be conducted in three parts:

A. Theory:

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 for M.D shall be held at the end of 3rd academic year.

FOUR THEORY PAPERS (TOTAL 400 MARKS):

Each theory paper will be of 100 marks and shall have ten questions of ten marks each (10x10=100 marks).

The division of the syllabus for the theory papers is as mentioned below.

Paper I:

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

Paper II:

Nutrition, Environmental Health, Healthcare delivery system, Primary Health Care system, Panchayat Raj system, National health Programs, RCH, care of special groups- school health, adolescent health, health care of aged, community based rehabilitation and tribal health Demography and Family Welfare, Health Care Administration, Health Management and Public Health Leadership.

Paper III:

Social and Behavioral sciences-applied aspects, role of social sciences in concept of public health and primary health care, IEC and BCC, Scientific communications & Medical writing, Research Methodology, Public Health Legislations, Disaster management, Public health emergencies, Voluntary health agencies, NGOs, International Health and Global Diseases surveillance.

Paper IV:

Genetics and health, mental health, hospital waste management essential drugs, Health Policy planning, Medical Education technology, Information Technology, health and management information system, Integration of alternative Health system including AYUSH, Occupational Health, Recent advances in Public Health and Miscellaneous issues, Health Economics.

Note-However, this classification in only suggestive and questions on the topics may overlap across the papers.

B. Practical/Clinical and Oral examination:

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

PRACTICALS (TOTAL 200 MARKS)

1. One long Family case from the community (50 marks - 60 min)

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 (30 marks - 30 min), and two short cases (10 marks each and 20 minutes each) - Cases of Public Health Importance

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. Public Health Laboratory (Any Two) (30 marks - 60 min)

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

4. Epidemiology and Statistics problem-solving exercises (5):
 (Epidemiological - 3, Statistical - 2)
 Problem on Epidemiology and Biostatistics (10x5 = 50 marks - 60 min)

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

5. Public Health Spots (5): Spotters (4x5=20 marks - 25 min)

Interpretation of analytical reports of water, food, environmental assessment and public health micro-biology.

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

6. Viva-voce Examination

Viva-Voce: 100 Marks

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

i. Viva-Voce Examination: (80 Marks) (30 min)

Students will be examined by all the examiners together about student's comprehension, analytical approach, expression and interpretation of data. Student shall also be given case reports, charts for interpretation. It shall be comprehensive enough to test the post graduate student's overall knowledge of the subject.

ii. Pedagogy Exercise: (20 Marks) (30 min)

A topic will be 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 followed by 10 minutes discussion.

Max. Marks	Theory	Practical	Vive-Voce	Total
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M. D. Community	400	200	100	700
84 10 0				

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, WR Lee.
- 11. Epidemiology and Management for Health Care for All, by Sathe PV and Sathe AP.
- 12. Vaccines, by Stanley A. Plotkin.
- 13. All reports and documents related to all National Programmes from the Ministry of Health and Family Welfare.

B. Journals

03-05 international Journals and 02 national (all indexed) journals

Annexure I

Postgraduate Students Appraisal Form

Pre / Para /Clinical Disciplines

Name of the Department/Unit:

Name of the PG Student:

Period of Training: FROM.....TO.....TO

Sr. No.	Particulars	sa		lot factory	Sa	atis	factory			ore than isfactory	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 inter-		
	departmental		
	learning activity		
5.	External and		
	Outreach		
	Activities /		
	CMEs		
6.	Thesis /		
	Research work		
7.	Log Book		
	Maintenance		

Pub	lications	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



SDM College of Medical Sciences & Hospital



SDM College of Dental Sciences & Hospital



SDM College of Physiotherapy & SDM Institute of Nursing Sciences



Shri Dharmasthala Manjunatheshwara University



SDM Research Institute for Biomedical Sciences



Panoramic View of Campus