



BLDE

(DEEMED TO BE UNIVERSITY)

Competency Based Medical Education

(CBME)

PG CURRICULUM

2019-20

MD Community Medicine

Published by

BLDE

(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956

The Constituent College

SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

Smt. Bangaramma Sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India.

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BLDE(DU)/REG/PG-Curr/2019-20/268

May 06, 2019

NOTIFICATION

Sub: Competency Based Medical Education (CBME) based Revision of Post Graduate Curriculum

- Ref: 1. Medical Council of India Regulation on Graduate Medical Education, 1997 and subsequent amendments of the same from time to time.
2. Minutes of the 28th meeting Academic Council of the University held on April 26, 2019.
3. Minutes of the 47th meeting Board of Management held on May 04, 2019.

The Board of Management of the University is pleased to approve the CBME based Revised Curriculum for Post Graduate Degree Course at in its 47th meeting held on May 04, 2019.

The Revised Curriculum shall be effective, from the Academic Session 2020-21 onwards, for Post Graduate Degree Course in the Constituent College of the University viz. Shri B. M. Patil Medical College, Hospital and Research Centre, Vijayapura.

REGISTRAR
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BLDE (Deemed to be University)
Vijayapura-586103, Karnataka.

To,

The Dean, Faculty of Medicine and Principal
Shri B. M. Patil Medical College,
Hospital and Research Centre,
Vijayapura

Copy to:

- The Secretary, UGC, New Delhi
- The Secretary, MCI
- The Controller of Examinations
- The Vice Principal
- The Vice Principal (Academics)
- The Prof. & HODs Pre, Para and Clinical Departments
- The Co-ordinator, IQAC
- PS to the Hon'ble Chancellor
- PS to the Hon'ble Vice-Chancellor

Smt. Bangaramma Sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India.

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College : Phone: +918352-262770, Fax: +918352-263019, E-mail: bmpmc.principal@bldeu.ac.in

Our Vision

“To be a Leader and be recognized as an Institution striving for maintenance and enhancement of Quality Medical Education and Healthcare”

Our Mission

- To be committed to promote sustainable development of higher education including Health science education, consistent with the statutory and regulatory requirements.
- Reflect the needs of changing technology and make use of the academic autonomy to identify the academic programs that are dynamic.
- Adopt global concepts in education in the healthcare sector.

Section - I

**Goals and General Objectives of Postgraduate
Medical Education Program**

Goal

The goal of postgraduate medical education shall be to produce a competent specialist and / or a medical teacher as stated in the Post Graduate Medical Education Regulations 2000 and its amendments thereof [May2018]

- (i) Who shall recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy.
- (ii) Who shall have mastered most of the competencies, pertaining to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.
- (iii) Who shall be aware of the contemporary advances and developments in the discipline concerned.
- (iv) Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology, and
- (v) Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

General Objectives

At the end of the postgraduate training in the discipline concerned the student shall be able to:

- (i) Recognize the importance of the concerned specialty in the context of the health need of the community and the national priorities in the health sector.
- (ii) Practice the specialty concerned ethically and in step with the principles of primary health care.
- (iii) Demonstrate sufficient understanding of the basic sciences relevant to the concerned specialty.
- (iv) Identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitative, preventive and promotive measures/strategies.
- (v) Diagnose and manage majority of the conditions in the specialty concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- (vi) Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to the specialty.
- (vii) Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation.
- (viii) Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.

- (ix) Play the assigned role in the implementation of national health programs, effectively and responsibly.
- (x) Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.
- (xi) Develop skills as a self-directed learner; recognize continuing educational needs, select and use appropriate learning resources.
- (xii) Demonstrate competence in basic concept of research methodology and epidemiology, and be able to critically analyse relevant published research literature.
- (xiii) Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.
- (xiv) Function as an effective leader of a team engaged in health care, research or training.

Statement of the Competencies

Keeping in view the general objectives of postgraduate training, each discipline shall aim at development of specific competencies, which shall be defined and spelt out in clear terms. Each department shall produce a statement and bring it to the notice of the trainees in the beginning of the program so that he or she can direct the efforts towards the attainment of these competencies.

Components of the PG Curriculum

The major components of the PG curriculum shall be:

- Theoretical knowledge
- Practical/clinical Skills
- Training in writing thesis/research articles
- Attitudes, including communication.
- Training in research methodology, medical ethics & medicolegal aspects
- Teaching skills to the undergraduates, juniors and support teams

Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000. [amended upto May 2018]

Eligibility for Admission:

1. Post graduate degree course:

The candidate seeking admission should have passed MBBS from a college recognized by Medical Council of India.

As per requisites of statutory bodies & as laid out in Post graduate regulations of MCI & its amendments thereof, the minimum percentage of marks obtained in the entrance test

conducted by competent authority shall be as per MCI regulations & its amendments as applicable time to time.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks and MCI amendments as applicable at the time of selection and admission process.

Candidates seeking admission to superspeciality [M.Ch]

The candidate seeking admission to superspeciality course should have passed MS/MD in concerned subjects (As per MCI regulations & its amendments thereof) or passed DNB in concerned broad specialities & should fulfill requirements of MCI regulations.

2. As per requisites of statutory bodies & as laid out in Post graduate regulations of MCI & its amendments thereof, the minimum percentage of marks obtained in the entrance test conducted by competent authority shall be as per MCI regulations & its amendments as applicable time to time.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks and MCI amendments as applicable at the time of selection and admission process.

The MCI norms to qualify for Admissions

Candidates seeking admission to these Post Graduate Degree courses should have passed M.B.B.S. recognized by Medical Council of India or equivalent qualification and should have obtained permanent Registration from the Medical Council of India or any of the State/ Medical council or candidate should register the same within one month from the date of admission, failing which the admission of the candidate shall be cancelled. Provided that in the case of a foreign national, the MCI may on the payment of prescribed fee for the registration, grant temporary registration for the duration of post graduate training restricted to the medical college/ institute to which the applicant is admitted for the time being exclusively for post graduate studies; provided further, that temporary registration to such foreign national shall be subjected to the condition that such person is duly registered with appropriate registering authority in his /her country wherefrom he has obtained his basic medical qualification ,and is duly recognized by the corresponding Medical Council or concerned authority.

If the candidate fails to fulfill the relevant eligibility requirements as mentioned above he/she will not be considered eligible for admission for Medical Postgraduate Degree Courses even if he/she is placed in the merit list of statutory authority and BLDE (Deemed to be University).

Obtaining Eligibility Certificate by the University before making Admission

Candidate shall not be admitted for any postgraduate degree course unless he/she has obtained and produced the eligibility certificate used by the University. The candidate has to make an application to the University with the following documents along with the prescribed fee:

1. MBBS pass/degree certificate issued by the University.
2. Marks cards of all the university examinations passed MBBS course.
3. Attempt Certificate issued by the Principal
4. Certificate regarding the recognition of the Medical College by the Medical Council of India.
5. Completion of internship certificate.
6. In case internship was done in a non-teaching hospital, a certificate from the Medical Council of India that the hospital has been recognized for internship.
7. Registration by any State Medical council and
8. Proof of SC/ST or OBC or physically handicapped status, as the case may be.

In addition to the above mentioned documents, candidate applying for admission to superspeciality courses has to produce degree/pass certificate of MD/MS/DNB degree with prescribed fee.

Intake of Students

The intake of students to each course shall be in accordance with the ordinance in this behalf.

Course Duration

- a. M.D. / M.S. Degree Courses:

The course of study shall be for a period of 3 completed years including examinations. (MCI PG REG 2000 10:1)

- b. D.M/M Ch Degree Courses; (MCI PG REG 2000, 10:2)

The duration of these courses shall be for a period of 3 completed years including examinations.

Training Method

The postgraduate training for degree shall be of residency pattern. The post graduate shall be trained with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions grand rounds, case

demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should be required to participate in the teaching and training program of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies. Basic medical sciences students should be posted to allied and relevant clinical departments or institutions. Exposure to applied aspects of their learning should be addressed. Similarly, clinical subjects' students should be posted to basic medical sciences and allied specialty departments or institutions.

Training of superspeciality [M.Ch] should follow similar pattern. In addition, they have to be trained in advanced techniques of diagnosis and treatment pertaining to their specialty, participate actively in surgical operations as well.

Attendance, Progress and Conduct

A candidate pursuing degree course should work in the concerned department of the institution for the full period as a full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate course

Each year shall be taken as a unit for the purpose of calculating attendance. Every student shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons. Every Candidate is required to attend a minimum of 80% of the training during each academic year of the post graduate course. This shall include assignments, assessment of full time responsibilities and participation in all facets of educational process. Provided further, leave of any kind shall not be counted as part of academic term without prejudice to minimum 80% attendance of training period every year. Leave benefits shall be as per university rules.

A post graduate student pursuing degree course in broad specialties, MD, MS and superspeciality courses DM, M.Ch would be required to present one poster presentation, read one paper in 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/her to be eligible to appear at the university degree examinations. (MCI, PG 2000, 13.9)

Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the University Examinations.

Monitoring Progress of Studies

The learning process of students should be monitored through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring is done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment done by using checklists that assess various aspects.

The learning outcomes to be assessed include:

- Personal Attitudes,
- Acquisition of Knowledge,
- Clinical and operative skills, skills of performing necessary tests/experiments
- Teaching skills.
- Documentation skills

Personal Attitudes:

The essential items are:

- Caring attitude, empathy
- Initiative in work and accepting responsibilities
- Organizational ability
- Potential to cope with stressful situations and undertake graded responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge

The Methods used mainly consist of observation. Any appropriate methods can be used to assess these. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers. However every attempt should be made to minimize subjectivity.

Acquisition of Knowledge:

Lectures: Lectures/theory classes as necessary may be conducted. It is preferable to have one class per week if possible. They may, be employed for teaching certain topics. Lectures may be didactic or integrated.

The following selected common topics for post graduate students of all specialties to be covered are suggested here. These topics can be addressed in general with appropriate teaching-learning methods centrally or at departmental level.

- History of medicine with special reference to ancient Indian medicine
- Basics of health economics and health insurance
- Medical sociology, Doctor –Patient relationship, role of family in disease
- Professionalism & Medical code of Conduct and Medical Ethics
- Research Methods, Bio-statistics
- Use of library, literature search ,use of various software and databases

- Responsible conduct of research
- How to write an article, publication ethics and Plagiarism
- Journal review and evidence based medicine
- Use of computers & Appropriate use of AV aids
- Rational drug therapy
- National Health and Disease Control Programmes
- Roles of specialist in system based practice
- Communication skills.
- Bio medical waste management
- Patient safety, medical errors and health hazards
- Patient's rights for health information and patient charter.

These topics may preferably taken up in the first few weeks of the 1st year commonly for all new postgraduates and later in 2nd year or 3rd year as required during their progression of the programme. The specialty wise topics can be planned and conducted at departmental level.

- a) Integrated teaching: These are recommended to be taken by multidisciplinary teams for selected topics, eg. Jaundice, Diabetes mellitus, thyroid diseases etc. They should be planned well in advance and conducted.

Journal Review Meeting (Journal club):

The ability to do literature search, in depth study, presentation skills, use of audio – visual aids, understanding and applying evidence based medicine are to be focused and assessed. The assessment is made by faculty members and peers attending the meeting using a checklist

Seminars / symposia:

The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio – visual aids are to be assessed using a checklist.

Clinico-Pathological conferences:

This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

Medical Audit: Periodic morbidity and mortality meeting be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

Clinical Skills: Day to Day Work: Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills

Clinical Meetings:

Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list.

Group discussions: Group discussions are one of the means to train and assess the student's ability to analyse the given problem or situation, apply the knowledge and make appropriate decisions. This method can be adopted to train and assess the competency of students in analyzing and applying knowledge.

Death review meetings/Mortality meetings: Death review meetings is important method for reflective learning. A well conducted morbidity and mortality meetings bring about significant reduction in complications, improve patient care and hospital services. They also address system related issues. Monthly meetings should be conducted with active participation of faculty and students. Combined death review meetings may be required wherever necessary.

Clinical and Procedural Skills:

The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book.

Teaching Skills:

Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students

Attitude and Communication skills:

Candidates should be trained in proper communication skills towards interaction and communication with patients, attendees and society in general. There should be appropriate training in obtaining proper written informed consent, discussion and documentation of the proceedings. Structured training in various areas like consent, briefing regarding progress and breaking bad news are essential in developing competencies.

Variety of teaching –learning methods like Role play, video based training, standardized patient scenarios, reflective learning and assisting the team leader in all these areas will improve the skills. Assessment can be done using OSCE simulated scenarios and narratives or any appropriate means. Training to work as team member, lead the team whenever situation demands is essential. Mock drills to train and assess the readiness are very helpful.

Work diary / Log Book:

Every candidate shall maintain a Work Diary/Log Book and record his/her participation in the training programs conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, conducted by the candidate. A well written and validated Log Book reflects the competencies attained by the learner and points to the gap which needs address. This Log Book shall be scrutinized by concerned teachers periodically and certified, by the Head of Department and Head of the Institution, and presented during University Practical / Clinical examination.

Periodic tests:

In case of degree courses of three years duration (MD/MS, DM, M.Ch), the concerned departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practical / clinical and viva voce. One of these practical/clinical tests should be conducted by OSPE (objective structured practical examination or OSCE (objective structured clinical examination) method. Records and marks obtained in such tests will be maintained by the Head of Department and sent to the University, when called for,

Assessment

Assessment should be comprehensive & objective. It should address the stated competencies of the course. The assessment needs to be spread over the duration of the course.

FORMATIVE ASSESSMENT, ie., assessment during the training would include:

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.

General Principles

Internal Assessment should be frequent, cover all domains of learning and used to provide feedback to improve learning: it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and clinical examination.

Quarterly assessment during the Postgraduate training course should be based on following educational activities:

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

Records: Records and marks obtained in tests will be maintained by the Head of the Departments and will be made available to the University or MCI.

Procedure for defaulter:

Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set himself or herself right.

Dissertation: Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognized post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis and comparison of results and drawing conclusions.

Every candidate shall submit to the Registrar (Academic) of the University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.

The dissertation shall be written under the following headings:

1. Introduction
2. Aims or Objectives of study
3. Review of Literature
4. Material and Methods
5. Results

6. Discussion
7. Conclusion
8. Summary
9. References
10. Tables
11. Annexure

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27” x 11.69”) and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

Adequate number of copies as per norms and a soft copy of dissertation thus prepared shall be submitted to the Controller of Examinations six months before final examination or before the dates notified by the University.

The dissertation shall be valued by examiners appointed by the university. Acceptance of dissertation work is an essential precondition for a candidate to appear in the University examination.

Guide:

The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as per Medical Council of India Minimum Qualifications for Teachers in Medical Institutions Regulations, 1998 and its amendments thereof. Teachers in a medical college/institution having a total of eight years teaching experience out of which at least five years teaching experience as Lecturer or Assistant Professor gained after obtaining post graduate degree shall be recognized as post graduate teachers.

A Co-guide may be included provided the work requires substantial contribution from a sister department or from another medical institution recognized for teaching/training by this University / Medical Council of India. The co-guide shall be a recognized post graduate teacher of BLDE (Deemed to be University).

Change of guide:

In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the University.

Schedule of Examination:

The examination for M.D. /M.S and DM/M.Ch courses shall be held at the end of three academic years. The university shall conduct two examinations in a year at an interval of four to six months between the two examinations. Not more than two examinations shall be conducted in an academic year.

Scheme of Examination

M.D. /M.S. Degree

M.D. / M.S. Degree examinations in any subject shall consist of dissertation, written papers (Theory), Practical/Clinical and Viva Voce.

Dissertation:

Every candidate shall carryout work and submit a Dissertation as indicated above. Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

Written Examination (Theory):

Written examination shall consist of **four** question papers, each of **three** hours duration. Each paper shall carry 100 marks. Out of the **four** papers, the 1st paper in clinical subjects will be on applied aspects of basic medical sciences and 4th paper on Recent advances, which may be asked in any or all the papers. In basic medical subjects and para-clinical -subjects, questions on applied clinical aspects should also be asked.

Practical / Clinical Examination:

In case of practical examination, it should be aimed at assessing competence and skills of techniques and procedures as well as testing students ability to make relevant and valid observations, interpretations and inference of laboratory or experimental work relating to his/her subject.

In case of clinical examination, it should aim at examining clinical skills and competence of candidates for undertaking independent work as a specialist. Each candidate should examine at least one long case and two short cases minimum. However additional assessment methods can be adopted which will test the necessary competencies reasonably well.

The total marks for Practical / Clinical examination shall be 300.

Viva Voce:

Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills.

The total marks shall be 100:

- 80 Marks, for examination of all components of syllabus
- 20 Marks for Pedagogy

Examiners:

There shall be at least four examiners in each subject. Out of them two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

Criteria for pass & distinction: Criteria for declaring as pass in University Examination: A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical/clinical and (3) viva voce examination. The candidate should pass independently in practical/clinical examination and Viva Voce: vide MCI pg 2000 Reg no 14(4) (Ciii)

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examinations. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree examination as the case may be.[amendment of MCI PG Regulations clause 14 dated 5.4.2018]

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Controller of Examinations.

Declaration of distinction: A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate of marks is 75 percent and above.

Distinction will not be awarded for candidates passing the examination in more than one attempt.

D.M/M.Ch Degree

DM/M.Ch Degree examinations in any subject shall consist of written theory papers (theory), practical/clinical and Viva voce.

Written Examination (Theory):

Written examination shall consist of **four** question papers, each of **three** hours duration. Each paper shall carry 100 marks. Out of the **four** papers, the 1st paper in clinical subjects will be on applied aspects of basic medical sciences. Recent advances may be asked in any or all the papers. In basic medical subjects and para-clinical -subjects, questions on applied clinical aspects should also be asked.

Practical / Clinical Examination:

In case of practical examination, it should be aimed at assessing competence and skills of techniques and procedures as well as testing students ability to make relevant and valid observations, interpretations and inference of laboratory or experimental work relating to his/her subject.

In case of clinical examination, it should aim at examining clinical skills, competence of candidates for undertaking independent work as a specialist. Each candidate should examine at least one long case and two short cases.

The total marks for Practical / clinical examination shall be 300.

Viva Voce:

Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills.

The total marks shall be 100:

- 80 Marks, for examination of all components of syllabus
- 20 Marks for Pedagogy

Examiners: There shall be at least four examiners in each subject. Out of them two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

Criteria for passing and distinction: Criteria for declaring as pass in University Examination: A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and (3) viva voce examination. The candidate should pass independently in practical/clinical examination vide: MCI pg 2000 Reg no 144-c (iii).

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examinations. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree examination as the case may be.[amendment of MCI PG Regulations clause 14 dated 5.4.2018]

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Distinction will not be awarded for candidates passing the examination in more than one attempt.

Number of candidates per day: The maximum number of candidates for practical / clinical and viva-voce examination shall be as under:

- MD / MS Courses: Maximum of 8 per day
- DM/M.Ch Maximum of 3 per day

Additional annexure to be included in all curricula

Postgraduate Students Appraisal Form
Pre/Para/Clinical Disciplines

Name of 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 GUIDE

SIGNATURE OF HOD

SIGNATURE OF UNIT CHIEF

SECTION – II

MD IN COMMUNITY MEDICINE

a) Goal:

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

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 programmes.

b) GENERAL OBJECTIVES

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

c) 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.
2. Have knowledge about communicable and non-communicable diseases, emerging and re-emerging diseases, their epidemiology, control and prevention.
3. Apply the principles of epidemiology, health research and Bio-statistics, application of qualitative research methods, measurement of risk and other relevant health and morbidity indicators.
4. To describe nutritional problems of the country, role of nutrition in health and disease, describe common nutritional disorders, develop nutrition plan for an individual based on his requirements and with concerns to special situations if applicable & plan comprehensive programme to address issue of malnutrition in a given area for a specific group.

5. To describe the concept of Environmental Health and its various determinants, identify environmental health issues in a given area/community, assess impact of adverse environmental conditions on health of human beings, plan awareness programmes at various levels on environmental issues and mobilize community resources and participation to safeguard from local adverse environmental conditions, should be able to provide technical advice for water purification, chlorination, installing gobar gas plant, construction of soakage pits etc. & be a technical expert to advice on protection measures from adverse environmental exposure.
6. To describe the working of Primary Health Care system, Panchayat Raj system, National Health Programmes, urban/rural differences, RCH, Demography and Family Welfare.
7. Do orientation of the inter-linkage of health sector and non-health sector for promotion of Health & control and prevention of diseases.
8. Have knowledge of Health Care Administration, Health Management and Public Health Leadership & have familiarity with administrative procedures and protocols. Understand and express implications of 'Poverty Line', 'Social Inclusion', 'Equity', 'taxations', 'Insurance' on Health care management.
9. To describe Health Policy & Plans, Medical Education technology, Information Technology and integration of alternative Health system including AYUSH & have knowledge about role of media and its use in health.
10. To describe the intricacies of Social & Behavioral sciences and their applications & Identify behavior pattern of individual or group of individuals detrimental or adversely affecting their health.
11. To describe & create awareness about various Public Health Legislations.
12. To understand and describe International Health & Global Diseases surveillance & Develop workable interventions for control and prevention of emerging and re-emerging diseases at local, national and global level.
13. To relate the history of symptoms with specific occupation, diagnostic criteria, preventive measures, identification of various hazards in a specific occupational environment and legislations.
14. To keep abreast of recent advances in Public Health & formulate feasible, optimal, sustainable, cost effective strategies in response to the advances in public health & development.
15. To describe the principles of Health Economics and apply it in various public health settings & evaluate cost effectiveness and cost benefits of a Health Program.
16. To explain and correlate common health problems (medical, social, environmental, economic and psychological) of urban slum dwellers, organization of health services in urban slum areas.
17. Define and identify vulnerable, under-privileged high risk communities and their special needs.
18. To categorize hospital waste and be able to guide for proper disposal.
19. To provide a comprehensive plan for disaster management and mitigation of sufferings.

B. Affective domain:

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues and interact with the patient and the clinician or other colleagues to provide the best possible diagnosis or opinion.
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 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 programmes and community diagnosis.
- Conduct outbreak investigations, do 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.
- Do 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, counselling skills, conduct Health Education Programmes 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 biological waste management eg. waste collection, segregation and disposal as per protocols, needle-disposers, disinfection procedures. Also use of Dosimeters, Kata / Globe Thermometer, Slings Psychomotor, Gobar 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 mosquito proof water tank.
- 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, copper-T insertions, preparation of pap smear etc.

- 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 of domestic water purification & orientation in use of water filters.
- Prepare health project proposals with budgeting based on the project objectives.

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 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 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 & internet-based applications

Course contents:

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

Learning objectives:

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

1. 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.
2. Explain correlation between health and human development with analogies/ examples
3. Explain concept of Primordial, Primary, Secondary and Tertiary prevention with examples.
4. Evolutionary History and mile-stones in Public Health – National and International levels.

2. Social and behavioral sciences

Learning objectives

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

1. Understand influence of social and behavioral practices on health.
2. Understand principles of behavior change of an individual and community. Clearly understand difference between knowledge, attitude and practices.
3. Understand importance of social medicine and health.
4. Importance of behavior change communication (BCC).
5. Socio-cultural factors influencing behavior change.
6. Formal and informal organizations in the community.
7. Influence of peer pressure.
8. Know the health problems, where BCC interventions are necessary.
9. Understand factors promoting and detrimental to BCC.

3. Nutrition

Learning objectives:

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

1. Identify various nutritional problems in the region, state and country and contributing factors for the same, with due emphasis on ecology perspectives.
2. Explain importance of various nutrients (including micronutrients) in health, their sources, requirements and problems associated with their deficiencies as well as over consumption.
3. Plan balanced diet and dietary requirements of various age and sex groups.
4. Dietary/nutritional concerns of vulnerable groups – young children, adolescents, ANC/PNC/Lactating mothers/senior citizens/individuals with various health problems eg. hypertension, diabetes, renal problems etc.
5. Classification of food, food additives, food fortification, food enrichment, food toxins and food adulteration.
6. Explain Food production, Food hygiene and safety, food storage, food preparation, food wastage and feeding practices.
7. Assessment of nutritional status of a community by adopting different methodologies.
8. Nutritional supplementation, surveillance, education and rehabilitation.
9. National programmes in nutrition and their evaluation.
10. National nutrition policy.

4. Environmental health

Learning objectives

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

1. 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.
2. 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.
3. Elaborate on requirements of water, water chlorination and purification measures at large & small scale levels, measurement of chlorine demand, Break-point chlorination levels & water quality standards.
4. Assessment of quality of water and air, control of air & water pollution.
5. 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. Explain effect of radiation, noise & light on health.
6. Explain global warming and its health impact.
7. Elaborate on forest reserves, social forestry and health.
8. Study vectors of medical importance and integrated control measures against them.
9. Explain dynamics of transmission of vector borne diseases.
10. Explain pest control measures.
11. Explain about housing standards & environmental health issues in urban and rural areas.
12. Understand functioning of public sector measures to safeguard environmental health e.g water purification plant.
13. Explain Legislative measures for protection of environmental health.

5. Disaster Management:

Learning objectives

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

1. Understand and explain Disaster impact, Disaster response, Rehabilitation.
2. Understand and explain Disaster Mitigation, Disaster preparedness.
3. Understand and explain Public health emergencies.

6. Applied Epidemiology, Health research, Bio-statistics

Learning objectives:

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

1. Explain the concept & application of Epidemiology of Disease and Health giving suitable examples.
2. 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.

3. Explain Epidemiological Research methods, Research related protocols, Literature review, estimating sample size, data collection/ compilation/Analysis/ Research, interpretation.
4. Develop Health interventional programs based on Epidemiological Finding & create evidence for Public Health action.
5. Understand difference between data, information & intelligence, types of data, survey methods, formulating questionnaires, interview schedule, data presentation types & analysis.
6. Apply computer based software application for data designing, data management & collation analysis e.g. SPSS, Epi-info, MS office and other advanced versions.

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

Learning objectives:

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

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

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

Learning objectives:

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

1. 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.
2. Enumerate the elements, principles, population coverage norms, staff patterns, day to day activities, programme schedule, stakeholders at PHC level.
3. Explain the scope and implications of 3-tier system of Primary Health Care.
4. Understand functioning of Rural Panchayat Raj system of development and its correlation with health.

5. Promote community participation in Primary Health Care programme and motivate various stakeholders for the same.
6. Understand and comply with medico-legal procedures related to Primary Health Care activities.
7. Integrate, coordinate both health and non-health sectors for implementing various national health programmes.
8. Understand functioning of various National Health programmes like RCH family welfare etc. & monitoring & evaluation of the same.
9. Study of emerging demographic changes & its impact on health. Study of sex ratio & gender sensitization.

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

Learning objectives:

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

1. Explain the conceptual difference between Administration and Management, Power and Authority with reference to health care.
2. Explain the role of fundamental principles of constitution, principles of Democracy and its correlation with health care administration.
3. Explain the role of Bureaucracy, Technocracy, Political system, Judiciary, Media and people in health care administration.
4. Explain and identify the key positions and their role in health administration at State, District, Taluka (Tehsil block) and village level.
5. 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.
6. 6 Enumerate functions of a manager, explain concepts of management and leadership styles, various management techniques, planning process, monitoring & evaluation skills.
7. Should be sensitive to quality issues in health care management and comply with relevant quality management techniques.
8. Formulate and manage team approach for implementing health programmes.
9. Apply skills of effective human resource management and identify relevant roles, responsibilities and duties of functionaries.
10. Implement skills of motivation, communication, negotiation and conflict management at PHC level.
11. Develop budgetary statements based on evidence of needs assessment and be able to maintain account of expenditure as per norms.
12. Undertake community health needs survey, conduct training & communication needs assessment of paramedical and health workers, identify vulnerable, underprivileged communities & implement high risk approach.

10. International Health

Learning objectives:

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

1. Understand the need and scope for international health measures.
2. Enlist and understand functioning of various UN agencies (including WHO) playing key role in international health.
3. Enlist and understand functioning of bilateral vs multilateral international donor agencies.
4. Provide advice to international travelers and vaccination requirements.
5. Understand International health control measures e.g. quarantine, airport management etc.
6. Understand the management of international ports from health perspectives.

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

Learning objectives:

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

1. Understand and elaborate implications of the policy provision with reference to the current health scenario in the country.
2. Explain the role of health policy in promotion of Primary Health care, ensuring equity, inter-sectoral co-ordination, appropriate technology and community participation.
3. 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.
4. Critically appreciate merits and demerits of the Health Policy.
5. Explain SWOT analysis of the policy and debate on evidence based recommendations, additions & deletions.
6. Debate on suggestions or recommendations for future inclusions.
7. Understand Framing & Analysis of learning process, Educational decision making, Educational objective formulation, Plan instruction and assessment, Make communication effective, planning & preparing curriculum, teaching learning methods for small & large groups.

12. Public Health Legislations

Learning objectives:

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

1. Explain public health legislations and need for the same.
2. Know in detail each public health law – when, why, implementation, impact, issues etc.
3. Enforcement of various public health laws.
4. Judiciary mechanism for ensuring proper implementation of public health laws.
5. Scope for integrated approach for implementation of public health laws.

13. Occupational Health

Learning objectives:

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

1. Understand the concept of occupational health and its importance, Occupational environment and work dynamics.
2. Know different types of occupational exposures at various settings.
3. Enlist various occupational hazards and their relative magnitude.
4. Understand measurement of exposure levels to harmful influences during occupation.
5. Understand preventive and control measures against various occupational hazards – global, national and local level measures.
6. Understand individual and community responses towards preventing exposure to occupational hazards.
7. Understand and advise occupational safety measures.
8. Understand legislative measures to prevent exposures to occupational hazards.
9. Advise compensation provisions to persons exposed to various occupational hazards.
10. Understand occupational health problems amongst people in unorganized sector.
11. Understand and advise social security and welfare provisions for workers – ESIS, Factory's Act, Role of ILO, Ministry of Labor, DGFASLI.

14. Genetics and Community Mental Health:

Learning objectives:

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

1. Understand and explain common genetic problems, management of Genetic Problems & evolve prevention, control & Social Measures in Genetics.
2. Understand and explain principles of Mental Health, Types, Causes and Warning signals of Mental Illness & approach to Mental Health Problems in a Community.
3. Evolve prevention & control measures for mental health illness & understand and explain Mental Health Services in the country.

15. Health Economics

Learning objectives:

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

1. Describe the scope of health economics.
2. Understand health market & its characteristics.
3. Understand & apply economic evaluation techniques.
4. Assess the mechanism of Funding Health Care services, especially health insurance.

5. Advise on allocation of resources appropriately in their work area.

16. The recent advances in Public Health & miscellaneous issues

Learning objectives:

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

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

d) COURSE CONTENTS FOR PRACTICALS:

1. Microbiology applied to Public Health (Dept Microbiology)

Hands on experience in staining techniques and interpretation of:

- Leishmann stain
- Grams Stain
- JSB stain
- Albert's Stain
- Ziehl-Neilson stain
- Peripheral blood examination of Thick and Thin smears and Reporting
- Microscopic examination of stools and interpretation.
- Collection and Dispatch of Samples to Laboratory
- Experience in the collection, examination and interpretation of simple laboratory tests on blood, stool and urine.
- Interpretation of commonly used serological tests such as Widal / HIV/Hepatitis B/ VDRL/viral Antibody titres

2. Medical Entomology

- Collection of Mosquitoes/fleas/ticks/others
- Hands on experience on mounting and reporting
- Entomology Survey

3. Epidemiological Exercises and Case Studies (including family studies) to illustrate principles and practice of Community Health

- Statistical exercises to illustrate Principles and Practice
- Investigation of an Outbreak of a disease and Measures to control

4. Exercises in Public Health Administration

- Planning exercises
- VED Analysis etc
- Beneficiary Need Analysis

- Preparation of Annual plan
- Budgeting at the PHC level
- Supervision of a PHC/SC
- Requirement of Vaccines, Medicines, Stationary at the PHC level
- Organization of a Family Welfare Camp
- Conduction of an Immunization Camp

5. Diet and Nutritional Survey of a Community

6. Study of Environment and its influence on health in

- Work places
- House-hold
- Community
- This includes the study of air pollution, noise pollution, temperature, humidity and other meteorological factors and their effect on health.

7. Study of sanitation & its affect on community health.

8. Environment Sanitation

- Collection of Water Sample/Analysis (Physical, Chemical and Microbiological) /Reporting
- Study of Waste Management Methods.

9. Health Education

- Conduct health education camps & convey health messages through role play etc.

Dissertation Work:

Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognized post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis and comparison of results and drawing conclusions.

Every candidate must conduct the research responsibly considering human values & professional ethics. Candidates must know regarding plagiarism & must try to prevent or minimize it in their dissertation work.

Every candidate shall submit to the Registrar (Academic) of the University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within

six months from the date of commencement of the course on or before the dates notified by the University. The synopsis shall be sent through the proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the University. No change in the dissertation topic or guide shall be made without prior approval of the University.

The dissertation shall be written under the following headings:

1. Introduction
2. Aims or Objectives of study
3. Review of Literature
4. Material and Methods
5. Results
6. Discussion
7. Summary
8. Conclusion
9. Recommendations
10. Limitation of the study
11. References
12. Tables
13. Annexure

e) **TEACHING AND LEARNING METHODS**

Teaching methodology

The following is a rough guideline to various teaching/learning activities that may be employed:

- **Journal Club:** Critical appreciation and discussion of research articles in indexed journals
- **Seminar**

Lecture/Discussion : Lectures on newer topics by faculty theory classes – **30 hours**

- **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 of faculty and discuss various modalities of management.
- **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 specialities/super specialities 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, ethical issue sensitization, gender sensitization, etc.
- **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.
- Department should encourage e-learning activities.
- **Group Discussions:** Group Discussions are one of the means to train & assess the students ability to analyse the given problem or situation, apply the knowledge & make appropriate decisions. This method can be adopted to train & assess the competency of students in analysing & applying knowledge.

VISITS / POSTINGS

VISITS

- PHC / CHC / SC
- ICDS Office / Anganawadi Centre
- District Health Office / District Hospital
- Meteorology Department
- Water Purification Plant
- Catering Establishment
- Public Health Laboratory (District)
- Family Health Study
- Institute of Vector Control and Zoonosis, Hosur.
- Public Health Laboratory
- Sewage Treatment Plant, Bangalore.
- Healthcare Waste Management
- Water Purification Plant.
- Industrial visit

POSTINGS:

- RHTC – 6 Months
- UHTC – 6 Months

During Posting PG students will work under direct supervision of Medical Officer/Assistant Professor. Students will acquire skills of Family Physician/Community Physician/Hospital Administration/Implementation of National Health Programmes/Maintenance of Records & Carry out Health Education for the Community. Posting at RHTC will be residential. PHC/Sub-centre postings will be covered during this period.

SHORT POSTING

During the posting Student is expected to Learn Following Aspects

A. PAEDIATRICS (1 Month)

- Infectious diseases
- Nutrition problems
- Immunization
- Care of the Newborn & Neonates
- Growth and development monitoring

B. MICROBIOLOGY (1 Week)

- Lab procedures, isolation, identification of organism, transport of specimens and water testing.

C. OBSTETRIC AND GYNAECOLOGY (1 Month)

1. Obstetrics

- Antenatal care
- High risk pregnancy
- Intranatal care –The management of normal labour
- Postnatal care
- Family Welfare

2. Gynaecology

- Adolescent health
- Reproductive Tract infections
- Cancer of the reproductive tract especially Carcinoma cervix.

D. GENERAL MEDICINE (1 Month)

1. Communicable diseases
2. Non-communicable diseases

E. **CASUALTY (1 Week):** Students will work under Casualty Medical Officer. They must learn skills of basic treatment of injured cases, epidemiology & investigation of Road Traffic Accidents (RTA), study epidemiology of Rabies issue of wound & death certificate etc.

F. MEDICAL RECORD SECTION (1 WEEK)

- Study about International Classification of Diseases (ICD), hospital statistics etc.

G. BLOOD BANK/HEALTH WASTE MANAGEMENT (1 WEEK)

H. DISTRICT SURVEILLANCE OFFICE (15 DAYS)

- Study about outbreak investigation, management of natural calamities like Flood control & analysis, disease surveillance system, entomology etc.

I. DISTRICT TUBERCULOSIS CENTRE/ART CENTRE (15 DAYS)

FORMATIVE ASSESSMENT METHODS OF POSTGRADUATE COURSE:

1st INTERNAL ASSESSMENT THEORY EXAMINATION - At the end of 2nd Term

1st Internal Exam – 1 Paper: (100 Marks)

SYLLABUS

Man & Medicine, Concept of Health & Disease, Screening for Disease, Respiratory Infections, Intestinal Infections, Demography & Family Planning, Nutrition & Health, Social Medicine, Environment & Health, Genetics & Health, Statistics, Hospital Waste Management, Disaster Management.

2nd INTERNAL EXAMINATION - At the end of 4th Term

2nd Internal Exam – 2 Papers: (100 Marks each)

Epidemiology & Epidemiological Methods, Arthropod borne Infections, Zoonosis, Surface Infections, Non Communicable Diseases, Essential & Counterfeit Medicines, MCH & Geriatrics, Mental Health, Health Information, Health Education, Occupational Health, Health Programmes in India.

SYLLABUS

Paper 1:	Paper 2:
Epidemiology & Epidemiological Methods	Essential & Counterfeit Medicines
Arthropod borne Infections	MCH & Geriatrics
Surface Infections	Mental Health
Zoonosis	Health Information
Non Communicable Diseases	Health Education
Health Programmes in India	Occupational Health

OSCE/OSPE – 4TH /5TH TERM

PRELIMINARY EXAMINATION – 3 Months Prior to University Exam

3rd Internal / Preliminary Examination – 4 Papers (100 Marks each)

Above Topics of 1st & 2nd Internal Exams Plus + Emerging & Re emerging Infectious diseases, Health Planning & Management, Health Care of the Community, International Health, & Recent Advances.

DISSERTATION ANALYSIS & SUBMISSION – 5TH & 6TH TERM

* Students will present Research work at Conferences & publish them during 2nd & 3rd year (III to VI TERM).

TRAINING ACTIVITIES

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

1. Lecture / Group Discussions
2. Practical Demonstrations
3. Field visits – Family Studies/Clinical-Social Case Studies/ Visits to Public Places.
4. Institutional Visits
5. Seminars
6. Journal Clubs
7. Epidemiological Exercises
8. Training of undergraduates including Lesson Planning under Supervision
9. Involvement in Specific Departmental Project works
10. Health Activities
11. Conducting of surveys
12. OSCE/OSPE
13. Integrated Teaching with other departments (Horizontal & Vertical) will be conducted once a month.

METHODS OF MONITORING:

1. Postgraduate students should maintain Log book & get it evaluated by Head of the Department once in a month.
2. Technique of skills in Pedagogy are monitored through lesson plans and conducting of classes for undergraduates under supervision & Microteaching will be conducted.
3. Skill evaluation – through demonstration, practicals and field reports
4. Knowledge Evaluation – Through journal clubs, seminars and tests.
5. Soft skills with community interaction will be assessed through community surveys & demonstration by Role Plays.

SCHEME OF FINAL (University) EXAMINATION

A. Theory written

There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions of 20 marks each and 6 short essay questions each carrying 10 marks. Total marks for each paper will be 100.

Questions on recent advances may be asked in any or all the papers.

Paper I: (Basic Sciences)

- History of Public Health and evolution of Community Medicine
- Concepts in Community Medicine
- Microbiology including Entomology, Parasitology and Immunology
- General Epidemiology,
- Epidemiology of communicable diseases and Non-communicable diseases.

Paper II:

- Health Management
- Health Economics
- Health and Hospital administration.
- Public Health legislation.
- Health care delivery including National health programmes
- International Health
- Voluntary Health Organizations, NGOs

Paper III:

- Diet and nutrition in health and disease
- Environmental health and Ecology.
- Occupational health
- Maternal health, Child health.
- Demography and Family welfare.
- Cares of special groups vis. School health, adolescent health and Geriatrics.
- Care of disabled, Community based Rehabilitation Tribal health, Desert Medicine
- Public Health emergencies and calamities.

Paper IV:

- Genetics & Mental Health
- Behavioural sciences and health
- Information, Education, Communication and Counselling.
- Biostatistics & Research methodology.
- Health Technology
- Computer Application
- Recent Advances
- Medical Education Technology

B. PRACTICALS 300 marks.

1. Family study: (One) (50 marks)

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

2. Clinico-social case study (one long case) (50 marks)

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

3. Clinico Social Case study (Two Short Case) (2 x 25 =50 marks)

Short cases may be assessed without presentation of detailed history, beginning with Differential Diagnosis in the given time. Approximately 20 min. will be provided.

4. Public Health Laboratory (Three) (3 x 20 = 60 marks)

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

5. Problem on Epidemiology and Biostatistics (Three each) (6 x10 = 60 marks)

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

6. Spotters (Six) (6 x 5 = 30 marks)

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

VIVA-VOCE: 100 Marks**1. Viva-voce Examination: (80 marks)**

Students will be thoroughly examined with the aim of assessing candidates' knowledge, competency, investigative procedures, therapeutic techniques and other aspects of specialty. It includes discussion on the dissertation.

2. Pedagogy Exercise: (20 marks)

A topic 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.

Max. Marks in M.D. Community	Theory	Practicals	Viva-Voce	Total
Medicine	400	300	100	800

LIST OF BOOKS RECOMMENDED FOR M.D. IN COMMUNITY MEDICINE**Core Books:**

1. Park J.E. & K. Park text book of Preventive & Social Medicine, 24th Edition, M/S. Banarsidas Bhanot, Jabalpur.
2. Mahajan B.K. & M.C. Gupta, text book of P & S M, 4th Edition, Jaypee publications.
3. Mac Mahon & Pugh, epidemiology principles & methods, little Brown & co. Boston. U.S.A., 1st Edition.
4. Suryakantha A.H. Community Medicine with Recent Advances, 3rd Edition, Jaypee Publications.
5. Text book of Public Health & Community Medicine by Rajvir Bhalwar, 3rd Edition, Dept. of Community Medicine, AFMC, Pune.
6. Practical Epidemiology: D. J. P. Barker and A. J. Halls, 4th Edition.
7. J. Kishore's, National Health Programme, Century Publications, 11th Edition.
8. Hospital Waste Management 2000: Acharya, D.B and Singh M
9. Manual for Control of Hospital infection NACO, M. O. H & F.W, GOI
10. Textbook of Epidemiology: Leon Gordis, 4th Edition.
11. Maxcy-Rosenau Textbook of Public Health & Preventive Medicine, 14th Edition.
12. Principles of Biostatistics: Mahajan, 7th Edition.

Reference Books

1. Oxford Text Book of Public Health: Detels R, McEwen J, Beaglehold R, 1st /Edition.
2. O. P. Ghai Textbook of Paediatrics, CBS Publications, 7th Edition.
3. Survey Methods in Community Medicine J. H. Abramson, 5th Edition.
4. Hunter's Disease of Occupation: P.A.B. Raffle Obe, 6th Edition
5. Manson's Tropical Disease: Jeremy F, Peter J. 23rd Edition.
6. Epidemiology of Chronic Diseases: Randall Harris, 1st Edition.
7. N. Ananthakrishnan, K. R. Sethuram, Santosh Kumar. Medical Education-Principles and practices, 2nd Edition.
8. K.R. Sethuram. Trick or Treat-A survival guide to health care.
9. Sloane, Philip D. Principles of Family Medicine, 6th Edition.
10. Agarwal, Anjana. Textbook of Human Nutrition, 1st Edition.
11. Kotch, Jonathan B. Policy in public health – Maternal and child Health, 3rd Edition.
12. Training Modules of National health programmes [PDF] by MOHFW, New Delhi.
13. Dutta Text Book of Obstetrics, 8th Edition.

Journals:

1. Indian Journal of Community Medicine.
2. Indian Journal of Public Health
3. Indian Journal of Family & Community Health
4. Indian Journal of Nutrition & Diabetes
5. Indian Journal of Preventive & Social Medicine
6. Indian Journal of Occupational & Environmental Medicine
7. Indian Journal of Social Work
8. Journals of Medicine, OBG, Pediatrics, Skin and STD, Leprosy, Tuberculosis and Chest Diseases for reference.

International Journals:

1. WHO publications
2. Journal of Epidemiology & Community Health
3. British Medical Journal.
4. Lancet
5. American Journal of Epidemiology.

SECTION - III**MODEL CHECK-LIST FOR EVALUATION OF JOURNAL****REVIEW PRESENTATIONS****Check List – I**

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl. No.	Items for observation during presentation	Poor 1	Average 2	Good 3	Excellent 4
1.	Article Chosen was				
2.	Extent of understanding of scope & objectives of the paper by the candidate				
3.	Whether cross references have been consulted				
4.	Ability to respond to questions on the paper / subject				
5.	Audio-Visual aids used				
6.	Ability to defend the paper				
7.	Clarity of presentation				
8.	Any other observation				
	Total Score				

Check List – II

MODEL CHECK-LIST FOR EVALUATION OF SEMINAR**PRESENTATIONS**

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl. No.	Items for observation during presentation	Below Average 1	Average 2	Good 3	Very Good 4
1.	Whether cross references have been consulted				
2.	Completeness of Preparation				
3.	Clarity of Presentation				
4.	Understanding of subject				
5.	Ability to answer questions				
6.	Time scheduling				
7.	Appropriate use of Audio-visual aids				
8.	Any other observation				
	Total Score				

Check List – III**MODEL CHECK LIST FOR EVALUATION OF DAY TO DAY LEARNING,
TEACHING AND RESEARCH ACTIVITIES**

(To be completed once a month by Guide and to be counter signed by HOD)

Name of the Student:

Name of the Guide:

Month:

Sl. No.	Points to be considered	Below Average 1	Average 2	Good 3	Very Good 4
1.	Regularity of attendance				
2.	Punctuality				
3.	Interaction with Teachers, colleagues and supportive staff				
4.	Maintenance of Notes.				
5.	Ability to conduct Theory & Tutorial Classes				
6.	Ability to demonstrate Laboratory Procedure.				
7.	Completeness Preparation for Classes				
8.	Rapport with students.				
9.	Commitment to Research and Departmental Activities.				
10.	Over all quality of day to day work.				
	Total Score				

Signature of Guide

Signature of HOD

Check List – IV**EVALUATION FORM FOR PRACTICAL PROCEDURE**

Name of the Student:

Date:

Sl. No	Points to be considered	Below Average 1	Average 2	Good 3	Very Good 4
1.	Psychomotor skills				
2.	Logical order				
3.	Mentioned all positive and negative points of importance				
4.	Accuracy in performing the procedure.				
5.	Ability to interpret result				
6.	Public Health Importance				
	Total Score				

Check List – V**MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL PRACTICE**

Sl. No		Strong Point	Weak Point
1.	The introduction		
2.	The sequences of ideas		
3.	The use of practical examples and/or illustrations		
4.	Body Language		
5.	Attempts audience participation		
6.	Evokes audience interest by asking questions and giving examples		
7.	Answers questions asked by the audience		
8.	Summary of the main points at the end		
9.	Effectiveness of the talk		
10.	Uses AV aids appropriately		

Check List – VI**MODEL CHECK LIST FOR DISSERTATION SYNOPSIS PRESENTATION**

Name of the Student:

Name of the Faculty:

Date:

Sl. No.	Points to be considered	Poor	Below Average 1	Average 2	Good 3	Very Good 4
1.	Interest shown in selecting a topic					
2.	Appropriate review of literature					
3.	Adherence to Algorithm of Research Study					
4.	Discussion with guide & Other faculty					
5.	Quality of Protocol					
6.	Preparation of proforma					
	Total Score					

Check List – VII**CONTINUOUS EVALUATION OF DISSERTATION WORK****BY GUIDE / CO-GUIDE**

Name of the Student:

Name of the Faculty:

Date:

Sl. No.	Items for observation during presentation	Below Average 1	Average 2	Good 3	Very Good 4
1.	Periodic consultation with guide/co-guide				
2.	Regular collection of case material				
3.	Depth of analysis / discussion				
4.	Departmental presentation of findings				
5.	Quality of final output				
6.	Others				
	Total Score				

Check List – VIII

EVALUATION FORM FOR MEDICO SOCIAL CASE PRESENTATION

Name of the Student:

Date:

Sl. No.	Points to be considered	Below Average 1	Average 2	Good 3	Very Good 4
1.	Completeness of history				
2.	Whether all relevant points elicited				
3.	Clarity of Presentation				
4.	Logical order				
5.	Mentioned all positive and negative points of importance				
6.	Accuracy of general physical examination				
7.	Whether all physical signs elicited correctly				
8.	Whether any major signs missed or misinterpreted				
9.	Diagnosis: Clinical/Social Diagnosis Whether it follows logically from history and findings				
10	Investigations required				
	<ul style="list-style-type: none"> ▪ Complete list ▪ Relevant order 				
11	Ability to react to questioning Whether it follows logically from history and findings.				
	Total Score				

Check List – IX**EVALUATION FORM FOR FAMILY STUDY**

Name of the Student:

Date:

Sl. No.	Points to be considered	Below Average 1	Average 2	Good 3	Very Good 4
1.	Completeness of history of the family : a) Housing conditions b) Socio economic status c) External environment				
2.	Examination of all members				
3.	Examination of index cases				
4.	Summary of the family				
5.	Factors influencing index case				
6.	Recommendations for a) Individual b) Family				
7.	Any other relevant information				
	Total Score				

Annexure-X

Postgraduate Students Appraisal Quarterly Report**Pre/Para/Clinical Disciplines**Name of the Department/Unit : **Community Medicine**

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 PG STUDENT

SIGNATURE OF GUIDE

SIGNATURE OF H.O.D.

SECTION - IV

MEDICAL ETHICS & MEDICAL EDUCATION

Sensitization and Practice

Introduction

There is now a shift from the traditional individual patient, doctor relationship, and medical care. With the advances in science and technology and the needs of patient, their families and the community, there is an increased concern with the health of society. There is a shift to greater accountability to the society. Doctors and health professionals are confronted with many ethical problems. It is, therefore necessary to be prepared to deal with these problems. To accomplish the Goal (i), General Objectives (ii) stated in Chapter II (pages 2.1 to 2.3), and develop human values it is urged that **ethical sensitization** be achieved by lectures or discussion on ethical issues, clinical case discussion of cases with an important ethical component and by including ethical aspects in discussion in all case presentations, bedside rounds and academic postgraduate programs.

Course Contents

1. Introduction to Medical Ethics

What is Ethics?

What are values and norms?

Relationship between being ethical and human fulfillment

How to form a value system in one's personal and professional life

Heteronomous Ethics and Autonomous Ethics

Freedom and personal Responsibility

2. Definition of Medical Ethics

Difference between medical ethics and bio-ethics

Major Principles of Medical Ethics 0

Beneficence = fraternity

Justice = equality

Self determination (autonomy) = liberty

3. Perspective of Medical Ethics

The Hippocratic Oath

The Declaration of Helsinki

The WHO Declaration of Geneva

International code of Medical Ethics (1993)

Medical Council of India Code of Ethics

4. Ethics of the Individual
 - The patient as a person
 - The Right to be respected
 - Truth and confidentiality
 - The autonomy of decision
 - The concept of disease, health and healing
 - The Right to health
 - Ethics of Behavior modification
 - The Physician – Patient relationship
 - Organ donation

5. The Ethics of Human life
 - What is human life?
 - Criteria for distinguishing the human and the non-human
 - Reasons for respecting human life
 - The beginning of human life
 - Conception, contraception
 - Abortion
 - Prenatal sex-determination
 - In vitro fertilization (IVF), Artificial Insemination by Husband (AIH)
 - Artificial Insemination by Donor (AID)
 - Surrogate motherhood, Semen Intra fallopian Transfer (SIFT),
 - Gamete Intra fallopian Transfer (GIFT), Zygote Intra fallopian Transfer (ZIFT),
 - Genetic Engineering

6. The family and society in Medical Ethics
 - The Ethics of human sexuality
 - Family Planning perspectives
 - Prolongation of life
 - Advanced life directives – The Living Will
 - Euthanasia
 - Cancer and Terminal Care

7. Profession Ethics
 - Code of conduct
 - Contract and confidentiality
 - Charging of fees, Fee-splitting
 - Prescription of drugs
 - Over-investigating the patient
 - Low – Cost drugs, vitamins and tonics
 - Allocation of resources in health cares
 - Malpractice and Negligence

8. Research Ethics
 - Animal and experimental research / humanness
 - Human experimentation
 - Human volunteer research – Informed Consent
 - Drug trials\
 - ICMR Guidelines for Ethical Conduct of Research – Human and Animal
 - ICH / GCP Guidelines
 - Schedule Y of the Drugs and Cosmetics Act.

9. Ethical work -up of cases
 - Gathering all scientific factors
 - Gathering all human factors
 - Gathering value factors
 - Identifying areas of value – conflict, setting of priorities,
 - Working our criteria towards decisions

Recommended Reading

1. Francis C. M., **Medical Ethics**, 2nd Ed, 2004 Jaypee Brothers, Bangalore/-
2. Ethical guidelines for biomedical research on human participants, ICMR publication 2017
3. Santosh Kumar: the elements of research, writing and editing 1994, Dept of Urology, JIPMER, Pondicherry
4. Srinivas D.K et al, Medical Education Principles and Practice, 1995, National Teacher Training Centre, JIPMER, Pondicherry
5. Indian National Science Academy, Guidelines for care and use of animals in scientific Research, New Delhi, 1994
6. International committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, N Engl J Med 1991
7. Kirkwood B.R, Essentials of Medical Statistics, 1st Ed., Oxford: Blackwell Scientific Publications 1998
8. Mahajan B.K. Methods in bio statistics for medical students, 5th Ed, New Delhi, Jaypee, Brothers Medical Publishers, 1989
9. Raveendran, B. Gitanjali: A Practical approach to PG dissertation, New Delhi, Jaypee Publications, 1998.
10. John A Dent. Ronald M Harden, A Practical guide for medical teacher, 4th Edition, Churchill Livingstone, 2009.
11. Tejinder Singh Anshu, Principles of Assessment in Medical Education, Jaypee brothers
12. Dr. K.Lakshman, A Hand Book on Patient Safety, RGUHS & Association of Medical Consultants, 2012

13. Bernard Mogs, Communication skills in health & social care, 3rd Edition, (S) SAGE, 2015
14. Manoj Sharma, R. Lingyak Petosa, Measurement and Evaluation for Health Educators, Jones & Bartlett Learning.
15. David E. Kern, Patricia A, Thomas Mark T, Hughes, Curriculum Development for Medical Education. A six-step approach, The Johns Hopkins University press/Baltimore.
16. Tejinder Singh Piyush Gupta Daljit Singh, Principles of Medical Education (Indian Academy of Paediatrics), 4th Edition, Jaypee Brothers, 2013.
17. Robert Reid, Torri Ortiz Linenemann, Jessica L.Hagaman, Strategy Instruction for Students with learning disabilities, 2nd Edition, The Guilford Press London.
18. Lucinda Becker Pan Demicolo, Teaching in higher education, (S) SAGE, 2013.
19. C.N. Prabhakara, Essential Medical Education (Teachers Training), Mehta publishers.
20. Tejinder Singh Piyush Gupta, Principles of Evaluation & Research for health care programmes, 4th Edition, IAP National Publication House (Jaypee Brothers).
21. R.L.Bijlani, Medical Research, Jaypee Brothers, 2008
22. Stephen Polgar Shane A Thomas, Introduction to Research in the Health Sciences, Churchill Livingstone Elsevier, 2013.
23. Amar A,Sholapurkar. Publish & Flourish -A practical guide for effective scientific writing, Jaypee Brothers, 2011
24. Charles R.K.Hind, Communication Skills in Medicine, BMJ, 1997.