



**BLDE UNIVERSITY**

**PG CURRICULUM  
2016-17**

**MD Community Medicine**

Published by  
**BLDE UNIVERSITY**

[Declared as Deemed to be University u/s 3 of UGC act, 1956, vide notification No.F.9-37/2007-U.3(A)]

The Constituent College

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

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

University: Phone: +918352-262770, Fax: +918352-263303, Website: [www.bldeuniversity.ac.in](http://www.bldeuniversity.ac.in), E-mail: [office@bldeuniversity.ac.in](mailto:office@bldeuniversity.ac.in)

College: Phone: +918352-262770, Fax: +918352-263019, E-mail: [bmpmc.principal@bldeuniversity.ac.in](mailto:bmpmc.principal@bldeuniversity.ac.in)



# BLDE UNIVERSITY

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The Constituent College

**SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL AND RESEARCH CENTRE**

BLDEU/REG/PG/2016-17/ 505

June 18, 2016

## NOTIFICATION

**Subject: Revised Curriculum for the Post Graduate Degree and Diploma Course-2016**

Reference:

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 meeting of the Academic Council of the University held on April 29, 2016.
3. Minutes of the meeting of the BOM of the University held on June 18, 2016.

The Board of Management of University is pleased to **approve the Curriculum for Post Graduate Degree and Diploma Course at its meeting held on June 18, 2016.**

The revised curriculum shall be effective, from the Academic Session 2016-17 onwards, for Post Graduate Degree and Diploma 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 University, Vijayapura.**

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

Copy to:-

- The Secretary, UGC, New Delhi
- The Controller of Examinations
- Prof. & HODs of Pre, Para and Clinical Departments.
- PS to Hon'ble President
- PS to Hon'ble Vice-Chancellor

Smt. Bangaramma Sajjan Campus, Sholapur Road, Vijayapura - 586103, Karnataka, India.

## **Vision & Mission**

- Excellence in all our endeavours.
- Committed to provide globally competitive quality medical education.
- Provide the best health care facilities in this backward region, in particular, to socially disadvantaged sections of the society.
- Constantly striving to become a Reputed research University with world-class infrastructure, latest tech-tools for teaching/research and adopting global best practices.

## **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 [May2013]

- (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 May2013]

### **Eligibility for Admission:**

Eligibility requirements for Post Graduate Diploma and Degree Courses are: -

1. The candidates seeking admission to these courses should have passed MBBS from the college recognized by Medical Council of India.

Eligibility requirements for Post graduate degree in superspeciality courses, M.Ch./D.M are:

The candidate seeking admission to these courses should have passed MS/MD from the college recognized by Medical Council of India.

2. As per the requisitions of statutory bodies, as laid out in post graduate regulations 2000 of Medical Council of India and its amendments thereof, the minimum percentage of marks in the entrance test conducted by the University for eligibility for admission to Post Graduate courses in broad specialties and super specialties shall be 50 percent for candidates belonging to General category and 40 percent for the candidates belonging to

Scheduled Caste, Scheduled Tribes and Other Backward Classes. Eligibility for persons with locomotor disability of lower limbs category ranging from 30-70% will be 45 percent.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks.

### **The MCI norms to qualify for Admissions**

Candidates seeking admission to these Post Graduate Degree courses should have passed M.B.B.S. recognised 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 and Diploma Courses even if he/she is placed in the merit list of BLDEU-PGET/BLDEU-SUPERSPECIALTY ET.

### **Obtaining Eligibility Certificate by the University before making Admission**

Candidate shall not be admitted for any postgraduate degree/diploma 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 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 years consisting of 6 terms including examinations. For Candidates possessing recognized two year Postgraduate Diploma in the same subject the duration of the course shall be two 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 years including examinations.
- c. Diploma Courses:  
The course of study shall be for a period of 2 years consisting of 4 terms including examinations (MCI PG REG 2000, 10.3).

### **Training Method**

The postgraduate training for degree/diploma 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 superspecialty 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 [M.Ch] as well.

### **Attendance, Progress and Conduct**

A candidate pursuing degree/diploma 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 specialities, 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 out comes to be assessed include:

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

a) Didactic Lectures: Recommended for selected common topics for post graduate students of all specialties. Few topics are suggested here.

- Bio-statistics
- Use of library,
- Journal review
- Use of computers,
- Appropriate use of AV aids
- Research Methods,
- Search of literature,
- Rational drug therapy
- Medical code of Conduct and Medical Ethics
- National Health and Disease Control Programmes
- Communication skills etc.
- Bio medical waste

These topics may preferably taken up in the first few weeks of the 1<sup>st</sup> year commonly for all new postgraduates. The specialty wise topics can be planned and conducted at departmental level.

b) 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

**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 gaps 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,

In case of diploma courses of two years duration, the concerned departments may conduct two tests, one of them be at the end of first year and the other in the second year 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 or OSCE method.

**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 on 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 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 (six academic terms). The examination for the diploma courses shall be held at the end of two academic years (four academic terms).

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 1<sup>st</sup> 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 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 200.

#### **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 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)

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 1<sup>st</sup> 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 200.

#### **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 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).

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.

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.

### **Diploma Examination:**

Diploma examination in any subject shall consist of Theory (written papers), Practical / Clinical and Viva-Voce.

### **Theory:**

There shall be **three** written question papers each carrying 100 marks. Each paper will be of **three** hours duration. In clinical subjects one paper out of this shall be on basic medical sciences. 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, skills related to laboratory procedures as well as testing students ability to make relevant and valid observations, interpretation of laboratory or experimental work relevant 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.

The maximum marks for Practical/Clinical shall be 150.

Viva-Voce Examination: Viva Voce examination should aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills. The total marks shall be 50.

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 viva voce examination.

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

**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.

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
Diploma Course:	Maximum of 8 per day
DM/M.Ch	Maximum of 3 per day



## **SECTION II**

### **COMMUNITY MEDICINE DEPARTMENT**

#### **POSTGRADUATE COURSES IN COMMUNITY MEDICINE**

##### **Goal:**

The postgraduate course in MD (community medicine) should enable a medical graduate to become competent in public health management, epidemiology, health team leadership, teaching and training and research.

##### **General Objectives:**

At the end of training for MD program in Community Medicine the student should:

1. Know the structure and functioning of the health system at the National and international levels and its historical perspectives.
2. Know the principles of nutrition and its role in maintaining good health & during disease status.
3. Apply the principles of Epidemiology and Biostatistics in designing and implementing health related research studies.
4. Know the principles of Communicable and Non-communicable diseases control/prevention and assist in the implementation of National Health programmes.
5. Able to apply clinical skills to recognize and manage common health problems including their physical, emotional, social and economic aspects at individual and family level.
6. Apply the principles of environmental and occupational health in the design of health programmes aimed at improving health status.
7. Assess specific health situations in a population, plan, organize, implement and evaluate programs aimed at improving health situations.
8. Identify the health needs of the special groups like women in reproductive age (15-45 years), children (0-14 yrs), adolescents, geriatrics, slum dwellers, disabled/handicapped people, tribal people, mentally challenged people etc. and suggestions to respond.
9. Know the principles of health education and apply this knowledge in educating the people with regards to curative, preventive and promotive measures.
10. Identify the role Private and Voluntary sector in health and understand the principles of innovations in health practices and research.

### **Specific Objectives:**

#### **Teacher/Trainer:**

1. Able to act as an effective teacher and trainer of Public Health.
2. To assist in development of curriculum, teaching and learning activities and methods of evaluation.
3. To be a good communicator.

#### **Researcher:**

1. To plan and execute a research study including clinical trials. Bio-statistical analysis, use of computers and software's, prepare & publish reports, scientific papers.
2. Critically evaluate research activities.
3. Make recommendations on policy and procedures.

#### **Public Health Specialist:**

1. To define and manage the health problems of the community, which he/she serves. He/she should be able to organize epidemiological studies to identify health problems.
2. To plan, implement and evaluate various health programs in his/her area, especially National Health, Family Welfare programmes.
3. As a Human Resource Development Officer i.e., select, train, supervise and manage various categories of health personnel working with him/her.

### **COURSE CONTENTS:**

#### **Health System in India and The World – Historical Perspective.**

1. History of Public Health in the World:
  - Before Christ
  - History of dark ages in Medicine
  - Dawn of Scientific Medicine
  - Concepts in Public Health
    - Disease Control
    - Health Promotion
    - Social Engineering
    - Health for All.
2. History of Public Health in India:
  - Indigenous Systems of Medicine in India
  - Role of various Health Committees
  - National Health Policy
  - Role of MCI

3. Primary Health Care:
  - Concepts of Primary Health Care
  - Principles of Primary Health Care
  - Elements of Primary Health Care
  - Models of Delivery of Primary Health Care
  - Current status of Primary Health care in India & world
  
4. The Health Care System in India – Structure and Function at:
  - Central Level
  - State Level
  - District Level
  - Taluk Level
  - Primary Health Centre Level
  - Village Level
  - Urban Level

## **SOCIO CULTURAL DIMENSION IN HEALTH**

1. Principles of Sociology and Behavioural Sciences
  - Concepts of Sociology and Behavioural Sciences
  - Influence of Social and Cultural Factors on Health and Disease
  - Social Structures and Social Organization
  
2. Principles of Social Psychology
  - Principles of Psychology
  - Principles of social anthropology
  
3. Application of Sociology in Health and Development
  - Social Problems in Health and Disease
  - Use of Sociology in addressing problems in Health and Disease

## **PRINCIPLES OF NUTRITION AND APPLIED NUTRITION**

- 1.1 Classification of Foods
  - 1.2 Nutrients, Daily Requirements, Balance Diet, and Primordial Prevention of Lifestyle related disease.
  - 1.3 Nutritional profiles of Major Foods
- 
2. Nutritional Deficiencies
    - Protein Energy Malnutrition
    - Vitamin Deficiencies
    - Mineral Deficiencies

3. Assessment of Nutritional status in a community and approach to a programme
  - Assessment of an individual's Nutritional Status
  - Assessment of Community Nutritional Status
4. Nutritional Programmes in India – Critical Review
  - Major Nutritional Problems in India
  - Programmes to combat these problems
  - Nutritional Surveillance
  - Social Problems in Nutrition
5. Other Aspects of Nutrition
  - Food Borne Diseases
  - Food Hygiene
  - Food Adulteration including PFA Act
6. Recent advances in Nutrition

## **HEALTH AND ENVIRONMENT:**

1. Water
  - Sources of water
  - Water conservation: - Water Harvesting
  - Recycling of Waste water
  - Water Pollution
  - Purification of water
  - Water Quality Standards
  - Water borne disease – Epidemiology and Control – Investigation of outbreak of water borne disease and report including water testing.
2. Air
  - Indices of thermal comfort
  - Air Pollution including monitoring
  - Effects of air pollution and prevention and control
  - Ventilation
  - Green House effect
  - Global Warming
3. Housing including domestic and industrial housing standards
4. Noise and noise pollution
5. Radiation
6. Meteorological Environment including temperature, humidity and rainfall
7. Lighting
8. Disposal of Waste and Sanitation
  - Sources and Classification of wastes
  - Disposal of Solid Wastes
  - Excreta Disposal – Urban, Rural, Tribal
  - Sewage Treatment
  - Health Care and Hospital Waste Management
  - E-waste management

9. Programme related to environmental health
10. Telemedicine, Desert medicine, Travel Medicine (Emporiatics)  
Geographical Medicine & Cyber Medicine.
11. Medical Entomology
  - Arthropods of Medical importance – Classification
  - Life cycle
  - Diseases transmitted by arthropods
  - Control of Arthropods and Diseases borne by them
  - Insecticides and Insecticide Resistance
  - Rodents and Anti- Rodent Measures
  - Integrated Vector Control

## **HEALTH EDUCATION AND COMMUNICATION**

1. Health Education -
  - i) Principles
  - ii) Objectives
  - iii) Contents
2. Health Communication
  - Communication Principles, models, factors influencing Communication, Types of communications.
  - Communication Skills, Barriers
3. The use of Media & methods of Information, Education & Communication and Behaviour Change Communication and its application in Community Health.
4. Evaluation of impact.

## **PRINCIPLES OF EPIDEMIOLOGY:**

1. Principles of Epidemiology
2. Epidemiologic Studies
  - Descriptive
  - Analytical
  - Experimental
3. Research methodology

### **General Epidemiology:**

4. Epidemiology of infectious diseases

#### **A) Respiratory infections –**

- a) Viral – Small pox, Chicken pox, Measles, Rubella, Mumps, Influenza, SARS, Swine Flu.
- b) Bacterial – Diphtheria, Pertusis, Meningococcal meningitis, Acute Respiratory Infections, Tuberculosis.

#### **B) Intestinal Infections -**

- a) Viral – Poliomyelitis, viral hepatitis, Acute diarrhoeal diseases.

- b) Bacterial – Cholera, Typhoid, Food Poisoning, Shigella,
- c) Parasitic – Amaebiasis, Ascariasis, Hook worm, Dracunculiasis,
- C) Arthropod borne infections –
  - a) Viral- Dengue Syndrome
  - b) Parasitic – Malaria, Filaria
- D) Zoonotic Infections -
  - a) Viral – Rabies, Yellow fever, Japanese Encephalitis, Kyasanur Forest disease, Chikungunya fever.
  - b) Bacterial – Brucella, Leptospira, Plague,
  - c) Rickettsial – Rickettsial zoonosis, Scrub typhus, Murine typhus, tick typhus, Q fever.
  - d) Parasitic – Taeniasis, Hydatid Disease, Leishmaniasis,
- E) Surface Infections – Trachoma, Tetanus, Leprosy, Sexually Transmitted Diseases, Yaws, AIDS.
- 4. Epidemiology of non communicable diseases – Rheumatic Heart Disease, Cardiovascular Disease, Coronary Heart Disease, Hypertension, Stroke, Obesity, Diabetes, Cancer, Blindness, (Community Ophthalmology) Accidents.
- 5. Emerging & Reemerging Diseases.
- 6. Nosocomial infections

## **MATERNAL HEALTH, CHILD HEALTH AND FAMILY WELFARE**

1. Common Maternal and Child health problems
2. Maternal Care
  - Antenatal Care
  - Intranatal Care
  - Postnatal Care
3. Care of the Child
  - New born Care
  - Low Birth Weight

- Growth and Development
- Infections in under five children & IMNCI
- Child Health problems – LBW, Malnutrition, Infections & Parasitosis, Accident & Poisoning.
- Immunization

#### 4. Structure of MCH and Family Welfare services in India

- Delivery of Maternal and Child Health Services – Organizational set up
- Trends in the MCH services
- MCH related Programmes in India  
eg. – Family Planning, ICDS, CSSM, RCH, IMNCI, NRHM.
- Indicators of MCH care

#### 5. Adolescent Health

#### 6. School Health services

- Objectives
- Components of school health services
- Planning for school health services
- Care of handicapped children
- Behavioural and Learning Problems in Children

#### 7. Social Paediatrics

- Juvenile Delinquency
- Child Abuse
- Child Labour
- Street Children
- Child Guidance Clinic
- Child Marriage
- Child Placement

#### 8. Demographic Trends in India

- Demographic Cycle
- Trends in the world
- Demography related indicators
- Demographic trends in India

### **OCCUPATIONAL HEALTH**

#### 1. Principles of Occupational Health

- Occupational Environment
- Occupational Hazards
- Absenteeism
- Problems of Industrialization
- Health Protection of Workers
- Prevention of Occupational Diseases

2. Legislation in Occupational Health
  - Factories Act
  - Employees, State Insurance Act
  - Workmen's Compensation Act
  - Mines Act
  - Plantation Labour Act
3. Basics of Industrial Toxicology
4. Principles of Industrial Psychology
5. Basics of Ergonomics

## **GENETICS AND HEALTH**

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

## **COMMUNITY MENTAL HEALTH:**

1. Principles of Mental Health
  - Types, Causes and Warning signals of Mental Illness
  - Preventive aspect of mental health
2. The approach to Mental Health Problems in a Community
  - Primary Health Care approach to mental health problems
  - Mental Health Services in the country

## **HEALTH CARE ADMINISTRATION AND HEALTH MANAGEMENT:**

1. Principles of Planning and Evaluation
  - Plan Formulation
  - Execution
  - Evaluation
  - Planning Cycle
2. Health Management
  - Methods and Techniques of Health Management
  - Behavioural Sciences in Management
  - Quantitative Methods in Health Management
3. Health Systems Research
4. Health Economics
5. Health Information Systems
6. Hospital Administration



## **VOLUNTARY HEALTH ORGANIZATIONS & INTERNATIONAL HEALTH:**

### **NATIONAL HEALTH PROGRAMMES:**

The Origin, historical development, interventions, monitoring evaluation Current state & critical analysis.

### **BIOSTATISTICS**

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

### **HEALTH CARE OF THE AGED AND THE DISABLED:**

#### 1. Community Geriatrics:

- Implications of demographic changes in Indian Population
- Health Problems of the aged
- Preventive Health Services for the aged

#### 2. The Disabled and Rehabilitation:

- Problem of disabled in the country
- Types of disabilities and their management
- Rehabilitation of the disabled
- Community based Rehabilitation.

Health care of tribal people

### **PRINCIPLES OF EDUCATIONAL SCIENCE & TECHNOLOGY**

- Curriculum Planning, Educational objectives
- Principles of Learning
- Teaching/Learning methods
- Teaching skills including Micro Teaching
- Methods of Evaluation

• **DISASTER MANAGEMENT:**

- Disaster impact
- Disaster response
- Rehabilitation
- Disaster Mitigation
- Disaster preparedness
- Public health emergencies

**RECENT ADVANCES AND TOPICS OF CURRENT INTEREST**

1. Rational drug policy
2. Agricultural Medicine and Plantation Health
3. Aerospace Medicine
4. Bioterrorism and chemical warfare
5. Geographical imaging system in Public health
6. Amendments in National Health Programmes and Public Health Laws/Acts
7. Other Free Topics

**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 Vidal/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.

**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 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

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.

Four copies of dissertation thus prepared shall be submitted to the Controller of Examinations six months before final examination on or before the dates notified by the University.

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

## **TERMWISE TEACHING – LEARNING ACTIVITIES**

### **TERM – I – MONTH 1-6**

#### **TITLE-1. HEALTH SYSTEMS IN INDIA AND THE WORLD – HISTORICAL PERSPECTIVE**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. History of Public Health in India	Lecture/ Group Discussion
2. Primary Health Care - Principles - Elements - Current Status	Historical review of Literature and Presentation on “Evolution of concepts in Primary Health Care”
3. The Health Care System in India - Structure and Function - Evolution/Pre independence - Central level - District level - Taluk level - Primary Health Centre level - Village level	Visit and Report  -PHC -SC -CHC

## **TITLE-2. SOCIO CULTURAL DIMENSION**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Principles of- - Sociology and the Behavioural sciences - Social Psychology - Social Anthropology	Lecture/ Group Discussion
2. Application of Sociology in Health and Development	Field study, Clinico -social case study. Family study.

## **TITLE – 3. PRINCIPLES OF LEARNING**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Pedagogy,, domains of learning and teaching methodology including Evaluation	Lecture/Group Discussion Practical teaching
2. Communication skills	Demonstration, Group Discussion

## **TERM –2 – MONTH 7-12**

## **TITLE – 4 – PRINCIPLES OF PRACTICE OF HEALTH EDUCATION**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Principles of Health Education	Lecture/ Group Discussion
2. The use of Media in Health Education	Practical teaching, Health Education to the community.
3. Practice of Health Education and its application in Community Health	Lecture/ Group Discussion

## **TITLE-5-PRINCIPLES OF NUTRITION AND APPLIED NUTRITION**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Nutrients, Daily Requirements, Balanced Diet, Primordial Prevention of Lifestyle related diseases	Lecture/ Demonstration
2. Nutritional Deficiencies	Lecture/ Group Discussion
3. Assessment of Nutritional status in a community and approach to a program	Design of a mini study, health education and recommendations (Family health study)
4. Nutritional programmes in India – Critical review	Visit/ Report to Anganwadi, CDPO.

## **TITLE – 6– PRINCIPLES OF ENVIRONMENTAL HEALTH**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1 Water borne diseases- Epidemiology and control	Lecture. Investigation of outbreak of water borne diseases and report including water testing with DSO.
2. Housing environment	Lecture
3. Disposal of waste and sanitation	Visit to Sewage treatment plant and healthcare waste management body and report/seminar.
4. Environmental Pollution	Seminar on appropriate technology in water supply, waste disposal and sanitation.

### **TERM – 3 Month 13-18**

## **TITLE - 7 MATERNAL HEALTH, CHILD HEALTH AND FAMILY WELFARE.**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Common Maternal and Child health programs at an individual level	Identify the common health problem of mother and child
2. Structure of MCH and Family welfare services in India	Visit and report PHC/ CHC/ FRU/ District Hosptal/ Family welfare

	camp, MOH family welfare.
3. Demographic Trends in India	Lecture/ Group Discussion
4. School Health Services	Lecture/ Group Discussion
5. Social Paediatrics	Lecture/ Group Discussion
6. Social Obstetrics	Lecture/ Group Discussion

**TITLE – 8- PRINCIPLES AND APPLICATION OF EPIDEMIOLOGIC METHODS IN HEALTH RESEARCH**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Principles of Epidemiology & Biostatistics	Lecture/ Group Discussion, Problem solving exercises.
2. Epidemiological Studies	Design and implementation of an epidemiological study.

**TITLE – 9 – PRINCIPLES OF TROPICAL MEDICINE.**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Infectious and non-infectious Disease Epidemiology	Visit/ posing to infectious disease hospital and Report
2. Public Health - Haematology - Parasitology - Microbiology	Posting in Microbiology

**TITLE – 10- NATIONAL HEALTH PROGRAMS**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. The origin and current state of NHP	Seminars
2. The implementation of NHPs at a program level and in the field	Visit to NTI/DTC/Malaria, Filaria Units. Visit with field workers.

## **TITLE – 11 - COMMUNITY MENTAL HEALTH**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Principles of Mental Health	Lecture/ Group Discussion
2. The approach to Mental Health Problems in a Community	Lecture/ Group Discussion

### **TERM – 4- Month 19-24**

Rural and Urban health center posting of 3 Months each

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. School Health Camp	Report / Case presentation.
2. Dietary Survey	
3. Common maternal and child health problem.	
4. Health Education regarding developing communication skills with regards to nutrition, immunization, family planning, etc.	

### **TERM – 5 - Month 25-30**

## **TITLE – 12- OCCUPATIONAL HEALTH**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Principles of Occupational Health	Lecture/ Group Discussion / Seminar on innovations in occupational health.
2. Design of an Occupational Health Program	Lecture/ Group Discussion
3. Legislation in Occupational health	Lecture/ Group Discussion
4. Basic Industrial Toxicology Industrial Psychology and Ergonomics	Lecture/ Group Discussion



**TITLE – 13 - HEALTH CARE OF THE AGED & THE DISABLED**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Health Problems of the aged	Paper/ seminar/ Lecture/ Group Discussion
2. Community Geriatric Services	Visit to home for aged
3. The disabled and Rehabilitation	Lecture/ Group Discussion

**TITLE – 14 - VOLUNTARY SECTOR IN HEALTH**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Role of the Voluntary Sector in Health	Paper/ Group Discussion
2. Innovative Approach in the voluntary Effort in Health	Visit/ report

**TERM – 6 - Month – 31 - 36****TITLE–15–HEALTH CARE ADMINISTRATION AND HEALTH MANAGEMENT**

<b>KNOWLEDGE</b>	<b>LEARNING ACTIVITY</b>
1. Principles of planning & Evaluation	Lecture/ Group Discussion
2. Health management	Lecture/ Group Discussion
3. Health Systems Research	Lecture/ Group Discussion
4. Health Economics	Lecture/ Group Discussion
5. Health Information System	Lecture/ Group Discussion

**TITLE-16: Recent Advances: Lecture/ Group Discussion**

**VISITS / POSTINGS TERM WISE**

**I & II TERM:**

**VISITS**

- PHC / CHC / SC
- ICDS Office / Anganawadi Center
- District Health Office / District Hospital
- Meteorology Department
- Water Purification Plant
- Catering Establishment
- District Tuberculosis Center
- Public Health Laboratory (District)
- Family Health Study

**POSTINGS:**

- RHTC – 2 Months
- UHTC – 1 Month

\* 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.

**1<sup>st</sup> INTERNAL EXAMINATION**

**III TERM & IV TERM:**

**Theory Classes: 15 Hours**

**POSTINGS**

- RHTC – 2 Months
- UHTC – 1 Month
- Institute of Vector Control and Zoonosis, Hosur. (15 Days)
- National Institute of Tuberculosis, Bengaluru. (15 Days)

## **2<sup>nd</sup> INTERNAL EXAMINATION**

### **V TERM & VI TERM**

#### **POSTINGS**

- RHTC – 2 Months
- UHTC – 1 Month

#### **SHORT POSTING – 15 DAYS**

**During Posting Student is Expected to Learn Following Aspects**

##### **A) PAEDIATRICS**

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

##### **B) MICROBIOLOGY**

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

##### **C) OBSTETRIC AND GYNAECOLOGY**

###### **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. Communicable diseases
2. Non-communicable diseases

## **VISITS**

- Public Health Laboratory
- District Surveillance Office
- Sewage Treatment Plant, Bangalore.
- Healthcare Waste Management
- Water Purification Plant.
- Industrial visit

## **VI TERM**

Theory Classes: 15 hours

OSCE/OSPE

Preliminary Examination

Dissertation analysis

\* Students will present Research work at Conferences & Publish them during 2<sup>nd</sup> & 3<sup>rd</sup> 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.
3. Skill evaluation – through demonstration, practicals and field reports
4. Knowledge Evaluation – Through journal clubs, seminars and tests.

## SCHEME OF EXAMINATION

### A. Theory written Examination

There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions 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 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
- Genetics and Counseling
- Biostatistics
- 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:**

- Mental Health
- Behavioural sciences and health
- Information, Education, Communication and Counseling.
- Research methodology.
  
- Health Technology
- Computer Application
- Recent Advances

## **B. PRACTICALS 300 marks**

### **1. Family study: (75 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.

### **2. Clinico-social case study (75 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. Public Health Laboratory (30x2=60 marks)**

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

### **4. Problem on Epidemiology and Biostatistics (30x2=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.

### **5. Spotters: (6x5=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, 23<sup>rd</sup> Edition, M/S. Banarsidas Bhanot, Jabalpur.
2. Mahajan B.K. & M.C. Gupta, text book of P & S M, 4<sup>th</sup> Edition, Jaypee publications.
3. Mac Mahon & Pugh, epidemiology principles & methods, little Brown & co. Boston. U.S.A., 1<sup>st</sup> Edition.
4. Suryakantha A.H. Community Medicine with Recent Advances, 3<sup>rd</sup> Edition, Jaypee Publications.
5. Text book of Public Health & Community Medicine by Rajvir Bhalwar, 3<sup>rd</sup> Edition, Dept. of Community Medicine, AFMC, Pune.
6. Practical Epidemiology: D. J. P. Barker and A. J. Halls, 4<sup>th</sup> Edition.
7. J. Kishore's, National Health Programme, Century Publications, 11<sup>th</sup> 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, 4<sup>th</sup> Edition.
11. Maxcy-Rosenau Textbook of Public Health & Preventive Medicine, 14<sup>th</sup> Edition.
12. Principles of Biostatistics: Mahajan, 7<sup>th</sup> Edition.

### **Reference Books**

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

### 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**, 2<sup>nd</sup> Ed, 2004 Jaypee Brothers, Bangalore/-
2. Ethical guidelines for biomedical research on human participants, ICMR publication 2006
3. Santosh Kumar: the elements of research, writing and editing 1994, Dept of Urology, JIPMER, Pondicherry
4. Srinivas D.K etal, 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 G Med 1991
7. Kirkwood B.R, Essentials of Medical Statistics, 1<sup>st</sup> Ed., Oxford: Blackwell Scientific Publications 1998
8. Mahajan B.K. Methods in bio statistics for medical students, 5<sup>th</sup> 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, 4<sup>th</sup> 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.

## **SECTION - IV**

### **FOR FORMATIVE ASSESSMENT**

The performance of Postgraduate Students during the training period will be monitored throughout the course and duly recorded in log books as evidence of the ability and daily work of students.

<b>Sl. No.</b>	<b>Items</b>	<b>Marks</b>
1	Personal attributes	20
2	Practical Work	20
3	Academic Activities	20
4	End of term theory examination	20
5	End of term practical examination	20

**MODEL CHECK-LIST FOR EVALUATION OF JOURNAL  
REVIEW PRESENTATIONS**

**Check List – I**

Name of the Student:

Date:

Name of the Faculty/Observer:

<b>Sl. No.</b>	<b>Items for observation during presentation</b>	<b>Poor 1</b>	<b>Average 2</b>	<b>Good 3</b>	<b>Excellent 4</b>
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				
	<b>Total Score</b>				

## Check List – II

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

Name of the Student:

Date:

Name of the Faculty/Observer:

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				
	<b>Total Score</b>				



### 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:

Month:

Name of the Guide:

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.				
	<b>Total Score</b>				

Signature of Guide

Signature of HOD

## Check List – IV

### EVALUATION FORM FOR PRACTICAL PROCEDURE

Name of the Student:

Date:

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

## Check List – V

### MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL PRACTICE

<b>Sl. No</b>		<b>Strong Point</b>	<b>Weak Point</b>
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:

Date:

Name of the Faculty:

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					
	<b>Total Score</b>					

### Check List – VII

#### CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE / CO-GUIDE

Name of the Student:

Date:

Name of the Faculty:

<b>Sl. No.</b>	<b>Items for observation during presentation</b>	<b>Below Average 1</b>	<b>Average 2</b>	<b>Good 3</b>	<b>Very Good 4</b>
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				
	<b>Total Score</b>				

### 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"> <li>▪ Complete list</li> <li>▪ Relevant order</li> </ul>				
11	Ability to react to questioning Whether it follows logically from history and findings.				
	<b>Total Score</b>				

## Check List – IX

### EVALUATION FORM FOR FAMILY STUDY

Name of the Student:

Date:

<b>Sl. No.</b>	<b>Points to be considered</b>	<b>Below Average 1</b>	<b>Average 2</b>	<b>Good 3</b>	<b>Very Good 4</b>
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				
	<b>Total Score</b>				

# LOG BOOK

## Table 1: Academic activities attended

Name:

Admission Year:

College:

<b>Date</b>	<b>Type of Activity Specify Seminar, Journal Club, Presentation, UG teaching</b>	<b>Particulars</b>



## LOG BOOK

**Table 2: Academic presentations made by the student**

Name:

Admission Year:

College:

<b>Date</b>	<b>Topic</b>	<b>Type of Presentation Specify Seminar, Journal Club, Presentation, UG teaching Etc.</b>

**Model Overall Assessment Sheet**

**Name of the Department:**

**Academic Year:**

Sl. No.	Points to be considered	Name of Student and Mean Score									
		A	B	C	D	E	F	G	H	I	J
1.	Regularity & Punctuality										
2.	Interaction with colleagues, Teachers & Students.										
3.	Teaching Skills.										
4.	Practical Skills										
5.	Orientation towards research										
<b>Total Score</b>											

**Note:** Use separate sheet for each year.

\*\*\*\*\*

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