

**Regulations and Curricula
For Post Graduate Degree Course in
Medical Sciences**

M. D. COMMUNITY MEDICINE



**Sri Siddhartha
Academy of Higher Education**
Deemed-to-be-University
Accredited 'A' Grade by NAAC

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Agalakote, B.H. Road, Tumkur – 572107, Karnataka, India

Curricula of Post Graduate Medical Degree course in Para-clinical subject

- Chapter I **Regulations**
- Chapter II **Goals and Objectives**
- Chapter III **Course Description**

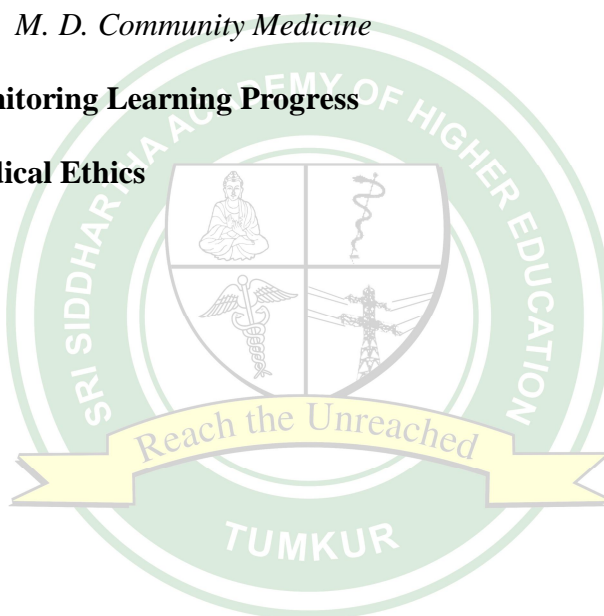
Volume II - Para-Clinical Subjects

Community Medicine

- *M. D. Community Medicine*

Chapter IV **Monitoring Learning Progress**

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Chapter I

Regulations

1. Branches of Study

1.1 Postgraduate Degree Courses

The following courses of studies may be pursued.

A. *M.D. (Doctor of Medicine)*

1. Anaesthesiology
2. Aviation Medicine
3. Anatomy
4. Biochemistry
5. Community Medicine
6. Dermatology, Venereology and Leprosy
7. Forensic Medicine
8. General Medicine
9. Microbiology
10. Pathology
11. Paediatrics
12. Pharmacology
13. Physiology
14. Psychiatry
15. Radio-diagnosis
16. Radio-therapy
17. Tuberculosis & Respiratory Medicine

and such other subjects as might have been introduced by the Universities in Karnataka prior to commencement of Health University i.e., 1.6.1996, or recognised by Medical Council of India.

B. *M.S. (Master of Surgery)*

1. General Surgery
2. Obstetrics and Gynecology
3. Ophthalmology
4. Orthopedics
5. Oto-Rhino-Laryngology

and such other subjects as might have been introduced by the Universities in Karnataka prior to commencement of Health University i.e., 1.6.1996, or recognised by Medical Council of India.

2. Eligibility for Admission

2.1 MD / MS Degree and Diploma Courses: A candidate affiliated to this university and who has passed final year M.B.B.S. examination after pursuing a study in a medical college recognised by the Medical Council of India, from a recognised Medical College affiliated to any other University recognised as equivalent thereto, and has completed one year compulsory rotating internship in a teaching Institution or other Institution recognised by the Medical Council of India, and has obtained permanent registration of any State Medical Council shall be eligible for admission.

3. Obtaining Eligibility Certificate by the University before making Admission

No candidate shall be admitted for any postgraduate degree/diploma course unless the candidate has obtained and produced the eligibility certificate issued 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 recognised for internship.
7. Registration by any State Medical Council and
8. Proof of SC/ ST or Category I, as the case may be.

Candidates should obtain the Eligibility Certificate before the last date for admission as notified by the University.

A candidate who has been admitted to postgraduate course should register his / her name in the University within a month of admission after paying the registration fee.

4. Intake of Students

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

5. Duration of Study

a) M.D /M.S Degree Courses

The course of study shall be for a period of 3 years consisting of 6 terms.

6. Method of training

The training of postgraduate for degree/diploma shall be residency pattern 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

programme 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. Similarly, clinical subjects' students should be posted to basic medical sciences and allied speciality departments or institutions.

7. Attendance, Progress and Conduct

7.1 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.

7.2 Each year shall be taken as a unit for the purpose of calculating attendance.

7.3 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.

7.4 Every candidate is required to attend a minimum of 80% of the training during each academic year of the post graduate course. 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.

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

8. Monitoring Progress of Studies:

8. Monitoring Progress of Studies:

8.1 *Work diary / Log Book* - Every candidate shall maintain a work diary and record of his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. (please see Chapter IV for model checklists and logbook specimen copy). Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate. The work diary shall be scrutinised and certified by the Head of the Department and Head of the Institution, and presented in the university practical/clinical examination.

8.2 Periodic tests:

In case of degree courses of three years duration (MD/MS), 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, practicals / clinicals and viva voce. Records and marks obtained in such tests will be maintained by the Head of the 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, practicals / clinicals and viva voce.

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

9. Dissertation

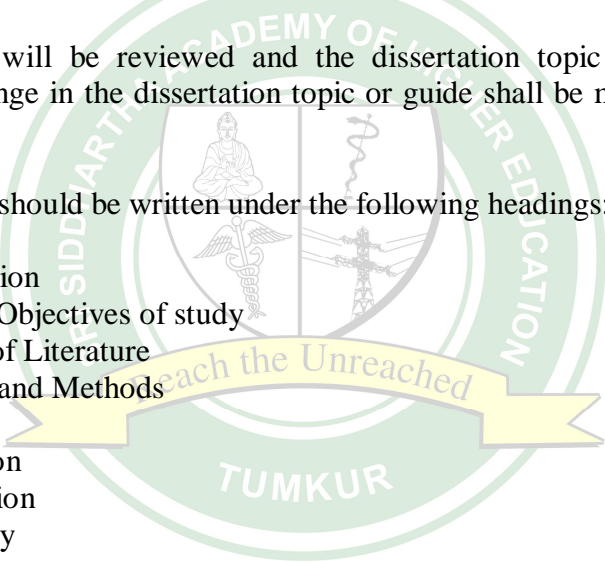
9.1 Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

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

9.3 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.

9.4 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.

9.5 The dissertation should be written under the following headings:

- 
- i. Introduction
 - ii. Aims or Objectives of study
 - iii. Review of Literature
 - iv. Material and Methods
 - v. Results
 - vi. Discussion
 - vii. Conclusion
 - viii. Summary
 - ix. References
 - x. Tables
 - xi. Annexure

9.6 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 not be done. A declaration by the candidate that the work was done by him/her shall be included. The guide, head of the department and head of the institution shall certify the dissertation.

9.7 **Four copies of dissertation along with a soft copy on a CD shall be submitted** to the Controller of Examinations, six months before final examination on or before the dates notified by the University.

9.8 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.

9.9 **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. 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 recognised 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 recognised for teaching/training by Rajiv Gandhi University of Health Sciences/Medical Council of India. The co-guide shall be a recognised postgraduate teacher of Rajiv Gandhi University of Health Sciences.

9.10 **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.

10. Schedule of Examination

The examination for M.D / M.S courses shall be held at the end of three academic years (six 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.

11. Scheme of Examination

11.1 M.D. / M.S. Degree

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

11.1.1 Dissertation: Every candidate shall carryout work and submit a dissertation as indicated in SI.NO.9. Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

11.1.2 Written Examination (Theory): A 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.

11.1.3 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.

The total marks for practical / clinical examination shall be 200.

11.1.4 Viva Voce: Viva Voce Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills. The total marks shall be 100 and the distribution of marks shall be as under:

- | | |
|---|----------|
| (i) For examination of all components of syllabus | 80 Marks |
| (ii) For Pedagogy | 20 Marks |

11.1.5 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 lay down by the Medical Council of India.

11.1.6 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 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.

11.1.7 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 marks is 75 percent and above. Distinction will not be awarded for candidates passing the examination in more than one attempt.

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

MD / MS Course: Maximum of 6 per day

CHAPTER II

GOALS AND GENERAL OBJECTIVES OF POSTGRADUATE MEDICAL EDUCATION PROGRAM

GOAL

The goal of postgraduate medical education shall be to produce competent specialist and /or Medical teacher:

- (i) who shall recognise 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, retraining to the speciality, 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) Recognise the importance of the concerned speciality in the context of the health need of the community and the national priorities in the health sector.
- ii) Practice the speciality concerned ethically and in step with the principles of primary health care.
- iii) Demonstrate sufficient understanding of the basic sciences relevant to the concerned speciality.
- 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 speciality concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- vi) Plan and advise measures for the prevention and rehabilitation of patients suffering from disease and disability related to the speciality.

- vii) Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation.
- viii) Demonstrate empty and humane approach towards patients and their families and exhibit interpersonal behaviour in accordance with the societal norms and expectations.
- ix) Play the assigned role in the implementation of national health programmes, effectively and responsibly.
- x) Organise 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, recognise continuing educational needs; select and use appropriate learning resources.
- xii) Demonstrate competence in basic concepts 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 health team engaged in health care, research or training.

STATEMENT OF THE COMPETENCIES

Keeping in view the general objectives of postgraduate training, each disciplines 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 programme so that he or she can direct the efforts towards the attainment of these competencies.

COMPONENTS OF THE PG CURRICULUM

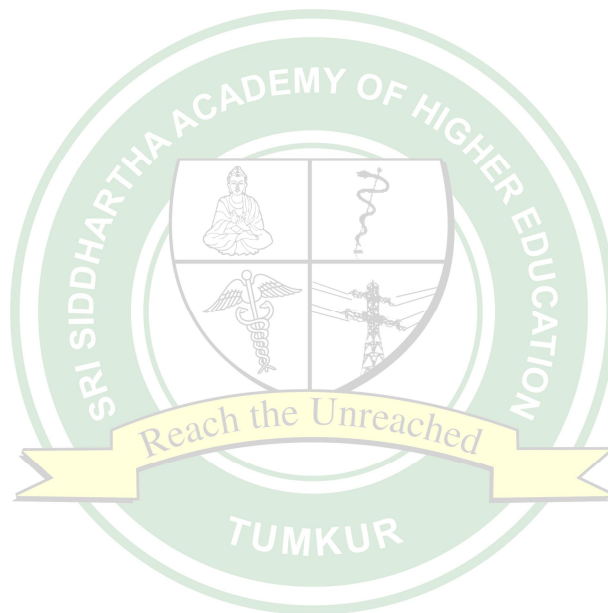
The major components of the PG curriculum shall be:

- Theoretical knowledge
- Practical/clinical Skills
- Training in Thesis.
- Attitudes, including communication.
- Training in research methodology.

Source: Medical Council of India, Regulations on postgraduate medical education, 1997.

CHAPTER III

COURSE DESCRIPTION



P.G. COURSES IN COMMUNITY MEDICINE

M. D. COMMUNITY MEDICINE

General Objectives

The general objectives of the training programme in Community Medicine will be to enable a candidate to be a:

Teacher/trainer to

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

Researcher to

1. Plan and execute a research study including clinical trials. Use/Organize biostatistical analysis using computers and softwares and prepare reports/papers.
2. Critically evaluate research activities.
3. Make recommendations on policy and procedures.

Public Health Specialist to

1. Define and manage the health problems of the community, which he/she serves. He/she should be able to organize epidemiological studies to identify health problems.
2. Plan, implement and evaluate various health programs in his/her area, especially National Health, Family Welfare and disease control / eradication programmes.
3. Select, train, supervise and manage various categories of health personnel working with him/her.
4. Organize health care services, routine and for special groups and during periods of special needs such as disasters/calamities and epidemics.

Specific Objectives

At the end of the MD program in Community Medicine the student will:

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

COURSE CONTENTS

Health Systems in India and The World-Historical Perspective

1. History of Public Health

- Historical Lessons Learnt from the success and failure of Public Health strategies around the world.
- Historical influence and importance of Indigenous System of Medicines in Health Care in India.
- Historical Review of Implementation of the Bhore committee's and other Committee Reports on Health Services, Health Care and Health Professional Education in India.
- Historical Review of the development of National Health Policies.
- The trend of achievements of the country vis-à-vis the Health for All concept.
- Comparative study of development of Health System models globally and nationally

2. Concepts in Public Health

- Concept of Disease control strategies.
- Public Health importance of the Health Promotion Approach.
- Concept of Health for All, Millenium development goals.
- Multi-sector approach in Health care programs.
- Health Care as part of Community Development

- Advantages of Community Participation in health care programs.

3. Primary Health Care

- Need and importance for prioritizing of Primary Health Care
- Principles of Primary Health Care
- Elements of Primary Health Care
- Models of Delivery of Primary Health Care

4. The Health Care Systems in India

- Organizational Structure and Functions of the Govt. Health care System at the Central , State, district, Primary Health centre, Community Health Centre, Peripheral areas as also the Urban areas.
- Health Care systems for Factories / Mines / Plantations.
- Large and small scale N.G.O. sector health care system.
- Corporate and Private Health Insurance systems.
- Family Medicine, General Practitioners.
- Indigenous Medicine system.
- Feasibility of Networking the Govt. and NGO sectors for better coverage of health programs.

5. Role of Social sciences in Health

Need and Importance and Role of Medico- Social work in Public Health Behavioral sciences.

Need and importance of Health – Seeking Behavior in implementing Health care programs.

- Meaning and relationship of Behavioral Sciences to Health.
- Principles of Social Psychology as applicable to Health.
- Principles of social Anthropology as applicable to Health

Sociology

- Relevance and use of Social structures, social organizations and cultural factors in addressing problems in Health as part of Community Development.
- Gender based issues and its relevance to impact of health care programs.
- Impact of Urbanization and Industrialization on Health.
- Difference between Advising and Counseling

Political Environment

- Impact of Political Will on planning and implementation of Health programs

6. Health Legislation

- Review of provisions available under the various Acts related to health. This covers Industries, Mines, hospitals, plantations, labor, adoption, rail/road/air travel, waste treatment, child labor, handicapped, food safety, housing and public utilities, pollution, reporting of notified diseases, quarantine, medical negligence, etc.

7. City / Town Planning and Health

- Accessibility of health care Facilities.
- Health advisory Role on Water and Waste Treatment planning Boards.
- Recommendations on Pollution control planning and monitoring systems, as related to Health.
- Urban Ecology such as housing, slum formations, social issues, road safety, urban stress factors, micro-climatic changes, etc which impact all dimensions of health.

8. Principles of Educational Science and Technology

- Curriculum Planning, Educational Objectives.
- Principles of Learning.
- Teaching / Learning methods.
- Teaching skills including Micro Teaching.
- Preparation and Use of Teaching Aids and Learning Research Materials.
- Methods of Evaluation

9. Principles and Practice of Information, Education and Communication

- Principles of IEC Health Education
- Objectives of Health Education
- Content of Health Education.
- Relevance of using Communication Methods in the implementation of Health care.
- Meaning of Communication.
- Principles of effective Communication, relevant to health.
- Communication Blocks and means of overcoming the blocks.
- Communication strategies for facilitating effective implementation of Health programs at individual and community levels.
- The use and influence of Mass Media for IEC.
- Practice (Methods) of IEC and its application in Community Health.
- Quantitative and Qualitative Evaluation of impact of IEC programs.

10. Principles of Nutrition and Applied Nutrition

- Nutrients and their daily Requirements.
- Classification of Foods
- Balanced Diet
- Nutritional Profiles of Major Foods
- Nutritional Deficiencies
- Protein Energy Malnutrition
- Nutritional Importance of Trace elements
- Assessment of an individual's Nutritional Status
- Assessment of Community Nutritional Status
- Nutritional Problems in India including Food Borne Diseases
- Nutritional Programmes in India
- Methods and impact of nutritional Surveillance
- Social Problems in Nutrition
- Food Hygiene – domestic and commercial levels
- Food Adulteration including PFA Act - review of implementation
- Primordial Prevention of Lifestyle related nutritional diseases.

11. Environmental Health

a) Water

- Applied importance of Sources of water
- Water Pollution and review of control and monitoring methods
- Purification of water and its storage and distribution
- Water quality standards – its implementation and monitoring
- Epidemiology and Control of Water borne diseases
- Epidemiological Investigation of outbreak of water borne disease

b) Air

- Indices of thermal comfort and their applied importance
- Air Pollution including monitoring, control and prevention
- Ventilation and its applied importance

c) Importance of domestic and industrial Housing standards

d) Impact and control of Noise Pollution

e) Radiation Hazards from natural, industrial, hospital, communication devices

f) Meteorological Environment and its Health impact

g) Domestic and industrial Lighting Standards

h) Disposal of Waste and Sanitation

- Sources and Classification of wastes
- Disposal of Solid Wastes
- Excreta Disposal
- Sewage treatment and safe recycling guidelines
- Health Care and Hospital Waste Management

i) Guidelines on Industrial Toxic wastes and Nuclear wastes.

12. Medical Entomology

- Identification of the arthropods as classified below :-

a) Insecta: Mosquito, Flies, Lice, Fleas, and other insects.

b) Arachnida: Ticks and Mites

c) Crustacea: Cyclops

- Diseases transmitted and Modes of Transmission of diseases by arthropods
- Control of Arthropods and diseases borne by them
- Integrated Vector Control
- Types, Mode of application and effectivity of Insecticides
- Types and mechanism of Insecticide Resistance and modes of Resistance prevention

13. Rodents and Anti-Rodent Measures

14. Types, Causes and Control of Zoonotic Diseases

15. Isolation / Quarantine methods

16. Maternal and Child Health Care

- Meaning and relevance of Risk Approach to Maternal and Child Health
- Review of the public health relevance of Maternal and Child health physical, mental, social and behavioral problems
- Rationale, Components and Implementation of Antenatal, Intranatal and Postnatal Care
- Rationale, Components and Implementation of Child Health Care
- Maternal and Childhood Disease control strategies
- Indicators of MCH care and their interpretation

17. Organizational and Functional components of the Maternal and Child Health Services Program in India

- Review of MCH related programmes in India. eg. Reproductive & Child Health (RCH – I & II), Integrated Child Development Scheme (ICDS), Integrated Management of Neonatal & Childhood illnesses (IMNCI) etc.

18. Family Welfare Services in India

- Meaning and relevance of Family Planning, Family welfare and Population Control
- Methods of Family Planning – Review of mechanism, effectivity, factors for non-compliance of usage, contraindications and side-effects.
- Formulation and Evaluation of Implementation strategies of Family planning programs.

19. Demography

- Significance of Demography in public health
- Interpretation and implications of Demographic Cycles on global and Indian context.
- Demographic trends in India and its application in the planning of Health programmes

20. Genetics and Health

- Relevance and Impact of population Genetics
- Preventive and Social Measures in Genetics
- **Implication of Gene therapy, Stem-cell research on future disease control program strategies.**

21. School Health Services

- Objectives of school health services

- Planning for components of school health service and their implementation strategies (including child – parent – teacher and community roles)
- School level counseling for chronic absenteeism, drug abuse, gender based issues, behavioral and learning problems.
- Monitoring Health of school children and school staff

22. **Social Paediatrics**

- Interventional strategies for Juvenile Delinquency, Child Abuse, Child Labour, Street Children, Child Marriage.
- Child Guidance Clinic
- Child Placement

23. **Biostatistics**

- Collection / Organisation of data / Measurement scales
- Presentation of data and Record keeping
- Measures of central tendency
- Measures of variability
- Sampling and Planning of health survey
- Probability, Normal distribution and inductive statistics
- Estimating population values
- Tests of significance (Parametric / Non-parametric)
- Analysis of variance
- Multi-Variate Analysis and Meta analysis
- Association and correlation and Regression
- Vital Statistics
- Evaluation of health and measurement of morbidity / mortality
- Life table and its uses
- Use of computers
- Census
- Qualitative Research methodologies
- Evaluation methodologies

24. **Principles and Application of Epidemiology.**

- Principles of Epidemiology
- Types and detailed methodologies of Epidemiological studies such as Descriptive, Analytical, Experimental and importance of Multi-Centric studies.
- Appropriate choice of epidemiological approach for given situations.
- Interpretation of Epidemiological studies.

25. **Research Methodology**

- Preparing dissertation synopsis
- Identifying need for research study
- Problem statement
- Formulating Objectives
- Methods of Literature Review (References and Bibliography)
- Conceptual framework of study

- Research design choice
- Choice of Methodologies
- Analysis and discussion and presentation

26. Principles of Tropical Medicine

- Present problem statement of diseases of public health importance.
- Descriptive epidemiological factors of specific diseases of public health importance.
- Causes and factors related to increasing or decreasing trends of these diseases.
- Factors responsible for emergence of new diseases.
- Review of changing disease control strategies for specific diseases of public health importance.

27. National Health Programs

- Components of individual National health Programs
- Review of factors associated with the success / failure / stagnation of the present status of these National Health Programs.

28. Community Mental Health

- Principles of Community Mental Health
- Epidemiological factors associated with the current and emerging mental disorders of public health importance.
- Emerging mental health issues of marital, family based problems, travel related, migration, resettlement, urbanisation problems.
- Planning and Intervention strategies for community based mental health programs

29. Occupational Health

- Relevance of Occupational Environment to Health Hazards
- Surveying for identifying Industrial Health hazards
- Surveying for identifying Health Hazards in Agricultural / Plantation / Mining area settings.
- Surveying for identifying Health Hazards in Home based cottage Industries.
- Basic Principles of Ergonomics and Work- Physiology and their application in Occupational Health Intervention Programs.
- Health Hazards due to Industrial Pollution of air, water and land.
- Elements of Industrial waste treatment.
- Relevance and meaning of Industrial Toxicology in the management of Health hazards.
- Understanding the Basic Scope of Occupational health Legislation such as ESI Act, Factories Act, Mines Safety Act, etc.
- Causes, consequences and Intervention Strategies for occupation related diseases of public health importance.
- Principles of Industrial Safety measures and Industrial house-keeping.
- Causes and reduction of Sickness Absenteeism.
- Principles of Industrial Psychology including work related stress management.
- Gender Issues in work environment.
- Providing Social security for industrial workers by the Industrial Corporate Sector in view of Globalization and Outsourcing of work.

30. Health care of the Aged

- Public health implications of increasing trends in longevity of life.
- Health planning strategies for enhancing quality of life of senior citizens.
- Need, relevance and components of Community Based Geriatrics care Programs.

31. Health care for the Challenged

- Vulnerability factors in health, for the Physically and Socio-economically challenged people.
- Intervention strategies for desired Behavioral change in the community, towards the physically challenged.
- Multi-disciplinary approach in the health care of the physically challenged.
- Community Based Rehabilitation for the physically challenged

32. Reaching Health Care for the Unreached

- *Adaptations in Health Care Programs Methodologies for Inaccessible Terrain and Extreme climates.*

33. Voluntary Sector in Health

- Understanding the Supplementary, Complementary and Substitution Roles of the Voluntary Sector in Health Care.
- Case Studies of Health care strategies adopted by NGOs.
- Networking strategies for Govt. and NGO sectors in Health Program implementation

34. Health Care Management

- Relationship of Planning to Management
- Situational Analysis Methods
- Vision, Mission, Goal setting and objective formulation
- Criteria setting for Prioritization
- Resource Generation Methods
- Strategies Formulation
- Participatory Approaches to plan execution
- Monitoring and Evaluation Parameters selection and implementation
- Project Report Writing and Reporting
- Selected Management Techniques relevant to Health care.
- Relevance of Qualitative methods in Health Management
- Basics of Health Economics
- Importance of Operation Research Methods in Health care Management.
- Basis of Health Systems Research.

35. Health Information System.

- Uses of Health Information System in Health planning including Situational analysis, Prioritization, Monitoring and Evaluation.
- Sources and methods of data acquisition.
- Applications of health information on National and International Notification of Diseases.

- Use of Internet and Intranets including NICNET, etc.

36. Disaster Management and public health emergencies

- Brief Review of definition, types and causes of Disaster.
- Understanding the short and long term Health Impact of Disasters
- Assessing priorities for Disaster Response.
- Planning for Administrative, Operational, Technical Intervention for Disaster Relief program including Multi-Sectoral Co-ordination.
- Community Disaster Preparedness training needs for Health Providers and Beneficiaries.
- Post Disaster Follow up care

RECENT ADVANCES AND TOPICS OF CURRENT INTEREST

(Topics may be extracted from individual area of Syllabus content above.)

- Components of National Health Policy
- Importance of Health seeking Behavior
- Basis of formulating Rational drug policy
- Relevance of Evidence Based Medicine in the planning of Disease control Programs
- Use of Computers in Public Health
- Principles of Counseling
- Role of Clinical Specialists in Community Health Care Programs
- Writing of a Research Protocol.
- Nosocomial infection and Hospital Infection Control
- Impact of Macro-Climatic changes (eg: Global Warming, etc) on Health.
- Organising health component of Relief camps during war, mass migration.
- Setting up and Implementing Quality Control of Health care programs.
- Planning of public Health measures during pandemics of new diseases.
- Selected Methods in Operation Research.
- Other Free Topics

COURSE CONTENTS FOR PRACTICALS

1. Microbiology applied to Public Health (Dept. of Microbiology)

Hand on experience in staining techniques and interpretation of:

- Leishmann stain, Grams Stain, JSB Stain, Alberts Stain, Ziehl-Neilson Stain, Peripheral blood examination of thick and thin smears and reporting
- Microscopic examination of stools and interpretation
- Demonstration of Collection, storage and Dispatch of water, stools, body fluids Samples to Laboratory
- Interpretation of commonly used serological tests such as Physical / Biological / Chemical water analysis reports / Widal / HIV / Hepatitis B/ VDRL/ Viral Antibody Titres

2. Medical Entomology

- Demonstration of Collection and transportation of Entomological specimens

- Identification of mosquitoes/fleas/ticks/others
 - Demonstration of mounting entomological specimens and reporting
 - Interpretation of Entomological Survey findings and Vector indices calculation
3. Epidemiological (including outbreaks of disease) and Statistical Exercises
 4. Case Studies (including family studies) to illustrate principles and practice of Community Health
 5. Investigation of an Outbreak of a disease and suggested control Measures.
 6. Field and simulated Exercises in
 - PRA Techniques and Interpretive Reporting
 - IEC Field Exercises organisation, execution and evaluation
 - Planning for simulated public health intervention programs including disaster relief measures.
 - VED Analysis etc.
 - Assessment of Health Needs.
 - Simulated exercises in Preparation of Budgeting at the PHC level
 - Demonstration of Supervisory methods and Performance Appraisal at PHC/SC and field level.
 - Simulated calculation of Requirement of Vaccines, Medicines, transport schedules, lab supplies, equipment, staff deployment, stationary, etc. at the PHC level
 - Simulated exercises for Organization of field and centre based camps for Family Welfare, MCH, IEC, and Specialist Camp, Immunisation camps.
 7. Diet and Nutritional Survey of a Community
 8. Collection and Dispatch of Food Samples for Lab Investigations
 9. Situational analysis of selected potentially health hazardous Environments and its influence on health
 10. Industrial Health Survey and recommendation reports for Industrial and home-based Work places. Include interpretation of reports quantifying air pollution, noise pollution, temperature, humidity and other meteorological factors and their effect on health.
 11. Socio-Economic surveys in Urban and Rural areas and their interpretation on direct and indirect health care needs and usage.
 12. School Health Surveys with recommendations.
 13. Observation of Family Counseling by MSW
 14. Situational status (organizational structure and functioning with feasible recommendations) Reporting on Visits/Postings to the following institutions
 - District Health Office
 - District Hospital
 - Taluk Hospital

- PHC/SC/CHC
- Field Publicity Office
- ICDS office/Anganwadi Centre
- Public Health Laboratory
- Sewage Treat Plant
- HUDCO
- Vector control centre (Hosur)
- Meteorology department
- Any large NGO
- UFWC
- Family Welfare Camps
- Infectious disease hospital
- Malaria/DTC/Filaria units
- National Tuberculosis Institute / DOTS centre
- Leprosorium
- Malaria Research Centre
- Polio Surveillance Office
- Visit to factory / inspectorate of factories
- Home for the aged
- Blindness Rehabilitation schools
- Deaf and Dumb schools
- Spastic society
- Physically Handicapped Centre
- Market place
- Slaughter House
- Hotel food storage, cooking and food waste disposal zones.
- Milk Dairy
- Water supply and water treatment plant
- Food and Beverages Processing Units

15. Postings to Urban and Rural Health Centres with emphasis on:-

- Observing and participation in Antenatal care
- High risk pregnancy identification
- Registration and participation in care of Antenatal and under-fives
- Nutrition Status calculation, Growth and Development monitoring through analysis of cumulative under-five and Antenatal cards and follow-up programs for drop-outs, etc.
- Records design, recording procedures, data compilation and Reporting procedures for National health programs
- Disinfections and Infection control methods
- Field visits with peripheral health care staff to review problems associated with Implementation of Health programs.
- Participation in organization and management of health camps.
- Observation and reviewing methods of motivating for Family welfare.
- Health Information preparation using MCH indicators and their interpretation.
- Measuring Health care service Utilization rates for the centre.
- Observation and participation in the Laboratory work with emphasis on result interpretation.
- Medical Waste management observation and review report.
- Immunization coverage calculation and follow up.
- Cold Chain observation up to vaccine administration at field level.

- Collection and dispatching and follow-up for Vaccine Potency testing.

TRAINING ACTIVITIES

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

1. Assignment writing.
2. Presentation for joint discussions of Field and centre activity Review reports and Work- diary analysis
3. Lecture discussions
4. Practical Demonstrations
5. Field visits – Family Studies / Clinico-Social Case Studies / Site Visits
6. Institutional visits
7. Seminars
8. Journal Clubs
9. Epidemiological Exercises
10. Supervised Training of undergraduates including Lesson Planning
11. Involvement in Specific Departmental Project works
12. Conducting of Surveys / epidemiological projects

MONITORING LEARNING PROGRESS

Please see Chapter IV

Log book

- The logbook is a record of the important activities and their critical review by the candidates during his training.
- The log book entries record includes academic activities, the presentations and procedures and feed-back, carried out by the candidate as well as encountered Problems/Alternative solutions/ innovation / organisational work / recommendation by student / intersectoral work/ self assessment done.
- Internal assessment should be based on the evaluation of the logbook review. Collectively, logbooks are a tool for the evaluation of the training programme of the institution by the University.

1. Self Evaluation--Through daily Work Diary
2. Faculty Evaluation --Through scrutiny of work diary by Head of Dept and staff
3. Technique of skills in Pedagogy - Through lesson plans and supervised taking of classes for undergraduates
4. Skill evaluation - through demonstration and Practicals and field reports
5. Knowledge Evaluation-- through journal clubs, seminars and tests. Please see Model Check Lists in Chapter IV.

Dissertation (guidelines to student) (Please see also Sl.No.9 , Chapter - I)

- | | |
|--------|------------------------------------|
| Step 1 | Identifying guide and co guide |
| Step 2 | Review of available literature |
| Step 3 | Short listing of topic of interest |

Step 4	Workup in detail on few topics keeping in mind the feasibility and discussion at the dept level
Step 5	Selection and finalisation of the topic and submission of protocol
Step 6	Preparation and submission of synopsis six months after the date of admission and as notified by the University
Step 7	Preparation of study instrument
Step 8	Pilot survey
Step 9	Finalising the study
Step 10	data collection
Step 11	Data entry, compilation and processing
Step 12	Analysis and interpretation
Step 13	Presentation and Discussion at the Dept level
Step 14	Preparation and submission of dissertation to Controller of Examinations six months prior to university examination as notified by the University

SCHEME OF EXAMINATION

A. Theory (written) Examination

There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions each question carrying 20 marks and 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

- **History of Public Health, Concepts in Public Health**
- **Role of Social Sciences in health**
- **Information, Education, Communication and Counseling**
- **Medical Entomology, and Zoonotic diseases**
- **Environmental health and Ecology**
- **Epidemiology**
- **Biostatistics and Research methodology**

Paper II

- **Principles of Nutrition and Applied Nutrition.**
- **Communicable diseases and non-communicable diseases.**
- **Occupational health**
- **National Health Programmes**
- **Disaster management and Public Health emergencies**

Paper III

- **Maternal health and Child health Care.**
- **Demography and Family welfare.**
- **Social Pediatrics**

- School health, and Health Care of the Aged.
- Health Care of challenged, Community Based Rehabilitation
- Reaching health care for the unreached.
- Community Mental Health.
- Genetics and Health

Paper IV

- Health Care systems in India.
- Primary Health Care
- Health legislation
- International Health
- Voluntary Sector in Health
- City/Town planning and Health.
- Health Care management.
- Health information system.

** The topics assigned to the different papers are generally evaluated under those sections. However a strict division of the subject may not be possible and some overlapping of topics is inevitable. Students should be prepared to answer overlapping topics.*

B. Practicals: 200 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 on factors that contributed towards maintenance of health and occurrence of disease; management at individual, family, and community levels.

2. Clinico-social case study (One 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. Public Health Laboratory (Two) (30 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 (One) (50 marks)

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

5. Spotters (Five) (20 marks)

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

C. Viva-Voce: 100 marks

1) Viva-Voce Examination: (80 Marks)

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

D.

Max. Marks in M. D. Community Medicine	Theory	Practicals	Vive-Voce	Total
	400	200	100	700

RECOMMENDED BOOKS and JOURNALS

1. Maxy Roseman John M.Last, **Maxcy-Roseman Public Health and Preventive Medicine**, Appleton-Century-Crofts, Newyork
2. Hobson W, **The Theory and Practice of Public Health**, Oxford Med.Publication
3. Barker D J P, **Practical Epidemiology**, Churchill Livingstone
4. Park J E & K.Park, **Text Book of Preventive & Social Medicine**, M/S Banarsidasm Bhanot, Jabalpur
5. Mahajan B K and M.C.Gupta, **Text Book of Preventive & Social Medicine** Jaypee Publications
6. Bradford Hill, **Principles of Medical Statistics**, The Lancet Ltd. No. 7 Adam Street, Adelphine, London, 1967
7. John J.Hanlon, **Public Health Administration and Practice**, MOSBY
8. Mac, Mahon & Pugh, **Epidemiology-Principles and Methods**, Little Brown & Co.Boston, U.S.A.
9. Robert S.Goodheart Maulice E.Shills, **Modern Nutrition in Health**, K.M.Varghese & Co.,
10. Mawner & Kramer, **Epid : An Introductory Text**, 1985, W.B.Sanuders Co.,

11. **Hunter's Diseases of Occupations**, Edited by P.A.B Raffle, P.H. Adams, P.J.Baxter and W.R.Lee Edward Arnold Publishers (1994), Great Britain

12. COMMITTEE REPORTS AND POLICY DOCUMENTS - MEDICAL EDUCATION AND HEALTH POLICY:

1. Bhore Committee Report (1946) **Health Survey and Development Committee**, Govt. of India, Delhi.
2. Mudaliar Committee Report (1961) **Health Survey and Planning Committee**, Govt. of India, Delhi.
3. Shrivastav Report (1974), **Health Services and Medical Education - A programme for immediate action, Group on Medical Education and Support Manpower, Ministry of Health and Family Welfare**, Govt. of India, New Delhi.
4. ICSSR/ICMR (1981), **Health for All - An alternative strategy - Report of a Joint study group of ICSSR/ICMR**, Indian Institute of Education, Pune.
5. National Health Policy, (1982) **Ministry of Health and Family Welfare**, Government of India, New Delhi.
6. **Compendium of Recommendations of various committees on Health and Development** (1943 - 1975), Central Bureau of Health Intelligence (1985) Directorate General of Health Services, Ministry of Health and Family Planning, New Delhi.
7. Bajaj, J.S. etal (1990) **Draft National Education Policy for Health Sciences, I.J.M.E.** Vol. 29, No. 1 & 2 (Jan - August 1990)

Journals

1. Indian Journal of Community Medicine.
2. Indian Journal of Public Health.
3. Indian Journal of Community Health.
4. Journal of Communicable Diseases.
5. Indian Journal of Maternal & Child Health.
6. Indian Journal of Preventive and Social Medicine.
7. Indian Journal of Occupational Health & Industrial Medicine.
8. Indian Journal of Medical Research.
9. National Medical Journal of India.
10. Indian Journal of Malariology.
11. Indian Journal of Environmental Health.
12. Indian Journal of Medical Education.
13. Journal of Indian Medical Association.
14. Journals of Medicine, Paediatrics, OBG, Skin & STD, Leprosy, Tuberculosis & Chest Diseases (For Reference).

International journals

1. WHO Publications – All

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

ADDITIONAL READING

1. Compendium of recommendations of various committees on Health and Development (1943-1975). DGHS, 1985 Central Bureau of Health Intelligence, Directorate General of Health Services, min. of Health and Family Welfare, Govt. of India, Nirman Bhawan, New Delhi. P - 335.
 2. National Health Policy, Min. of Health & Family Welfare, Nirman Bhawan, New Delhi, 1983.
 3. Santosh Kumar, The elements of Research, writing and editing 1994, Dept. of Urology, JIPMER, Pondicherry
 4. Srinivasa D K et al, Medical Education Principles and Practice, 1995. National Teacher Training Centre, JIPMER, Pondicherry
 5. Indian Council of Medical Research, "Policy Statement of Ethical considerations involved in Research on Human Subjects", 1982, I.C.M.R, New Delhi.
 6. Code of Medical Ethics framed under section 33 of the Indian Medical Council Act, 1956. Medical Council of India, Kotla Road, New Delhi.
 7. Francis C M, Medical Ethics, J P Publications, Bangalore, II edn, 2004.
 8. Indian National Science Academy, Guidelines for care and use of animals in Scientific Research, New Delhi, 1994.
 9. International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, N Engl J Med 1991; 424-8
 10. Kirkwood B R, Essentials of Medical Statistics , 1st Ed., Oxford: Blackwell Scientific Publications 1988.
 11. Mahajan B K, Methods in Bio statistics for medical students, 5th Ed. New Delhi, Jaypee Brothers Medical Publishers, 1989.
 12. Raveendran and B Gitanjali, A Practical approach to PG dissertation, New Delhi, J P Publications, 1998.
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1. Hunter (Donald), **Diseases of the Occupations**, 6th edition, Hodder and Stoughton (1978)
 2. Schilling (1978), **Occupational Health Practice**, Butterworth & Company, Great Britain
 3. Plunkett (E.R), **Occupational Diseases**, Barret Book Company, Stanford (1977)
 4. Johnstone (R.T), **Occupational Diseases and Industrial Medicine**, Saunders, Philadelphia (1960)

5. French (Geoffrey), **Occupational Health**, Medical Technical Publishers, Lancaster
6. Mayers (May R), **Occupational Health etc.**, Williams and Wilkins, Baltimore (1969)
7. Government of India, Ministry of HRD, **Occupational Health : issues of women in the unrecognised sector**, New Delhi (1988)
8. Plunkett (E.R), **Handbook of Industrial Toxicology**, 3rd Edition, Arnold Publishers, USA (1987)
9. Charles Wn Sharp and L Thomas Carroll, **Voluntary Inhalations of Industrial Solvents**, U.S. Department of Health, Education and Welfare, National Institute on Drug abuse, U.S.A. (1978)
10. Patrick Kinnersly (1979), **The Hazards of Work, How to fight Them**, Pluto Press, U.K.
11. Plunkett (E.R) (1977), **Occupational Diseases, A Syllabus of Signs and Symptoms**, Barret Book Company, Stamford, Connecticut (1977)
12. Edited by Robert J.Mc Cunney, **Handbook of Occupational Medicine**, Little Brown and Company, Boston/Toronto (1988)
13. WHO (1986) Geneva, **Early detection of Occupational Diseases.**
14. **Hunter's Diseases of Occupations**, Edited by P.A.B Raffle, P.H. Adams, P.J.Baxter and W.R.Lee Edward Arnold Publishers (1994), Great Britain
15. Carl Zenz (1994), **Occupational Medicine**, 3rd Edition Mosby, U.S.A.
16. ILO Publications Geneva, **Encycloperia of Occupational Health & Safety**, (1983) 3rd Edition Vol. 122

Chapter IV

MONITORING LEARNING PROGRESS

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only also helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Model Checklists are given in this Chapter which may be copied and used.

The learning out comes to be assessed should included: (i) Personal Attitudes, (ii) Acquisition of Knowledge, (iii) Clinical and operative skills, and (iv) Teaching skills.

i) **Personal Attitudes.** The essential items are:

- Caring attitudes
- Initiative
- Organisational ability
- Potential to cope with stressful situations and undertake 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. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

ii) **Acquisition of Knowledge** : The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.

Journal Review Meeting (Journal Club): The ability to do literature search, in depth study, presentation skills, and use of audio- visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist (see Model Checklist – I, Chapter IV)

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 (see Model Checklist-II, Chapter IV)

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.

iii) **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 (see Model Checklist III, Chapter IV).

Clinical meetings : Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist IV, Chapter IV).

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. (Table No.3, Chapter IV)

iv) **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 (See Model checklist V, Chapter IV)

vi) Periodic tests: In case of degree courses of three years duration, 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, practicals / clinicals and viva voce.

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, practicals / clinicals and viva voce.

vii) Work diary / Log Book- Every candidate shall maintain a work diary and record his/her participation in the training programmes 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, if any conducted by the candidate.

viii) *Records*: Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University or MCI.

Log book

The log book is a record of the important activities of the candidates during his training, Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate.

Format for the log book for the different activities is given in Tables 1,2 and 3 of Chapter IV. Copies may be made and used by the institutions.

Procedure for defaulters: 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.

CHAPTER IV (Contd.)

Format of Model Check Lists

Check List -I. MODEL CHECK-LIST FOR EVALUATION OF JOURNAL REVIEW PRESENTATIONS

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl. No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 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.	Whether other relevant publications consulted					
5.	Ability to respond to questions on the paper / subject					
6.	Audio-Visual aids used					
7.	Ability to defend the paper					
8.	Clarity of presentation					
9.	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	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Whether other relevant publications consulted					
2.	Whether cross references have been consulted					
3.	Completeness of Preparation					
4.	Clarity of Presentation					
5.	Understanding of subject					
6.	Ability to answer questions					
7.	Time scheduling					
8.	Appropriate use of Audio-Visual aids					
9.	Overall Performance					
10.	Any other observation					
	Total Score					

Check List - III

MODEL CHECK LIST FOR EVALUATION OF CLINICAL WORK IN WARD / OPD

(To be completed once a month by respective Unit Heads including posting in other departments)

Name of the Student:

Name of the Unit Head:

Date:

Sl. No.	Points to be considered:	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Regularity of attendance					
2.	Punctuality					
3.	Interaction with colleagues and supportive staff					
4.	Maintenance of case records					
5.	Presentation of cases during rounds					
6.	Investigations work up					
7.	Bedside manners					
8.	Rapport with patients					
9.	Counseling patient's relatives for blood donation or Postmortem and Case follow up.					
10.	Over all quality of Ward work					
	Total Score					

Check List - IV**EVALUATION FORM FOR CLINICAL PRESENTATION**

Name of the Student:

Name of the Faculty:

Date:

Sl. No.	Points to be considered	Poor 0	Below Average 1	Average 2	Above Average 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: Whether it follows logically from history and findings					
10.	Investigations required ▪ Complete list					
	▪ Relevant order					
	▪ Interpretation of investigations					
11.	Ability to react to questioning Whether it follows logically from history and findings					
12.	Ability to defend diagnosis					
13.	Ability to justify differential diagnosis					
14.	Others					
	Grand Total					

Check List - V

MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL PRACTICE

Sl. No.		Strong Point	Weak Point
1.	Communication of the purpose of the talk		
2.	Evokes audience interest in the subject		
3.	The introduction		
4.	The sequence of ideas		
5.	The use of practical examples and/or illustrations		
6.	Speaking style (enjoyable, monotonous, etc., specify)		
7.	Attempts audience participation		
8.	Summary of the main points at the end		
9.	Asks questions		
10.	Answers questions asked by the audience		
11.	Rapport of speaker with his audience		
12.	Effectiveness of the talk		
13.	Uses AV aids appropriately		

Check list VI

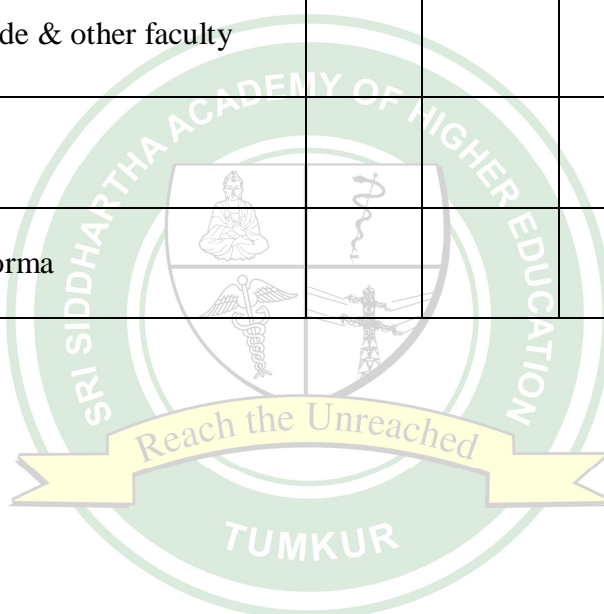
MODEL CHECK LIST FOR DISSERTATION PRESENTATION

Name:

Faculty/observer:

Date:

Sl. No.	Points to be considered	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Interest shown in selecting a topic					
2.	Appropriate review of literature					
3.	Discussion with guide & other faculty					
4.	Quality of protocol					
5.	Preparation of proforma					



Checklist-VII

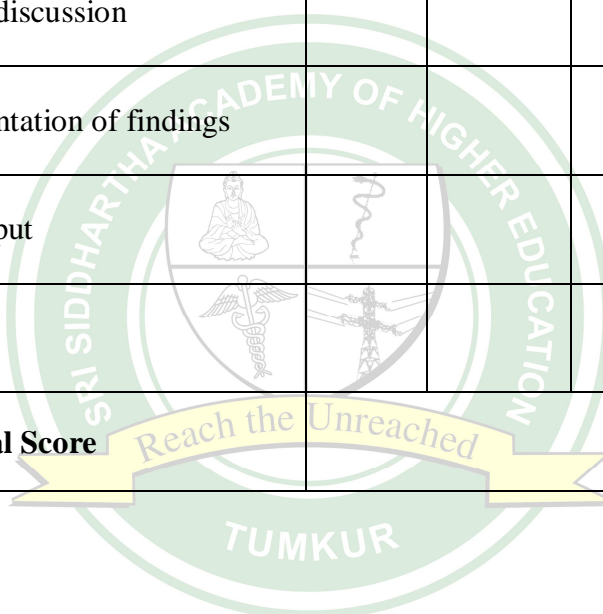
CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE / CO-GUIDE

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl. No.	Items for observation during presentation	Poor 0	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					



LOG BOOK

Table 1 : Academic activities attended

Name:

Admission Year:

College:

[illegible]

LOG BOOK

Table 2 : Academic presentations made by the student

Name:

Admission Year:

College:

[illegible]

LOG BOOK

Table 3 : Diagnostic and Operative procedures performed

Name:

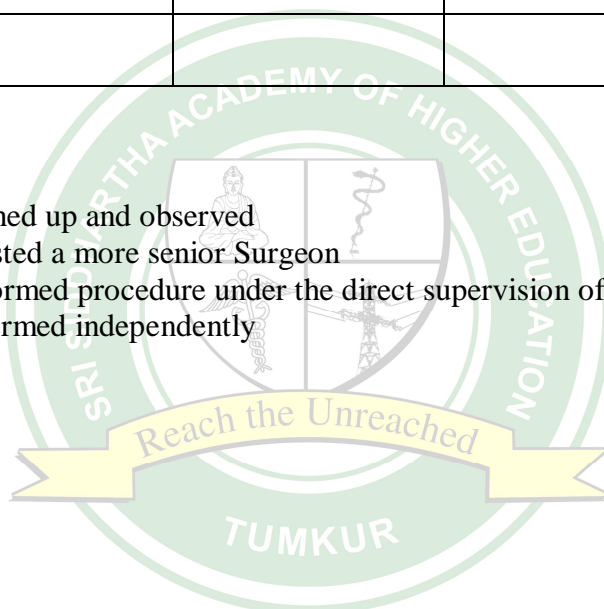
Admission Year:

College:

Date	Name	ID No.	Procedure	Category O, A, PA, PI*

*** Key:**

- O - Washed up and observed
- A - Assisted a more senior Surgeon
- PA - Performed procedure under the direct supervision of a senior surgeon
- PI - performed independently



Model Overall Assessment Sheet

Name of the College:

Academic Year:

Sl. No	Faculty Member & Others	Name of Student and Mean Score									
		A	B	C	D	E	F	G	H	I	J
1											
2											
3											
4											
5											
Total Score											

Note: Use separate sheet for each year.

Chapter V

Medical Ethics

Sensitisation 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 Objective (ii) stated in Chapter II (pages 2.1 to 2.3), and develop human values it is urged that **ethical sensitisation** 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 presentation, bedside rounds and academic postgraduate programmes.

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 Behaviour 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

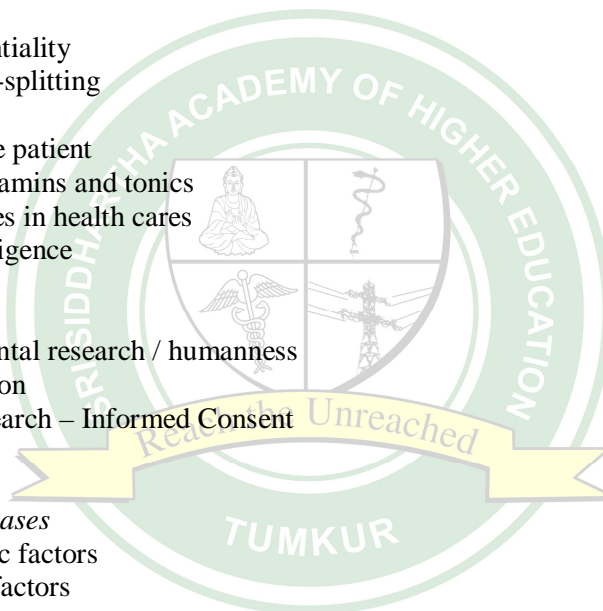
The beginning of human life
Conception, contraception
Abortion
Prenatal sex-determination
In vitro fertilization (IVF), Artificial Insemination by Husband (AIH)
Artificial Insemination by Donor (AID),
Surrogate motherhood, Semen Intrafallopian Transfer (SIFT),
Gamete Intrafallopian Transfer (GIFT), Zygote Intrafallopian 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

9. *Ethical workshop of cases*
Gathering all scientific factors
Gathering all human factors
Gathering all value factors
Identifying areas of value – conflict, Setting of priorities,
Working out criteria towards decisions



RECOMMENDED READING

1. Francis C.M., Medical Ethics, 2 Edition, 2004, Jay pee Brothers, New Delhi Rs. 150/-.
2. Good Clinical Practices : GOI Guidelines for clinical trials on Pharmaceutical Products in India (www.cdscsco.nic.in)
3. INSA Guidelines for care and use of Animals in Research – 2000.
4. CPCSEA Guidelines 2001(www.cpcsea.org).
5. Ethical Guidelines for Biomedical Research on Human Subjects, 2000, ICMR, New Delhi.
6. ICMR Guidelines on animal use 2001, ICMR, New Delhi.