

# STUDY GUIDE OF COMMUNITY MEDICINE

## MBBS COURSE

### Contents

S. No.	Subject	Page No.
1.	Introduction	02
2.	Educational Hours	03
3.	Learning Outcomes	04
4.	Educational Strategies	05
5.	Assessment	06
6.	Learning Resources	07
7.	Contents Modules	08
8.	Implimentation	09-11
9.	Programme Evaluation	12
10.	Table of Specification	13-16
11.	Modules	17-23

## INTRODUCTION

The basic sciences subject will be covered during first and second year. Anatomy is taught with its clinical application and use in clinical subjects. Due to nature of this subject educational strategies of diverse approaches are employed. Educational resources like videos, biological specimens, microscopy slides, books and journals are used to learn this diverse subject. Early clinical exposure is used for clinical application of anatomy.

First year and second year are divided in three educational terms which conclude at with formative assessment test. End of year is University exam for summative assessment.

## EDUCATIONAL HOURS

Year	Theory	Practical	Total
3rd year	25 hours	25 hours	50
4th year	50 hours	50 hours	100
Total	75 hours in 36 weeks/year	75 hours	150 hours
Research methodology and evidence based medicine		120 hours	
Strategy	Lectures Problem based learning Small group discussion Case based discussion	Clinical Rotation & ward visit Seminars & CPC Audio video sessions Tutorial / PBL Skills Lab Practice	

# LEARNING OUTCOMES

AT THE END OF CURRICULUM STUDENT WILL BE ABLE TO

# EDUCATION STRATEGIES

The educational strategies in this curriculum are multiple and aligned with domain of learning and according to the desired outcome

## **Interactive lectures**

One-third of the curriculum will be delivered in a traditional didactic format including PowerPoint presentations and case discussions. Didactic education is considered to be a one-way transmission of material from teacher to learner, we cannot overlook the possibility of meaningful interaction between experts and learners during live lectures. This type of interaction, which allows for immediate clarification of concepts and extension of knowledge, may be particularly important for novice learners who have relatively little exposure to the subject matter, such as our study population.

## **Problem based learning**

A lot of emphasis is on case based discussion. Problem-based learning (PBL) is complex and heterogeneous. A wide variety of educational methods are referred as PBL. These include Lecture-based case, Case based lecture, Case based discussions, Problem or inquiry based and Closed loop or reiterative. Incorporation of case based discussion in teaching enhances the critical thinking and problem-solving skills. It also helps in developing a broader prospective of clinical case scenarios.

## **Small Group Discussion**

Small group discussion provides a unique environment to achieve high standards in medical education. Activation of prior knowledge, exchange of ideas, and engagement at a higher cognitive level are assumed to result in deeper learning and better academic achievements by students.

## **Video sessions**

Pathology is a subject which involves visual learning and formulating concepts. Video assisted learning sessions also provides opportunities to learn gross anatomy.

## **Laboratory Sessions**

Laboratory sessions are important as they provide opportunity for experiential learning in terms of study of slides and identification of tissues

# ASSESSMENT

## MCQ's and SEQ's

Multiple choice question and short essay question test will be used at the end of part of curriculum to assess the learning of knowledge. These all assessment exercises will be formative. The written tests like Multiple-Choice Questions (MCQs) and Short-Essay Questions (SEQs) test formats are used for the assessment of cognitive domain. The MCQs are more objective and essentially select type of item response format. MCQs have a cueing effect, which promotes guessing and leads to higher scores. In addition, writing MCQs of higher cognitive level of problem solving is challenging. On the contrary, the SEQs are more subjective and have a supply or construct type item response format, which does not have any cueing effect and can effectively assess problem solving skills.

## Clinical exam and OSCE

Short case and OSCE will be used to evaluate clinical skills and procedural skills at the ward end of placement. The OSCE is a method of clinical skill assessment, and it has been reported to be appropriate for assessing learning achievement levels in the psychomotor and emotional domains, which are difficult to evaluate with written examinations.

## Viva Voce

Viva voce is used for assessment of knowledge and problem solving ability of students. This method is useful evaluating cognitive domain.

## Assignments

Students of different year will be given assignment of different nature such as research and literature search and surveys

## INTERNAL ASSESSMENT

- i. The weightage of internal assessment shall be 10% of totals marks.
- ii. Continuous internal assessment shall consist of evaluation at the end of each assignments, e.g. stages/sub-stage, class tests etc., attitudinal assessment from educational supervisors.
- iii. Assessment of knowledge, Skills and Attitude shall contribute toward internal assessment. Methods used to assess these domains shall include Multiple Choice Questions of one-best type, Short essay questions, Oral/Viva, and Practical/Clinical examinations.
- iv. The score of internal assessment shall contribute to the score in the final examination, Final university examination of each subject shall contribute 90 to total score, and the candidate shall pass in aggregate.
- v. Proper record of continuous internal assessment shall be maintained.

## **LEARNING RESOURCES**

The department of community medicine will require following resources for implementation resources:

- Human resource
- Instructors (faculty members)
- Curriculum coordinator curriculum secretary
- Infrastructure
- Lecture hall with AV aids
- Tutorial room with AV aids
- Community Medicine Museum
- Simulated patients and simulated manikins
- Computers Lab

## **LISTS OF CONTENT RESOURCES**

- Text book of Community Medicine by Park J E. Latest Edition
- Text book of Community Medicine. 6th Ed. by Ilyas Ansari.
- Text book of Community Medicine by Maxie Rozani. Latest Edition
- Medical Statistics. 2nd Ed. by R. Turkwood.
- Online Journals and Reading Materials through HEC Digital Library Facility.

# CONTENTS MODULES

S.No	Topic
1	<b>Module 1</b> Concept of Health & Disease
2	<b>Module 2</b> Introduction to Public Health and Health Systems in Pakistan
3	<b>Module 3</b> Epidemiology and disease control
4	<b>Module 4</b> Prevention and control of Infectious diseases
5	<b>Module 5</b> Dynamics of infections disease Transmission
6	<b>Module 6</b> Control of infection.
7	<b>Module 7</b> Epidemiology, control and prevention of infectious diseases of Public Health importance.
8	<b>Module 8</b> Epidemiology, control and prevention of non-infectious diseases of Public Health importance.
9	<b>Module 9</b> Biostatistics
10	<b>Module 10</b> Demography and Population dynamics
11	<b>Module 11</b> Food and Nutrition
12	<b>Module 12</b> Reproductive and child health
13	<b>Module 13</b> Health of school age children.
14	<b>Module 14</b> Environmental Health Sciences
15	<b>Module 15</b> Occupational Health
16	<b>Module 16</b> Arthropods and their public health importance
17	<b>Module 17</b> Prevention and control of parasitic diseases of public health importance
18	<b>Module 18</b> Mental Health
19	<b>Module 19</b> Behavioral Sciences and lifestyle
20	<b>Module 20</b> Information, Education and Communication (IEC)
21	<b>Module 21</b> Disaster
22	<b>Module 22</b> Medical Ethics
23	<b>Module 23</b> Practical and community based training



## IMPLEMENTATION

The curriculum will be spread over 2 year with 36 working weeks each year. During this period student will be exposed to various education strategies to achieve the learning objectives.

### 3rd Year.

In this year student will be exposed to do Field visits, House hold survey, Research Project and Museum to develop understanding of community medicine and its applied aspects.

Theory (Lecture, SGD and PBL)	Practical (Field Visits, House hold survey, Project)
25 Hours (36 Weeks)	25 Hours

### 4th Year.

In this year student will be exposed to do Field visits, House hold survey, Research Project and Museum to develop understanding of community medicine and its applied aspects.

Theory (Lecture, SGD and PBL)	Practical (Field Visits, House hold survey, Project)
50 Hours (36 Weeks)	50 Hours

Third Year			
	First term	Second term	Third term
1st Term			
2nd Term			
3rd Term			
Assessment			

Fourth Year			
	First term	Second term	Third term
1st Term			
2nd Term			
3rd Term			
Assessment			

# PROGRAMME EVALUATION

## Purpose of Evaluation

The major goals of the evaluation are to provide information that the students can use to achieve curricular objectives and that the faculty can use to monitor quality of and improve curriculum.

## Design of Evaluation

The evaluation design as only posttest.

## Users of evaluation: students, curriculum faculty, Principal Office

Resources: Curriculum faculty and departmental secretaries. No additional funding

## Evaluation question:

- What percentage of students achieved 75% mandatory attendance?
- What percentage of students achieved pass marks in university exam?
- What are the strengths of the curriculum? What are the weaknesses? How can the curriculum can be improved?

Because of limited resources, the evaluation was kept simple. Data Collection was integrated into the curriculum schedule. The major goals of the evaluation are to provide information that the students can use to achieve curricular objectives and that the faculty can use to monitor quality of and improve curriculum. The evaluation design as only posttest.

## End of curriculum evaluation form:

This will be filled by students and faculty members for evaluation of adequacy with each content was covered, whether they would recommend the curriculum to others and written comments on curriculum strengths, weaknesses and suggestions for improvements.

## Annual Report:

Based on evaluation of the educational programe report will be generated annually and submitted to Medical Educational Department.

## COMMUNITY MEDICINE

TABLE OF SPECIFICATION (ToS)		
Sr. No.	Topic Specification	MCQ's
1	Concept of health and disease	03
2	Introduction to public health	03
3	Epidemiology	16
4	Biostatistics and HMIS	05
5	Demography and Population dynamics	03
6	Food and nutrition	05
7	MCH and reproductive health	06
8	School health	03
9	Environment	06
10	Occupational health	04
11	Entomology and arthropod borne diseases	02
12	Parasitology	02
13	Snake bite	01
14	Mental health	01
15	Behavioural sciences	04
16	Information Education and Communication	01
17	Accidents / Disasters	01
	Total	65

## COMMUNITY MEDICINE

TABLE OF SPECIFICATION (ToS)		
Sr. No.	Topic Specification	SEQ's
1	Concept of health and disease and epidemiology	02
2	Introduction to public health	01
3	Immunology	01
4	Biostatistics / HMIS	01
5	Demography and population control	01
6	Food and nutrition	01
7	MCH / Reproductive health	01
8	Environment	01
9	Occupational health	01
10	Parasitology and Entomology and Snake bite	01
11	Mental health and Behavioral sciences	01
12	Dental health and school health and health education	01
	Accident and disasters	01
	Total	14



## MBBS THIRD PROFESSIONAL COMMUNITY MEDICINE

FORMAT		
Sr. No.	COMMENTS	MARKS
1	<b>OSPE</b> 10 Stations (10 non-observed stations related to practicals (each of 03 marks)	<b>30</b>
2	<b>HOUSE OLD SURVEY, RESEARCH PROJECT, FIELD VISITS,</b>	<b>35</b>
3	<b>STRUCTURED VIVA VOCE (related to curriculum</b>	<b>70</b> 35+35 (External + Internal)
4	<b>INTERNAL ASSESSMENT</b>	<b>30</b>
5	<b>THEORY</b>	<b>135</b>
	<b>Total</b>	<b>300</b>



Contents	Objectives	Domain	Strategy	Assessment
<b>Module 1: Concept of Health &amp; Disease</b>				
	<ul style="list-style-type: none"> <li>• Concept of health</li> <li>• Definition of health (Dimensions, physical, mental, social and spiritual).</li> <li>• Spectrum of health</li> <li>• Determinants of health. Responsibility for health</li> <li>• Indicators of health</li> <li>• Concept of disease. Concept of causation (all theories including ecological triad, agent, host &amp; environmental factors).</li> <li>• Spectrum of disease. Iceberg phenomenon.</li> <li>• Natural history of disease. Levels of prevention.</li> <li>• Disease elimination and eradication. Disease surveillance.</li> </ul>	<p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p>	<p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p>	<p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p>
<b>Module 2: Introduction to Public Health and Health Systems in Pakistan</b>				
	<ul style="list-style-type: none"> <li>• Background and Concepts:</li> <li>• Definitions and concepts in Public Health</li> <li>• Development of Public Health in Pakistan.</li> <li>• Economics and Health. Health Policy and planning in Pakistan.</li> <li>• "Health for all", background, concepts and progress.</li> <li>• "Primary Health Care": Concepts and progress.</li> <li>• The National Disease Control programmes; policies, strategies and operations.</li> <li>• Health System in Pakistan:</li> <li>• The role of Federal and Provincial Governments in Health care.</li> <li>• The District Health System, in the context of devolution.</li> <li>• The Physician as a manager:</li> <li>• Functions of manager, management of material, human and financial resources.</li> <li>• Leadership and motivation.</li> <li>• Partners in Health:</li> <li>• The public and private sector.</li> <li>• Nongovernmental Organizations and International Agencies.</li> <li>• Resources for health. Community Mobilization.</li> </ul>	<p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p> <p>C3</p>	<p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p> <p>LEC/SGD</p>	<p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p> <p>MCQ/SEQ</p>

Contents	Objectives	Domain	Strategy	Assessment
<b>Module 3: Epidemiology and disease control</b>				
	<ul style="list-style-type: none"> <li>General epidemiology and research methodology.</li> <li>Background and concepts, uses, basic measurements in epidemiology (morbidity, mortality, disability and fatality).</li> <li>Epidemiological methods (descriptive, analytic and experimental). epidemiological transition. Association and causation.</li> <li>Investigation of an outbreak or an epidemic.</li> <li>Screening for disease. Community diagnosis.</li> <li>Research and survey methodology.</li> <li>Introduction to qualitative research methodology.</li> </ul>	C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 4: Prevention and control of Infectious diseases</b>				
	<ul style="list-style-type: none"> <li>Definitions to differentiate between:</li> <li>Infection, contamination, pollution, infestation</li> <li>Infectious disease, communicable disease, contagious disease</li> <li>Host, Immune and susceptible persons</li> <li>Sporadic, Endemic, Epidemic, Pandemic</li> <li>Epizootic, Exotic, Zoonosis</li> <li>Contact, fomites, Carriers, Insect Vectors, Reservoir of infection</li> <li>Incubation period, Infective period, Generation time</li> <li>Cross infection, Nosocomial infection, Opportunistic infections, iatrogenic (Physician induced) disorders</li> <li>Surveillance, Eradication, Elimination.</li> </ul>	C3 C3 C3 C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 5: Dynamics of infectious disease Transmission</b>				
	<ul style="list-style-type: none"> <li>Reservoir and source of infection, Escape of organism, Mode of transmission, Entry into the body, Susceptible host, Immunity (different types of immunity and immunization)</li> </ul>	C3	LEC/SGD	MCQ/SEQ

Contents	Objectives	Domain	Strategy	Assessment
<b>Module 6: Control of infection.</b>				
	<ul style="list-style-type: none"> <li>Controlling the reservoir-notification, early diagnosis treatment, isolation, quarantine, disinfections.</li> <li>Interruption of transmission.</li> <li>The susceptible host (active &amp; passive immunization, Combined Chemoprophylaxis, Nonspecific measures).</li> <li>Health advice to travelers.</li> <li>National case management guide lines.</li> </ul>	C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 7: Epidemiology, control and prevention of infectious diseases of Public Health importance.</b>				
	<ul style="list-style-type: none"> <li>Diseases transmitted through inhalation</li> <li>Diseases transmitted through faeco-oral route</li> <li>Arthropod borne diseases.</li> <li>Diseases of animals conveyed to man.</li> <li>Diseases due to direct contact</li> </ul>	C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 8: Epidemiology, control and prevention of non-infectious diseases of Public Health importance.</b>				
	<ul style="list-style-type: none"> <li>Hypertension,</li> <li>Coronary heart disease</li> <li>Cancers,</li> <li>Injuries</li> <li>Diabetes mellitus</li> <li>Obesity</li> <li>Rheumatic fever and heart disease.</li> </ul>	C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ

Contents	Objectives	Domain	Strategy	Assessment
<b>Module 9: Biostatistics</b>				
	<ul style="list-style-type: none"> <li>• Concepts and uses</li> <li>• Data and its types</li> <li>• Rates, ratios and proportions</li> <li>• Crude, specific and standardized rates.</li> <li>• Collection and registration of vital events in Pakistan</li> <li>• Sources of health related statistics</li> <li>• Measures of central tendency, (Mean, Median, Mode),</li> <li>• Measures of dispersion (Range, Standard deviation, Standard error)</li> <li>• Normal curve</li> <li>• Methods of data presentation (tables, graphs &amp; diagrams).</li> <li>• Interpretation of data (t-test and Chi-square test)</li> <li>• Sampling and its various techniques.</li> <li>• Health Management Information System</li> </ul>	C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 10: Demography and Population dynamics</b>				
	<ul style="list-style-type: none"> <li>• Concept, demographic principles and demographic processes</li> <li>• Census, definition, methodology, types.</li> <li>• Determinants of fertility, mortality</li> <li>• Population pyramid, and its interpretation.</li> <li>• Demographic transition, demographic trap and its public health importance.</li> <li>• Demographic and social implication of high population growth.</li> <li>• Social mobilization</li> <li>• Urbanization</li> </ul>	C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 11: Food and Nutrition</b>				
	<ul style="list-style-type: none"> <li>• Concepts (nutrition, nutrient, food, diet).</li> <li>• Food groups and their functions.</li> <li>• Role of fiber in diet.</li> <li>• Balanced diet.</li> <li>• Malnutrition at all stages of life its types causes and prevention.</li> <li>• Common nutritional problem of public health importance and their prevention and control.</li> <li>• Dietary requirements of normal human being at different stages of life.</li> <li>• Food hygiene, pasteurization, fortification, additives &amp; adulteration and preservation</li> <li>• Food poisoning</li> <li>• Assessment of nutritional status of a community.</li> </ul>	C3 C3 C3 C3 C3 C3 C3 C3 C3 C3P2A2	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD SGD/LAB	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ OSPE

Contents	Objectives	Domain	Strategy	Assessment
<b>Module 12: Reproductive and child health</b>				
	<ul style="list-style-type: none"> <li>Safe mother hood, and its components. (ante-natal, post-natal, family planning &amp; emergency obstetric care).</li> <li>Maternal mortality, causes and prevention.</li> <li>Infant care: growth and development. Breast feeding,</li> <li>Common causes of morbidity and mortality, their prevention And control.</li> <li>Child care: health promotion strategies. Common ailments, home accidents, child mortality prevention .</li> <li>Strategic approaches of integrated management of childhood illness (IMCI).</li> <li>Adolescent health</li> <li>Reproductive tract infections: guidelines for management of STD's.</li> </ul>	C3  C3 C3 C3 C3  C3 C3 C3	LEC/SGD  LEC/SGD LEC/SGD LEC/SGD LEC/SGD  LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ  MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ  MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 13: Health of school age children.</b>				
	<ul style="list-style-type: none"> <li>Role of teachers and role of doctor in maintenance of health</li> <li>Procedures for determining health status of school age children.</li> <li>Common health problems of school children.</li> </ul>	C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 14: Environmental Health Sciences</b>				
	<ul style="list-style-type: none"> <li>Air: Composition of air. Causes of Air pollution. Purification of Air. Diseases caused by impurities in air and their prevention.</li> <li>Water: Sources of Water. Daily water requirement. Water pollution its causes and prevention. Purification of Water.</li> <li>Water quality Standards. Diseases due to polluted water.</li> <li>Waste disposal: contents, hazards and safety measures for solid and liquid; domestic, industrial and hospital waste.</li> <li>Climate: Climate and weather. Global environmental concerns</li> <li>Green house effect, depletion of ozone layer, acid rains.</li> <li>Effect of extremes of temperature, humidity, atmospheric pressure on human health and their prevention.</li> <li>Radiation: Sources, types, causes , hazards and prevention.</li> <li>Healthful housing. Urban and rural slums. Refugee camps and hostels.</li> <li>Noise : Definition, causes, acceptance level, hazards and control.</li> </ul>	C3  C3 C3  C3 C3 C3  C3 C3 C3	LEC/SGD  LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD  LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ  MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ  MCQ/SEQ MCQ/SEQ MCQ/SEQ

Contents	Objectives	Domain	Strategy	Assessment
<b>Module 15: Occupational Health</b>				
	<ul style="list-style-type: none"> <li>• Concepts, of occupational health, occupational medicine and occupational hygiene.</li> <li>• Ergonomics and its importance.</li> <li>• Occupational hazards. Principles of control.</li> <li>• General principles of occupational disease prevention.</li> <li>• Organization of occupational health services.</li> <li>• Health Insurance and Social Security Schemes Arthropods and their public health importance</li> <li>• Common arthropod borne diseases</li> <li>• Control of arthropods of medical importance.</li> <li>• Insecticides and their public health importance</li> </ul>	C3 C3 C3 C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 16: Arthropods and their public health importance</b>				
	<ul style="list-style-type: none"> <li>• Common arthropod borne diseases</li> <li>• Control of arthropods of medical importance.</li> <li>• Insecticides and their public health importance</li> </ul>	C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 17: Prevention and control of parasitic diseases of public health importance</b>				
	<ul style="list-style-type: none"> <li>• Snake Bites: personal protection and management</li> </ul>	C3	LEC/SGD	MCQ/SEQ
<b>Module 18: Mental Health</b>				
	<ul style="list-style-type: none"> <li>• Concept. Common mental health problems, their causes, prevention and control.</li> <li>• Juvenile delinquency</li> </ul>	C3 C3	LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ
<b>Module 19: Behavioral Sciences and lifestyle</b>				
	<ul style="list-style-type: none"> <li>• Concept, attitudes, health and illness behaviour.</li> <li>• Drug abuse, addiction and smoking</li> <li>• Child abuse and child labour</li> <li>• Role of physical exercise in health and disease.</li> </ul>	C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 20: Information, Education and Communication (IEC)</b>				
	<ul style="list-style-type: none"> <li>• Concept. Aims and objectives</li> <li>• Approaches used in public health</li> <li>• Contents, principles and stages of health education</li> <li>• Communication methods, barriers and skills in health education</li> <li>• Planning, organizing and evaluating a health education programme</li> <li>• Social marketing</li> </ul>	C3 C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ

Contents	Objectives	Domain	Strategy	Assessment
<b>Module 21: Disaster</b>				
	<ul style="list-style-type: none"> <li>Definition, classification, (natural disasters like earthquake, floods.</li> <li>Epidemic of communicable diseases, man made disasters.</li> <li>Accidents, thermo nuclear warfare, causes and prevention),</li> <li>Magnitude and effects of disaster and public health consequences</li> <li>Disaster: preparedness and management</li> </ul>	C3 C3 C3 C3 C3	LEC/SGD LEC/SGD LEC/SGD LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ MCQ/SEQ
<b>Module 22: Medical Ethics</b>				
	<ul style="list-style-type: none"> <li>Background concepts and components</li> <li>National recommended guidelines.</li> </ul>	C3 C3	LEC/SGD LEC/SGD	MCQ/SEQ MCQ/SEQ
<b>Module 23: PRACTICAL AND COMMUNITY BASED TRAINING</b>				
	<ul style="list-style-type: none"> <li>Student should have practical experience in questionnaire development, data collection, compilation, presentation, analysis and report writing.</li> </ul>	C3	LEC/SGD	MCQ/SEQ

Domain	Level
Knowledge	<b>C1</b> Knowledge <b>C2</b> Comprehension <b>C3</b> Application <b>C4</b> Analysis <b>C5</b> Synthesis <b>C6</b> Evaluation
Psychomotor	<b>P1</b> Observe <b>P2</b> Practice <b>P3</b> Adjust <b>P4</b> Master <b>P5</b> Develop <b>P6</b> Construct
Affect	<b>A1</b> Receiving <b>A2</b> Responding <b>A3</b> Valuing <b>A4</b> Organization <b>A5</b> Characterization