

STUDY GUIDE

DEPARTMENT OF COMMUNITY MEDICINE

QUAID-E-AZAM MEDICAL COLLEGE
BAHAWALPUR



DEVOTION **DUTY** **DEDICATION**

TABLE OF CONTENTS

1. Mission of QAMC
2. Departmental Faculty & Staff Hierarchy
3. Introduction / Rationale of Subject
Level of Student: Year MBBS
Duration of Session
- 4.
- 5.
6. Learning Outcomes of Subject
7. Content/Syllabus (PMDC / UHS)

8. Teaching & Learning Methodologies
(Instructional Strategies)
9. Practical And Community Based Training
10. Learning Resources
11. Assessments Methods
12. Formative and Summative Exam
Rules and Regulations
13. Schedule/ Planner/Timetable
14. Counselling
15. Career Guidance
16. Psychosocial Counselling

Vision:

Our vision is to be a global leader in transformative medical education and healthcare delivery.

Mission:

To advance the art and science of medicine through innovative medical education, research, and compassionate healthcare delivery, within available resources, in an environment that advocates critical thinking, creativity, integrity, and professionalism.

DEPARTMENT OF COMMUNITY MEDICINE

FACULTY & STAFF

Head of Department

Prof. Dr Arif Ahmed Zaidi

Associate Professor

Dr Summaira Hassan

Dr Asia aziz

Assistant Professor

Dr Huda Abbas

Dr Wahajat Huassain

Dr Sundas Hamna

APWMO

Dr. Faryal Waheed

APMO

Dr Zafar Chaudry

Sr. Demonstrator

Dr Ashraf Arif

Dr Asif Muneer

Demonstrator

Dr Shanawer Saeed

Dr Hala Bashir

Dr Haseena Rafiq

Dr. Ayesha Kausar

Dr Faryal Rehman

Dr, Hammad Masood

PGR

Dr. Qudsia Anwer

Dr. Fatima Tahir

Dr. Minahil Baig

Dr. Hafsa

Dr Sadia abbasi

Dr.Maryum

TARGET YEARS

First Year MBBS, Fourth Year MBBS

DURATION OF SESSION

March, 2023 – December, 2023

INTRODUCTION

Department of Community Medicine , was established in 1971 with a view to impart community based knowledge and skills to the undergraduate students of MBBS . The department has excelled in not only providing the basic knowledge of Community Medicine but also has pioneered community based research in various fields of Public Health importance. The faculty members and fourth year MBBS students have published numerous articles in indexed journals. The department regularly celebrates National and international health related events and conduct seminars on various health related issues, in which renowned speakers from various fields have been invited to share their expertise with the students and faculty. The Department also has a state of art museum and a library. We have the most qualified faculty in the whole country. Our teaching methodology is problem oriented and student based. Students are evaluated at regular intervals and regular counseling is provided. Our endeavors have been rewarded with excellent results. The Department collaborates with various public and private health institutions and field level organizations where students receive hands on training.

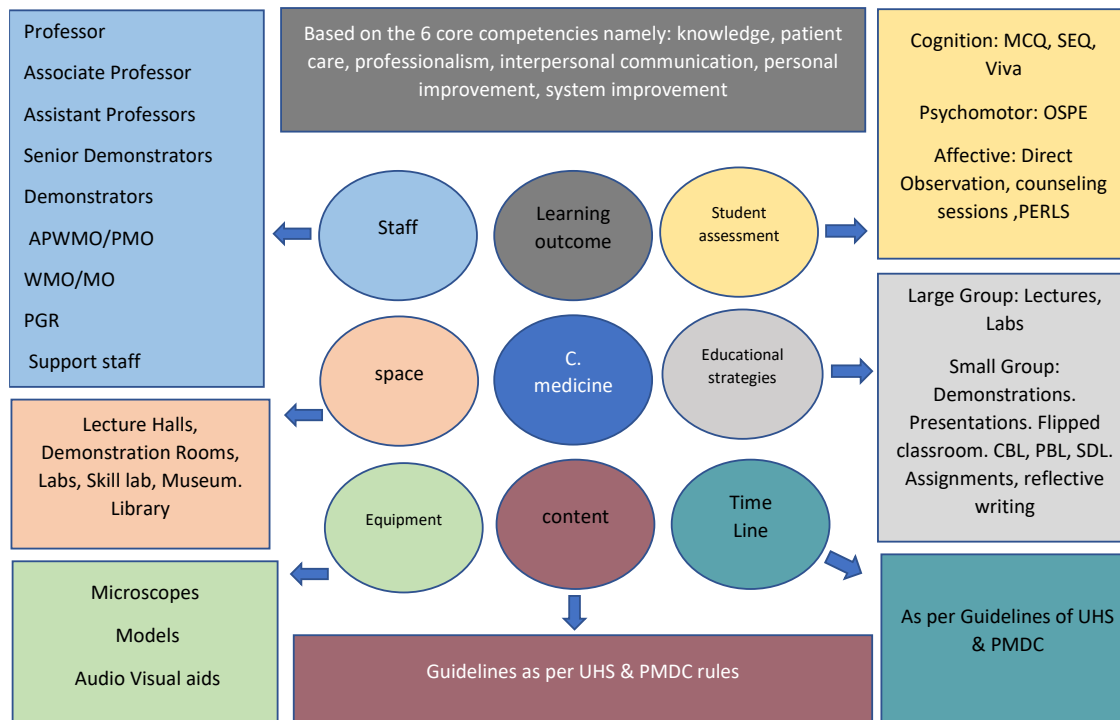
LEARNING OUTCOMES

At the end of the this session medical students should be able to:

1. Appreciate health in a holistic paradigm, in relation to social, economic, environmental and occupational context.
2. Recognize the role of Primary Health Care (PHC) Physician in managing community health.
3. Be familiar with the components and planning of primary health care system.
4. Understand the importance of curative, preventive and promotive aspects of health.
5. Develop skills in communicating with the community.
6. Obtain hands on training in conducting surveys.
7. Conduct research projects and write a research report.

8. Consider a large spectrum of community interventions when dealing with health problems.

Curriculum map of Department of Community medicine



CONTENT OF SYLLABUS (PMDC / UHS)

1. Concept of Health and Disease

- Concept of health,
- Definition of health (dimensions, physical, mental, social and spiritual),
- Spectrum of health,
- Determinants of health,
- Responsibility for health,
- Indicators of health
- Concept of disease,
- Concept of causation (all theories including ecological triad, agent host and environmental factors),
- Spectrum of disease,
- Iceberg phenomenon,
- Natural history of disease,
- Levels of prevention,

- Disease elimination and eradication
- Disease surveillance

2. Introduction to Public Health and Health Systems in Pakistan

- Background and concepts: Definitions and concepts in Public Health.
- Development of Public Health in Pakistan,
- Economics and Health,
- Health Policy and planning in Pakistan,
- 'Health for all': Background, Concepts and Progress,
- Primary Health Care: Concepts and Progress,
- National Disease Control programs, policies, strategies and operations
- Health System in Pakistan: The role of Federal and Provincial Governments in Health care.
- The District Health System in the context of devolution.
- The physician as a manager: Function of manager management of material, human and financial resources, Leadership and motivation,
- Partners in Health: The public and private sector. Nongovernmental Organizations and International Agencies,
- Resources for health,
- Community Mobilization.

3. Epidemiology and disease control

- General Epidemiology and Research methodology
 - Background and concepts, uses, Basic measurements in Epidemiology (morbidity, mortality, disability and fatality), Epidemiological methods (descriptive, analytic and experimental), Epidemiological transition, Association and causation, Investigation of an outbreak or an epidemic
 - Screening for disease, Community diagnosis, Research and survey methodology.
- Introduction to Quantitative and Qualitative research methodology □ Prevention and control of Infectious diseases:

Definitions to differentiate between

- Infection, contamination, pollution, infestation
- Infectious disease, communicable disease, Contagious disease
- Host, Immune and susceptible persons
- Sporadic, Endemic, Epidemic, Pandemic
- Epizootic Exotic, Zoonosis
- Contact, fomites, Carriers, Insect Vectors, Reservoir of Infection

- Incubation period, infective period, generation time
- Cross infection, Nosocomial infection, Opportunistic infections, Iatrogenic (Physician induced) disorders
- Surveillance, Eradication, Elimination.

Dynamics of infectious disease Transmission

- Reservoir and source of infection,
- Escape of organism,
- Mode of transmission,
- Entry into the body,
- Susceptible host,
- Immunity (different types of immunity and immunization)

Control of infection

- Controlling the reservoir-notification, early diagnosis, treatment, isolation, quarantine, disinfections, Interruption of transmission
- The susceptible host (active & passive immunization □ Chemoprophylaxis, Non-specific measures).
- Health advice to travelers
- National case management guide lines.
- Epidemiology, control and prevention of infectious diseases of Public Health importance
- Diseases transmitted through inhalation □ Diseases transmitted through Faeco-oral route □ Arthropod borne diseases.
- Diseases of animals conveyed to man
- Diseases due to direct contact
- Epidemiology, Control and prevention of non-infectious diseases of Public Health importance
- Hypertension,
- Coronary heart disease,
- Cancers,
- Injuries
- Diabetes Mellitus,
- Obesity,
- Acute Rheumatic fever and heart disease.

4. Biostatistics

- Concepts and uses

- Data and its types
 - Rates, ratios and proportions
 - Crude, specific and standardized rates
 - Collection and registration of vital events in Pakistan
 - Sources of health related statistics
 - Measures of central tendency, (Mean, Median, Mode)
 - Measures of dispersion (Range, Standard deviation, Standard error).
 - Normal curve,
 - Methods of data presentation (tables, graphs & diagrams). □ Interpretation of data (t-test and Chi-square test) □ Sampling and its various techniques.
 - Health Management Information System
5. Demography and Population dynamics
- Concept, demographic principles and demographic processes □ Census, definition, methodology, types. □ Determinants of fertility, mortality
 - Population Pyramid and its interpretation
 - Demographic Transition, Demographic Trap and its public health importance.
 - Demographic and social implication of high population growth.
 - Social Mobilization
 - Urbanization
6. Food and Nutrition
- Concepts (Nutrition, Nutrient, Food, Diet). Food groups and their functions.
 - Role of fiber in diet, □ Balanced Diet.
 - Malnutrition at all stages of life, its types causes and prevention, Common nutritional problems of public health importance and their prevention and control. □ Dietary requirements of normal human being at different stages of life.
 - Food hygiene, Pasteurization, fortification, additives and adulteration and preservation.
 - Food poisoning
 - Assessment of nutritional status of a Community.
7. Reproductive, Maternal and Child Health
- Safe motherhood, and its components. (Ante-natal, Post-natal, Family Planning & Emergency Obstetric Care)
 - Maternal mortality causes and prevention.

- Infant care: Health promotion strategies. Common ailments, home accidents child mortality prevention, Strategic approaches of integrated Management of Childhood Illness
- Adolescent health.
- Reproductive tract infections: guidelines for management of STD's.

8. Health of school age children

- Role of teachers and role of doctor in maintenance of health.
- Procedures for determining health status of school age children
- Common health problems of school children

9. Environmental Health Sciences:

- Air Composition of air. Causes of Air pollution, Purification of Air, Diseases caused by impurities in air and their prevention
- Water: Sources of Water. Daily water requirement, Water pollution its causes and prevention, Purification of Water, Water quality Standards. Diseases due to polluted water
- Waste disposal: Contents, hazards and safety measures for solid and liquid; Domestic, Industrial and Hospital waste
- Climate: Climate and weather. Global environmental concerns (Green house effect, depletion of ozone layer, Acid rains).
- Effect of extremes of temperature humidity, atmospheric pressure on human health and their prevention.
- Radiation: Sources, types, causes, hazards and prevention.
- Healthful housing. Urban and rural slums. Refugee camps and hostels. □ Noise: Definition causes. acceptance level, hazards and control

10. Occupational Health

- Concepts, of occupational health, occupational medicine and occupational hygiene. Ergonomics and its importance
- Occupational hazards. Principles of control
- General principles of occupational disease prevention. □ Organization of occupational health services.
- Health Insurance and Social Security Schemes

11. Arthropods and their public health importance

- Common arthropod borne diseases
- Control of arthropods of medical importance.
- Insecticides and their public health importance

12. Prevention and control of parasitic diseases of public health importance

13. Snake Bites: Personal protection and management

14. Mental Health:

- Concept, Common mental health problems, their causes, prevention and control. Juvenile delinquency

15. Behavioral Sciences and lifestyle:

- Concept, attitudes health and illness Behavior
- Drug abuse, addiction and smoking
- Child abuse and child labor
- Role of physical exercise in health disease

16. Information, Education and Communication (IEC)

- Concept, Aims and objectives
- Approaches used in public health
- Contents, principles and stages of health education
- Communication methods, barriers and Skills in health education
- Planning, organizing and evaluating a health education programme
- Social marketing

17. Disaster:

- Definition,
- Classification, (Natural disasters like earthquake floods,
- Epidemic of communicable diseases,
- Man Made Disasters,
- Accidents, thermonuclear warfare, causes and prevention),
- Magnitude and effects of disaster and Public Health consequences,
- Disaster Preparedness
- Disaster Management

18. Medical Ethics:

- Background concepts and components □ National recommended guidelines.

CM-C-1

CHAPTER 1:		CONCEPT OF HEALTH AND DISEASE			
<p>Outcomes</p> <p>Knowledge: The student should be able to:</p> <ul style="list-style-type: none"> • Define health, disease, illness and wellbeing. • Explain spectrum and determinants of health. • List different levels of prevention. • Classify and estimate indicators of health. <p>Skill: Not Applicable</p> <p>Attitude: Punctuality & participation in SGD</p>					
Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)

Concept of Health	<input type="checkbox"/> Describe the changing concepts and new philosophy of health	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Definition of health	<ul style="list-style-type: none"> • Define health as by WHO. • Operational definition 				
Dimensions, physical, mental, social & spiritual	<ul style="list-style-type: none"> • Explain different dimensions of health • Concept of positive health and wellbeing • Estimate physical quality of life (PQLI) and human development index (HDI) 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Active listening, respond actively in small group discussion

Spectrum of health, determinants of health	<input type="checkbox"/> Describe the spectrum of health and sickness <input type="checkbox"/> Explain the determinants, internal and external factors, affecting health	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Active listening, respond actively in small group discussion
Responsibility for health	<input type="checkbox"/> Identify the responsibilities of an individual, a community, state and at international level for health				
Indicators of health	<input type="checkbox"/> Define health indicators, and describe the characteristics of indicators <input type="checkbox"/> Classify various health indicators along with their definition and estimation <input type="checkbox"/> Millennium Development Goal (MDG) and Sustainable Development Goal (SDG) Indicators	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Active listening, respond actively in small group discussion
Health promotion	<input type="checkbox"/> Define health promotion and its interventions	SGD	MCQ	Nil	Active listening

Concept of disease, concept of causation (all theories including ecological triad, agent, host & environmental factors), spectrum of disease	<input type="checkbox"/> Explain concept of disease cause, germ theory, epidemiological triad, multifactorial causation and web of causation <input type="checkbox"/> Describe the concept of gradient of infection and its“ graphic representation <input type="checkbox"/> Explain the phenomenon of iceberg of disease and its“ relation to various diseases	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Natural history of disease	<input type="checkbox"/> Describe the natural history of disease, pre-pathogenesis and pathogenesis phase, causative factors (agent, host and environment), risk factors and groups	SGD	MCQ	Nil	Active listening
Levels of prevention	<input type="checkbox"/> Explain the concept of prevention <input type="checkbox"/> Classify different levels of prevention Apply levels of prevention on different diseases <input type="checkbox"/>	SGD	MCQ	Nil	Active discussion and hands on filling the tabulated Performa to apply level of prevention
Disease elimination and eradication	<input type="checkbox"/> Define and differentiate between the two terms elimination and eradication	SGD	MCQ	Nil	Active listening

Disease surveillance and disease prevention	<input type="checkbox"/> Define surveillance, classify and describe different types and uses Differentiate between monitoring and surveillance <input type="checkbox"/> surveillance				
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CM-C-2

CHAPTER 2:	INTRODUCTION TO PUBLIC HEALTH
<p><u>Outcomes</u></p> <p>Knowledge: At the end of this topic the student should be able to:</p> <ul style="list-style-type: none"> • Discuss in detail the evolution of public health & its importance. • Describe „health for all“ and primary health care • Understand the process of development of public health in Pakistan. <p>Skill: Not applicable</p> <p>Attitude: The students will be able to develop active listening and participate and respond actively in small group discussion.</p>	

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Historical background	<ul style="list-style-type: none"> Describe the changing concepts and new philosophy of public health in lieu with historical background. Appreciate the depth of history, development and progress of public health in Pakistan. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Evolution of public health	☐ Recognize the evolution of public health as a scientific discipline.				
Definition of public health	<ul style="list-style-type: none"> Define different terms related to public health Explain the concept of public health in Pakistan. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Active listening, respond actively in small group discussion

Branches of public health	☐ Identify different domains of public health along with their importance.	Interactive Lecture	MCQ, SAQ,	Nil	Active listening,
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Preventive medicine, Social medicine, population medicine, Community medicine	<ul style="list-style-type: none"> ☐ Differentiate between preventive, social, population & community medicine. ☐ Major social, cultural, and behavioral patterns of health in community settings. ☐ Describe major public health interventions to improve health in all settings. ☐ Describe basic research on leading health conditions, in aspect of preventive, social, population & community perspective. 	SGD	OSPE C1, C2, C3		respond actively in small group discussion
International health	<ul style="list-style-type: none"> ☐ Explain an overview of the most important health challenges facing the world today. ☐ Explain the role, importance and working of international agencies in Pakistan ☐ The student should gain insight into how challenges have changed over time. ☐ Discuss the likely determinants of such changes. ☐ Successful international strategies and programs by different international agencies, promoting human health will be highlighted. 	Interactive Lecture SGD	MCQ SAQ	Nil	Punctuality & participation in SGD A1, A2
Health for all	<ul style="list-style-type: none"> ☐ Define and explain concept of „health 				

	<p>for all“</p> <p>☐ Describe primary health care, concept, planning, guidelines, implementation and constraints in Pakistan</p> <p>☐ Differentiate between comprehensive and selective primary health care</p>	<p>Interactive Lecture SGD</p>	<p>MCQ SAQ</p>	<p>Nil</p>	<p>Punctuality & participation in SGD A1, A2</p>
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CM-C-5

Outcomes

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

- Explain the concept of biostatistics, its uses and classify data types
- Calculate and interpret data, rates, ratios, proportion, crude, specific and standardized rates □ Interpret p-value
- Describe various sampling techniques along with its application in given scenario/research
- Differentiate between null and alternate hypothesis, recall steps of its testing and indicate probable errors
- Explain collection and registration of vital events and sources of health related statistics **Skill:** The student should be able to:
- Enter the data in SPSS software independently.
- Analyze the data and apply appropriate test of significance according to type of data.

Attitude: The students will be able to develop active listening, participate and respond actively in small group discussion.

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Concepts and uses	<ul style="list-style-type: none"> • Define biostatistics • Explain the basic concept and uses of biostatistics and its application in health 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Data and its types	<ul style="list-style-type: none"> • Define data with classification of different types of data • Classify the types of variables in a given data set • To know the Concept, and uses, the 	SGD		Data entry independently in SPSS software	

	Data types, presentation interpretation ,measure of central tendency ,dispersion ,sapling and types							
Rates, ratios and proportions	<input type="checkbox"/> Differentiation between the tools of measurement i.e. rates, ratio and proportion <input type="checkbox"/> Explain concept of numerator and denominator related to population and events <input type="checkbox"/> Calculate and interpret different rates, ratio and proportion	SGD Numerical calculations	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2			
Crude, specific and standardized rates	<input type="checkbox"/> Explain the concept of standardization <input type="checkbox"/> Calculate, interpret and apply different crude, specific and adjusted/standardized (direct & indirect) rates							
Collection and registration of vital events in Pakistan	<input type="checkbox"/> Describe the importance, uses and procedure of collection and registration of various vital events in Pakistan. <input type="checkbox"/> Describe the sources of health related statistics.	Identify the graphical presentation in SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Participation in SGD A1, A2			
Measures of central tendency (Mean, Medium, Mode)	<input type="checkbox"/> List the different measures of central tendency <input type="checkbox"/> Calculate, interpret and apply these measures (mean, median and mode) <input type="checkbox"/> Explain concept and characteristics of normal distribution	Lecture/ Calculations in SGD	MCQ, SAQ, OSPE C1, C2, C3	Analyze data and calculate mean, median, mode of data in SPSS	Punctuality & participation in SGD A1, A2			

Measures of dispersion (Range, Standard deviation, Standard error)	<input type="checkbox"/> List the different measures of dispersion <input type="checkbox"/> Calculate, interpret and apply these measures (range, mean deviation, standard deviation, variance)	Lecture/ Calculations in SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Normal curve	<input type="checkbox"/> Describe the characteristics of standard normal curve <input type="checkbox"/> Comprehend normal curve, methods of presentation and interpretation of data	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Methods of data presentation (tables, graph & diagrams)	<input type="checkbox"/> List different methods of data presentation (tables, charts and diagrams) <input type="checkbox"/> Interpret different forms of data presentation Define sampling <input type="checkbox"/> Describe different methods of sampling and its application Explain <input type="checkbox"/> sampling frame, sampling and non-sampling errors and standard error	SGD	MCQ, SAQ, OSPE C1, C2, C3	Student is able to present data in form of graphs, tables and diagrams	Punctuality & participation in SGD A1, A2
Sampling and its various techniques	<input type="checkbox"/> Describe various sampling techniques <input type="checkbox"/> Apply various sampling techniques accordingly in given scenario/research	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

CHAPTER 6:	DEMOGRAPHY AND POPULATION DYNAMICS
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Outcomes

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

- Comprehend the concept of demography and its applications in health system □ Describe the methods and types of census.
- Describe stages of demographic transition
- Understand concept of demographic trap, population density, dynamics and momentum
- Calculate fertility and mortality rates, dependency ratio, demographic equation and growth rate □ Interpret population pyramid of various countries. **Skill:** The student is able to:
 - Draw population pyramid at the values provided by the facilitator.

Attitude: The students will be able to develop active listening, participate and respond actively in small group discussion.

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Concept, demographic principles and demographic processes	<ul style="list-style-type: none"> • Define the terms demography and population dynamics • Comprehend the concept of demography, its“ various principles and processes (fertility, mortality, marriage, migration and social mobility) • Apply concepts of demography in health system 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

Census, definition, methodology,	<ul style="list-style-type: none"> Define census Describe the methods and types of census 	Interactive Lecture SGD	MCQ, SAQ, OSPE	Nil	Punctuality & participation
types			C1, C2, C3		in SGD A1, A2
Determinants of fertility, mortality	<input type="checkbox"/> Describe various demographic factors affecting fertility <input type="checkbox"/> Calculate, interpret and apply the measures of fertility and mortality	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Population pyramid and its interpretation	<input type="checkbox"/> Explain population structure Describe the features of population pyramid. <input type="checkbox"/> Compare and interpret the pyramid of various developed and developing countries	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Student is able to draw population pyramid on provided values	Punctuality & participation in SGD A1, A2
Demographic transition, demographic trap and its public health importance	<input type="checkbox"/> Explain the concepts of demographic transition and demographic trap <input type="checkbox"/> Apply the stages of transition on various countries of different regions	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

<p>Demographic and social implication of high population growth</p>	<ul style="list-style-type: none"> ☐ Describe the effect of population momentum on growth of population ☐ Understand concept of population density and population dynamics or change ☐ Calculate, interpret and apply, dependency ratio, demographic equation, growth rate and population doubling time ☐ Describe the effect of population momentum on growth of population. 	<p>Interactive Lecture SGD</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Punctuality & participation in SGD A1, A2</p>
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Social mobilization	<input type="checkbox"/>	Describe the concept of social mobility and the factors related to it	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Urbanization	<input type="checkbox"/>	Describe the concept of urbanization and the factors related to increase in urbanization				

CM-C-7

CHAPTER 7: NUTRITION AND HEALTH (INTEGRATED)

Outcome

Knowledge: The student should be able to

- Understand all concepts pertaining to nutrition.
- Discuss nutritional requirements and guidelines.
- Comprehend the nutritional assessment and counselling.
- Explain food hygiene and safety in detail
- Explain the importance of a nutritious diet in health and development
- Explain Dietary requirements and recommendations in life and food-based guidelines

Skill: The student should be able to do:

- Nutritional counselling to individuals.

Attitude: The students will be able to develop active participation and respond actively in small group discussion.

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)	Weightage %	Sequence In course	Integration Potential
Concepts (Nutrition, Nutrients, Food, Diet)	<ul style="list-style-type: none"> • Explain concepts of nutrition and differentiate between nutrition, nutrient, food and diet • Identify the functions and the deficiencies of the macro & micronutrient. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2	8%	10 in 17	Biochemistry & Paeds

Food groups and their functions	<ul style="list-style-type: none"> • Explain different food groups • Explain the public health importance of different food group's deficiencies, preventive & control measures in Pakistan. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
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Role of fiber in diet, Balanced diet	<input type="checkbox"/> Define the dietary fiber <input type="checkbox"/> Identify the types, sources & daily requirement of fiber. <input type="checkbox"/> Describe and apply balanced diet in given scenario. <input type="checkbox"/> Identify the food guide pyramid.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Malnutrition at all stages of life, its types, causes and prevention	<input type="checkbox"/> Classify and differentiate malnutrition in detail <input type="checkbox"/>	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Common nutritional problems of public health importance and their prevention and control	<input type="checkbox"/> Discuss protein energy malnutrition in accordance with its differences, treatment options and preventive measures	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nutritional Counselling	Punctuality & participation in SGD A1, A2
Dietary requirements of normal human being at different stages of life	<input type="checkbox"/> Express macro and micronutrients based on their daily requirements	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nutritional Counselling	Punctuality & participation in SGD A1, A2

Food hygiene, pasteurization, fortification, additives and adulteration and presentation	<input type="checkbox"/> Define and describe food hygiene, pasteurization, additives, adulteration and preservation <input type="checkbox"/> Explain procedures involved in food hygiene, pasteurization, additives, adulteration and preservation <input type="checkbox"/> Discuss their public health importance	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2	8%
Nutritional diseases and Programs	<input type="checkbox"/> Classify food borne diseases in detail <input type="checkbox"/> List causes and risk factors <input type="checkbox"/> Discuss preventive and control measures <input type="checkbox"/> Explain nutritional programs and the services provided by these programs	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2	8%
Assessment of nutritional status of a community	<input type="checkbox"/> To understand the basic anthropometric techniques, applications & reference standards. <input type="checkbox"/> List the measures used to assess nutritional status <input type="checkbox"/> Explain the use of these measures for assessing nutritional status	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nutritional Counselling	Punctuality & participation in SGD A1, A2	8%

CM-C-8

CHAPTER 8:	REPRODUCTIVE AND CHILD HEALTH (INTEGRATED)
<p><u>Outcome</u></p> <p>Knowledge: The student should be able to:</p> <ul style="list-style-type: none">• Define reproductive health and its components □ Explain safe motherhood.• Define maternal mortality, causes and risk factors along with prevention strategies used to reduce it.• Calculate and interpret maternal and child health mortality measures.• Explain and discuss infant, child care with reference to growth and development, common ailments, home accidents and preventive measures.• Understand the concept of IMNCI and its guidelines.• Classify and describe STI based on syndromic management.• Understand the importance of School health, role of teachers and health care personnel and discuss common health problems and their solutions in school going children <p>Skill: The student should be able to do:</p> <ul style="list-style-type: none">• Nutritional counselling in antenatal to pregnant females.• Counselling regarding care of the cord and eyes of newborn to mothers.• Breastfeeding counselling to mothers. <p>Attitude: The students will be able to develop active participation and respond actively in small group discussion.</p>	

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Safe motherhood and its components	<input type="checkbox"/> Discuss all four pillars, antenatal, postnatal, family planning and natal care in detail	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD

					A1, A2
Antenatal, Postnatal, Family planning and Emergency Obstetric care	<input type="checkbox"/> Explain objectives, visits, risk approach and high risk pregnancies, antenatal examinations, investigations and prevention of tetanus neonatorum as well as screening for various diseases in pregnancy. <input type="checkbox"/> Describe natal care, clean and safe delivery, rule of 3c's. <input type="checkbox"/> Describe family planning, its objectives, important definitions <input type="checkbox"/> Explain cafeteria choice, gather technique in detail <input type="checkbox"/> Explain all family planning methods in detail with their side effects and contraindication <input type="checkbox"/> Calculate and interpret Pearls index and Contraceptive prevalence rate <input type="checkbox"/> Discuss unmet need for contraception	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Counselling regarding nutrition of the female in pregnancy and after delivery, care of the cord, care of the eyes of newborn and counselling about family planning methods.	Punctuality & participation in SGD A1, A2

Maternal mortality and its causes and prevention	<ul style="list-style-type: none"> ☐ Discuss in detail maternal mortality causes, implications ☐ Calculate and interpret maternal mortality rate and ratio ☐ Discuss prevention and interventions used to reduce the rate, three delay model ☐ Describe in accordance with MDG and SDG 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Infant care, Growth and development	<ul style="list-style-type: none"> ☐ Define different stages of infancy ☐ Describe care of infants after delivery, care of cord, eyes, temperature and skin 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Counselling to mothers regarding	Punctuality & participation in SGD
				care of the cord, care of the eyes of newborn.	A1, A2
Breast feeding, common causes of morbidity and mortality, their prevention and control	<ul style="list-style-type: none"> ☐ Discuss in detail growth and development in context to breastfeeding, weaning practices, milestone development and assessment using growth chart. In addition to kangaroo mother care and baby friendly hospital. ☐ Calculation of perinatal, neonatal, post neonatal, infant, child and underfive mortality rates. ☐ Discuss in detail preventive and control measures for infant mortality rate 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Breast feeding counselling.	Punctuality & participation in SGD A1, A2

Child care, Child health surveillance	<input type="checkbox"/> Describe strategies pertaining to health promotion for child care. <input type="checkbox"/> Discuss common ailments, home accidents with reference to their prevention and control	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Strategic approaches of Integrated Management of Childhood Illness (IMNCI)	<input type="checkbox"/> Understand and apply all concepts of IMNCI for both children aged less than two years and aged 2-5 years. <input type="checkbox"/> Apply, interpret and fill case based forms and evaluation forms of IMNCI	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Adolescent health	<input type="checkbox"/> Describe and discuss common problems associated with adolescent health	SGD	MCQ, SAQ, OSPE C1, C2, C3	Counselling	Punctuality & participation in SGD A1, A2
Reproductive tract infection	<input type="checkbox"/> Discuss in detail the reproductive tract infections. <input type="checkbox"/> Differentiate RTI from other infections.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Sexually transmitted diseases	<input type="checkbox"/> Classify and recognize STD based on causative organisms, sign and symptoms <input type="checkbox"/> Understand the concept of syndromic management <input type="checkbox"/> Explain management based on guidelines of syndromic management of all STD	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

CHAPTER 9:	ENVIRONMENTAL HEALTH SCIENCES
<p>Outcomes</p> <p>At the end of this topic the student should be able to:</p> <ul style="list-style-type: none"> • Recognize the milestones in the struggle for development of environment safety. • List common environmental disease and measures to prevent them. • Describe the role of environment on human health. • Apply measures of prevention and control of environmental health hazards. • Describe the public health importance of housing. • Explain, sources, health effects and preventive measures of noise <p>Skill: Not applicable</p> <p>Attitude: The students will be able to develop active participation and respond actively in small group discussion.</p>	

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Air, Composition of air	□ Explain air composition of air, air changes of occupied rooms, discomforts, indices of thermal comfort and comfort zones	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

Causes of Air pollution	<ul style="list-style-type: none"> Define basic types and sources of air pollution, meteorological factors Explain different individual air pollutants and indoor air pollution Describe guidelines and indicators for monitoring the air pollution Enlist different effects of air pollution including health, social and economic 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
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	aspects				
Purification of Air	<input type="checkbox"/> Explain the concept of purification of air in detail.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Diseases caused by impurities in air and their prevention	<input type="checkbox"/> Identify the diseases caused by air pollutants. <input type="checkbox"/> Apply measures of control and prevention of air pollution	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Water: Sources of water, Daily water requirement	<input type="checkbox"/> Explain safe and wholesome water, requirements and uses of water, different sources of water <input type="checkbox"/> Steps and elements of surveillance program of drinking water quality <input type="checkbox"/> Explain hardness of water and methods of special treatment of water <input type="checkbox"/> Describe distribution and supply of water and swimming pool sanitation	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

Water pollution, its causes and prevention	<input type="checkbox"/> Explain recommended guidelines, criteria and standards for safe drinking water.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Purification of water, Water quality standards	<input type="checkbox"/> Describe different methods of purification of water on a large and small scale. <input type="checkbox"/> Describe sources of water, its pollution and related health diseases and purification of water.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Diseases due to polluted water	<input type="checkbox"/> Able to identify water pollutants and diseases caused by them.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

<p>Waste disposal: Contents, hazards and safety measures for solid and liquid, Domestic, Industrial and Hospital waste (Global and Marine problems)</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Define solid waste and explain sources, collection and methods of disposal <input type="checkbox"/> Describe public health importance of waste disposal, its related diseases and methods of excreta disposal at domestic, industrial and hospital level. 	<p>Interactive Lecture SGD</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Punctuality & participation in SGD A1, A2</p>
<p>Climate: climate and weather</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Differentiate between climate and weather. <input type="checkbox"/> Measure the effect of climate change on health. <input type="checkbox"/> List the diseases related to climate change on health and measures to prevent them. 	<p>Interactive Lecture SGD</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>participation in SGD A1, A2</p>

<p>Global environmental concerns (Greenhouse effect, depletion of Ozone layer, Acid rains) Effect of extremes of temperature, humidity, atmospheric pressure on human health and their prevention</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Describe global warming, greenhouse effect, depletion of ozone layer, acid rain and their effects on health. <input type="checkbox"/> Explain effects of climate and weather extremes <input type="checkbox"/> Apply measures of prevention for extreme climate and weather 	<p>Interactive Lecture SGD</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Punctuality & participation in SGD A1, A2</p>
<p>Radiation: Sources, types, causes, hazards and prevention</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Explain sources of radiation, types and effects of radiation on human health. <input type="checkbox"/> Apply measures of prevention and control for radiation. 	<p>Interactive Lecture SGD</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>participation in SGD A1, A2</p>
<p>Healthful housing, Urban and rural slums</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Describe the public health importance of housing. <input type="checkbox"/> Explain concept of housing and health, overcrowding and its calculation, indicators of housing. <input type="checkbox"/> List the requirements of healthful housing. <input type="checkbox"/> Apply measures of control and prevention of housing hazards 	<p>Interactive Lecture SGD</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Punctuality & participation in SGD A1, A2</p>

Noise: Definition, causes, acceptance level, hazards and control	<input type="checkbox"/> Define noise <input type="checkbox"/> Explain sources, properties and effects of noise on human health. <input type="checkbox"/> Able to identify different levels of noise and its hazards. <input type="checkbox"/> Apply measures of control and prevention of noise	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
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CM-C-11

CHAPTER 11:					
Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Definition to differentiate between infection, contamination, pollution, infestation, Infectious disease, communicable disease, contagious disease	<ul style="list-style-type: none"> Define and differentiate important epidemiological terms of infection, contamination, pollution and infestation. Identify infectious diseases vs communicable disease and contagious disease. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Host, Immune and susceptible persons	<input type="checkbox"/> Differentiate between the concept of host, immune and susceptible person.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	participation in SGD A1, A2

Sporadic, endemic, epidemic, pandemic	<input type="checkbox"/> List diseases according to sporadic, endemic, epidemic and pandemic criteria. <input type="checkbox"/> Explain agent, host and environment relationship.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	participation in SGD A1, A2
Epizootic, exotic, zoonotic	<input type="checkbox"/> Differentiate between epizootic, exotic and zoonotic disease in accordance to their public health importance.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	participation in SGD A1, A2
Contact, fomites, carriers, insect vectors, reservoir of infection	<input type="checkbox"/> Define the terms carriers, vectors and reservoir of infection. <input type="checkbox"/> Identify these terms in the given scenario.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	participation in SGD A1, A2
Incubation period, infective period, generation time	<input type="checkbox"/> Describe the public health importance of incubation period, infective period and generation time.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	participation in SGD A1, A2
Cross infection, nosocomial infection, opportunistic infections,	<input type="checkbox"/> Identify the nosocomial, opportunistic and cross infections. <input type="checkbox"/> Describe importance of nosocomial infection.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	participation in SGD A1, A2

Iatrogenic (Physician induced) disorder					
Surveillance control, Eradication, Elimination	<input type="checkbox"/> Differentiate eradication and elimination on the basis of WHO definition. <input type="checkbox"/> Discuss the surveillance control strategies of WHO for infectious diseases.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	participation in SGD A1, A2

CM-C-12

CHAPTER 12:					
Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Hypertension	<ul style="list-style-type: none"> Explain the classification of hypertension. Identify and explain the magnitude of the problem in accordance with Rule of halves and Tracking. Identify the risk factors.(modifiable & non-modifiable) Explain the public health importance of hypertension along with the prevention strategies. 	Interactive Lecture SGD Presentations by students	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Coronary heart disease	<ul style="list-style-type: none"> Identify the risk factors for CHD. Define and interpret measurements to estimate the burden of coronary heart disease 	Interactive Lecture SGD Presentations	MCQ, SAQ, OSPE C1, C2,	Nil	Actively involved in discussion
	<input type="checkbox"/> Apply the level of prevention for CHD.	by students	C3		
Cancers	<input type="checkbox"/> Identify the causes and risk factors of cancers.				

	<ul style="list-style-type: none"> <input type="checkbox"/> Identify the commonest cancers & their prevalence in Pakistan. <input type="checkbox"/> Explain in detail cancer screening for cervical, breast and lung cancer. <input type="checkbox"/> Discuss epidemiological burden of disease <input type="checkbox"/> Apply preventive and control measures for cancers individually and in general. 	<p>Interactive Lecture SGD Presentations by students</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Actively involved in discussion</p>
Injuries	<ul style="list-style-type: none"> <input type="checkbox"/> Discuss magnitude of the problem <input type="checkbox"/> Classify types of accidents List and explain risk factors with reference to multiple causation <input type="checkbox"/> Explain prevention and control measures in detail 	<p>Interactive Lecture SGD Presentations by students</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Actively involved in discussion</p>
Diabetes mellitus	<ul style="list-style-type: none"> <input type="checkbox"/> Classify types based on clinical classification. <input type="checkbox"/> Explain the WHO recommendations for the diagnostic criteria for diabetes & intermediate hyperglycemia. <input type="checkbox"/> Understand the public health importance of screening for Diabetes. <input type="checkbox"/> Explain and apply prevention and control measures in detail 	<p>Interactive Lecture SGD Presentations by students</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Actively involved in discussion</p>
Obesity	<ul style="list-style-type: none"> <input type="checkbox"/> Discuss the epidemiological determinants and factors associated with obesity Classify <input type="checkbox"/> BMI <input type="checkbox"/> Discuss and interpret assessment of obesity based on different measurements <input type="checkbox"/> Describe prevention and control measures 	<p>Interactive Lecture SGD Presentations by students</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<p>Nil</p>	<p>Active listening & involvement in discussion</p>

Acute Rheumatic fever and heart diseases	<input type="checkbox"/> Apply epidemiological triad Describe <input type="checkbox"/> WHO/ Jones criteria for diagnosis. <input type="checkbox"/> Discuss prevention and control of disease	Interactive Lecture SGD Presentations by students	MCQ, SAQ, OSPE C1, C2, C3	Nil	Active listening
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CHAPTER 13:	ARTHROPODS AND THEIR PUBLIC HEALTH IMPORTANCE
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Outcome

Knowledge: The students will be able to:

- Classify and recognize common arthropod borne disease.
- Classify and discuss insecticides with reference to their public health importance.
- List the preventive measures which can be applied to arrest their spread and measures to increase community awareness.

Skill: Not applicable

Attitude: The students will be able to develop active participation and respond actively in small group discussion.

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Common arthropod borne diseases	<ul style="list-style-type: none"> • Classify arthropods and diseases caused by them • Recognize diseases based on their sign and symptoms 	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Control of arthropods of medical importance	<ul style="list-style-type: none"> □ Apply the levels of prevention and discuss the control measures. 	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Insecticides and their public health importance	<ul style="list-style-type: none"> □ Classify insecticides and discuss their application for different arthropod diseases. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

CM-C-14

CHAPTER 14:		SNAKE BITES			
Outcome					
Knowledge: The student will be able to:					
<ul style="list-style-type: none"> • Classify snakes. • Recognize the type of snake based on sign and symptoms. • Apply management measures. Skill: Not applicable 					
Attitude: The students will be able to develop active participation and respond actively in small group discussion.					
Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Identification, personal protection and management	<ul style="list-style-type: none"> • Classify snakes • Recognize the type of snake based on sign and symptoms • Discuss general and specific management based on type of snake and sign and symptoms. • Apply preventive and control measures. 	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

CM-C-15

CHAPTER 15:					
Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Concept, common mental health problems , their causes, prevention and control	<ul style="list-style-type: none"> • Discuss the global burden of disease. • Classify and identify causes of common mental health problems in Pakistan and worldwide. • Identify warning signs of a mentally ill person. • Apply general and specific preventive measures based on levels of prevention. • Describe mental health services and its components. 	Interactive lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Juvenile delinquency	<ul style="list-style-type: none"> <input type="checkbox"/> Define juvenile delinquency. <input type="checkbox"/> Enlist its causes and risk factors. <input type="checkbox"/> Explain its prevention in the society. 	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

Drug abuse, Addiction and smoking	<input type="checkbox"/> Define drug, drug abuse and drug dependence. <input type="checkbox"/> Identify the symptoms and harmful effects of drug abuse, addiction and smoking on human health. <input type="checkbox"/> Apply the preventive measures for drug abuse and smoking. <input type="checkbox"/> Describe the Tobacco Free Initiative Program in Pakistan	SGD	MCQ, SAQ, OSPE C1, C2, C3	Counselling	Punctuality & participation in SGD A1, A2
Child abuse and child labor	<input type="checkbox"/> Define terms like child abuse and child labor. <input type="checkbox"/> Differentiate between different types of child abuse. <input type="checkbox"/> Enlist types of child labor.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Selfmedication	<input type="checkbox"/> Explain the concept of selfmedication, its implications on individual's health.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Counselling	Punctuality & participation in SGD A1, A2

Outcome

Knowledge: At the end of this topic the student should be able to: □

Classify different types of disasters

- Describe magnitude of the problem.
- Enumerate the steps in planning disaster management. **Skill:** Not applicable

Attitude: The students will be able to develop active participation and respond actively in small group discussion.

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Definition, Classification (Natural disasters like earthquakes, floods)	<ul style="list-style-type: none"> • Define disaster and differentiate it with hazard • Classify different types of disasters. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Epidemic of communicable diseases, Man Made Disaster, Thermonuclear warfare	<ul style="list-style-type: none"> • Discuss the effects of disaster in details. • Identify the steps of management for disaster and communicable disease spread due to disaster. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

Magnitude and effects of disaster and public health consequences	<input type="checkbox"/> Describe the magnitude and effects of different types of disasters. <input type="checkbox"/> Explain the public health consequences of a disaster.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Disaster preparedness and management	<input type="checkbox"/> Explain the different phases of disaster cycle in detail. <input type="checkbox"/> Enlist the steps for management of a disaster and its preparedness.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Accidents: Definition, classification, prevention	<input type="checkbox"/> Describe injury and accident and its different types. <input type="checkbox"/> List and explain risk factors with reference to multiple causation. <input type="checkbox"/> Enumerate the issues surrounding the road traffic accidents. <input type="checkbox"/> Explain prevention and control measures in context to accidents.	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

CHAPTER 17:

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Health planning, planning cycle	<ul style="list-style-type: none"> • Define health planning. • Explain the planning cycle. • Formulate a plan, organize and evaluate a health education program 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Management and administration	<ul style="list-style-type: none"> • Define health management and health administration. • Describe the role of a manager and an administrator. • Enumerate principles and functions of management. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Management methods and techniques	<ul style="list-style-type: none"> <input type="checkbox"/> Differentiate the methods of management. <input type="checkbox"/> Apply different techniques of economic evaluation according to scenario. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Planning, programming budgeting system	<ul style="list-style-type: none"> <input type="checkbox"/> Comprehend the concept of budget programming. <input type="checkbox"/> Formulate a budget plan. 	Interactive Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

CM-C-3

CHAPTER 3:					
Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)

Development of public health in Pakistan	<ul style="list-style-type: none"> Define different terms related to public health. Explain the concept of public health in Pakistan Describe the history, development and progress of public health in Pakistan. Discuss the development of public health in Pakistan. 	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Health policy and planning in Pakistan	<ul style="list-style-type: none"> Discuss the health policies and health planning in Pakistan. Discuss the different health policies of Pakistan and its" planning, with criteria, areas and issues covered. 	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
"Health for all" background, concepts and progress	<ul style="list-style-type: none"> Define and explain concept of „health for all“ Conceptualize the concept of PHC, MDGs, and SDGs. Differentiate between comprehensive and selective primary health care. 	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
The National Disease Control programs, policies, strategies and operations	<ul style="list-style-type: none"> Discuss briefly the different national disease control programs operating in Pakistan with their aims, objectives, steps taken and targets achieved. 	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Visit to IPH to see the working of different control programs. (report writing by students)	Punctuality & participation in SGD A1, A2

Health systems in Pakistan: The role of Federal and Provincial Governments in Health care	<input type="checkbox"/> Identify role of federal and provincial governments in healthcare settings in Pakistan.	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
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The District Health system, in the context of devolution.	<input type="checkbox"/> Describe the district health systems in Pakistan, tiers of health delivery systems, services, resources and the problems encountered. <input type="checkbox"/> Explain the concept of devolution.	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Visit to BHU, RHC for clear understanding of health tiers. (report writing by students)	Punctuality & participation in SGD A1, A2
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The Physician as a manager: Functions of manager management of material, human and financial resources	<input type="checkbox"/> Explain the role of physician as a manager. <input type="checkbox"/> Differentiate between manager and leader. <input type="checkbox"/> Provide basic understanding of management and its importance, managerial functions of planning, organizing, leading and controlling.	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
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Leadership and motivation	<input type="checkbox"/> Define leadership and its approaches. <input type="checkbox"/> Discuss the important leadership traits and skills. <input type="checkbox"/> Discuss the functions of effective leadership. <input type="checkbox"/> Differentiate between leadership and roles of motivation. <input type="checkbox"/> Explain how motivation can bring change in person and in society.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Partners in Health: The public and private sector	<input type="checkbox"/> Discuss the role of Public and private and Non- Governmental Organizations. <input type="checkbox"/> Identify different type of resources for health. <input type="checkbox"/> Explain the main purpose of public private partnership and its importance.	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Nongovernmental Organizations and International Agencies	<input type="checkbox"/> Explain the role, importance and working of non-governmental organizations and international agencies in Pakistan.	SGD	MCQ, SAQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Resources for health	<input type="checkbox"/> Explain the main objective to ensure availability of health workers in sufficient quantity and quality at professional and technical levels at the right place at the right time, and well-motivated to perform their functions.	SGD	MCQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

Community Mobilization	<input type="checkbox"/> Explain the concept of Community mobilization and its importance. <input type="checkbox"/> Identify the main steps along with its advantages. <input type="checkbox"/> Differentiate between community mobilization and social mobilization.	SGD	MCQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
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CM-C-4

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Background and concepts, uses, basic measurements in epidemiology (morbidity, mortality, disability and fatality)	<ul style="list-style-type: none"> • Define epidemiology. • Rationalize its importance. • Enlist and understand the uses and their application. • Differentiate between rate, ratio and proportion. • Calculate, interpret and apply mortality rates and ratios. • Calculate, interpret and apply morbidity rates. • Calculate, interpret and apply disability rates. • Calculate, interpret and apply fatality rates. 	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
	rates.				
Epidemiologic al methods (descriptive, analytical and experimental)	<ul style="list-style-type: none"> <input type="checkbox"/> Explain different types of study designs. <input type="checkbox"/> Explain and interpret all concepts pertaining to time, place and person distribution of diseases <input type="checkbox"/> Classify study designs with listing of 				

	<ul style="list-style-type: none"> steps and compare different study designs. <input type="checkbox"/> Describe all procedures used in descriptive studies from disease distribution to formulation of hypothesis. <input type="checkbox"/> Define and explain analytical study designs pertaining to confounding, bias, and chance plus risk estimation. Calculate the measures of association with interpretation. <input type="checkbox"/> Can identify and explain experimental study design. 	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Association and causation	<ul style="list-style-type: none"> <input type="checkbox"/> Define and classify association and causation. <input type="checkbox"/> Differentiate between the two terms. <input type="checkbox"/> Enlist the Bradford Hill criteria for causality. <input type="checkbox"/> Enlist the steps for it. <input type="checkbox"/> Apply the concept on epidemics of different diseases. 	SGD	MCQ, SAQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Investigation of an outbreak or an epidemic	<ul style="list-style-type: none"> <input type="checkbox"/> Differentiate between epidemic and endemic disease occurrence. <input type="checkbox"/> Explain disease early warning system. (DEWS) <input type="checkbox"/> Explain and interpret Epidemic curve. 	SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

	<input type="checkbox"/> Steps of conducting epidemic investigation and reporting.				
Screening for diseases	<input type="checkbox"/> Explain the concept of screening, difference between screening and diagnostic tests <input type="checkbox"/> Define and understand terms like lead time and lead time bias. <input type="checkbox"/> Enlist and apply uses of screening. <input type="checkbox"/> Explain the criteria for screening. <input type="checkbox"/> Calculate and interpret sensitivity, specificity, positive and negative predictive values. <input type="checkbox"/> Explain predictive value, yield, combination of tests and problem of borderline.	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Community diagnosis	<input type="checkbox"/> Explain the concept of community diagnosis. <input type="checkbox"/> Describe the steps of conducting community diagnosis. <input type="checkbox"/> Establish epidemiological baseline for measuring improvement overtime.	SGD	MCQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

<p>Research and survey methodology</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Define research and survey. <input type="checkbox"/> Differentiate between qualitative and quantitative research. <input type="checkbox"/> Enlist study designs in qualitative and quantitative research. <input type="checkbox"/> List the steps of research methodology. <input type="checkbox"/> Explain and understand each step in detail. <input type="checkbox"/> Develop a research proposal to address or resolve a specific research question or problem. <input type="checkbox"/> Apply and evaluate methodology 	<p>Lecture SGD</p>	<p>MCQ, SAQ, OSPE C1, C2, C3</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Conduct and analyze household survey on ten households. (report writing and analysis) 	<p>Punctuality & participation in SGD A1, A2</p>
	<ul style="list-style-type: none"> <input type="checkbox"/> throughout the project. <input type="checkbox"/> Collect, interpret, and critique data to resolve a research question or evaluate a design. <input type="checkbox"/> Communicate research findings. <input type="checkbox"/> Familiar with the ethical issues in research and how to rectify them. 			<ul style="list-style-type: none"> <input type="checkbox"/> by students) Write up of research project under supervision. 	

				<input type="checkbox"/> The students should be able to do data entry and basic analysis in SPSS.	
Introduction to qualitative research methodology	<input type="checkbox"/> Differentiate between qualitative and quantitative research. <input type="checkbox"/> Design a research project that appropriately and ethically addresses a research objective within a conceptual framework. <input type="checkbox"/> Understand questions design related to survey, focus group and interviews. <input type="checkbox"/> Conduct interviews and focus groups in professional and ethical manner under supervision. <input type="checkbox"/> Interpret the results of qualitative research in a professional academic manner.	Lecture SGD	MCQ, SAQ. OSPE C1, C2, C3	<input type="checkbox"/> <input type="checkbox"/> Project design. Interview and FGD conduction.	Punctuality & participation in SGD A1, A2

CM-C-10

CHAPTER 10:

Topics	Learning objectives	Mode of Information Transfer	Assessment of Knowledge CM-C-5 (C1,C2,C3)	Assessment of Skills CM-P-5 (P1, P2, P3)	Assessment of Attitude Behavior (A1,A2,A3)
Concepts of occupational health, occupational medicine and occupational hygiene	<input type="checkbox"/> Define and differentiate between occupational health, medicine and hygiene	Lecture SGD	MCQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Ergonomics and its importance	<input type="checkbox"/> Define the term ergonomics. <input type="checkbox"/> Give examples of proper fit. <input type="checkbox"/> Explain their role in the ergonomics process.	Lecture SGD	MCQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2
Occupational hazards & diseases (pneumoconiosis)	<input type="checkbox"/> Classify occupational hazards. <input type="checkbox"/> Classify and discuss in detail pneumoconiosis in accordance with its causative agent, clinical and radiological features, treatment, prevention and control.	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

General principles of occupational disease prevention	<ul style="list-style-type: none"> ☐ Explain the measures for protection of health workers based on WHO principles. ☐ Discuss in detail medical, engineering and legislative measures used to prevent occupational hazards 	Lecture SGD	MCQ, SAQ, OSPE C1, C2, C3	Nil	Visit to factory and report writing after observation along with recommendations.
Organization of occupational health services	<ul style="list-style-type: none"> ☐ Discuss the organization of occupational health services. 	SGD	MCQ C1, C2, C3	Nil	Nil
Health insurance and Social Security Scheme, Labor laws	<ul style="list-style-type: none"> ☐ Describe working of various organizations like PESSI and Social Security. ☐ Outline the labor laws of Pakistan. ☐ Describe the Factory Act 1948. 	Lecture SGD	MCQ, SAQ C1, C2, C3	Nil	Punctuality & participation in SGD A1, A2

TEACHING & LEARNING METHODOLOGIES

(INSTRUCTIONAL STRATEGIES)

- 1) Interactive Lectures
- 2) Small group discussions
- 3) Self-directed Learning
- 4) Student presentations
- 5) Field Visits
- 6) Household Surveys
- 7) Research Projects
- 8) CPC's

9) Google classrooms

10) Seminars

PRACTICAL AND COMMUNITY BASED TRAINING

I) Research Work

Students will be provided practical experience in questionnaire development, data collection complication presentation. Analysis and report writing

II) Field Visits

1. Visit to a Primary Health Care Centre (BHU)
2. Visit to peri-urban locality
3. Visit to a primary school
4. Visit to the EPI center
5. Visit to the family planning centre
6. Visit to the regional blood bank
7. Visit to the rehabilitation centre
8. Visit to a hospital to see the hospital waste disposal & Infection Control
9. Visit to any vocational facility to observe Occupational Health

III) Skills Development Lab

1. Water purification at domestic level
2. Contraceptives
3. Vaccination including the cold chain
4. Oral rehydration solution
5. Data entry & Analysis in SPSS

IV) Household Survey

Students will conduct population-based survey, using a structured questionnaire. The survey results will be analyzed and will be presented in the form of a written report containing tables and graphs.

V). Celebration of International health days

Students will celebrate selected health days in the college or in the community to generate awareness about specific health issues

LEARNING RESOURCES

Recommended Textbooks (Available at the Bookshop):

1. Park K. Park's textbook of preventive and social medicine. 27th ed. Jabalpur, India: Banarasidas Bhanot Publishers, 2022-2023.
2. Ilyas M, Ansari MA. Public Health and Community Medicine. 8th ed. Karachi, Pakistan: Time Publishers, 2016.

Physical resources available:

General library, IT library, state of art Museum, models and specimen,
Handouts

ASSESSMENTS METHODS

Methodology

- Written Class Tests:
- Short Answer Questions (SAQs) &
- Multiple Choice Questions (MCQs)
- Quiz
- Objectively Structured Practical Examination (OSPE)
- Assignment Submission
- Participation in Research Project
- Class Presentations
- Feedback

Assessment:

Formative Assessment

- Quiz

- Pretest post test
- Mcq tests

Summative Assessment

- Multiple Choice Questions (MCQs)
- SEQ
- Practical Examination:
 - Objectively Structured Practical Examination (OSPE Voce:
 - General Viva:
 - Household Survey:
 - Research Project:
 - Field Visit & Press Cuttings Journal: