Department of Community Medicine

Study Guide for

4th Year MBBS

Sharif Medical and Dental College, Lahore

PREFACE

Study guides can make a major contribution to learning. They are sometimes likened to a tutor sitting on the student's shoulder-available 24 hours a day to advise the student what he/she should be doing at any stage in their study. Study guides are different from textbooks. They apprise the student at the beginning of an academic session about the course outline, the teaching methodology to be followed throughout the year, learning objectives of each academic activity and the assessment methodology to be followed in an academic session.

At SMDC we follow the annual academic schedule in which the subject of Community Medicine is taught in the fourth academic year of a medical student. Keeping in view the mission of UHS, Lahore and vision of our institute we have designed a training program which is intensive and at the same time interesting for the young minds. This guide includes details about various teaching activities which are to take place throughout the academic year along with the time allocation of each. A list of lectures to be conducted in this session with names of the instructors is attached. Broad learning outcomes of every section of the course accompanied by specific learning objective of every lecture is also included. A complete list of research and field work to be carried out in the community is part of this document. Details of various assessment and testing methodology are included and marks distribution for the subject in the 4^{th} Professional examinations has been given. Names and email contacts of faculty have also been mentioned to foster better interaction between the teacher and the taught. A list of prescribed text and reference books forms part of this study guide. Since this document is the first of its kind we intend to improve upon it in light of the student-feedback every year. For now happy reading.

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MBBS, FCPS, MCPS, DCH
Prof. & HOD of Community Medicine Deptt SMDC, Lahore Date: 10-08-2021

Vision & Mission of UHS

Qualitative and Quantitative Revolution in Medical Education and Research through Evolution and thereby improve Health Care delivery to Populace.

UHS shall be innovative global center of excellence in learning and research, supporting a community of scholars and professionals committed to serving society, promoting the development of students to reach their true potential in becoming competent, ethical, caring, and inquiring health professionals for the benefit of the country and the wider world.

Mission of SMDC

Sharif Medical & Dental College is dedicated to best serve the nation through preservation and dissemination of advanced knowledge and educating the students by latest trends in learning and research reaching levels pars excellence.

The Institution is committed to provide standardized quality medical education to its students by inculcating professional knowledge, skills and responsibilities in them with the aim of:

- Preparing them as modern physicians having initiative to act as future leaders in their respective fields and becoming lifelong learners.
- Encouraging the spirit of critical thinking through research and publication.
- Building up an understanding of the ethical values compatible with our religion, culture and social norms.
- Developing a sense of being responsible citizens of the society possessing professional competence and instilling in them the values of hard work and dedication thus preparing them to be accountable to the stakeholders and the state.

The Institution is devoted to keep abreast its faculty with the latest trends in Medical Education encompassing teaching/learning methodologies, assessment tools, research opportunities and professionalism to facilitate their professional development, competencies and commitment towards continues learning.

Our patient-centered mission is achieved by outstanding medical care & services in professional practice with due emphasis and focus on our local health needs.

Our mission further elaborate upon establishing academic and research facilities in areas of local demand under global gold standards and leading advancement in research, education & patient care.

Vision of SMDC

To be recognized for the provision of a safe and functional environment conducive to collaborative teaching & learning, comfortable working atmosphere, and conducting world class research through professionalism and excellence.

LIST OF CONTENTS

PLANNED TEACHING ACTIVITIES FOR 4th YEAR MBBS

DEPARTMENT OF COMMUNITY MEDICINE

PMC has allocated 200 hours of teaching in the subject of Community Medicine for the MBBS course. In order to meet this requirement following teaching modules have been planned. These modules have been carefully designed to impart core knowledge of Community Medicine in a manner that an undergraduate student can grasp the subject fully and is adequately prepared for university examinations.

Lectures:

A total of 130-140 lectures are planned for the entire year. The lectures will be conducted by the Professor, associate and assistant professors or by senior lecturers that have completed their post- graduation in the subject of Community Medicine. The lectures will be interactive and students should actively participate in them to clear their doubts. The students are required to take notes of the lectures and study the topic with the help of prescribed text books in light of the learning objectives of the topic enunciated by the teacher at the beginning of each lecture.

Tutorial classes:

One tutorial class per week is proposed throughout the academic session. The class will be divided into 03 batches. Topics for the tutorial will be notified at least one week before the class. Two instructors, one senior and one junior, will be deputed for every batch on rotation basis. A post tutorial quiz or presentation is taken for the enforcement of the topic. During this interactive session the students must clear their concepts regarding the topic by actively engaging with their respective teachers

Community based learning:

In Community based learning we take our students to different health related organizations. Various field visits are planned and students have to get information by personally visiting the site and then compiling their field visits journal to be submitted and checked by their respective demonstrator who accompanied them.

Skills development lab:

In this part students are trained to attain more knowledge and skills related to primary health care practice.

TRAINING PROGRAM FOR LECTURES

DEPARTMENT OF COMMUNITY MEDICINE

4th YEAR MBBS CLASS

GENERAL:

- To prepare them to function as community and first level physicians in accordance with the institutional goals.
- To make the students aware of environmental, social, financial, personal, occupational issues of the patients and to inculcate in the students the habit of considering the above aspects while rendering patient care.
- To teach them practiced techniques of prevention at Individual, National and International level for various health issues.
- To orient the students with Pakistan Health System, National Health Programmes and Policies and International Health Policies and Agencies.
- To teach research principles and methodologies so as to create scientific attitude.

Concept of Health and Disease

Sr. No.	Title of Lecture	Instructor
1.	Concept of health, its dimensions and determinants	Dr. Amna Iqbal Butt
2.	Indicators of Health	Dr. Amna Iqbal Butt
3.	Concept of Disease and Causation	Dr. Amna Iqbal Butt
4.	Spectrum of disease, iceberg phenomenon	Dr. Amna Iqbal Butt
5.	Natural history of disease	Dr. Amna Iqbal Butt
6.	Levels of prevention ,Disease elimination and eradication, Disease surveillance	Dr. Amna Iqbal Butt

Introduction of Public Health and Health Systems in Pakistan

Sr. No.	Title of Lecture	Instructor
1.	Background and concepts	Dr. Shahid Iqbal
2.	Health System in Pakistan	Dr. Shahid Iqbal
3.	Partners in Health	Dr. Shahid Iqbal

Epidemiology and Disease Control

Sr. No.	Title of Lecture	Instructor
1.	General Epidemiology and Research methodology	Dr. Shahid Iqbal
2.	Background and concepts, uses, basic measurements in epidemiology	Dr. Shahid Iqbal
3.	Epidemiological methods	Dr. Shahid Iqbal
4.	Epidemiological transtition, association and causation	Dr. Shahid Iqbal
5.	Investigation of an epidemic	Dr. Shahid Iqbal
6.	Screening for diseases	Dr. Shahid Iqbal
7.	Research and survey methodology	Dr. Shahid Iqbal
8.	Introduction to qualitative research methodology	Dr. Shahid Iqbal

Prevention and control of Infectious diseases of Public Health importance

Sr. No.	Title of Lecture	Instructor
1.	Diseases transmitted through inhalation	Dr. Amna Iqbal Butt
2.	Diseases transmitted through faeco-oral route	Dr. Shahid Iqbal
3.	Arthropod borne diseases	Dr. Samina Khalid
4.	Diseases of Animals conveyed to man	Dr. Samina Khalid
5.	Diseases due to direct contact	Dr. Shahid Iqbal

Epidemiology, control and prevention of non-infectious diseases of Public Health importance

Sr. No.	Title of Lecture	Instructor
1.	Hypertension, Coronary heart disease	Dr. Amna Iqbal Butt
2.	Cancers	Dr. Amna Iqbal Butt
3.	Injuries	Dr. Amna Iqbal Butt
4.	Diabetes	Dr. Amna Iqbal Butt

5.	Obesity	Dr. Amna Iqbal Butt
6.	Rheumatic fever and heart disease	Dr. Amna Iqbal Butt

Biostatistics

Sr. No.	Title of Lecture	Instructor
1.	Concepts and uses, Data and its types	Dr. M Shahid Iqbal
2.	Rates, ratios and proportions, Crude, specific and standardized rates	Dr. M Shahid Iqbal
3.	Collection and registration of vital events in Pakistan, Sources of health related statistics	Dr. M Shahid Iqbal
4.	Measures of central tendency	Dr. M Shahid Iqbal
5.	Measures of dispersion	Dr. M Shahid Iqbal
6.	Normal curve	Dr. M Shahid Iqbal
7..	Methods of data presentation	Dr. M Shahid Iqbal
8.	Interpretation of data (t-test and chi-square test)	Dr. M Shahid Iqbal
9.	Sampling and its various techniques	Dr. M Shahid Iqbal
10.	Health management information system	Dr. M Shahid Iqbal

Demography and population dynamics

Sr. No.	Title of Lecture	Instructor
1.	Concepts, demographic principles and demographic processes	Dr. M Shahid Iqbal
2.	Census, definition methodology and types	Dr. M Shahid Iqbal
3.	Determinants of fertility and mortality	Dr. M Shahid Iqbal
4.	Population pyramid and its interpretation	Dr. M Shahid Iqbal
5.	Demographic transition, demographic trap and its public health importance	Dr. M Shahid Iqbal
6.	Demographic and social implication of high population growth, Urbanization and Social mobilization	Dr. M Shahid Iqbal

Food and Nutrition

Sr. No.	Title of Lecture	Instructor
1.	Concepts, food groups and their functions	Dr. Samina Khalid
2.	Role of fiber in diet, Balanced diet	Dr. Samina Khalid
3.	Malnutrition, causes and prevention	Dr. Samina Khalid
4.	Common nutritional problems of public health importance and their prevention and control	Dr. Samina Khalid
5.	Dietary requirements of normal human being at different stages of life	Dr. Samina Khalid
6.	Food hygiene, pasteurization, fortification additives and adulteration and preservation	Dr. Samina Khalid
7.	Food poisoning	Dr. Samina Khalid
8.	Assessment of nutritional status of a community	Dr. Samina Khalid

Reproductive and Child Health

Sr. No.	Title of Lecture	Instructor
1.	Safe motherhood	Dr. Samina Khalid
2.	Maternal mortality, causes and prevention	Dr. Samina Khalid
3.	Infant care: growth and development, Breast feeding	Dr. Samina Khalid
4.	Common causes of morbidity and mortality , their prevention and control	Dr. Samina Khalid
5.	Child care	Dr. Samina Khalid
6.	IMCI	Dr. Samina Khalid
7.	Adolescent health	Dr. Samina Khalid
8.	Reproductive tract infections, Management of STDs	Dr. Samina Khalid

Health of School age children

Sr. No.	Title of Lecture	Instructor
1.	Role of teachers and doctors	Dr. Samina Khalid

2.	Procedures for determining health status of school age children	Dr. Samina Khalid
3.	Common health problems of school children	Dr. Samina Khalid

Environmental Health Sciences

Sr. No.	Title of Lecture	Instructor
1.	Air	Dr. Amna Iqbal Butt
2.	Water I	Dr. Amna Iqbal Butt
3.	Water II	Dr. Amna Iqbal Butt
4.	Water III	Dr. Amna Iqbal Butt
5.	Climate	Dr. Amna Iqbal Butt
6.	Greenhouse effect	Dr. Amna Iqbal Butt
7.	Temperature, humidity and atmospheric pressure	Dr. Amna Iqbal Butt
8.	Radiation	Dr. Amna Iqbal Butt
9.	Healthful housing	Dr. Amna Iqbal Butt
10.	Noise	Dr. Amna Iqbal Butt

Occupational Health

Sr. No.	Title of Lecture	Instructor
1.	Concepts	Dr. Samina Khalid
2.	Ergonomics and its importance	Dr. Samina Khalid
3.	Occupational hazards, principles of control	Dr. Samina Khalid
4.	General principles of occupational disease prevention	Dr. Samina Khalid
5.	Organization of occupational health services	Dr. Samina Khalid
6.	Health Insurance and social security schemes	Dr. Samina Khalid

Arthropods and their Public health importance

Sr. No.	Title of Lecture	Instructor
1.	Common arthropod borne diseases	Dr. M. Shahid Iqbal
2.	Control of arthropods of medical importance	Dr. M. Shahid Iqbal
3.	Insecticides and their public health importance	Dr. Amna Iqbal Butt

Prevention and control of parasitic diseases of public health importance

Sr. No.	Title of Lecture	Instructor
1.	Prevention and control of parasitic diseases	Dr. Samina Khalid

Snake bite

Sr. No.	Title of Lecture	Instructor
1.	Personal protection and management	Dr. M. Shahid Iqbal

Mental Health

Sr. No.	Title of Lecture	Instructor
1.	Concept, common mental health problems, their causes	Dr. Amna Iqbal Butt
2.	Prevention and control, Juvenile delinquency	Dr. Amna Iqbal Butt

Behavioral sciences and lifestyle

Sr. No.	Title of Lecture	Instructor
1.	Concept, attitudes, health and illness behavior	Dr. M. Shahid Iqbal
2.	Drug abuse, addiction and smoking	Dr. M. Shahid Iqbal
3.	Child abuse and child labour	Dr. M. Shahid Iqbal
4.	Role ofphysical exercise in health and disease	Dr. M. Shahid Iqbal

Information, Education and Communication

Sr. No.	Title of Lecture	Instructor
1.	Concept, aims and objectives, Approaches used in public health	Dr. Samina Khalid
2.	Contents, principles and stages of health education	Dr. Samina Khalid
3.	Communication methods, barriers and skills in health education	Dr. Samina Khalid
4.	Planning, organizing and evaluating a health education programme	Dr. Samina Khalid

Disaster

Sr. No.	Title of Lecture	Instructor
1.	Definition, classification	Dr. Amna Iqbal Butt
2.	Epidemic of communicable diseases, man made disasters	Dr. Amna Iqbal Butt
3.	Accidents, thermo nuclear warfare, causes and prevention	Dr. Amna Iqbal Butt
4.	Magnitude, and effects of disaster and public health consequences	Dr. Amna Iqbal Butt
5.	Disaster: preparedness and management	Dr. Amna Iqbal Butt

Medical Ethics

Sr. No.	Title of Lecture	Instructor
1.	Concepts and components, National recommended Guidelines	Dr. Amna Iqbal Butt

LIST OF LECTURES IN THE SUBJECT OF COMMUNITY MEDICINE AND THEIR LEARNING OBJECTIVES
DEPARTMENT OF COMMUNITY MEDICINE
4TH YEAR MBBS CLASS

Concept of Health and Disease

Public health aims to improve the quality of life through prevention and treatment of disease, including mental health. This is done through the surveillance of cases and health indicators, and through the promotion of healthy behaviors.

Sr. No.	Title of lecture with learning objectives
1.	Concept of health, its dimensions and determinants At the end of course students will be capable to: 1. Describe health with definitions and theories 2. Enumerate and explain dimensions of health 3. Enumerate and explain determinants of health
2.	Indicators of Health At the end of course students will be capable to: 1. Enumerate the various indicators of health 2. Formulate each indicators and application in community 3. Interpret the results of these indicators
3.	Concept of Disease and Causation At the end of course students will be capable to: 1. Define disease and its outcome 2. Explain the concept of causation 3. Able to draw and explain with example epidemiological triangle, triad and its advanced model 4. Illustrate the web of causation
4.	Spectrum of disease, iceberg phenomenon At the end of course students will be capable to: 1. Describe spectrum of disease 2. Describe iceberg phenomenon with examples and draw it

5.	Natural history of disease At the end of course students will be capable to: 1. Illustrate the natural history of disease with its basic understanding 2. Understand relationship between agent, host and environment and its role in disease causation
6.	Levels of prevention, Disease elimination and eradication, Disease surveillance At the end of course students will be capable to: 1. Explain levels of prevention, with complete description 2. Define disease elimination and disease eradication and control 3. Understand disease monitoring and surveillance

Introduction of Public Health and Health Systems in Pakistan

Public health is about improving and protecting the health of groups of people. This course is designed to provide an overview of what is Public Health and some of its main components. It is particularly directed at those with an interest in health problems in developing countries.

Sr. No.	Title of Lecture with learning objectives
1.	Background and concepts At the end of course students will be capable to: 1. Understand concept of public health in Pakistan
2.	Health System in Pakistan At the end of course students will be capable to: 1. Understandhealth system of Pakistan 2. Understand public and private sector organization 3. Enumerate diseases notifiable to national and international level 4. Describe DEWS
3.	Partners in Health At the end of course students will be capable to: 1. Have knowledge of International, national and private health agencies 2. Understand role of partners in health in improving health sector performance

Epidemiology and Disease Control

Epidemiology is a sub-specialty of public health that simply stated, looks to determine where and how often disease occurs and why. It is more formally defined as the study of distributions (patterns) and determinants (causes) of disease in populations, and the application of this study to managing health problems.

Sr. No.	Title of Lecture with learning objectives
1.	General Epidemiology and Research methodology At the end of course students will be capable to: 1. Define epidemiology 2. Understand components of epidemiology 3. Determine aims of epidemiology
2.	Background and concepts, uses, basic measurements in epidemiology At the end of course students will have knowledge of: 1. Uses of epidemiology 2. Foundations of epidemiological approach 3. Basic measurements in epidemiology with their definitions and formulas 4. Basic concepts of tools of measurements
3.	Epidemiological methods At the end of course students will be capable to: 1. Know about types of epidemiological methods 2. Know about steps of conducting epidemiological study 3. Calculate odd's ratio, relative risk and attributable risk 4. Interpret the results of epidemiological study 5. Identify and differentiate between case-control, cohort and experimental studies
4.	Epidemiological transition, association and causation At the end of course students will be capable to: 1. Classify association 2. Classify causation 3. Explain with examples
5.	Investigation of an epidemic At the end of course students will know: 1. Objectives of investigation of epidemic 2. Steps of investigation of epidemic
6.	Screening for diseases At the end of course students will be capable to: 1. Define of screening 2. Determine aims and objectives of screening 3. Know uses of screening 4. Know about types of screening and their application 5. Have knowledge about criteria of screening 6. Calculate sensitivity, specificity , positive predictive value and negative predictive value
7.	Research and survey methodology At the end of course students will be capable to: 1. Know uses of research 2. Apply research and survey methodology

8.	Introduction to qualitative research methodology At the end of course students will know: 1. Basics of qualitative research 2. Methodology of qualitative research

Prevention and control of Infectious diseases of Public Health importance

Infectious diseases is a wide term with various communicable diseases which are occurring in the community as endemic, epidemic or pandemic. It includes study of disease transmission dynamics, its epidemiological determinants and its prevention and control according to recommended national and international guideline.

Sr. No.	Title of Lecture with learning objectives
1.	Diseases transmitted through inhalation At the end of course students will be capable to: 1. Have knowledge about dynamics of inhalational disease transmission 2. Diagnose the disease through clinical features (symptoms and signs). 3. Enumerate complications 4. Manage the disease 5. Determine ways of prevention and control of disease
2.	Diseases transmitted through faeco-oral route At the end of course students will be capable to: 1. Have knowledge about dynamics of inhalational disease transmission 2. Diagnose the disease through clinical features (symptoms and signs). 3. Enumerate complications 4. Manage the disease 5. Know ways of prevention and control of disease
3.	Arthropod borne diseases At the end of course students will be capable to: 1. Have knowledge about dynamics of inhalational disease transmission 2. Diagnose the disease through clinical features (symptoms and signs). 3. Enumerate complications 4. Managethe disease 5. Determine ways of prevention and control of disease
4.	Diseases of Animals conveyed to man At the end of course students will be capable to: 1. Have knowledge about dynamics of inhalational disease transmission 2. Able to diagnose the disease through clinical features (symptoms

	and signs). 3. Enumerate complications 4. Managethe disease 5. Determine ways of prevention and control of disease
5.	Diseases due to direct contact At the end of course students will be capable to: 1. Have knowledge about dynamics of inhalational disease transmission 2. Diagnose the disease through clinical features (symptoms and signs). 3. Enumerate complications 4. Manage the disease 5. Determine ways of prevention and control of disease

Epidemiology, control and prevention of non-infectious diseases of Public Health importance

Non-infectious disease is a wide entity including non communicable chronic diseases and accidents and blindness. This is the era of such diseases due to lifestyle changes. This module encompasses the risk factors, diagnosis, features and prevention and control of such diseases.

Sr. No.	Title of Lecture with learning objectives
1.	Hypertension, Coronary heart disease At the end of course students will have: 1. Knowledge of epidemiological factors of the disease 2. Knowledge of risk factors 3. Knowledge of prevention and control
2.	Cancers At the end of course students will have: 1. Knowledge of epidemiological factors of the disease 2. Knowledge of risk factors 3. Must be able to diagnose common cancers 4. Knowledge of prevention and control
3.	Injuries At the end of course students will have knowledge of: 1. Factors causing accidents 2. Indices for calculating its prevelance in the community 3. Prevention and control
4.	Diabetes At the end of course students will have: 1. Knowledge of types of the diabetes 2. Knowledge of risk factors 3. Knowledge of prevention and control

5.	Obesity At the end of course students will be capable to: 1. Classify obesity and calculate BMI 2. Have knowledge of risk factors 3. Have knowledge of prevention and control
6.	Rheumatic fever and heart disease At the end of course students will have: 1. Knowledge of epidemiological factors of the disease 2. Knowledge of risk factors 3. Knowledge of prevention and control

Biostatistics

Biostatistics are the development and application of statistical methods to a wide range of topics in biology. It encompasses the design of biological experiments, the collection and analysis of data from those experiments and the interpretation of the results. Biostatistics is used extensively in epidemiology. Epidemiology is the basic science of public health. It uses statistics and research methodologies to reach conclusions about diseases within certain population groups and finds the causes and risks of certain diseases.

Sr. No.	Title of Lecture with learning objectives
1.	Concepts and uses, Data and its types At the end of course students will have knowledge of: 1. Basic definitions of biostatistics 2. Uses of biostatistics 3. Definition of data 4. Sources of data 5. Types of data
2.	Rates, ratios and proportions, Crude, specific and standardized rates At the end of course students will be capable to: 1. Calculate rates, ratios and proportions 2. Interpret the results
3.	Collection and registration of vital events in Pakistan, Sources of health-related statistics At the end of course students will be capable to: 1. Know sources of health related data 2. Apply this data in community medicine
4.	Measures of central tendency At the end of course students will know: 1. Ways of measuring central tendency 2. Formulas and practical application of these measures 3. Advantages and disadvantages of each measurement
5.	Measures of dispersion At the end of course students will know: 1. Ways of measuring central tendency

	2. Formulas and practical application of these measures 3. Advantages and disadvantages of each measurement
6.	Normal curve At the end of course students will have knowledge of: 1. Definition of normal curve 2. Characteristics of normal curve 3. Implications of normal curve 4. Knowledge and concept of confidence limit and interval 5. Abnormal or skewed distribution curve
7.	Methods of data presentation At the end of course students will be capable to: 1. Know different ways of data presentation 2. Apply these charts and graphs 3. Differentiate between qualitative and quantitative data presentation
8.	Interpretation of data (t-test and chi-square test) At the end of course students will be capable to: 1. Know ways of various tests of significance 2. Know steps of performing these tests of significance on given data 3. Set up a null hypothesis 4. Interpret the results and accepting or rejecting null hypothesis
9.	Sampling and its various techniques At the end of course students will be capable to: 1. Define sampling 2. Know techniques of sampling 3. Know advantages and disadvantages of different types of sampling
10.	Health management information system At the end of course students will have knowledge of: 1. Elements of HMIS 2. Steps in developing HMIS 3. Components of HMIS 4. Information collected for HMIS

Demography and population dynamics

Demography is the study of changes in the size population, the composition of populatiojn (age and sex composition) and the distribution of population and how the population changes due to fertility, mortality and migration. Demography methods which consist of the procedure and techniques for working with demography data. Demography analysis is a powerful tool that can explain a number of sociological phenomena.

Sr. No.	Title of Lecture
1.	Concepts, demographic principles and demographic processes At the end of course students will have knowledge of:

	1. Definitions and terminologies related to demography 2. Stages of demographic transition 3. Population dynamics 4. Able to describe and calculate population doubling time
2.	Census, definition methodology and types At the end of course students will be capable to: 1. Define census 2. Describe methodology of census 3. Know about types of census 4. Calculate population in between census years
3.	Determinants of fertility and mortality At the end of course students will be capable to: 1. Enumerate components of population growth 2. Describe determinants of fertility 3. Know causes of high fertility 4. Explain basic fertility measures
4.	Population pyramid and its interpretation At the end of course students will be capable to: 1. Define population pyramid 2. Knowits types and able to differentiate and explain features of various population pyramids
5.	Demographic transition, demographic trap and its public health importance At the end of course students will be capable to: 1. Explain stages of demographic transition with examples 2. Describe demographic cycle and draw it 3. Define demographic trap and its phases 4. Define and explain population momentum
6.	Demographic and social implication of high population growth, Urbanization and Social mobilization At the end of course students will be capable to: 1. Know implications of high population growth • Demographic implications • Economic implications • Social implications 2. Explain density of population 3. Define and explain briefly urbanization and social mobilization 4. Know demographic features of Pakistan

Food and Nutrition

Nutrition may be defined as the science of food and its relationship to health. It is concerned primarily with the part played by nutrients in body growth, development and maintenance.

Sr. No.	Title of Lecture with learning objectives
1.	Concepts, food groups and their functions At the end of course students will be capable to: 1. Classify food in different ways 2. Define nutrients and its types 3. Describe macronutrients and micronutrients
2.	Role of fiber in diet, Balanced diet At the end of course students will be capable to: 1. Sources and functions of dietary fiber 2. Enumerate diseases due to fiber deficiency 3. Define balanced diet 4. Explain the factors affecting nutritional needs
3.	Malnutrition, causes and prevention At the end of course students will be capable to: 1. Describe types of malnutrition 2. Explain various forms of malnutrition 3. Describe and know about protein energy malnutrition and its types 4. Know causes of protein energy malnutrition 5. Know different classification of protein energy malnutrition 6. Know clinical manifestations of PEM 7. Describe prevention of PEM
4.	Common nutritional problems of public health importance and their prevention and control At the end of course students will be capable to: 1. Explain nutritional and iron deficiency anemia,its causes and prevention 2. Explain iodine deficiency, its causes and preventive measures 3. Explain vitamin A deficiency , its causes and preventive measures
5.	Dietary requirements of normal human being at different stages of life At the end of course students will be capable to: 1. Describe basal metabolism 2. Know about daily calorie requirement of each gender and children and specific condition 3. Know about daily calorie requirement of nutrients 4. Enumerate indicators of nutritional status
6.	Food hygiene, pasteurization, fortification additives and adulteration and preservation At the end of course students will be capable to: 1. Define food hygiene 2. Define pasteurization and its uses 3. Describe food fortification and its importance

	4. Explain food adulteration, its sources and outcomes 5. Enumerate different ways of food preservation
7.	Food poisoning At the end of course students will be capable to: 1. Enumerate causes of food poisoning 2. Investigate a case of food poisoning 3. Describe preventive measures of food poisoning
8.	Assessment of nutritional status of a community At the end of course students will be capable to: 1. Describe assessment of nutritional status

Reproductive and Child Health

Reproductive Health addresses the reproductive processes, functions and system at all stages of life. Reproductive and Child Health (RCH) services as an integrated approach of providing healthcare to all individuals within the context of the primary health care strategies. Although the focus is on women and children, services provided are assemblage of curative, preventive, promotional and rehabilitative for improving the health of the population regarding morbidity & mortality

Sr. No.	Title of Lecture with learning objectives
1.	Safe motherhood At the end of course students will be capable to: 1. Enlist pillars of motherhood 2. Describe pillars with its practical application on community
2.	Maternal mortality, causes and prevention At the end of course students will be capable to: 1. Enumerate causes of maternal mortality 2. Calculate maternal mortality 3. Explain preventive measures to reduce maternal mortality 4. Know overview of antenatal care and highrisk signs
3.	Infant care: growth and development, Breast feeding At the end of course students will be capable to: 1. Describe normal growth and development with milestones 2. Explain outcomes of delayed growth and development and its prevention 3. Explain advantages of breast feeding 4. Define and describe weaning 5. Enlist methods of assessment of growth 6. Describe normal growth chart
4.	Common causes of morbidity and mortality , their prevention and control At the end of course students will be capable to: 1. Enlist various causes of neonatal, infant and child mortality 2. Describe the preventive measures of increased morbidity and mortality

5.	Child care At the end of course students will be capable to: 1. Describe infancy and care needed 2. Explain neonatal care 3. Measure growth of a baby and child 4. Enlist features of neonatal screening
6.	IMCI At the end of course students will be capable to: 1. Know about guidelines of diagnosis and treatment of common childhood illnesses
7.	Adolescent health At the end of course students will be capable to: 1. Define of adolescent health 2. Explain approaches to deal adolescent health problems
8.	Reproductive tract infections, Management of STDs At the end of course students will be capable to: 1. Enlist various reproductive tract infections 2. Enlist causes of STDs 3. ManageSTDs

Health of School age children

School Health services in a branch of preventive medicine which deals with medical inspection of school children & their health protection, primarily in the environment of the school

Sr. No.	Title of Lecture with learning objectives
1.	Role of teachers and doctors At the end of course students will be capable to: 1. Describe key roles of school teachers in health improvement 2. Enlist duties of a doctor visiting school
2.	Procedures for determining health status of school age children At the end of course students will be capable to: 1. Explain the procedures for assessment of health status of school age children 2. Interpretthe results of assessment and possible preventive measures
3.	Common health problems of school children At the end of course students will be capable to: 1. Enumerate common health problems of school children 2. Enlist measures to control these problems

Environmental Health Sciences

The branch of public health concerned with monitoring or mitigating those factors in the environment that affect human health and disease. According to WHO, Environmental health addresses all the physical, chemical, and biological factors external to a person, and all the related factors impacting behaviours. It encompasses the assessment and control of those environmental factors that can potentially affect health. It is targeted towards preventing disease and creating health supportive environments.

Sr. No.	Title of Lecture with learning objectives
1.	Air At the end of course students will be capable to: 1. Enlist causes of air pollution 2. Determine methods of air purification 3. Describe ways of air sampling and its inspection
2.	Water I At the end of course students will be capable to: 1. Enlist uses of water 2. Enumerate sources of water 3. Describe the sources of water 4. Surveillance of drinking water 5. Explain water related diseases
3.	Water II At the end of course students will be capable to: 1. Explain water pollution 2. Describe indicators of water pollution 3. Enlist hazards of water pollution 4. Determine criteria for checking quality of water
4.	Water III At the end of course students will be capable to: 1. Enlist ways of water purification 2. Describe water purification on small scale 3. Describe water purification on large scale 4. Describe methods of sampling of water from various sources of water
5.	Climate At the end of course students will be capable to: 1. Define climate and weather 2. Enlist components of climate
6.	Greenhouse effect At the end of course students will be capable to: 1. Explain greenhouse effect with its mechanism 2. Describe global warming 3. Enlist causes of greenhouse effect 4. Determine effects on health 5. Explain its preventive measures

7.	Temperature, humidity and atmospheric pressure At the end of course students will be capable to: 1. Determine effects of temperature on health 2. Diagnose the effects of temperature in a person by clinical features 3. Enlist types of humidity 4. Enlist ways of measuring the humidity in environment 5. Describe the effects of atmospheric pressure
8.	Radiation At the end of course students will be capable to: 1. Enlist sources of radiation 2. Describe the adverse effects of radiation on human body 3. Explain the preventive measures of radiation hazards
9.	Healthful housing At the end of course students will be capable to: 1. Describe criteria for healthful housing 2. Describe effects of healthful housing on health
10.	Noise At the end of course students will be capable to: 1. Enlist sources of noise 2. Enlist effects caused by excess of noise 3. Describe the preventive measures of noise pollution

Occupational Health

It includes the outline of the scope and nature of occupational health. This module covers the moral, social and economic reasons for maintaining and promoting good standards of occupational health in the workplace. This unit explains the role of governments and international bodies in formulating a framework for the regulation of occupational health management. It enables the students to demonstrate an understanding of the risk assessment process and methodology.

Sr. No.	Title of Lecture with learning objectives
1.	Concepts Successful completion of this module will enable the learner to: 1. Define of occupation and its types. 2. Describe features of various occupations. 3. Understand occupational health 4. Know aims and objectives of occupational health 5. Describe functions of occupational health services
2.	Ergonomics and its importance At the end of course students will be capable to: 1. Define ergonomics 2. Determine objectives of ergonomics 3. Apply ergonomics

3.	Occupational hazards, principles of control At the end of course students will be capable to: 1. Explain hazards related to various occupations 2. Classify occupational diseases 3. Describe features of various occupational diseases 4. Prevent occupational hazards and diseases
4.	General principles of occupational disease prevention At the end of course students will be capable to: 1. Enlist the means of occupational disease prevention 2. Describe principles of prevention
5.	Organization of occupational health services At the end of course students will have knowledge of: 1. Measures for general health promotion 2. Measures for the protection of workers
6.	Health Insurance and social security schemes At the end of course students will be capable to: 1. Describe health insurance policy and its implementation 2. Understand social security schemes and its application

Arthropods and their Public health importance

Arthropods such as insects, and mammals such as rats, play major roles. The public health importance of vectors is related to disease transmission, damage to food and property.

Sr. No.	Title of Lecture with learning objectives
1.	Common arthropod borne diseases At the end of course students will be capable to: 1. Enumerate the common arthropod borne infections 2. Explain the epidemiological factors of each disease 3. Diagnose the infection and its management
2.	Control of arthropods of medical importance At the end of course students will have knowledge of: 1. Ways of prevention and control of arthropod borne diseases
3.	Insecticides and their public health importance At the end of course students will be capable to: 1. Define insecticides 2. Classify insecticides 3. Describe the insecticide resistance

Prevention and control of parasitic diseases of public health importance

Medical parasitology traditionally has included the study of three major groups of animals: parasitic protozoa, parasitic helminths (worms), and those arthropods that directly cause disease or act as vectors of various pathogens. A parasite is a pathogen that simultaneously injures and derives sustenance from its host. Infections of humans caused by parasites number in the billions and range from relatively innocuous to fatal. The diseases caused by these parasites constitute major human health problems throughout the world.

Sr. No.	Title of Lecture with learning objectives
1.	Prevention and control of parasitic diseases At the end of course students will be capable to: 1. Enumerate the common parasitic diseases 2. Explain the epidemiological factors of each disease 3. Diagnose the disease and its management

Snake bite

Snake bite is a common problem faced by agricultural workers or people of developing countries. Its timely management is essential to prevent its effects.

Sr. No.	Title of Lecture with learning objectives
1.	Personal protection and management At the end of course students will be capable to: 1. Diagnose snake bite (clinical, signs and symptoms) 2. Differentiate between various snakes venom and their effects on human body 3. Manage snake bite

Mental Health

Mental healthcare is not only a public health priority but has far reaching consequences for the state. In 2004, a study from Pakistan stated that 34 per cent of people suffered from common mental disorders. According to the World Health Organization, mental health is defined as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community".

Sr. No.	Title of Lecture with learning objectives
1.	Concept, common mental health problems, their causes At the end of course students will be capable to: 1. Enumerate various mental health diseases 2. Enlist causes of mental health diseases 3. Diagnose mental health diseases 4. Determine outcomes of mental health issues
2.	Prevention and control, Juvenile delinquency At the end of course students will be capable to: 1. Prevention and control of mental health diseases 2. Define and explain juvenile delinquency

Behavioral sciences and lifestyle

A branch of science (such as psychology, sociology, or anthropology) that deals primarily with human action and often seeks to generalize about human behavior in society. The term behavioural sciences is often confused with the term social sciences. They typically include fields like sociology, economics, public health, anthropology, demography and political science. Many subfields of these disciplines cross the boundaries between behavioral and social sciences.

Sr. No.	Title of Lecture with learning objectives
1.	Concept, attitudes, health and illness behavior At the end of course students will be capable to: 1. Acquire basic knowledge of shaping, motivation, stress, and life-span development 2. Acquire basic knowledge of social stress and health. 3. Acquire basic knowledge of the effects of social and cultural factors on health. 4. Understand the role of communication in promoting health
2.	Drug abuse, addiction and smoking At the end of course students will be capable to: 1. Define Drug abuse and addiction 2. Enlist the effects of drug abuse and addiction 3. Enumerate the causes of smoking 4. Determine outcomes of smoking and tobacco use 5. Describe control measures of tobacco use
3.	Child abuse and child labour At the end of course students will be capable to: 1. Describe child abuse and child labour 2. Enlist various ways of child abuse 3. Describe legislative measures for the control of abuse and labour in children
4.	Role of physical exercise in health and disease At the end of course students will be capable to: 1. Explain the effects of physical exercise on health 2. Determine ways of improving disease condition and living a healthy lifestyle

Information, Education and Communication

Through communication people transfer facts, idea, emotion, knowledge, attitude and skills to make informed decision about their health.

Sr. No.	Title of Lecture with learning objectives
1.	Concept, aims and objectives, Approaches used in public health At the end of course students will be capable to: 1. Enlist aims and objectives of communication 2. Enlist components of communication process

	3. Draw and explain Shannon Weaver Communication Process
2.	Contents, principles and stages of health education At the end of course students will be capable to: 1. Enumerate the principles of health education 2. Explain stages of health education 3. Determine effects of health education on a community
3.	Communication methods, barriers and skills in health education At the end of course students will be capable to: 1. Classify various ways of communication 2. Describe the methods in health communication and health education
4.	Planning, organizing and evaluating a health education programme At the end of course students will be capable to: 1. Draw and explain the planning cycle 2. Define evaluation and its types 3. Enlist ways of evaluation 4. Enumerate the outcomes of evaluation

Disaster

Disaster is the occurrence of an event which causes physical damage , ecological disruption, loss of human life and deterioration of health and health related services on a large scale that requires help from outside the affected community or area.

Sr. No.	Title of Lecture
1.	Definition, classification At the end of course students will be capable to: 1. Define disaster 2. Classify disaster
2.	Epidemic of communicable diseases, man made disasters At the end of course students will be capable to: 1. Enlist the communicable diseases common after disasters 2. Describe measures of prevention of these diseases in disasters
3.	Accidents, thermo nuclear warfare, causes and prevention At the end of course students will be capable to: 1. Enlist causes of accidents and thermo nuclear warfare 2. Describe measures of prevention of these accidents
4.	Magnitude, and effects of disaster and public health consequences At the end of course students will have knowledge of: 1. Magnitude and measurement of effects of disaster 2. Social reactions following a disaster
5.	Disaster: preparedness and management At the end of course students will have knowledge of:

	1. Surveillance cycle 2. Steps in disaster management

Medical Ethics

The term Biomedical Ethics refers to a system of moral principles that apply values to the practice of clinical medicine, biology & in scientific research

Sr. No.	Title of Lecture
1.	Concepts and components, National recommended Guidelines At the end of course students will have: 1. Background knowledge of concepts & components. 2. Knowledge about recommended guidelines.

LIST OF PRACTICAL AND COMMUNITY BASED TRAINING

Student should have practical experience in questionnaire development, data collection, compilation, presentation, analysis and report writing.

Field visits

- Visit to BHU and RHC
- Visit to an NGO
- Visit to a primary school to assess the nutritional status of school children
- Visit to MCH/Reproductive Health Centre to observe the organization, and function of the centre and to demonstrate counseling skills in one of the following:
    - Nutritional counseling for children, pregnant and lactating women.
    - Antenatal Care
    - Family planning services
    - Immunization, others
    - Visit to a hospital to see the hospital waste disposal.
    - Visit to an industry
    - Visit to a physical/mental/social rehabilitation centre.
    - Visit to dog bite center
    - Visit to water testing lab

- **Skills development lab**
    - Water purification at domestic level.
    - Contraceptives
    - Vaccination including the cold chain
    - Oral rehydration solution

ASSESSMENT PLAN
DEPARTMENT OF COMMUNITY MEDICINE
SHARIF MEDICAL AND DENTAL COLLEGE LAHORE

CHAPTER TESTS

Multiple choice question and short essay question test will be used after completing each chapter 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. The SEQs are more subjective and have a supply or construct type item response format and can effectively assess problem solving skills.

OSPE

OSPE will be used to evaluate problem based knowledge and skills. The OSPE is a method of practical skill assessment 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 / Research / Practical Journal

Students will be given assignment of different nature such as research and literature search and surveys and report writing of field visits and household surveys.

INTERNAL ASSESSMENT

i. The weightage of internal assessment shall be 10% of totals mark. Internal assessment will be calculated out of 30 on the basis of all these tests that will be conducted throughout the year.

ii. Continuous internal assessment shall consist of evaluation at the end of each units, e.g. class tests, etc., attitudinal assessment from educational supervisors.

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.

Pre-annual Exam:

This will be undertaken in coordination with other departments, exactly following the format of university professional examinations. It will comprise of MCQs, SEQs, OSPE and Viva voce.

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PRESCRIBED TEXT BOOKS & REFERENCES

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