

"ഭരണഭാഷ- മാതൃഭാഷ"



കേരളം സർക്കാർ

സംഗ്രഹം

ആരോഗ്യ കുടുംബക്ഷേമ വകുപ്പ്-ഡിപ്ലോമ ഇൻ ഹെൽത്ത് ഇൻസ്പെക്ടർ കോഴ്സിന്റെ പുതുക്കിയ സിലബസ് അംഗീകരിച്ചു ഉത്തരവ് പുറപ്പെടുവിക്കുന്നു.

ആരോഗ്യ കുടുംബക്ഷേമ (കെ) വകുപ്പ്

സ.ഉ.(കെ) നം.317/2026/H&FWD തീയതി,തിരുവനന്തപുരം, 08-10-2026

പരാമർശം:- ആരോഗ്യ വകുപ്പ് ഡയറക്ടറുടെ 02/10/2026 തീയതിയിലെ DHS/18489/2026-MC4 നമ്പർ കത്ത്.

ഉത്തരവ്

ഡിപ്ലോമ ഇൻ ഹെൽത്ത് ഇൻസ്പെക്ടർ കോഴ്സിന്റെ സിലബസ് പരിഷ്കരിക്കുന്നതിനായി തിരുവനന്തപുരം ഗവൺമെന്റ് പബ്ലിക് ഹെൽത്ത് ട്രെയിനിംഗ് സെന്റർ (State Nodal Institution) തയ്യാറാക്കിയ പുതുക്കിയ സിലബസിന്റെ കരട് ലഭ്യമായിട്ടുണ്ടെന്നും പ്രസ്തുത കരട് സിലബസ് ആരോഗ്യ വകുപ്പ് ഡയറക്ടറുടെ ഓഫീസിൽ വിശദമായി പരിശോധിച്ചതിന്റെ അടിസ്ഥാനത്തിൽ അംഗീകാരത്തിനായി ശുപാർശ ചെയ്യുന്നുവെന്നും ആരോഗ്യ വകുപ്പ് ഡയറക്ടർ പരാമർശിത കത്ത് പ്രകാരം അറിയിച്ചിട്ടുണ്ട്.

(2) സർക്കാർ ഇക്കാര്യം വിശദമായി പരിശോധിച്ചു. തിരുവനന്തപുരം ഗവൺമെന്റ് പബ്ലിക് ഹെൽത്ത് ട്രെയിനിംഗ് സെന്റർ (State Nodal Institution) തയ്യാറാക്കിയതും ആരോഗ്യ വകുപ്പ് ഡയറക്ടറേറ്റിൽ വിശദമായി പരിശോധിച്ചതുമായ ഡിപ്ലോമ ഇൻ ഹെൽത്ത് ഇൻസ്പെക്ടർ കോഴ്സിന്റെ പുതുക്കിയ സിലബസ് അംഗീകരിച്ചു ഉത്തരവ് പുറപ്പെടുവിക്കുന്നു. പുതുക്കിയ സിലബസ് അനുബന്ധമായി ചേർക്കുന്നു.

(ഗവർണ്ണറുടെ ഉത്തരവിൻ പ്രകാരം)

ദീപാ സുരേന്ദ്രൻ

അഡീഷണൽ സെക്രട്ടറി

ഉത്തരവിൻ പ്രകാരം

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Sreelatha R

Date: 08-10-2026
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പകർപ്പ്

ആരോഗ്യ വകുപ്പ് ഡയറക്ടർ, തിരുവനന്തപുരം

മെഡിക്കൽ വിദ്യാഭ്യാസ ഡയറക്ടർ, തിരുവനന്തപുരം

LBS സെന്റർ, തിരുവനന്തപുരം



PARAMEDICAL COURSE
UNDER KERALA STATE ALLIED AND HEALTH CARE COUNCIL
Government of Kerala
Department of Health Services

CURRICULUM & SYLLABUS
FOR DIPLOMA IN HEALTH INSPECTOR COURSE
(2026-2027 Admission onwards)

G.O.(Rt)No. 317/2026/H&FWD, Dated: 08.10.2026.

Prepared by
Government Public Health Training Centre, Thiruvananthapuram
(State Nodal Institution)

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PAPERS FOR THE DIPLOMA IN HEALTH INSPECTOR (DHI) COURSE

DHI FIRST YEAR

PAPER I

Anatomy and Physiology

PAPER II

Nutrition, Hygiene, Basic Pharmacology, Basic Microbiology, Parasitology and Medical Entomology

PAPER III

First Aid and Basic Medicine, Disaster Management, Disability Management and rehabilitation.

PAPER IV

Communicable Diseases, Epidemiology, syndromic surveillance, outbreak investigation, National Health programs, National Health Policy.

PAPER V

Public Health & Primary Health Care, Job Responsibilities, Records and Reports, FamiWelfare, Universal Immunization Programme, Health Statistics & Demography, Digital health and data management

DHI SECOND YEAR

PAPER I

Environmental Sanitation, Biomedical Waste Management and House Keeping

PAPER II

Communication and Health Education

PAPER III

Fundamentals of Management, Hospital management, Public Health Act, Local Self Government and Project Preparation

PAPER IV

Behavioral Science- Sociology, Psychology and Mental Health

PAPER V

Non-Communicable Diseases, Palliative Care and Geriatric Health

PERCENTAGE OF TOPICS FOR THE QUESTION PAPERS OF DIPLOMA IN HEALTH INSPECTOR (DHI) COURSE

DHI FIRST YEAR

PAPER I

Anatomy and Physiology - 100%

PAPER II

Nutrition - 30%

Hygiene - 20%

Basic Pharmacology - 15%

Basic Microbiology - 15%

Medical Entomology - 20%

PAPER III

First Aid - 25%

Basic Medicine - 25%

Disaster Management - 25%

Disability Management and rehabilitation - 25%

PAPER IV

Communicable Diseases - 40%

Epidemiology, Syndromic surveillance and Outbreak investigation - 20%

National Health Programs & National Health Policy - 40%

PAPER V

Public Health & Primary Health Care - 30%

Family Welfare - 30%

Job Responsibilities, Reports and records - 30%

Health Statistics & Demography, Digital Health and Data Management - 10%

DHI SECOND YEAR

PAPER I

Environmental Sanitation	-	80%
Biomedical Waste Management & House Keeping	-	20%

PAPER II

Communication	-	50%
Health Education	-	50%

PAPER III

Fundamentals of Management	-	10%
Total Quality Management	-	10%
Human resources Management	-	10%
Hospital management	-	20%
Public Health Act	-	30%
Local Self Government	-	10%
Project Preparation	-	10%

PAPER IV

Behavioral Sciences:

Sociology	-	50%
Psychology	-	30%
Mental Health	-	20%

PAPER V

Non-Communicable Diseases	-	50%
Palliative Care	-	25%
Geriatric Health	-	25%

GUIDELINES ON CONDUCT OF THE COURSE AND EXAMINATION

Aims of the course:

- To enable the learners to develop knowledge on anatomy and physiology of organ systems of human body
- To identify the felt need of the community
- To understand the major public health issues
- To understand the job functions of Junior Health Inspectors
- To develop the skill in performing the job functions of Junior Health Inspectors in implementing National Health programs
- To effectively organize the health-related data and analyze them using tools such as spreadsheets and evolving databases
- To develop academic and social skills such as effective communication, leadership etc.
- To develop personal, social, moral and national values that make a person humane and enhances social effectiveness

Eligibility criteria for admission: Candidates who have passed Higher Secondary examination of the Board of Higher Secondary Education, Kerala, or examinations recognized equivalent thereto, with 40% marks in Physics, Chemistry and Biology put together, are eligible. Relaxation of 5% marks will be allowed to SC/ST candidates (G.O.(Rt)No.1657/2023/H&FWD, Dated, Thiruvananthapuram, 10-07- 2023)

Duration of the course: Two years

No. of instructional hours per year : 1300 hours/year

Lecture :1000 hours/year (with 5 teaching hours per day)

Field training: 270 hours/year (6 hours per day x 45 days)

Computer training: 30 hours/year

Medium of instruction: The medium of instruction shall be in English.

Attendance (Order No: DME/5216/2023-B3 (4), dated 11/01/2024):

Permitted leaves:

1. Casual leave:

- A maximum of 20 casual leaves in a calendar year (a maximum of 5 at a stretch)
- At a stretch Course coordinator can grant a maximum of 3 leaves and the principal a maximum of 5.

2. Medical leave

- In case of medical leave, all application should be addressed to the Additional Directorate of Health Services up to 180 days and in case of more than 180 days it should be addressed to Directorate of Health Services to grant permission

3. Maternity leave

- A maximum of 180 maternity leaves are permitted, which can be granted by the Head of the institution/Course coordinator based on a Medical Certificate
- Under special circumstances, maternity leaves above 180 days can be sanctioned by the Additional Directorate of Health Services and DHS based on medical certificate. (For this, a recommendation letter from the Head of Institution along with the medical certificates are to be sent to DHS office before rejoining.)

- The above-mentioned leaves will not be counted as attendance.
- 80 % of attendance during the course is a must to appear for the examination. **In case of attendance shortage, the same must be compensated by course extension.**
- Those who discontinued the course without any valid medical reason, won't be allowed to rejoin the course.
- In case the candidate is not passing the exam in the regular chance additional four chances will be allowed with the five years of the course completion.
- As per the minutes of the Board of examination DHIC dated 15.11.2021 it was decided not to give any additional chances other than the four additional chances.
- The maximum permitted time duration to complete the course in case of discontinuation will be twice the course duration.
- Those who discontinued the course for a time period more than twice the course duration, won't be allowed to rejoin the course.

Practical Records: Students should submit one practical record for each paper for Papers I to V i.e.5 Record books for each year, two weeks before model examination. The topics for record book for each Paper is enclosed along with the curriculum and syllabus.***

Field training: There should be a total of 45 days of field training per year (details given further)

Field diary: Should be maintained on a regular basis during the field visit (details given further)

Admission to Examination: student who has been expelled or is under punishment or is debarred from appearing in the examination for any reason whatsoever should not be admitted to examination.

The scheme of examination - Annual.

MARKS ALLOTTED FOR EXAMINATION FOR EACH YEAR

Paper I to V: 150 marks each

Theory Examination	100 Marks			
Viva-voce	40 Marks			
	Viva (20 Marks)	Record (10Marks)	Field training evaluation (10 Marks)	
			Field diary (5 Marks)	Viva (5 Marks)
Internal Assessment	10 marks			

****** A minimum of 5 marks in Internal Assessment is mandatory to pass the Examination.

Notes

RECORD AND FIELD DIARY IS COMPULSORY TO ATTEND THE VIVA VOCE

- Field Training Evaluation (10 marks)** consists of:
 - 5 marks for the **Field Diary**.
 - 5 marks for the **Viva** based on field experience.
- For re-appearing students (2023 batch onwards), submission of the Record and Field Diary is compulsory. Candidates who fail to submit the Record and Field Diary will not be permitted to appear for the examination.**

Viva -25marks, Record 15mark

50 % of total mark is mandatory to pass the viva voice.
- Record submission is mandatory** to be eligible to appear for the examination.
- Viva-Voce questions** should be based on:
 - The syllabus of the respective subject,
 - The student's Record,
 - Field training/field experience.
- A minimum of 50% of the total Viva-Voce marks is mandatory to pass the Viva-Voce examination.**

<u>CLASS</u>	<u>Marks (Out of 750)</u>
SECOND CLASS	375 - 449
FIRST CLASS	450 - 562
DISTINCTION	563 and above

PATTERN OF QUESTION PAPER

Pattern of Question Paper (Paper I to V)

Total Time: 3 Hrs

Total Marks: 100

SL. NO	SESSIONS	MARKS	NO OF QUESTIONS	TOTAL MARKS
1.	Essay	15	2 (Choose among the 3)	30 marks
2.	Short Notes	5	6 (Choose among the 8)	30marks
3.	Answer in two or three Sentence	2	10	20 marks
4.	Multiple Choice Questions	1	20	20 marks

DIPLOMA IN HEALTH INSPECTOR COURSE - PAPER WISE CONTENTS

FIRST YEAR

PAPER I -ANATOMY & PHYSIOLOGY

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
Anatomy & Physiology	200	100	20	10	10	10
Total	200 hours	100	150 marks			

Introduction

- Definition of Anatomy & Physiology
- Usual terms used in Anatomy like: Anterior & Posterior, Dorsal Ventral, Superior & Inferior, Medial & Lateral, Proximal & Distal, Internal & External, Superficial & Deep, Palmar, Plantar, Dorsal etc.
- Living cell - Definition, structure with Diagram, functions
- Tissue - Definition- types - names and special characteristics
- Organ & Organ system - Definition, Examples
- Organ included in each system.

Skeletal system

- Types of bones with examples - long bone, flat bone, irregular bone, short bone, sesamoid bone
- Bones forming skeleton
- Function of skeletal system
- Classification- Axial, Appendicular skeleton - Bones involved
- Cranial bones - Name
- Name of sutures & fontanelle
- Facial bones- (number, important bone - mandible), Air sinuses.
- Ribs and sternum - Numbers and types
- Vertebra - number, types and curvatures
- 1st & 2nd cervical vertebrae - name - importance Lumbar puncture
- Intervertebral disc - importance
- Appendicular skeleton
- Bones of upper limb
- Bones of lower limb
- Bones taking part in pectoral girdle & pelvic girdle

Joints

- Classification
- Synovial joint - types

Muscular system

- Types of Muscles
- Characteristics of each type
- Neuromuscular junction - basic knowledge
- Muscles of Respiration

Nervous system

- Introduction and definition
- Neuron- structure with diagram
- Synapse - structure with diagram
- Brain and Spinal cord - basic knowledge
- Meninges and Cerebro Spinal fluid
- Cranial nerves - number & names and functions
- Spinal nerves - names and number
- Reflex action & reflex arc
- Autonomic Nervous System

Senses: General and Special

- Skin - structure with diagram and functions of skin
- Eye - structure and physiology with diagram, Errors of refraction
- Ear - Structure with diagram and physiology of hearing
- Nose - basic anatomy and physiology
- Tongue - basic anatomy and physiology

Circulatory system

- Introduction
- Heart- structure, position, size, relation, covering, chambers, related blood vessels
- Diagram showing chambers of heart & major blood vessels.
- Functions of heart
- Physiology of heart
- Conducting system of heart - Pacemaker
- Atrial and ventricular systole
- Cardiac cycle
- Cardiac output
- Stroke volume
- Pulse (definition & rates in age group)
- Blood pressure (Definition & factors maintaining Blood pressure)
- Pulse pressure
- ECG- Definition

Blood vessels

- Types & difference of Blood vessels (Artery, vein & capillaries)
- Major blood vessels of body

Blood

- Constituents
- Plasma and plasma proteins
- Different blood cells
- Identifying features of Blood cells - Normal count
- Site of hematopoiesis in adults
- Functions of Blood
- Clotting of Blood
- Lymphatic circulation - Basic points - Formation- Circulation- Functions

Respiratory System

- Introduction Organs involved
- Respiratory passages
- Changes happening to air during in breathing
- Larynx -Basic structure & function Vocal cords
- Trachea- Basic structure
- Bronchus - Basic structure
- Lungs -structure and function, position, relation, covering, lobes, root of lung,
- Basic knowledge of parenchyma, blood vessels related, alveoli gas exchange
- Lung volume - Total air capacity, vital capacity, tidal volume
- Respiration - Pulmonary and tissue respiration, rate and control of respiration, respiratory movements.

Digestive system

- Alimentary tract - Organs with diagram.
- Mouth & Oral cavity- Mastication
- Tongue, Taste Buds, Saliva (Composition & function)
- Teeth- Type, structure with diagram
- Pharynx- Basic anatomy and function
- Esophagus- Position, relation and function
- Stomach- Position, relation, parts and function, Gastric Glands overview
- Small Intestine - Basic structure, Parts & function
- Large Intestine - Parts - structure
- Physiology of digestion and absorption of food
- Organs help in the process of digestion- Salivary glands, Pancreas, Liver & Gallbladder
- Enzymes involved in the process of digestion
- Peritoneum- Over view

Excretory system

- Organs and their location
- Kidney- Structure with diagram
- Nephron- Structure with diagram
- Physiology of urine formation - important steps
- Micturition
- Characteristics of urine

Endocrine system

- Endocrine glands - Definition, Name, location & function.

Reproductive System

- Female Reproductive System - Male Reproductive System-External and internal organs
- Physiology of conception
- Fetal circulation
- Menstrual Cycle

Exercise

At the end of the field visit, the students should be thorough with the following:

- ✓ Concept of the anatomical position of the human body
- ✓ Systems in the human body and their basic functions
- ✓ Knowledge regarding major bones, muscles, arteries, veins, and nerves of the human body
- ✓ Monitoring of vitals
- ✓ Pulse rate
- ✓ Blood pressure (BP)- manual, digital
- ✓ Temperature
- ✓ Respiratory rate
- ✓ Examination of signs- pallor, icterus, oedema, lymph node enlargement, etc.
- ✓ Make a note of common symptoms presenting to an OP and their probable diagnosis (differential diagnosis)
- ✓ Major routes of parenteral administration of drugs (IV, IM, ID, SC, etc.)

Core Reading:

📖 Text book of Anatomy and Physiology - Evelyn Pearce

Further Reading:

📖 Anatomy and Physiology - B D Chaurasia

Topics for Record:

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Structure of the human cells
2. Tissue - overview
3. The Joints of the skeleton
4. Heart - Structure, function
5. Blood - composition
6. Functions of the liver
7. The Endocrine glands
8. Kidney- Nephron, Urine Formation
9. Structure of the eye and physiology of vision
10. Structure of ear
11. Physiology of respiration
12. Physiology of digestion and absorption of food
13. CNS- Structure of brain, Structure of a neuron, Cranial nerves, Reflex arc
14. Male and female reproductive organs

PAPER II : NUTRITION, HYGIENE, BASIC PHARMACOLOGY, BASIC MICROBIOLOGY, MEDICAL ENTOMOLOGY

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
Nutrition	60	30	20	10	10	10
Hygiene	40	20				
Basic Pharmacology	40	15				
Basic Microbiology	30	15				
Medical Entomology	30	20				
Total	200 hours	100 marks				
		150 marks				

NUTRITION

- Introduction to the study of nutrition
- Definition: relation of nutrition to health relation of other factors of importance to nutritional status and health e.g. infections.
- Classification and functions of foods body building, energy yielding, and protective foods.
- Nutrients - carbohydrates, proteins, fats, vitamins, minerals; functions, sources and daily requirements of each calorie requirements; water and cellulose.
- Nutritive value of food - nutritive value of foodstuffs - Cereals, Pulses, Fats & oils , Vegetables Milk & Milk products sugar, Fruits, Egg, meat & fish
- Enriching substance diets with locally available foodstuffs.
- Balanced Diet - The balanced diet
- Definition; Factors to considered in planning meals; improvement of diets; selection of foods; cultural factors; nutritional requirements for special groups vulnerable groups; improving maternal nutrition and child nutrition. Modified diets
 - liquid, bland, soft, full.
- Food management- preparation and preservation of food - General principles of cooking; methods of cooking, effects of cooking on nutrients and common foodstuffs, fortification.
- Preservation of foods- household methods Food hygiene - simple household measures.
- Cultural factors in nutrition - Foods fads, food habits
- Food adulteration practices injuries to health
- Nutrition education - principles of imparting nutrition knowledge. Dietary survey.
- Nutrition programs
- Malnutrition, under nutrition; causes; inter relationship of factors leading to malnutrition, e.g. infections, worm infections, worm infestations.
- Deficiency diseases in the country including vitamin deficiencies protein energy malnutrition, goiter

- Other nutritional problems- low birth weight, PEM (early detection, screening, preventive methods), xerophthalmia, nutritional anemia, iodine deficiency disorders, endemic fluorosis, lathyrism
- Food Hygiene: Definition, preparation, preservation, storage, handling of food.
- Food manufacturing units, classification.
- FSSAI, Food Safety and Standards Act- overview
- Food poisoning - Causes, sampling techniques, transportation of samples Reporting.

HYGIENE

I. Hygiene

- Introduction to hygiene and healthy living
- Factors influencing health and healthy living
- Health habits and practices - recognizing positive and negative practices in the community

II. Personal Hygiene

- Skin care, cleanliness, clothing; care of the hair, prevention of pediculosis.
- Dental care and oral hygiene.
- Care of hands, Care of nails
- Hand washing 7 techniques
- Hygiene of elimination.
- Menstrual Hygiene.
- Posture: prevention of postural defects: exercise, rest, relaxation and sleep
- Care of the face; eyes nose and throat.
- Care of feet.

III. Periodic health examination:

- Health examination; health record immunity and infection; immunization; detection and correction of defects, common colds, indigestion headache.

IV. Health in the home

- Home as a center for healthy living. Safety in the home; common home hazards.

V. Universal precautions

BASIC PHARMACOLOGY

- Introduction- Definition - terminology- Pharmacokinetics and Pharmacodynamics
- Routes of drug administration
- Absorption of drug
- Bio-transformation of drug
- Excretion of drugs
- Mechanism of drug action
- Effects of drug
- Factors modifying drug effect

- Lifesaving drugs
- Overview the following group of drugs: (Commonly used drugs in these groups, Indications, Route of administration)
 - Analgesics
 - Anesthetics
 - Antipyretics
 - Anti coagulants
 - Antihypertensive drugs
 - Anti- diabetic drugs
 - Anti-asthmatics
 - Antiemetics
 - Antibiotics
 - Antiseptics
 - Diuretics
 - Drugs commonly used in psychiatric Medicine
 - Hematinics
 - Hormones
 - Laxatives
 - Sedatives
 - Other essential drugs
 - AMR

BASIC MICROBIOLOGY

- Classification, characteristics
- Basic details about bacteria and viruses
- Overview of parasites, fungi, yeasts & moulds
- Universal Presence of Micro Organism
- Conditions affecting the growth bacteria, virus, parasites, fungi, yeasts & molds.
- Infection, Infestation
- Difference between infection & disease, sources and modes of infection, mode of transmission, portal of entry and exit. Factors which favor and hinder infection.
- Immunity, Hyper sensitivity, Allergy, Antigen - Antibody reaction, vaccines.
- Collection, Storage and transportation of specimens for bacteriological examinations - an overview
- Basics of bacteriology and virology

- Disinfection & sterilization - various methods used.
- Overview of parasitology
 - Protozoa (Entamoeba, Trypanosoma, Leishmania, Plasmodia), Helminths
 - Lifecycle
 - Public Health Importance, Prevention and Control

MEDICAL ENTOMOLOGY

- What is Entomology
- Arthropods of Public Health Importance
- General features and classification of arthropods
- Mosquitoes - Morphology- Lifecycle - Bionomics of Anopheles, Aedes, Culex, Mansonia- Public Health importance- Prevention and Control (emphasis on Malaria, Filariasis, Dengue, Zika virus disease control) - IVM (Anti-larval, Anti adult measures in detail including **biological control**)- Insecticides, Dosage methods of use - Spraying, ISS, IRS, Fogging - methodology, choice of insecticides, usage and maintenance of equipment, Mosquito net, Screening, Repellents
- Aedes survey, vector study, source reduction, Sand-fly - Morphology, Lifecycle, Bionomics, Public Health importance (Leishmaniasis/ Kala Azar)- Prevention and Control
- Fleas, Ticks, Mites - Morphology, Lifecycle, Bionomics, Public Health importance- Prevention and Control
- Overview on Housefly, Tsetse fly, Bedbug, Louse
- Fly Control measures - Environmental control, Insecticidal control, other methods like fly paper, screening, etc. - Specific control measures of other Vectors like - Tsetse fly, Bedbug, Louse, Fleas, Ticks, Mites, Sand fly, etc.

○

Core Reading:

- ✚ For Nutrition and Hygiene - Essentials of Community Health Nursing - K.Park
- ✚ For Basic Pharmacology - Text Book of Basic Pharmacology - Dr.Muruges
- ✚ Fundamentals of Nursing - Sr.Nancy
- ✚ Basic Micro Biology- Dr. Ananthanarayanan

Further Reference:

- ✚ Preventive and Social Medicine - K.Park
- ✚ Text of preventive & social medicine by Piyush Gupta & P.O. Ghai

Exercise

- ✓ Identification of common food items - Their nutritive values, food additives, fortifiers,

iodized salt, food adulteration materials.

- ✓ Prepare charts, diagrams and models regarding, common adulterants, sampling techniques.
- ✓ Charts and models related to personal hygiene.
- ✓ Familiarize with the steps in handwashing
- ✓ Identification tablets, capsule, Trans dermal patch, Inhalers, nebulizers, Insulin syringes, IV set, ORS, DOTS strip, oral contraceptive strips, Medicine related to National Health Programs.
- ✓ Collection of Blood and preparation of smear, Identification of blood cells
- ✓ Identification of Parasites in stool
- ✓ Identification of culture bottles, storage materials, cultures extra.
- ✓ Nutrition of Urine sugar and albumin.

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Vitamins and minerals
2. Nutritional requirements of special groups
3. Food hygiene & Sanitation of eating places
4. Effects of cooking in different types of food.
5. Oral hygiene
6. Routes of drug administration
7. Mechanism of Action of drugs in human body
8. Universal presence of Micro organism
9. Disinfection & sterilization
10. An overview on bacteria, viruses, fungi, parasites
11. Basics in Entomology

📖 Introduction to Medical Microbiology- R Ananthanarayan -latest edition

Further Reference:

📖 Preventive and Social Medicine - K.Park

Exercise

- ✓ Visit to District Vector Control Unit
- ✓ Familiarize with the identifying features of arthropods of medical importance
- ✓ Exercise on Vector indices

Topics for Record

1. Arthropods of Public health importance
2. Mosquitoes - Identifying features, Vector bionomics, public health Importance
3. Sandfly - Identifying features, Vector bionomics, public health Importance
4. Fleas, Ticks and Mites - Mosquitoes - Identifying features, Vector bionomics, public health Importance

**PAPER III : FIRST AID & BASIC MEDICINE, DISASTER MANAGEMENT,
DISABILITY MANAGEMENT & REHABILITATION**

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
First Aid and Basic Medicine	100	50	20	10	10	10
Disaster Management	50	25				
Disability Management and Rehabilitation	50	25				
Total	200 hours	100				
		150 marks				

FIRST AID

I. Introduction

- Definition of first aid, Purpose of first aid, Scope of first aid
- Definition of Medical aid
- Definition, qualities & responsibilities of first aider.
- Principles of emergency care Management of emergency situation Golden rule of first aid.
- Cardio Pulmonary Resuscitation

II. Injuries to bones and joints

- Fracture, definition, types, signs & Symptoms, management,
- First aid measures of injuries to upper extremities, lower extremities, skull, rib, spine and pelvis
- Joints - dislocation and injuries.

III. Wounds and hemorrhage

- Wounds - definition - types
- Hemorrhage - definition - types - control and management
- Hemorrhage from special regions

IV. Burns, Chocking, Poisoning, bites, stings & foreign body

- Basics
- First aid management

V. Unconsciousness

- Definition
- First aid management
- CPR

VI. Injuries

- Thermal - Burns and scalds, rule of nine
- Electrical - First aid management
- Chemical - First aid management

VII. First aid procedures, supplies and equipment

- Application of bandages, slings, dressing, splints
- Lifting and transportation of casualty.
- First aid kit

BASIC MEDICINE

- I. Vital Signs- Examination of temperature, pulse, respiration, blood pressure
 - a. Temperature- Fever - Measurement, Causes of fever
 - b. Pulse- Tachycardia, Bradycardia
 - c. BP- Hypertension, Hypotension
- II. General Examination - Pallor, Icterus, Cyanosis, Clubbing etc
- III. Signs, symptoms & Treatment of minor ailments:
 - a. Conditions affecting the skin
 - Rashes
 - Scabies
 - Ulcer
 - Swelling
 - Pallor
 - b. Conditions affecting the ear & eye
 - Earache
 - Ear Discharge
 - Foreign body in ear
 - Foreign body in eye
 - Vision impairment
 - Eye injuries
 - Red eyes (Inflamed)
 - c. Conditions affecting the Skeleton
 - Joint pains
 - Swelling of joints
 - d. Conditions affecting the respiratory system
 - Bleeding from the nose
 - Foreign body in the nose
 - Upper respiratory infection
 - Haemoptysis
 - Shortness of breath
 - e. Conditions affecting the digestive system
 - Diarrhoea - mild - severe with blood or mucus
 - Abdominal pain
 - Constipation

- Blood in stools
- Toothache
- Worm infestation
- f. Conditions affecting urinary system
 - Painful & frequent micturition
 - Retention of urine
 - Haematuria
 - Nocturnal Enuresis
 - Incontinence
- g. Conditions affecting neuro- muscular system
 - Headache
 - Backache
- h. Conditions affecting reproductive system
 - Painful menstruation
 - Prolapse
- IV. Basic Medical care of the children
 - a. Child with fever
 - b. Child with convulsions
 - c. Child with developmental disorders
- V. Adverse Events Following Immunisation (AEFI)
- VI. Home nursing and elementary medical care
 - Care of Bedridden patient

Recommended Text Books:

- ✚ Text Book of First Aid by St. Johns
- ✚ A Text Book for Health Worker by A.M. Chalkley
- ✚ Basic Medicine by P.J. Mehta

DISASTER MANAGEMENT

- I. Disaster - Definition. - features.
 - Types of disasters - Natural Man made and Hybrid, Impact of disaster. (2 hrs)
- II. Disaster Management Definition - objectives
 - Disaster Management cycle -prevention - mitigation - preparedness - relief - Rehabilitation definitions - detailed discussion.
- III. Management of mass casualties - Search rescue & first aid - field care - triage - tagging - identification of death.
 - Relief phase of disaster - epidemiological surveillance & Disease control - nutrition.
 - Rehabilitation - water supply - food safety Basic sanitation & Personal Hygiene - vector control.

- IV. Disaster Actors - Government, The UN System - NGOS - International Aid & Bilateral Donors - their roles
 - Functioning of District Emergency Operations Centres (DEOC)
 - NDMA, KSDMA, DDMA- Structure, Functions
- V. Flood - further - measures taken before/ during/ after flood - guidelines to be followed before leaving house - emergency kit items.
- VI. Earth quakes -features - measures taken before /during/after earthquake.
- VII. Thunder & lightning -features - measures taken/at the time of thunder & lightning
- VIII. International Agencies providing health & Humanitarian Assistance for Disaster management - Inter governmental agencies - role of meteorological Department - some major disasters in India -disaster specific areas in the state world Disaster Reduction Day.
- IX. Disaster Management Act -2005

Books Recommended: -

- ✚ Park text book on preventive & Social Medicine by K.Park
- ✚ A text book for the health worker (ANM) Vol. I - by A.MChalkley(latest edition)
- ✚ Hand books” and “Revnens” Published by Institute of Land and Disaster Management, Trivandrum

Further reference: -

- ✚ Understanding Disaster Risk Management
- ✚ Disaster Risk Management Programme by United Nations Development Programme & Department of Revenue, Government of Kerala.
- ✚ Hand book on earthquake Reduction - Published by urban earthquake vulnerability reduction project GOI - UNDP - Project.

DISABILITY MANAGEMENT AND REHABILITATION

- Disability - WHO classification of disability - Definitions - impairment disability - Handicap. Evolution of a disease into handicap - steps progression of handicap in post-polio Residual paralysis. - Types of disabilities - problems in having a disability
- Deafness - definition - types causes - before birth - during birth - after birth CSOM - Presbycusis - Level of prevention of deafness - primary level - secondary level - tertiary

level

- Visual Disability - definition - low vision - legally blind - totally blind. - Causes of blindness in India. Cataract - glaucoma - conceal disorders - refractive errors - vit.A deficiency - diabetic retinopathy. - Preventable blindness - curable blindness - avoidable blindness. Level of prevention of blindness - Primary level - secondary level - tertiary level
- Orthopedic disability- definition causes - levels of prevention - primary level - secondary level - tertiary level
- Exemptions & Assistance available to the disabled - various types of institutional rehabilitations -Rights of Persons with Disability Act, 2016 - provisions of disability Act, Disability certificate, UDID - International Day for the differently abled
- Disability Pension Enquiry

Books recommended:

🌈 Text of preventive & social medicine by Piyush Gupta & P.O.Ghai

Exercise:

- ✓ Taking & Recording Pulse, Respiration, Temperature & Blood Pressure.
- ✓ Recording of Height & weight
- ✓ Measuring Mid - arm circumference & waist Calculation of Body Mass Index
- ✓ Training on BLS
- ✓ Demonstration of Cardio Pulmonary Resuscitation (trained team should demonstrate)
- ✓ Demonstration of application of Dressings, Slings, Bandages
- ✓ Demonstration of lifting & transportation of casualty & various first aid procedures
- ✓ Acquire knowledge about various types of congenital defects, acquired defects. Collection of Charts related to rehabilitation of the challenged.
- ✓ Collection of details regarding Autism & various therapies related to it
- ✓ Gather information about storms, Hurricanes- their features - latest major events - measures to be taken when cyclone and after emergency.

- ✓ Discuss and prepare report on role of health worker in disaster management. Gather information about storms, hurricanes - their features-latest major events
- ✓ measures to be taken when cyclone in on and after emergency.
- ✓ Diseases and prepare report on role of health workers in disaster management. Acquire knowledge about various types of congenital defects (Eg: Harelip, cleft palate, club foot congenital dislocation of lip etc.
- ✓ Acquired defects (Eg: defects developed as a result of infections)
- ✓ Collection of charts related to rehabilitation of the challenged.
- ✓ Collection of details regarding autism and various therapies relating to it.

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Cardio Pulmonary Resuscitation.
2. Wounds and bleeding
3. Fractures and dislocations
4. Fever
5. Bronchopneumonia in children
6. Disaster management - Definition objectives and Disaster management Cycle.
7. Role of Health workers in Disaster Management
8. Measures advised before/during and after, a flood.
9. WHO classification of disability - common types of disabilities and related levels of prevention of each
10. Disability Act 2016 provisions of the ACT-Benefits available to the disabled.

**PAPER IV: COMMUNICABLE DISEASES: NATIONAL HEALTH POLICY &
NATIONAL HEALTH PROGRAMMES**

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training Evaluation	Internal Evaluation
Communicable Disease	100	40	20	10	10	10
Epidemiology, Syndromic Surveillance & Outbreak investigation	20	20				
National Health Programmes and National Health Policy	80	40				
Total	200 hours	100				
		150 marks				

COMMUNICABLE DISEASES

Infectious Disease Epidemiology

- Epidemiology-definition
- Incidence, Prevalence
- Time, Place, Person distribution of diseases
- Epidemiological triad- Agent, Host, Environment
- Uses of Epidemiology
- Overview on Basic Epidemiological Designs
- Observational- Descriptive, Analytical
- Experimental- RCT, Field trial, Community trial
- Overview on Study designs like Cross-sectional study, Ecological Study, Case-control Study,
 - Cohort Study etc.
 - Uses and Applications of Descriptive study
 - Morbidity Measures- Incidence, Prevalence
 - Mortality Measures - death rates
- Natural history of disease- Spectrum of disease
- Concepts of Disease control, Disease Elimination, Disease Eradication
- Monitoring, Surveillance, Sentinel Surveillance
- Investigation of an Epidemic

- Definitions- Communicable disease, Infection, Contamination, Infestation, Epidemic, Endemic, Sporadic, Pandemic, Zoonoses, outbreak
- Incubation period, Serial interval, Generation time, Communicable period, Secondary attack rate, Basic Reproduction number
- Virulence, Pathogenicity
- Isolation, Quarantine
- Disease transmission-Source of infection and Reservoir, Carriers-types
- Mode of transmission-Direct and indirect transmission, Direct Transmission-Direct contact, Droplet infection, contact with soil, Inoculation into skin or mucosa, Transplacental transmission, Indirect transmission- Vehicle borne transmission, Vector borne transmission, Air borne transmission and Fomite borne transmission
- Health Advisory to travelers

□ Immunity

- Definition, Classification of immunity- Natural and acquired immunity
- Acquired immunity-Active and Passive immunity
- Active- Humoral, Cell mediated
- Immunizing agents - Vaccines, Immunoglobulins, Antisera
- Herd immunity

General measures of Control of infectious diseases

- Controlling the source or reservoir of infection- Early diagnosis, Notification, Isolation, Treatment, Surveillance, Disinfection
- Disinfection, PPE, Universal precautions
- Blocking the channels of transmission
- Protecting the susceptible population.
- IDSP related works (Reporting the case, death etc), S Forms, S Register
- IHIP
- Documentation of reported cases, IEC &, Intersectoral Coordination (Disease Specific)
- Death Audit
- Importance of Sample Collection & Isolation of notified diseases.

Intestinal infections:

1. Poliomyelitis- Definition-Epidemiological factors- Agent, Source of infection, Age, Environmental conditions, Period of infectivity, Immunity, Mode of transmission, Incubation period - Clinical features - Prevention- Pulse Polio Immunization
2. Viral Hepatitis-Hepatitis A, D and E - Definition- Epidemiological factors- Agent, Source of infection, Infective material, Age, Immunity, Mode of transmission, Incubation period - Prevention and control

3. Acute diarrhoeal diseases- Definition, Aetiological agents, Mode of transmission, Control measures -Diarrhoea management- ORT-Preparation of ORS- Demonstration-Diarrhoea treatment unit in a PHC/ a hospital set-up-Prevention
4. Cholera- Definition - Epidemiological factors- Agent, Source of infection, Infective material, Environmental conditions, Age, Immunity, Mode of transmission, Incubation period - Clinical features - Control- diagnosis, notification, case finding, oral rehydration, antimicrobial treatment, disinfection, sanitation measures, vaccination, chemoprophylaxis, health education
5. Typhoid - Definition - Epidemiological factors- Agent, Source of infection, Infective material, Infective period, Age, Immunity, Poor Sanitation, unhygienic habits, Mode of transmission, Incubation period -Control-Prevention- Anti-typhoid vaccine
6. Food poisoning-Definition, types of food poisoning, Salmonella food poisoning, Staphylococcal food poisoning, Botulism- Prevention and control
7. Amoebiasis- Clinical features, Epidemiological factors- Agent, Soil conditions, Human habits, Mode of transmission, Incubation period -Control and prevention
8. Ascariasis- Life cycle of round worm, Clinical features, Epidemiological factors- Agent, Soil conditions, Human habits, Mode of transmission, Incubation period -Control and prevention
9. Hook worm infection- Life history of hook worm, Clinical features, Epidemiological factors- Agent, Soil conditions, Human habits, Mode of transmission, Incubation period -Control and prevention
10. A brief description of Taeniasis and Hydatid disease

Respiratory Infections:

1. Tuberculosis- Definition-Epidemiological factors- Agent, Source of infection, Age, Sex, Rural and Urban areas, social factors, Period of infectivity, Immunity, Mode of transmission, Incubation period - Clinical features -Tuberculin testing, Control and Prevention- DOTS, B.C.G. vaccination, Health Education
2. Covid - 19- Burden- Mode of Transmission- Period of Communicability- Case definitions- Diagnosis - Prevention and Control - Role of isolation and quarantine
3. Small pox- Definition and overview; difference between small pox and chickenpox
4. Chickenpox- Definition-Epidemiological factors- Agent, Source of infection, Age, Period of infectivity, Immunity, Mode of transmission, Incubation period - Clinical features - Control and Prevention
5. Measles- Definition-Epidemiological factors- Agent, Source of infection, Age, Sex, Period of infectivity, Immunity, Mode of transmission, Incubation period - Clinical features - Complication, Control and Prevention
6. German Measles- Definition-Epidemiological factors- Agent, Source of infection, Age,

- Infective material, Immunity, Mode of transmission, Incubation period - Clinical features - Public health importance and Prevention
7. Mumps- Definition-Epidemiological factors- Agent, Source of infection, Age and sex, Period of infectivity, Immunity, Mode of spread, Incubation period - Clinical features -Prevention
 8. Influenza-Definition-Epidemiological factors- Agent, Source of infection, Age and sex, Human mobility, Period of infectivity, Immunity, Mode of transmission, Incubation period - Clinical features - Control and Prevention
 9. Diphtheria-Definition-Epidemiological factors- Agent, Source of infection, Age, infective material, Infectivity, Mode of transmission, Incubation period - Clinical features - Treatment, Schick test, Control and Prevention
 10. Whooping cough- Definition-Epidemiological factors- Agent, Source of infection, Age, Period of infectivity, Immunity, Mode of transmission, Incubation period - Clinical features - Control and Prevention
 11. Acute Respiratory Infection- Definition-Epidemiological factors- Agent, Host factors, Mode of transmission - Clinical features - Control -Classification of illness and management
 12. Severe Acute Respiratory Syndrome (SARS)- Definition, Symptoms, Incubation period, Mode of transmission, Control and Prevention
 13. Influenza A H1N1- Definition, Symptoms, Incubation period, Mode of transmission, Control and Prevention
 14. To familiarize - Avian Influenza, MERS

Vector borne diseases:

1. Malaria- Definition, Epidemiological factors- Agent, Life cycle of malarial parasite, Source of infection, Mode of transmission, Incubation period - Clinical features -Vector Survey- Measurement of malaria (Spleen Rate, Parasite Rate, Parasite Density Index, Infant Parasite Rate, Proportional case Rate, API, ABER, AFI, SPR, SFR) anti-malarial measures -Malaria drug policy- vector management- prevention
2. Filariasis- Definition, Epidemiological factors- Agent, Life cycle of the parasite, Source of infection, Mode of transmission, Incubation period -Clinical features - Control of filariasis and Prevention, MDA & TAS
3. Dengue fever- Epidemiological factors- Agent, Source of infection, Mode of transmission, Incubation period - Clinical features, Diagnosis and Treatment of Classical Dengue fever, Dengue haemorrhagic fever and Dengue Shock Syndrome- Control measures
4. Chikungunya- Source of infection, Mode of transmission, Incubation period - Clinical features, Control and Prevention
5. Zika Viral disease- Source of infection, Mode of transmission, Incubation period - Clinical features, Control and Prevention

6. Japanese encephalitis- Source of infection, Mode of transmission, Incubation period - Clinical features, Control and Prevention
7. Familiarize with Yellow fever, Kala Azar, Leishmaniasis, West Nile Fever

Zoonoses:

1. Rabies - Definition-Epidemiological factors- Agent, Source of infection, Infective material, Mode of transmission, Incubation period - Clinical features - Control and Prevention
2. Leptospirosis- Epidemiological factors- Agent factors-Agent, Source of infection, Animal reservoirs Host Factors-Age, Occupation, Immunity -Environmental factors, Mode of transmission, Incubation period - Clinical features -Diagnosis, Control and Prevention
3. Human Plague- Epidemiological factors- Agent factors-Agent, Source of infection, reservoir Host factors -Environmental factors, Vectors- Mode of transmission, Incubation period -
4. Clinical forms - Bubonic plague, Pneumonic plague, Septicaemic plague, Diagnosis, Control and Prevention
5. Brucellosis, Rickettsial diseases, Anthrax and Yellow fever, Hantavirus, KFD, Scrub Typhus - an overview
6. Nipah- Epidemiological factors- Agent, Source of infection, Infective material, Mode of transmission, Incubation period - Clinical features - Control and Prevention

Surface infections

1. Tetanus- Epidemiological factors: Agent factors-Agent, Reservoir of infection, Exotoxin, Period of communicability, Host Factors-Age, Occupation, Rural-urban differences, immunity, Environmental and Social factors, Mode of transmission, Incubation period, Neonatal tetanus - Prevention
2. Leprosy: Definition, Epidemiological factors- Agent, Source of infection, Infective material, Age, Sex, Social factors, General factors, Mode of transmission, Incubation period-Classification- Control measures
3. Trachoma- Epidemiological determinants: Agent factors, Host factors, Environmental factors, Mode of transmission, Incubation period, Control of Trachoma
4. AIDS-Definition- Epidemiological factors- Agent, Source of infection, Infective material, Age, High risk groups, Immunity, Mode of transmission, Incubation period - WHO case definition for AIDS surveillance -Control and Prevention
5. Familiarize Syphilis, Gonorrhoea, Chancroid, Donovanosis

Other communicable diseases

1. Scabies- Definition-Epidemiological factors- Agent, Source of infection, Age, Mode of transmission, Incubation period - Clinical features -Control and Prevention
2. HFMD - Agent, Source of infection, Age, Mode of transmission, Incubation period - Clinical features -Control and Prevention
3. Hepatitis B and C

Emerging and Reemerging diseases

1. Overview on Emerging and re-emerging diseases.

Core reading

✚ Park,K.Essentials of Community Health Nursing- Latest Edition

Further reading

✚ Park,K. - Park's Textbook of Preventive and Social Medicine- 20th Edition

NATIONAL HEALTH PROGRAMMES

1. Health -Definition- N
2. ational Health Programmes - Aims - International agencies supporting national health programme
3. **National Health mission (NHM)- National Rural Health Mission & National Urban Health Mission** - Aim of launching the programme - a combination of RCH phase II, National Diseases control programme, IDSP, NVBDCP-objectives of NRHM - Goals to be achieved by NHM at national level and at community level - selection of ASHA - role and responsibilities of ASHA
4. National Family Welfare Programme _ Family Planning-Family welfare-
5. Universal Immunization Programme- EPI - Preventable childhood Diseases - Objectives of UIP - additional component in UIP 1985. -Immunization programme -immunization schedule- Pulse Polio Immunization Programme, Mission Indradhanush
6. Diarrhoeal Diseases Control Programme, Intensified Diarrhoea Control Fortnight (IDCF), CDD ORT Week
7. RCH Programme- evolution - components -RCH phase -1-Family planning, Child survival and safe motherhood, Client approach to health care, Prevention and management of RTI/STD- AIDS - Indicators to monitor and evaluate RCH programme.
 - a. Main highlights of RCH program-Essential obstetric care, Emergency obstetric care, 24-hour delivery services at PHCs/CHCs, Control of RTI and STD, Immunization, Essential new borne care, ORT, Acute respiratory disease control, Prevention and

Control of Vit.A deficiency and anaemia in children, Initiatives taken after adoption of National Population Policy 2000-RCH outreach scheme, Introduction of Hepatitis B vaccine, Training of dais, Empowered Action Group, District surveys

- b. RCH phase -II Strategies- Essential obstetric care (Institutional delivery and skilled attendance at delivery), Emergency obstetric care (Minimum services to be provided by a fully functional FRU), Strengthening referral system
 - c. JSY, Vandemataram scheme, JSSK, PMSMA, SUMAN, LAQSHYA, Anemia Mukta Bharat Programme, - overview
 - d. Child health Components- NRCs, NSSK, IMNCI, RBSK, BFHI - overview
 - e. RMNCAH+ N strategy overview
 - f. INAP - Goal, Pillars
 - g. GBV Centre- BHOOMIKA
8. Integrated Disease Surveillance Programme (IDSP) and Integrated Health Information Platform (IHIP). - Aims - Classification of surveillance in IDSP - Clinical syndromes under surveillance of IDSP - Symptoms under regular surveillance in IDSP.
9. National Vector Borne Disease Control Programme
 - a. Vector - definition-Examples of vector borne diseases.
 - b. Aims of NVBDCP -functions of Directorate of NVBDCP- Integrated vector management.
 - c. National Anti - Malaria Programme - Malaria control programme 1953 - NMEP 1958 modified plan of operation -API - strategies for control of malaria in areas with API more than 2 and API less than 2 - Drug distribution centre and urban malaria scheme. Fever Treatment depots -P.falciparum containment - Malaria Action plan 1995
 - d. Anti - Malaria Programme 1999 - strategies for prevention & control of malaria-intensified/Enhanced Malaria control Project Anti - malaria month campaign
 - e. National Filaria control programme 1955
 - f. Main activities of NFCP - Revised Filaria control strategy - MDA programme and its relevance
 - g. Kala -Azar control programme- causative factors -endemic areas -Strategies for Kala - Azar elimination
 - h. Japanese encephalitis control programme -familiarize the vector, reservoir and risk factors of JE, symptoms and treatment - strategies for prevention & control
 - i. Dengue fever control programme - vector, symptoms of Dengue and treatment - strategies for prevention & control of Dengue fever.

10. National leprosy eradication Programme - familiarize leprosy - strategies of NLEP Decentralisation , Integration of leprosy services with general health care system, Leprosy training, Early diagnosis and prompt treatment-MDT, IEC for reduction of stigma and discrimination, Prevention of disability and medical rehabilitation, Monitoring and periodic evaluation, Inter-sectoral collaboration, Monitoring and Evaluation - Rehabilitation-Community based rehabilitation-Components - History of elimination schemes MLEC,LCDC,ACD& RS Survey, NIKUSHT etc
11. National Tuberculosis Elimination Programme(NTEP) -Updates- strategies - Stop TB strategy-Goal, Objectives and Components-diagnosis of TB in RNTCP -DOTS-MDR TB-DOTS PLUS- TB- HIV Co-ordination - RNTCP-History of elimination schemes (Combi Programme,Nikshay. etc) CY - TB Test
12. National AIDS Control programme. NACO - aims - strategies , aims of NACP (I) (II) (III) ,IV and V - strategies - programme priorities - Integrated counseling & Testing centres (ICTCs) Convergence with RCH, TB and other MOHFW Programmes, STD services, Condom supply, Access to safe blood , Prevention of parent to child transmission- PPTCT, STD control programme - Blood safety programme - condom programming - care and support - Treatment - Anti-Retroviral therapy-National Paediatric AIDS initiative - IEC and social mobilization
 - a. Prevention strategies- Targeted / Preventive interventions
 - b. Among High-Risk Groups,
 - c. Differential strategies among HRGs (CSW), MSM and Trans-Gender (TG)
 - d. among Bridge populations
 - e. Truckers and Transport Sector groups Programme Targets-Public- private partnership
 - f. Currently added new components to the programme.
13. National Programme on Control of blindness and Visual Impairment (NPCB &VI) - Aims - Strategies - school eye screening programme - Aims - vision 2020 - The Right to sight - Eye donation - Eye donation fortnight-
14. National programme on Iodine Deficiency Disorders (IDD) control programme - Iodine Deficiency Disorders - Essential components of the programme - strategies.
15. National cancer control programme - common cancers - causes- Objectives of the programme- National cancer awareness Day - world no Tobacco Day - Tobacco control legislation provisions.

16. National Mental Health Programme-Aim of launching the program - Objectives- intervention of national Human rights commission in mental hospital
17. National Viral Hepatitis Control Programme (NVHCP)- Objectives- Aims- Elimination of Hep.C by 2030
18. National Rabies Control Programme (NRCP)- Objectives- Aims -Strategies
19. Programme for Control of Leptospirosis (PPCL)- Objectives- strategies
20. National Programme for Non-Communicable Diseases (NP-NCD)- former National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases and Stroke (NPCDCS)- Objectives- Aims- strategies- Health promotion- Population based Screening, Diagnosis and treatment
21. National Tobacco Control Programme -Objectives- Strategies- Tobacco Control Legislation provisions - COTPA and its implementation - World No Tobacco Day
22. National Programme for Prevention and Control of Deafness (NPPCD) - Objectives- Components of the programme- Strategies- Benefits of the programme
23. Important Health Days
24. National Programme for Prevention and Management of Burn Injuries (NPPMBI)
25. National Oral Health Programme (NOHP)
26. National Programme for prevention and control of fluorosis
27. National Programme for Rare Diseases
28. National Programme on Climate Change and Human Health (NPCCHH)
29. National Programme for Health Care of Elderly
30. National Palliative care programme
31. National Organ and Tissue Transplant Organization
32. One Health Programme
33. Familiarize National Guinea worm Eradication Programme and Yaws Eradication Program
34. State Specific Health Programmes

Core reading

- ✚ Park,K. Park's Textbook of Preventive and Social Medicine - latest edition ✚ K.Park;Essentials of Community Health Nursing-Latest Edition
- ✚ <http://mohfw.nic.in/NRHM.htm>
- ✚ <http://nlep.nic.in/rehab.htm>

Further reading

- ✚ A Hand Book for ASHA by Arogya keralam
- ✚ A guide to malaria and its control: Regional Office of H&FW, GOI, Bangalore
- ✚ Module for Health Workers published on RCH programme by National Institute of Health & Family Welfare

NATIONAL HEALTH POLICY

1. Introduction
2. History-Declaration of Alma Ata-Health for all by 2000 A.D- Health indicators as envisaged to be achieved by 2000 A.D.-Currently available Health Indicators
3. Millennium development goals - overview
4. Sustainable development goals - Goals, Targets, Linked to health, India and SDG
5. National Health Policy

Core reading

- ✚ Park,K.Essentials of Community Health Nursing- Latest Edition

Further reading

- ✚ Park,K. Park's Textbook of Preventive and Social Medicine- latest edition

Exercise

- ✓ Demonstration and identification of vectors during observation visit/field placement.
Mapping of breeding places
- ✓ Charts of various vectors, their breeding places and diseases caused by them
- ✓ Write down how will you educate the community on 'the conduct of dry day observance'
- ✓ Write down the advantages of conducting cleaning campaign in your institution
- ✓ Write down a report of state / district level observance of Anti- malaria/ TB/AIDS Prevention/ Blood Donors' Day
- ✓ Learn -malarial parasite and microfilaria under the microscope- methods of smear collection, DOTS kit and Slides during observation visit/field placement.
- ✓ Make a chart containing Name, causative agent, method of transmission, symptoms, control and prevention of vector borne / Air borne/ Water borne diseases.
- ✓ Practice role play of orientation training camp for NGOs on prevention of diseases during rainy season
- ✓ Collection and discussion of pamphlets related to national health programmes.
- ✓ Attending meetings national observance days related to national health programmes and report preparation.
- ✓ Preparation and submission of bonafide records which should contain at least five major

national health programmes.

- ✓ Compare currently available national health indicators in India and Kerala
- ✓ Collect health indicators of the PHC/Block area of field work

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. A report of various vectors and diseases caused by them.
2. Write down how will you educate the community on 'the conduct of dry day observance'
3. Write down a report of state / district level observance of Anti- malaria/ TB/AIDS Prevention/ Blood Donors' Day
4. Prevention of diseases during rainy season
5. Make a chart containing Name, causative agent, method of transmission, symptoms, control and prevention of vector borne / Air borne/ Water borne diseases.
6. National Health Mission
7. RMNCAH + Nutrition
8. NVBDCP
9. NTEP
10. National AIDS Control programme.
11. National health policy

PAPER-V: PUBLIC HEALTH, PRIMARY HEALTH CARE, JOB RESPONSIBILITIES OF JHI'S, MAINTENANCE OF RECORDS AND REPORTS , FAMILY WELFARE, UNIVERSAL IMMUNISATION PROGRAMME, HEALTH STATISTICS AND DEMOGRAPHY,DIGITAL HEALTH AND DATA MANAGEMENT

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training Evaluation	Internal Evaluation
Public Health	30	15	20	10	10	10
Primary Health Care	30	15				
Family Welfare	40	20				
Universal Immunisation Programme	20	10				
Job Responsibilities Records and Reports	60	30				
Health statistics and Demography, Digital Health and Data Management	20	10				
Total	200 hours	100				
		150 marks				

FAMILY WELFARE:

- Concept of family welfare, importance of family planning and welfare, health and socio-economic factors, mortality rates of vulnerable groups.
- Human reproduction and population dynamics, physiology of conception.
- Aspects of family health and welfare services
- Maternal health, child health services, family health care, school health services. Marriage guidance, pre-marital education
- Indicators of MCH care - an overview
 - Maternal Mortality Ratio, Maternal Mortality Rate
 - Mortality in infancy and Childhood - Perinatal Mortality Rate, Neonatal mortality Rate, Infant Mortality Rate, Under5 mortality rate
- Causes of Maternal deaths, Mortality in and around infancy, Under 5 mortalities
- Spacing of births, limiting births
- Treatment of infertility.
- Organizational set up of family welfare services at central, state, district, PHC and Sub centre levels.
- Role of health workers-male, role of other members of health team, coordinating efforts to provide effective services. Role of voluntary organizations in providing FW services. Evolution of family welfare programmes in India.-FP, FW, MCH, CSSM, RCH, RCH-II(NRHM), RMNCAH+N -overview.
- Reports relating to family welfare programmes in India-overview.
- Organization of family work.
- Surveying the community for eligible couples, case findings, techniques of reaching the community, working through local organizations and community leaders.
- Promoting the small family norm, health benefits of small family, helping people to accept and adopt family planning methods, imparting family planning facts, dealing with misconceptions.
- Communicating with individual and groups. Face to face communication, mass media approach, conducting group discussions, holding meetings, individual counseling in the home, clinic, health centre or motivating eligible couples in the hospitals, family planning facts, promoting trust and confidence, providing services.
- Planning and organizing family planning services.
- Home clinic, community, vasectomy clinics, vasectomy camps.
- Distribution system for conventional contraceptives.
- Records and reports related with family welfare. Family planning campaigns

Family planning methods

- Eligible couple, Target couple
- Contraception, temporary and permanent methods, their advantages and disadvantages.
- Male contraception and male participation in contraception

- Natural, chemical, mechanical, surgical, hormonal methods, rhythm method, foam tablets, intra uterine devices, oral contraceptives, sterilization, medical termination of pregnancy,
- Recanalisation (male and female)
- Preparation of Subcentre Action Plan for Family planning methods
- MTP Act

UNIVERSAL IMMUNISATION PROGRAMME

- Vaccines-Live attenuated, killed, toxoids, combined vaccines
- National Immunization Schedule
- Cold chain, Cold chain equipment
- Open vial policy
- Vaccine Vial Monitor (VVM)
- AEFI- Adverse Events Following Immunisation

JOB RESPONSIBILITIES OF PRIMARY HEALTH CARE WORKFORCE WITH EMPHASIS ON THE MULTI PURPOSE HEALTH WORKER - MALE (GO: 131/2023/H&FW dated 19/01/2023)

- Organogram of Kerala Health Services
- Introduction-Sub Centre - Functions- Priority House visit- Clinics under subcentre
- Sub centre team (Co-ordination with JPHN, MLSP and ASHA workers)
- Field visit- Area of Jurisdiction- Area Map- General Information Register- Priority visits- Reporting- Supervision
- Maintenance of Family and Village Records: family and village survey, family and Village records, Priority Groups Register
- Implementation of national health programmes:
- Role of JHI in -National Malaria Eradication Programme, National Tuberculosis Elimination Programme, National Leprosy Eradication Programme
- Role of JHI in - RCH/NRHM services
- Role of JHI in IDSP and IHIP
- Role of JHI in HMIS
- Role of JHI in other health programmes and activities
- Role of JHI in WHSNC
- Environmental Sanitation-sanitary well, well chlorination, soakage pit, sanitary latrine, home sanitation, waste disposal
- Control of communicable diseases- Preventive measures of airborne, waterborne, and contagious diseases and reporting system
- Health and Family Education- Nutritional services
- Role of JHI in Immunization
- Role of JHI in curative services
- Collection of details of vital events
- School health
- Public health responsibilities- inspection of dangerous and offensive trade

- Staff meeting and conferences
- Services to the elderly challenged, mentally ill and palliative patients
- Services for prevention of RTI/STI and HIV/AIDS
- Maintenance of records and reports
- Arogya Jgradha calender
- Premansoon activities

PUBLIC HEALTH

- Concept, definition, scope of public health activities, difference between public health and curative medicine, overview of magnitude of public health problems in the state and comparison with the national and global situations, overview of the development of health services and overview of various important committee reports like bhore committee, mudaliar committee, and kharthar singh committee. Cooperation and coordination with members of health team, social welfare team, village community development team.
- Organization and structure of health services - at national, state and district levels. Primary health centre/ sub centre - concept, definition, organization and functions. Role of PHCs and sub centres in the health care delivery system.
- Organization of public health set up in the urban area. - corporations, municipalities, and townships. -and duties of varios health personnels in the set up.
- Public health programmes - progress of health activities under developmental programmes .- health planning and programme - five-year plans, health subsectors in five-year plans, implementation of health plans at various levels.
- International agencies - overview - world health organization, UNICEF, UNFPA. NGOs-
- Social welfare services- ICDS
- Other systems of medicines -AYUSH - overview of their role. Inter sectoral coordination

PRIMARY HEALTH CARE

- Definition, Elements, Principle
- Health system in India-
- At the centre, Union ministry of Health and Family Welfare, organization and functions- Directorate General of Health Services, Organization and functions- Central Council of Health- Organization and functions
- At the state level-State health administration-State Ministry of Health, State Health Directorate,
- At the District level- Sub divisions,Taluks, Community development blocks, Municipalities and corporations, Villages and Panchayats
- Changing concepts- Comprehensive primary health care, Basic Health Services
- Role of JHI in Primary health care
- Standardization of Health Institutions (ISO, CASH, NABH, Kayakalp, NQAS, IPHS etc)

MAINTENANCE OF RECORDS& REPORTS

1. Various types of Registers maintained by JHIs.
2. Records
 - a. Area map
 - b. Progress charts of various activities and achievements
 - c. Health Status reports
 - d. Seasonality diagram
 - e. Abstract of various reports
3. Reports
 - a. Definition
 - b. Preparation of advance tour programme and tour diary cum work statement
 - c. Various types of monthly report
 - d. Communicable disease reports (Daily, weekly, fortnightly, etc)
4. Different portals and digital records (UWIN, IHIP, HMIS, SHAILI, FPLMIS, JANANI Portal, NIKSHAY, NIKUSHT etc.,)

Demography, Health Statistics, Digital Health and Data Management

Demography

- I. Basics: Definition- Population Education, Demography
 - Demographic trends in India, Age composition, Sex ratio, Dependency ratio, Density of population, Family size, Urbanization, Literacy, Life expectancy, Fertility, Demographic cycle, Causes of population explosion- Decreased death rate and increased life expectancy, Scientific advancements, Increasing treatment facilities, Universality of marriage, Low Age At Marriage, Cultural beliefs, Superstitions, Joint family system, Pre- dominance of agriculture, Pre- dominance of villages, Poverty, Illiteracy, Immigration Consequences of population explosion- social, economic, developmental, health and environmental - decreasing natural resources, emission of greenhouse gases, ozone layer depletion, alteration in ecosystem, climate change, noise - air- water and soil pollution.
- II. Theories on population
 - Optimum population theory, Principles/Theories of population by Malthus, Karl Marx, Demographic Transition Theory- Pre transition, Transition and Post Transition stages, Demographic transition in India
- III. National Population Policy
- IV. SDG

HEALTH STATISTICS

- Definition- Statistics, Vital statistics, Health Statistics
- Uses of Vital and Health Statistics
- Sources of health Information: Census, Registration of Births and Deaths, SRS, Notification of diseases, Hospital Records, Disease Registers, Health surveys, etc
- The Central Birth and Death Registration Act 1969

- Vital statistical rates and indices- birth rate, death rate, specific death rate, infant mortality rate, neonatal mortality rate, perinatal mortality rate, under five mortality rate, maternal mortality rate, expectation of life, general fertility rate.

Digital Health and Data Management

DIGITAL HEALTH

E-Health-Electronic health record (EHR)

Ayushman Bharat Digital Mission (ABDM)

E -reporting, GIS mapping, mobile based surveillance

Basic computer Training

Role of Tele medicine and e-Sanjeevani in health

DATA MANAGEMENT-Importance and benefits

First year: (30 hours per year)

Basic data management

- MS Office (MS Excel, MS Word, PowerPoint etc.)
- Managing Google sheets, Google forms etc.
- Online meeting platforms like Google meet, Zoom, Microsoft teams etc.

(A computer lab should be set up, with at least 5 computers per 30 students.)

RECOMMENDED BOOKS:

Core Reading:

Public Health, Primary Health Care, Family Welfare, Universal Immunisation Programme:

📖 K. PARK -Essentials of Community Health Nursing (Latest Edition)

Job Responsibilities of JHI's & Maintenance of Records and Reports:

📖 Order issued by the Govt. of Kerala

📖 (Order No: 131/2023/H&FW dated 19/01/2023)

📖 📖 A Textbook for the Health Worker (ANM)- A.M. Chalkley- Volume

Population Education

📖 K.Park, Latest Edition -Essentials of Community Health Nursing

📖 A.M. Chalkley- Volume I, A Textbook for the Health Worker (ANM)

📖 A.M. Chalkley- Volume II, A Textbook for the Health Worker (ANM)

📖 Principles of Population Studies-Dr. (Mrs.) Asha. A. Bhande & Prof. (Mrs.) Tara Kanitkar

📖 Demographic transition, An Ancient Perspective- edited by Rajive Balakrishnan, 2011 in association with Council for Social Development, New Delhi.

Health Statistics

📖 1. Park's Textbook of Preventive and Social Medicine-K.Park, latest Edition

📖 2.Essentials of Community Health Nursing-K.Park,Latest Edition

📖 3.A Textbook for the Health Worker (ANM)- A.M. Chalkley- Volume I

✚ 4.A Textbook for the Health Worker (ANM)- A.M. Chalkley- Volume II

Further Reading:

- ✚ K. PARK - Park's Text book of Preventive and Social Medicine
- ✚ Piyush Guptha and O.P. Ghai- Textbook of Preventive and Social Medicine- CBS Publishers & Distributors
- ✚ RCH Module for Health Worker Male &Female Issued by National Institute of Health & Family Welfare

Population Education

- ✚ K. Park, latest Edition, Park's Textbook of Preventive and Social Medicine
- ✚ From Population Control to Reproductive Health-Mohan Rao,2004, Sage Publication, New Delhi
- ✚ Population Policy of India-Implementation Strategies at National and State Levels- edited By Badri. N. Saxena, 2004, Sterling Publishers Pvt. Ltd.

Digital Health and Data Management

1. <https://mohfw.gov.in>
2. <https://nhm.gov.in>

Exercise

- ✓ Render family planning services to the community as per the felt need
- ✓ Role play on family planning services
- ✓ Prepare an action plan for a sub centre area related with family planning
- ✓ Conduct inspection in dangerous and offensive trades- hotel/bakery/market/theatre etc.
- ✓ Attend monthly staff meeting at PHC/CHC
- ✓ Home visit at sub centre area
- ✓ Learn the job responsibilities of a JHI in the field with regard to primary health care aspects of various National Health Programmes
- ✓ List out the job responsibilities of a JHI in the field with regard to primary health care aspects of various National Health Programmes
- ✓ Participatory Learning for Action
 - Resource mapping
 - Preparation of seasonality diagram
 - Spot mapping of communicable disease affected area.
- ✓ Population control measures in the block placement area
- ✓ Collect various health indicators in the field work area/ PHC where student is on block placement
- ✓ Various health indicators in India and Kerala

- ✓ Different health portals and digital platforms

TOPICS FOR RECORD:

Students are expected to prepare and submit a Bonafide record which should contain at least ten exercises preferably those listed below.

1. Family Planning methods- Temporary
2. Family Planning methods- Permanent-Female
3. Family planning methods-Permanent-Male
4. National Immunisation Schedule
5. AEFI
6. Cold Chain
7. Job Responsibilities of Junior. Health Inspector - (MPHW- Male) overview
8. Role of a JHI in Communicable Disease prevention
9. Functions of a Primary Health Centre (PHC)
10. Functions of a Sub Centre (FWC)
11. Principles and Elements of Primary Health Care
12. Records & Reports maintained by JHI's
13. Population education & and its relevance in promoting community health

NOTE: Students need to be given an orientation of all current developments of public health importance in each subject in order to facilitate them to carry out job functions of a Junior Health Inspector.

SECOND YEAR DHI COURSE

PAPER I		
Environmental Sanitation	-	60%
Biomedical waste management & House Keeping	-	40 %
PAPER II		
Communication	-	50%
Health Education	-	50%
PAPER III		
Fundamentals of Management	-	50%
Public Health Act	-	30%
Local Self Government	-	10%
Project Preparation	-	10%
PAPER IV		
Behavioural Science -	-	
Sociology	-	50%
Psychology	-	40%
Mental Health	-	10%
PAPER V		
Non-Communicable Diseases	-	50%
Palliative Care	-	25%
Geriatric Health		25%

SECOND YEAR

PAPER-I : ENVIRONMENTAL SANITATION, BIOMEDICAL WASTE MANAGEMENT & HOUSE KEEPING

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
Environmental Sanitation	160	80	20	10	10	10
Biomedical Waste Management & House Keeping	40	20				
Total	200 hours	100				
		150 marks				

ENVIRONMENTAL SANITATION

- I. Definition and scope of environmental sanitation
- II. Water:
 - a. Importance of water, Sources of water, Sources of water supply, wells and types of wells Protection of water supply, requirements of an ideal well (sanitary well)
 - b. Examination of water, detection of the sources of pollution of a well, purification of water.
 - c. Natural
 - Pounding or storage, oxidation and settlement
 - d. Artificial:
 - Physical: distillation, boiling,
 - Chemical: precipitation, disinfection or sterilization
 - Filtration: slow sand filtration, rapid sand filtration, domestic filters
 - Filtration of water on a large scale: slow sand filtration, rapid sand filtration
 - e. Classification of different types of water
 - Safe water, polluted water, contaminated water, impurities of water
 - f. Classification of impurities:
 - Types of hardness-consequences- removal

g. Disinfection of water on a large scale

- Chlorine and its derivatives, chlorination, Ozonation, Ultra violet rays, Reverse osmosis, etc. Purification of water on a small-scale Household purification of water

- Boiling, chemical disinfection

- Bleaching powder, chlorine tablet, chlorine solution, high test hypochlorite, iodine, potassium permanganate

- Filtration Disinfection of wells Double pot method

h. Examination of water

- Water sampling

- Collection of water for physical, chemical and bacteriological examination

III. Air

- Introduction, composition, air velocity, air occupied rooms, discomfort
- Sources, pollutants, indicators of air pollution
- Health effects of air pollution, prevention and control.

IV. Ventilation

- Introduction
- Standards of ventilation: natural ventilation, mechanical ventilation

V. Lighting

- Requirements of good lighting, measurements of light, natural lighting, measurement of day light, artificial lighting, method of artificial illumination, lighting standards, biological effects of light

VI. Noise

- Introduction, sources, properties
- Effects of noise exposure, noise control

VII. Radiation

- Sources of radiation exposure, types of radiation, radiation units
- Biologic effects of radiation, radiation protection.

VIII. Meteorological Environment

- Introduction, atmospheric pressure, measurement
- Effects of atmospheric pressure on health, air temperature, measurement
- .

IX. Humidity

- Introduction, measurement.

X. Air Velocity

- Introduction, Basics

- XI. Housing
 - a. General principles of healthful housing, criteria for healthful housing, housing standards, rural housing, housing and health (respiratory infection, skin infection, rat infestation, arthropods, accidents, morbidity and mortality Psychosocial effects)
 - b. Overcrowding: Person per room, floor space
- XII. Disposal of wastes
 1. Solid waste
 - Definition, consequences, types of waste, storage, collection and disposal
 - Windrow composting
 - Household waste management - Bin Composting, Pipe composting, Biogas plant
 - Role of Material Collection facilities (MCF)/ Haritha karma sena
 2. Excreta disposal
 - Health hazards of improper disposal of human excreta
 - Methods of excreta disposal
 - i. Methods of excreta disposal in unsewered areas-service type latrines, Sanitary latrines, latrines for temporary camps
 - ii. Methods of excreta disposal in sewerred areas- water carriage system and sewage treatment.
 3. Disposal of liquid waste
 - Public health importance of waste water and sullage.
 - Various methods of disposal of disposal of liquid waste, construction of soakage pits and kitchen gardening.
 4. Disposal of dead
 - Public health aspects of various methods of disposal of dead bodies, selection of site of cremation or burial, disposal of carcasses. Methods adopted for disposal of dead bodies of persons who die of infectious diseases like small pox/ HIV/AIDS etc.
- XIII. Control of rodents and stray dogs -
 - Rodent control- Sanitation, Trapping, Rodenticides
 - Stray dog control- ABC, waste management
- XIV. Sanitation of places of public gatherings
 - a. Diseases likely to spread in places of public gatherings.
 - b. Sanitary measures to be taken in fairs and festivals, markets, worship places, and other places of public gatherings.
- XV. Plastic waste management, green protocol

XVI. Water Quality

HOUSE KEEPING

- a. Infection control- Sterilization disinfection protocol
- b. Sanitation Protocols- detailed cleaning schedules for high-risk zones - Operation Theatres (OT), Intensive Care Units (ICU) and general wards
- c. Toilet & Washroom sanitation
- d. Linen and laundry management
- e. Pest control and vector management
- f. Cleaning agents and equipment
- g. Standard Operating procedures
 - Assessing cleanliness
 - Maintain hygiene checklist and enforcing compliance, record keeping

BIO MEDICAL WASTE MANAGEMENT

Bio-medical waste-definition

Sources of Health care waste-classification of Health care waste - Bad effects of poor waste management - Hazards from infections wastes and sharps - Hazards from chemical & pharmaceutical waste - Hazards from radioactive wastes - persons at the risk of infection.

Bio Medical Waste (Management & Handling) Rules (Updated rules)

- Objectives -Categories- Applicability.
- Responsibilities of health care institutions regarding biomedical waste management.
- Process of Biomedical waste management segregation - storage - transportation - final disposal

Treatment & Disposal of Bio Medical Waste

- Incineration - chemical Disinfection- microwave irradiation - Land disposal - inertization.
- Overview on IMAGE, KEIL (Kerala Enviro Infrastructure Limited)

Books recommended

- 📖 Park's text on Preventive and social medicine by K.Park.
- 📖 Essential of community Health nursing by K.Park.

Exercise:

- ✓ Well chlorination
- ✓ Water sampling

- ✓ Construction of manure pit
- ✓ Prepare and submit a report on collection, storage and disposal of Biomedical waste in the hospital where the students have undergone field study.

TOPICS FOR RECORD

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Water purification on a large scale
2. Water purification on a small scale
3. Solid waste disposal
4. Excreta disposal
5. Sewage purification
6. Housing
7. Air pollution
8. Mosquito control measures
9. Bio-Medical waste management and its relevance
10. BMW Rules (latest)

PAPER-II COMMUNICATION & HEALTH EDUCATION

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
Communication	100	50	20	10	10	10
Health Education	100	50				
Total	200 hours	100				
		150 marks				

COMMUNICATION

1. Communication- Introduction and Goals

- a. Define - Communication, Information-Education and Communication (IEC), Behaviour Change Communication (BCC) - Strategic Communication - Difference between IEC and BCC, Development communication - Social and Behaviour Change Communication (SBCC)

COMBI (Communication for Behavioural Impact)- Key steps in a COMBI plan, The COMBI 10-step Framework

- b. Goal-desirable change in behaviour-cognitive/ knowledge, affective/attitude, psycho-motor/practice.
 - c. Functions-informs, persuades, motivates, educates, entertains, build- up public opinion, create favourable climate, behavioural change, advocacy
- #### 2. Elements and factors of communication

Sender, message, receiver, channels of communication and feedback -

Communication process- encoding and decoding

Feedback - importance- advantages- checklist

Channels of communication- Traditional channel- Folk media -story telling, play acting, song with message, puppet show, street play etc.- Significance of folk media in bringing behavioural change among rural community

Modern Channels-Newspaper, magazine, posters, radio, television, films, slide shows, tape recorder, overhead projector, phone, computer and internet

New Media - Digital, social media, different platforms- new possibilities, advantages and disadvantages

Factors influencing communication- factors related to each of the elements

Barriers to communication- Physiological, Psychological, Environmental, Semantic and Cultural Barriers, Noise, Distortion and Misinterpretation

3. Types of communication

- Verbal (word of mouth /traditional way of communication) and non- verbal (facial expression-eye movement, gestures, movement of head and hands, posture, body movement etc.)
- Formal and informal
- One way/didactic and two- way/Socratic,
- Inter personal/face-to- Face, importance of IPC- communication with individual or a couple- small group, Mid media (Folk media, Street plays, Fairs and Exhibitions, Hoardings, Bill boards) and mass communication
- Visual communication-charts, graphs, pictograms, tables, maps, posters, Telecommunication and Internet
- Health communication-Functions of health communication
- Risk Communication- Communication in Health crises - Dos and Dont's

4. Motivation in communication

Definition of motivation, Types of motivation- Extrinsic and intrinsic motivation.

Behaviour modification - identification, compliance, internalization- Motivating a community for desirable change

5. Communication skills

- i. Basic skills for communication-human relation skills -IPC skills-non-verbal communication, Effective speaking- how to become an effective speaker- why, what, whom and when components, Active listening- advantages-how to become an active listener- writing and drawing skills
- ii. Appreciation, Recognition, Approval, Acceptance and Understanding.
- iii. Interviewing skills- definition of interview - interviewing techniques
- iv. Counselling skills -definition of counseling -role of health worker as a counsellor- situations for counseling-techniques of counseling-steps of counselling-counselling skills- Do's and Don'ts of Counseling-Styles/approaches in counseling-counsellor centered/authoritarian, client centered/ non-directive, non-authoritarian styles. GATHER technique in counseling

6. Rumors and misconceptions

Diagnosing Rumors and misconceptions-ways of removing Rumors and misconceptions using IPC skills

7. Effective community partnership

Developing partners with community-identifying partners- types of groups- methods to involve community Partners-Participatory Learning for Action-Chapati diagrams,

relative ranking, fish bowl technique, seasonality diagram, village walk- skills for developing good partnerships-KAP assessment through focus group discussion, group meetings, relative ranking, seasonality diagram and IPC.

8. Communication activities
Talks, broad casts, role play, group discussions, demonstrations, puppet shows, plays
9. Team work- Definition, Communication within health team
10. Evaluating effects of communication
Feedback and follow-up-simple evaluation tools- check list-health survey and health records - evaluation of social process skills- informal evaluation techniques
11. Public Relations
Definition, Objective- to attract attention, win belief, impart understanding; Qualities of a public relations officer- good judgment, organizing ability, withstanding stress, commonsense, objectivity, appreciation skill, sense of humor, flexibility, ability to make friends
12. Preparation of IEC, BCC Action Plan,
13. Preparation of IEC Material-Multilingual

Note: The students must be familiarized with essentials of basic computer applications

HEALTH EDUCATION

- I. Health Education
 - Introduction
 - HFA, Primary health care, Education an element of primary health care,
 - Definition of Health Education - Changing concepts- WHO Definition of Health Promotion - Role of health workers in health education - Health literacy and public health literacy
 - Areas of Health Education
 - Aims of Health Education laid down by WHO- Health Education and Health Propaganda
 - Principles of Health Education- Interest, Participation, Motivation, Comprehension, Reinforcement, learning by doing, known to unknown, good human relations, feedback, leadership
 - Approaches to Public Health-Regulatory Approach, Service Approach, Health Education Approach and Primary Health Care approach
 - Health Education/ Health Communication Approaches-Individual, Group and Mass approaches
 - Team teaching approach in health education
 - Adoption process Awareness, Motivation, Interest, Evaluation, Decision making; Action-adoption/ rejection; Familiarize Adopter Categories-Innovators, Early adopters, Early majority, Late majority and Laggards

- II. Training
 - Definition - Training, Training need assessment (TNA)-Familiarize Types of training-pre-service training, In-service Training-Induction/Orientation training, On- the job training, Refresher training, Career development training - Capacity building training,
 - Curriculum- Definition, contents- The teaching-learning process, concept of learning-desirable change in behavior, characteristics of learners among rural and urban people, adults and children, evaluating learning, principles of teaching, micro teaching, lesson plan
- III. Methods of health communication/teaching
 - Individual methods-Dialogue, Demonstration, Personal contact, home visit, Personal letters
 - Group methods- Lecture, Demonstration, Talk, Debate, Field Trip, Observation, Simulated learning experience, Puppet show, Project, Drama, Songs, Dance, Music, Storytelling, Learning exercise, games, Discussion methods such as Group discussion, Panel discussion, Symposium, Work shop, Conference, Seminar, Role play, Campaign
 - Mass methods- Telecast, Broadcast, Exhibition, Newspaper, Printed material, Direct mailing, Posters, Health museums, Folk methods, Internet, Campaign
- IV. Audio-Visual aids
 - Definition-Advantages to learners and teachers, limitations, selection of AV aids,
 - Effective use of AV aids
 - Classification-(a)Graphic aids, Three- Dimensional aids, Activity aids and Projected aids (b) Auditory, Visual and Combined aids
 - Preparation and use of AV aids
 - Flash card, Flip book, Flip chart, Display board, Bulletin board, Flannel graph/ Khadi graph, Charts, Pamphlets/ Leaflets, Black/ white board, Models, Puppets and Power point presentation
- V. Planning Health Education activities
 - Steps in conducting Health Education
 - Diagnosis of health education needs
 - Identifying community resources and limitations of resources
 - The process of planning health education-
 - Objective setting, selecting content, selection of method, approach and communication aids, developing plan of operation, evaluation, follow-up activities
 - Implementation
 - Evaluation and Follow-up
 - Documentation and reporting of Health education activities
- VI. Community resources and organization for health education
 - Organizing campaigns on felt problems of the community and World Health Day message Leadership, facilities and talents in the community.

Core reading

- ✚ Park,K. Essentials of Community Health Nursing -Latest Edition.
- ✚ Chalkley, A.M.A Textbook for the Health Worker (ANM)- Volume I
- ✚ Chalkley, A.M. A Textbook for the Health Worker (ANM)-Volume II
- ✚ N.R. Swarup Saxena, Dr.S.C.Oberoi.Technology of Teaching

Further reading

- ✚ Park,K. Park's Textbook of Preventive and Social Medicine -20th Edition
- ✚ Park,K. Essentials of Community Health Nursing-Latest Edition
- ✚ Ministry of Health and Family Welfare, Govt. of India;RCH Module for Health Worker (Male)
- ✚ Ministry of Health and Family Welfare, Govt. of India;RCH Module for Medical Officer (Male)
- ✚ Supe,S.V.An Introduction to Extension Education, 9th Edition,Oxford and IBH Publishing Co.Pvt.Ltd.

Exercise

- ✓ Verbal and non-verbal skills-two or three students present topics of 5 minutes duration in the class room. Others listen to it and discuss on verbal and non- verbal communication and how it could be improved upon.
- ✓ Listening- two or three small groups with two students each carry out conversation of 5 minutes duration in the class room. Others listen to it and discuss on 'Listening' and how it could be improved upon.
- ✓ Students carry out a communication method on any identified problem in the community during field work and understands communication process
- ✓ Prepare a message of duration for five minutes for broadcast
- ✓ Role play-Students enact role play. Teacher facilitates discussion at the end.
- ✓ Exercises on One way and Two-way communication. Identify the advantages and disadvantages of each.
- ✓ Practice any two methods to develop partnership with the community
- ✓ Learn more about Health promotion- International conference on Health Promotion, five priorities for health promotion in 21st century- Familiarize with Health Promotion Emblem
- ✓ Prepare at least two types of AV aids on any topic and submit the same for viva-voce examination

- ✓ Micro teaching
- ✓ Preparation of a lesson plan for taking a class of duration of 20 minutes and making presentation with audio- visual aids prepared
- ✓ Collecting messages of different days of national health days- world health day, world population day, world environment day, world TB Day, World blood donors' day etc.
- ✓ Familiarize formal, informal and non-formal education
- ✓ Prepare Action Plan for IEC, BCC

Topics for Record writing

Students are expected to prepare and submit a Bonafide record which should contain at least ten exercises preferably those listed below.

1. Verbal and non-verbal skills
2. Communication, IEC, BCC, Strategic Communication, SBCC, Risk Communication
3. A message of duration for five minutes for broadcast in Malayalam language
4. Health communication and its functions
5. Describe any two methods to develop partnership with the community
6. Concept of Health promotion, five priorities for health promotion in 21st century and Health promotion emblem
7. Preparation of any two health education aids
8. A lesson plan for taking a class of duration of 20 minutes
9. Collect messages of different days of national health days- world health day, world population day, world environment day, world TB Day, World blood donors' day etc.
10. Micro teaching

**PAPER III : FUNDAMENTALS OF MANAGEMENT, PUBLIC HEALTH ACT, LOCAL
SELF GOVERNMENT & PROJECT PREPARATION**

Topics	Hours of teaching	Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
Fundamentals of Management	100	50	20	10	10	10
Public Health Act	60	30				
Local Self Government	20	10				
Project Preparation	20	10				
Total	200 hours	100				
		150 marks				

FUNDAMENTALS OF MANAGEMENT

I. Management

- a. Definitions
- b. Resources of Management - 3Ms of management Description
- c. Feature of Management
- d. Management as an art - Management as Science
- e. Functions of Management (detailed study)
- f. HR Management.
- g. Total quality management-NQAS, IPHS, KAYAKALPA, SUMAN, LAQSHYA, ISO, NABL, NABH
- h. Management functions of Health worker
- i. Principles of Management - Definitions- Description.
- j. Levels of Management
- k. Managing Resources Managing men -
- l. Personnel Management - Definitions. - Steps of Personnel management - description of each step (5 hrs)
- m. Material Management in Health services - Definition -Aims -Steps - Points to remembered while storing drugs- managing equipment - Formats for storage/Issuance of materials- Inventory - definitions
- n. Money Management - Definition- Visible money - invisible money - petty cash
- o. points to be remembered while handling got money- cash voucher- cash receipt - petty cash book

II. Time management - Definition

- a. Need for time management - Principles of time management - Tips on effective time management.
 - b. Monitoring and evaluation - Definitions - Monitoring and evaluation as control measures - Differentiation.
- III. Team Work
 - a. Definitions Team, Team Work - Merits of team work - Features of a Team
 - b. Health Team - Definitions - Team leader - Definition - Qualities of a Team Leader.
- IV. Leadership - Definitions leader - Leadership Types - Authoritarian - Participative
 - a. Laisses faire - description - distraction - relevance - merits - demerits. Qualities of a leader.
- V. Hospital Administration - Basic concepts, Scope and importance - an overview

Recommended books

- 📖 On being in charge” a guide for middle level management in primary health care WHO publication
- 📖 RCH Training module for Health worker (M)
- 📖 Principles of management’ by Pradeep Kumar
- 📖 Management & organization by C.B,Gupta
- 📖 Essentials of management by Harol Koontz, Cyril O dennoll Heinz wiehrich.

PUBLIC HEALTH ACT

1. Public Health Law- Central and state - Public Health Rules and bye-laws
2. History of PH Legislations in India and development of present PH Laws in Kerala
3. Kerala Public Health Act- 2023- Preliminary, Public Health Boards, Public Health Officers and their powers, Sanitary facilities, Abatement of Nuisance, RMNCAH, Prevention, notification and treatment of CDs and Notifiable Diseases, Vector control, Community gatherings and public health, Health care programmes for the aged, Destitutes, differently abled and terminally ill persons, Control of NCD, Miscellaneous
4. Role of Health Inspectors/Health Officers
5. Mission of PH system
 - a. Public health
 - b. Nuisance
 - c. Control measures of Notifiable diseases
6. Important provisions-1. Sanitary conveniences 2. Abatement of nuisance 3. Prevention, Notification of Notifiable diseases 4. Food control
7. Establishment inspection
 - Pre-inspection activities, purpose of inspection(evaluation of facilities or any operation under investigation or evidence for regulating actions), understanding the subject and purpose of inspection, quantity of raw materials, visit to

manufacturing plant, a preliminary tour, Flow chart of organization, environmental conditions, material of construction, raw material, additives, packaging and labeling, storage conditions, in process control, sanitary conditions, use of insecticides and rodenticides, standards.

8. Inspection of-meat, fish, egg and meat stall, market etc. Chief signs of illness in animals.
9. Characteristics of good meat
10. Characteristics of fresh fish
11. Claims of milk as a complete food and milk borne diseases
12. Pasteurization of milk
13. Characteristics of an outbreak of milk borne epidemic
14. Construction of slaughter house, Inspection of slaughter house, Slaughter house maintenance
15. Sanitary requirements that may be suggested for issuing a license to an eating house, Meat stall, Milk stall, backing investigation of an outbreak of notifiable diseases
16. Public gatherings - Notification, Sanitary arrangements, Supervision
17. Hospital Sanitation- Housekeeping committees, Composition, Functioning, Role of JHIs in School Sanitation and institutional sanitation
18. Industrial sanitation, Industrial hygiene, Safety in work places
19. Refuse collection in disposal in places of public health importance like cinema houses, barber shops, laundries, swimming pools etc.
20. Case studies and judicial pronouncements, preparation of notice, spot mahazer, charge sheet action against violations of provisions of PH act. Testimony of witnesses, summons, cross examination of witnesses, arguments, law points, launching of appeals, relevant provisions of BNS (Bharatiya Nyaya sanhitha), BNSS (Bharatiya Nagarik Suraksha Sanhitha) Bharatiya Sakshya Adhinayam), Probation of Offenders' Act, Limitation Act etc.
21. Dangerous and Offensive Trade License and its conditions
22. Power of Panchayat Secretary in relation with public health issues
23. Other legislations- Municipal Act (public health provisions)
24. Panchayat Raj Act
25. Public Health Legislation and Governance
26. Municipality Act
27. Clinical Establishment Act
28. Pollution control board
29. PCPNDT Act
30. ART and Surrogacy Act
31. MTP Act
32. POCSO Act
33. POSH Act
34. Provisions, Legal rights of various authorities in:
 - Consumer protection Act
 - Birth and Death Act
 - Cinema Regulation Act
 - Bureau of Indian Standards Act
 - Drugs and Cosmetics Order
 - Food Safety and Standards Act

- Plastic waste management rules
- Livestock farm licensing rules - overview

Recommended books

- ✚ Public Health Act and allied Acts
- ✚ G.O.(Ms.) No. 103/2008/H& FWD. Tvpm. Dtd. 8th April 2008 from H& FW Dept.- HMC constitution and decentralization

LSG INSTITUTIONS

- Overview of Panchayath raj Act, Rules and Municipal Act and Rules. Introduction to panchayath raj act.
- Administration of panchayath -powers, functions and responsibilities of panchayath. Power of government to transfer and utilize service of any govt. servant to panchayath composition of ward sabha, standing committee, joint committee, management of public health institutions (PHC, govt./Pvt. Hospitals, Dispensary) powers of LSGD to issue directions to those transferable staff / Public Health Staff provisions / Management of garbage, solid waste, liquid waste. Action against those who violate provisions of waste disposal public market and licensing provisions.
- Decentralized administration in Kerala - overview. Transfer of health services institutions under the LSGIs
- Role of LSGIs in the administration and management of health services institutions transferred under them - sub centers, PHCs, CHCs in the changed scenario.
- Bottom -up planning, project preparation, implementation, monitoring and evaluation. Public health activities in the changed scenario, both rural and urban areas.
- Inter sectoral coordination, and its importance in health - Social welfare, Education, other departments
- SHGs -, voluntary workers like ASHA - kudumbasree

PREPARATION OF PROJECT

1. Project- Definition, Significance, Purpose
2. Stages of a project- project goals and objectives, project context, personnel, work plan, budget, project output
3. Preparation of project report
 - a. Title page
 - b. Introduction
 - c. Executive summary
 - d. Goals and objectives
 - e. Team organizational structure
 - f. Work plan

- g. Project time line
- h. Budget
- i. Appendix
- 4. Preparation of project for the following topics
 - a. Total immunization of all under - five children in a PHC
 - b. IEC/BCC on mass drug administration against Lymphatic filariasis in a PHC
 - c. Planning and implementation of Pulse Polio Immunization in a PHC.
- 5. Vector control activities in a Gram Panchayat area

Core Reading

- i. Guide lines for Public Private Partnership for Malaria Control, Directorate of NVBDCP, GOI
- ii. Project Format framework in Eleventh Five-Year Plan

Exercise`

- ✓ Observing drugs & equipment in a primary health centre during field visit and submission of report.
- ✓ Preparation of inspection reports, Mahazars etc. based on the details presented about fictitious situations of public health importance and having implications with Public Health Legislations E.g. Dispute regarding construction of a latrine near a drinking water source, dispute regarding the opening of a slaughter house, dispute regarding noise pollution caused by a crusher in a quarry etc.
- ✓ Prepare a project on the unmet felt needs in the PHC area, which needs to be urgently solved in the block placement area.
- ✓ Brief the projects submitted by the PHC/CHC (block placement) to the Secretary, block panchayat.
- ✓ Detail the method of data collection you adopted in the field
- ✓ Prepare an action plan for various educational activities on the identified problem in the block placement area

Topics for Record

Prepare or submit a Bonafide record which should contain 10 topics preferably those listed below.

- 1. Functions of Management
- 2. Principles of Management
- 3. Material Management in Health services
- 4. Time Management

5. Types of leadership - merits - demerits.
6. Significance of Public Health Act
7. Role of Health Inspectors for executing PH Act
8. Sanitary arrangements in Fairs and Festivals
9. Decentralized administration in Kerala
10. Steps in the preparation of a Project report

PAPER IV: BEHAVIOURAL SCIENCES - SOCIOLOGY, PSYCHOLOGY & MENTAL HEALTH

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
Sociology	100	50	20	10	10	10
Psychology	70	30				
Mental health	30	20				
Total	200 hours	100				
		150 marks				

SOCIOLOGY

1. Introduction

- Definitions-Sociology, Medical Sociology, Society- Rural and urban society,
- Community, Social institutions, social structure - Concepts
- Sociometry and Sociogram
- Application of Sociology in Community Health care
- Community- characteristics, major rural problems, major urban problems, Social determinants of health- Social and economic change in communities, Common health problems in community and health worker's role in prevention and control of health problems, social and economic change in community, organizing community for change, effects of social and economic change-community organization- definition and principles
- Community Diagnosis and treatment
- KAP study, Methods of data collection, Questionnaire, Schedule, Interview, technique of interview, Survey-familiarize general survey, socio-economic survey, health survey, base line survey, nutritional survey, immunization survey, Community Diagnosis and community treatment
- Community development
- Community development - definition, Community development blocs, main activities
- Leadership
 - Definition, need to work through community leaders, Utilization of leaders in health programs, Formal leaders, Informal leaders, Opinion Leaders Social groups
 - Social groups-definition, characteristics primary and secondary groups, reference groups, familiarize in-groups and out-groups, organization structure and activities of groups and organizations, Group dynamics, Temporary groups
- Universal declaration of Human Rights, Right to Health, Fundamental Rights in the constitution of India, Responsibility for Health

2. Social process

- Definition of social process, Associative and Dissociative processes -co-operation, competition, conflict, accommodation, assimilation, adjustment
3. Social control
- Definition, Purpose, Forms of social control-Conscious and unconscious control. Direct and Indirect control, Positive and negative control, Organized, unorganized and automatic social control, Formal and informal social control.
 - Means of social control-Traditions and customs, beliefs, religion, social ideals, social suggestions, folk ways and mores, punishment and reward, public opinion, Law. Traditions and habits affecting health- Cultural factors in health and diseases
 - Agencies of social control: Family, Education, State
4. Social mobility and Social stratification
- Definition of Social stratification- Caste, Class
 - Social Mobility- Definition, Types and forms of mobility- Horizontal mobility, vertical mobility- upward and downward mobility, Intragenerational and inter-generational mobility
 - Social structure- Social institutions, Statuses and roles, Groups and networks, social hierarchy
5. Socialization
- Definition, Types of socialization- Primary and secondary socialization, Gender socialization, anticipatory socialization, re-socialization adult socialization
 - Social learning-imitation, role learning, punishment, reward, development of self, co-operation and adjustment
 - Stages and Agencies of Socialization -Stages-Primary, Secondary and adult Agencies- Family, Peer groups, School, Mass media
6. Social problems
- Definition, characteristics, Types of social problems- Due to social factors, cultural factors, economic factors, political and legal factors, ecological factors.
Sex work, Delinquency, Dowry system, Alcohol abuse and Drug Addiction
7. Social security
- Objectives. Approaches- social insurance and social assistance. Social security for industrial workers, civil servants and the General public (Employees' State insurance Act, 1948, The Employees' Provident Funds and Miscellaneous Provisions Act, 1952, - Employees' Provident Fund Scheme (EPFS), Employees' Pension Scheme (EPS), The Payment of Gratuity Act, 1972, MGNREG 2005, VB-G RAM G 2025, Food Security, Workmen's Compensation Act, 1923, Unorganized workers Social Security Act Maternity Benefit Act, 1961 etc.)
 - Social Equity and Gender Equity
 - Social Security Schemes- Cancer Suraksha, Snehapoorvam, Thalolam, Aswasakiranam, Hunger free city, Vayomithram, Karunya deposit, Prathyasha, Snehasanthwanam

8. Social institutions

- Definitions- Characteristics- Function
- Marriage - Definition-Types-Polygyny, Polyandry, Monogamy
- Family-Joint family, nuclear family, Three generation family-Family Cycle-Functions of family, Basic needs of family. Factors related to family health- income, literacy, cultural pattern of society, Principles of working with families, Importance of family planning to family and community-health factors, socio-economic factors- Family in health and disease.

PSYCHOLOGY

1. Behavioural sciences- definition, Psychology-definition, Social Psychology-definition
2. Behaviour- knowledge, attitude and practice/action
3. Dynamics of behaviour - Stimulus- Response pattern - Causes- Environmental stimuli,
4. Emotions and feelings, Needs, Motivation, Intellectual perception - Responses
5. Habits, values, attitudes, Interests, beliefs, goals and aspiration. Role of health worker in bringing desirable change in values, attitudes, beliefs and practice
6. Needs:
 - Maslow's hierarchy of needs-physiological, safety, love, esteem and self-actualization
7. Personality:
 - Definition -Components of personality-Types- Introvert, Extrovert,
 - Personality trait - Integrated Personality
 - Personality in infancy, childhood, adolescence, adulthood and old age.
 - Factors that influence personality development
 - i. Heredity
 - ii. Environment - physical and social
 - iii. Basic needs, drives and urges
 - iv. Early learning
 - v. Value systems, attitudes and beliefs
 - Structure of personality- Id, Ego and Super ego
 - Personality and Self-concept-Self-understanding- self-awareness, acceptance
8. Intelligence:
 - Mental age-Intelligence Quotient- Emotional Quotient-Adult intelligence- Reasoning, thinking, problem solving, decision making
 - Multiple intelligence
9. Mental hygiene and health in various life stages-infancy, early childhood, later childhood, Adolescence, adulthood, old age. Health education for the family on the care of the aged
10. Emotions and behaviour
 - Importance- expression and control of emotions-negative and positive emotions
 - Role of emotion in health and disease
 - Defence mechanism and behaviour Frustrations and conflicts, Adjustment

- Common defence mechanisms-Compensation, Negativism, Sympathism, Projection, Identification, Sublimation, Rationalization, Withdrawal, Repression, Displacement and Regression - Effectiveness of defence mechanism
- 11. Stress, Illness, Behaviour
 - Stress- definition, Illness- Impact of illness - Helping in times of Stress-Identifying stress situations, Stress Management
 - Counselling and guidance- Basic Approaches-Direct and Non-direct approach
 - Conditions for a helping relationship-The Helping process- Stages- Helper's Code-Dos' and Don'ts
- 12. Motivation and change in behaviour
 - Motives, goals and incentives, level of aspiration, habit formation, significance of motivation in improving health practices-changing attitudes and habits, bringing desirable change in health behaviour, Motivating community for change- Role of health worker
- 13. Observation and perception
 - Definition of Observation, perception - attention, sustained attention-errors in perception
- 14. Learning
 - Learning-definition, Conditions of learning-intelligence, age, learning situation, motivation, physical health, mental health
 - Types-cognitive, affective and psycho-motor, theories-learning by conditioning, learning by Trial and error, learning by observation and imitation, learning by doing, learning by remembering, learning by insight
 - Adult learning, Factors affecting adult learning
 - Familiarise Education-Formal, Non-formal and Informal education
- 15. Family Life Education
 - Definition of Family Life Education - Components- Role of Health Workers
 - Lifeskill education
- 16. Social Psychology -
 - Group behaviour, social interaction- Inter Personal Skills-acceptance of the individual, appreciation, recognition, approval, - social interaction-inter personal relational relationships inter - group relationships, group morale, behaviour adaptations and maintaining effective relationships

MENTAL HEALTH

1. Mental health -Introduction
 - Definition of mental health, Characteristics of mentally healthy person, Foundations of mental health, Mental health needs, Warning signs of poor mental health - Adjustment- Causes of maladjustment, Healthy ways of meeting maladjustment
2. Types of mental illness
 - Major illnesses (Psychoses)-Familiarize with Schizophrenia, Bipolar Disorder and

- major Depressive Disorder
 - Familiarize with Anxiety Disorders and Personality disorders
- 3. Causes of mental ill health
 - Causes-Crucial points in the life cycle from the point of view of mental health- Prenatal period, Preschool period, school period, adolescence, old age
- 4. Early detection of mental disorders
 - Disturbance in thinking, mood consciousness, memory, orientation, perception, emotions, motor aspects of behaviour; personality, intelligence -Role of health worker
- 5. Types of treatment
 - Psychotherapy, Pharmacotherapy, Electro Convulsive therapy, Occupational therapy, Recreational therapy- Principles of aftercare - Role of health worker
- 6. Preventive aspects
 - Primary, Secondary and Tertiary- Mental Health Services, National Mental Health Programme - District Mental Health Program-Role of health worker in Mental health education - Psycho-social intervention
- 7. Substance use disorders
 - Alcoholism- Brief description of effect of alcohol addiction on organ systems, family and social life.
 - Smoking- Brief description of adverse health effects of smoking on organ systems
 - Definition of drug, drug abuse and drug dependence - Names of dependence producing drugs- Symptoms of drug addiction-Factors associated with high risk for drug abuse
 - Prevention - Legal approach, educational approach and Community approach- Brief description of Treatment and Rehabilitation - Role of health worker

Core Reading

- ✚ Park, K. Essentials of Community Health Nursing-Latest Edition.
- ✚ Chalkley,A.M.A Textbook for the Health Worker (ANM)- Volume I
- ✚ Chalkley,A.M.A Textbook for the Health Worker (ANM)- Volume II
- ✚ Supe,S.V. An Introduction to Extension Education. Oxford and IBH Publishing Co.Pvt. Ltd.
- ✚ Comprehensive Text Book of Psychology

Further reading

- ✚ Park,K.Park's Textbook of Preventive and Social Medicine -20th Edition
- ✚ Park,K . Essentials of Community Health Nursing-Latest Edition
- ✚ Ministry of Health and Family Welfare, Govt. of India;RCH Module for Health Worker (Male)
- ✚ Ministry of Health and Family Welfare, Govt. of India;RCH Module for Medical Officer (Male)
- ✚ Coleman,J.C. Psychology and effective behaviour

Exercise

- ✓ Preparation of sociogram
- ✓ Preparation of any one survey tool
- ✓ Pre-testing the survey tool
- ✓ Interact with community and find out cultural factors in health and disease
- ✓ In OP Department or in the community, talk with people in different stages in life such as adolescence, young married, old age etc. and identify their problems - Do this during field placement
- ✓ Role play on motivation for adoption of family planning
- ✓ Counselling Process
- ✓ Visit to a mental health centre
 - Observe types of mental illness
 - Occupational therapy
 - Recreational therapy
- ✓ Group discussion on role of health workers in early detection of mental disorders

Topics for Record

Students are expected to prepare and submit a bonafide record which should contain at least ten exercises preferably those listed below.

1. Behavioural sciences- Psychology, Sociology and Social Psychology
2. Cultural factors in health and disease
3. A survey tool developed for data collection from the field placement area
4. Universal declaration of human rights and right to health
5. Various social problems
6. Family Life education
7. Sociogram. Illustrate with a diagrammatic representation of a sociogram of any aspect in the block placement area
8. Current and most relevant Social Security Schemes
9. Factors influencing human personality
10. Motivation in improving health practices
11. Counselling
12. Mental health-Definition, Characteristics of a mentally healthy person, Role of health worker in Mental health education

PAPER V: NON-COMMUNICABLE DISEASE, PALLIATIVE CARE & GERIATRIC HEALTH

Topics	Hours of teaching	Total Marks				
		Theory	Viva	Record	Field training evaluation	Internal Evaluation
			20	10	10	10
Non-communicable Diseases	100	50				
Palliative care	60	25				
Geriatric Health	40	25				
Total	200 hours	100				
		150 marks				

NON-COMMUNICABLE DISEASES

Introduction to non-communicable diseases

- Definition non-communicable diseases
- Dual burden of communicable & non communicable disease and epidemiological transition- Concept of Epidemiological transition ratio
- Increasing trend in non-communicable diseases - Cardio Vascular Diseases (CVD), Diabetes mellitus (DM), Cancers, Chronic Obstructive Pulmonary Diseases (COPD), Visual Impairment and Blindness, Accidents
- Burden in India and in Kerala
- Common underlying risk factors predisposing to non-communicable diseases.
- Association of lifestyle factors (Tobacco, alcohol, obesity, diet & physical activity) in NCD
- Relevance of risk factor surveillance
- Currently available surveillance methods/techniques for NCDs in Kerala
- Levels of Prevention and NCDs
- Population Strategy and High-risk Strategy
- Concept of screening in NCDs, Uses of screening, Iceberg concept
- Relevance of prevention in NCDs
- WHO STEPS survey
- NPNCD
- Occupational health- Labour safety regulation, Occupational safety, Industrial hygiene

Cardiovascular diseases

- Definition -cardiovascular diseases

- Overview on myocardial ischaemia, infarction
- Measuring the burdens of CVD
- Risk factor for coronary heart diseases (CHD)
- Prevention of CHD - Population strategy, High risk strategy, Secondary prevention.

Hypertension:

- Definition hypertension-Scenario in India & Kerala
- Risk factors
- Prevention

Stroke:

- Definition stroke and Transient Ischaemic Attack (TIA)
- Magnitude of the problem
- Risk factors
- Stroke control programme

Rheumatic heart disease

- Definition Rheumatic Fever and RHD
- Clinical features of RF
- Criteria for RF
- Epidemiological factors contributing to the disease
- Direct & indirect results of environmental & health system determinants of rheumatic fever & rheumatic heart disease
- Prevention of RHD

Cancer

- Definition
- Problem statement
- Risk factors of common cancers
- Importance of screening, control of risk factors, other life style modifications, treatment compliance

Diabetes mellitus

- Definition
- Clinical features
- Clinical classification of DM
- Difference between IDDM & NIDDM
- Insulin resistance syndrome
- Common complications of DM just an overview
- Problem statement in world & in India
- Epidemiological factors
- Screening for diabetes importances of early detection.
- Prevention & care of DM

Obesity

- Definition
- Prevalence

- Epidemiological factors contributing to obesity
- Use of BMI to classify obesity
- Hazards of obesity
- Prevention & control

Blindness

- Definitions
- Categories of visual impairment
- Problem statement in India & world wide
- Causes of blindness
- Epidemiological factors contributing to blindness
- Changing concepts in eye health care
- Prevention of blindness
- National & international agencies
- Vision 2020: the right to sight

Oral diseases

- Problem statement
- Risk factors
- Prevention

Accidents & injuries

- Definition
- Measurement of the problem
- Types of accidents
- Multiple causation
- Prevention

Exercise

- ✓ Seminar on routine surveillance & monitoring of non-communicable diseases
- ✓ Action plan for a health promotion strategy for prevention of CVD in an area
- ✓ Role play on measurement of height, weight, BMI, BP & waist circumference.
- ✓ Action plan for a health promotion strategy for prevention of diabetes in an area
- ✓ Action plan for a health promotion strategy for prevention of stroke in an area

PALLIATIVE CARE

- Palliative Care-Definition, Guide lines of World Health Organization
- Relevance of Palliative Care, Services, Palliative care in Kerala
- Involvement of different sectors
 - Government sector: Field level and sub centre level activity, PHC and CHC, Taluk Head Quarters Hospital
 - Community Based Organisations (CBOs): Responsibilities, Support for CBOs, Role of Health Workers
- Selection of beneficiaries and provision of services: Registration of patients suffering from long term diseases, Home based care
- Evaluation and Monitoring
- List of Palliative care centres in Kerala.

Exercise

- ✓ Prepare a register for identification of beneficiaries for palliative care services in the block placement area
- ✓ Prepare a project on Palliative Care for a Panchayat area
- ✓ Familiarize with procedures like wound dressing, urinary catheterization, management of bedsores, care of bedridden patients during house visits

Recommended books:

- ✚ State Palliative Care Policy for Kerala ([G.O.(P) No.107/2019/H&FWD dated 16-12-2019

GERIATRIC HEALTH

- Geriatrics - definition Gerontology - definition
- Classification of elderly
- Health problems - Problems due to ageing process-problems associated with long term illness - psychological problems.
- Life style & healthy ageing - diet & nutrition - exercise - control of weight smoking - alcoholism - social activities.
- Health status of the aged in India
- Brief description of National Policy on old persons- Objectives
- Objectives of national council for old people (NCOP)
- NPHCE
- Objectives of old age social & Income security (OASIS)
- Functions of Help Age India

Book recommended: -

- ✚ Park's text on Preventive and social medicine by K.Park.
- ✚ Essential of community Health nursing by K.Park
- ✚ "Health in old age" - by WHO, Ministry of H & FWD, AIIMS

Topics for Record

Students are expected to prepare and submit a Bonafide record which should contain the following exercise

1. Epidemiology and Basic Epidemiological Study designs
2. NCD- Definition- Features and differences from communicable diseases
3. Lifestyle and NCDs
4. NPNCD
5. WHO steps survey
6. Coronary heart disease- Causes, Symptoms, Prevention and role of health worker
7. Hypertension - Risk factors, prevention and control
8. Diabetes mellitus - Risk factors, prevention and control
9. Common cancers - Etiological factors- Screening methods
10. Rheumatic fever- Definition, Epidemiology and Clinical features

11. Various problems during old age.
12. Palliative care- Definition by WHO, Services
13. WHO guidelines on palliative care

NOTE: *Students need to be given an orientation of all current developments of public health importance in each subject in order to facilitate them to carry out job functions of a Junior Health Inspector.*

FIELD STUDY

As a part of curriculum of Diploma in Health Inspector Course, 45 days of field training per academic year is compulsory in addition to the 5 observation visits. A one-month field placement in a rural health setting is compulsory for first as well as second year DHI course. 15 days' field experience in the urban hospital is a must for first DHI and 15 days' field experience in the municipal/corporation is a must for Second DHI students.

Field study provides practical experience of theoretical knowledge gained in the classroom. The job function of a health worker includes the provision of comprehensive primary health care to the community. The fieldwork equips the prospective health inspectors with the abilities to carry out the job functions of health inspectors in future.

The DHI students of 1st and 2nd year are to be placed in an approved primary health centre for one month. The fieldwork facilitates them to be an active partner in promotive, preventive and curative services being rendered by the PHC/CHC. They learn the role of health inspector in the implementation of National Health Programmes.

The first DHI students should be given an orientation on the functioning of a PHC/CHC and job functions of a health inspector.

For DHI FIRST YEAR students the fieldwork gives opportunity to learn the following

1. Functioning of CHC/PHC/FHC with familiarization in various departments like Office, Pharmacy, Lab, Nursing Care, Infection Control, House Keeping etc.
2. Job functions of Junior Health Inspector, & Health Inspector.
3. Various Reports prepared and Registers maintained by the JHIs
4. Familiarization on various registers kept by Junior Health Inspector, & Health Inspector.
5. All reports related to health sent from PHC/CHC to DMO - Birth and Death reporting
6. Survey, Vector survey, larval indices calculation, recommended control and prevention strategies

7. Demonstration and proper application of chemical insecticides-larvicides and adulticides.
8. Training on Blood sample collection, packing and dispatch, mass survey, contact survey etc.
9. Training on IVM - Source reduction, Vector Study, Spraying, Fogging etc.
10. Training and Familiarization on TB treatment card, TB register, Nikshay portal, FDC, etc.
11. Training on NLEP Activities.
12. Training on CDDORT with Familiarization of ORT - Zinc corner, ORS depot etc.
13. Activities related to all National Health Programmes implementation
14. Familiarization on records & data like Area Map, Spot Map, Seasonality diagram, Health Status Report, Case investigation report (FIR), Action taken report, Death investigation report, Outbreak investigation report, Monthly reports etc.
15. Identification of various health indicators of PHC area
16. Training on RCH activities - Immunization clinic, Immunization Register, MCP card, U win Portal, Cold chain, AEFI kit, Anaphylaxis kit, AEFI forms, Out reach immunization clinic planning and conduction, School immunization planning & conduction etc.
17. Training/Familiarization on EC register, Acceptance register, Condom corner, IUD insertion, Lapro, PPS, ML and NSV etc
18. Familiarize with Food habits of the residence of field area, Supplementary feeding (Anganwadi & Schools)
19. Previous history of disasters from field area, Records from revenue authorities,LSGD, local leaders.
20. Centers of differently abled from field area, Data of differently abled from social justice department institution/LSGD from field area
21. Migrant site visit
18. Maintenance of daily diary
19. Job responsibilities of JHIs in the delivery of Primary Health Care approach
20. Motivating couples to adopt family planning methods
21. Motivating resistant family to immunize their child with Pulse Polio or any other immunization
22. Immunisation programmes-Registration, Health education
23. Students may be familiarized with online reporting system from PHC to higher authorities in the Department of Health Services
24. Monthly and weekly conferences and meetings at the PHC/CHC like IDSP meetings.

For DHI SECOND YEAR students the fieldwork gives opportunity to learn the following

1. Functioning of CHC/PHC/FHC with familiarization in various departments like Office, Pharmacy, Lab, Nursing Care, Infection Control, House Keeping etc.
2. Knowledge, attitude and practice study

3. Community diagnosis
4. Different community partnership methods such as Seasonality diagram, Village walk
5. Well chlorination - Demonstration
6. Record temperature, pulse, BP
7. Measure Waist circumference
8. Calculate Body Mass Index
9. Identification of felt needs in the community/ block placement area
10. Preparation of a project on the identified felt needs which needs urgent action
11. Projects submitted by PHC to Secretary, Block panchayat
12. Familiarization on Sub centre clinics - AN Clinic/ Well women clinic, Geriatric, NCD, Adolescent, Mental health etc.
13. Familiarization on Palliative programme.
14. Training on the implementation of acts related to public health like - KPHA 2023. COTPA, KPRA, etc
15. Inspection in Anganwadi, schools and other educational institutions
16. Familiarization on Functioning of Committees - RRT, WHNSC, JAK, JAS, Sub Centre Committee etc.
17. Familiarization on Conferences - Monthly Conference, Block Conference, Weekly review (IDSP) etc.
18. Familiarization of Portals - HMIS, IHIP, Sulekha, RCH, etc.
19. Conduct of Health education classes at various clinics, Anganwadi, Schools etc. with AV Aids.
20. School Health Programme
21. Preparation of a survey schedule/ questionnaire.
22. Preparation of press release on any function or observance of a day of national health importance conducted in block placement area
23. Health communication on identified health need in the PHC area with folk media as the channel
24. Conduct of health talk to women's group and understanding communication process
25. Non- communicable diseases prevailing in the block placement area and the causative factors
26. NCD clinics (PHC and subcentre), NCD Data, Life style modification,
27. Biomedical waste management in PHC
28. Palliative care programmes, Care homes for the aged, mentally challenged and destitutes etc
29. Socio- cultural factors of health and illness in the block placement area
30. Data collection methods in institutions (Hospital visit), Attending mental health clinics attached to hospitals
31. Physiological and Psychological problems of individuals in different stages of life
32. Students may be familiarized with online reporting system from PHC to higher authorities in

the Department of Health Services

33. Monthly and weekly conferences and meetings at the PHC/CHC like IDSP meetings.

The field placement should facilitate students to get a practical knowledge of Sanitary well, Soakage pit, Different types of sanitary latrines suitable for rural areas, Compost pit, Smokeless Chulah, Gobar gas plant, A ventilated house, Paved lanes, Different types of drains for rural population, A washing platform, Sanitary cow shed, Rat proof godown, Larvae of flies and mosquitoes and their breeding places, Chlorination of well, Constructing a sanitary latrine.

Visit to the Health Wing of the Municipality/Corporation, Public Market, Factory, Food Processing and handling unit, public water supply project, Waste management system if there are facilities in the municipal/corporation placement area. If such facilities are not available in the placement area, the training school must make arrangements.

The students have to submit daily report of activities in the placement area as field diary, promptly to the designated staff of PHC/CHC/Health wing of municipality/corporation

FIELD DIARY

For the evaluation of field training, the students have to maintain a field diary, which will be evaluated during the annual examination. It should be maintained on a daily basis and should contain the daily log as well as field experience related to each paper. It should be signed by the supervisor of respective institution.

Digital Health and Data Management (30 hours per year)

- MS Office (MS Excel, MS Word, PowerPoint etc.)
- Managing Google sheets, Google forms etc.
- Online meeting platforms like Google meet, Zoom, Microsoft teams etc.
- Advanced data management - training on evolving data management soft wares and other relevant data management platforms (Web applications like IHIP, e-health, Nikshay, Nikusht, RCH portal, HMIS, Sulekha etc.)

Computer Training

Computer training can help students learn how to effectively organize data and analyze them using tools such as spreadsheets and evolving databases. It can improve the speed and accuracy of tasks such as data entry, report generation etc. Integrating computer training into the curriculum for health inspector students prepares them for the demands of the modern workplace and enhances their ability to perform their roles effectively. Hence, there should be a dedicated 30 hours per academic year for computer training.

OBSERVATIONAL VISIT

Institutions identified for observational visit for DHI course are the following:

1. Analytical Lab
2. Public Health Lab/Regional Public Health Lab
3. Institute of Mental Health
4. Juvenile Home
5. Orphanage home
6. Old age home
7. Prison
8. Press
9. Anganwadi
10. Water Treatment Plant
11. Sewage Treatment Plant
12. Slaughter House
13. Hindustan Latex Limited
14. Pasteurization Plant
15. Infectious Diseases Hospital like TB centre
16. Industrial visit
17. Tribal Visit
18. Special Schools for physically and mentally challenged
19. Disability Rehabilitation Unit
20. KSACS/DAPCU/TI Project

****** Observational visits to a minimum of 5 institutions should be arranged each year. Should be covered along with the teaching hours of the respective topics. Reports of observation visits should be written in the field diary.

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