

**IRAQI BOARD FOR MEDICAL SPECIALIZATIONS
FAMILY AND COMMUNITY MEDICINE
SCIENTIFIC COUNCIL**



**COMMUNITY
MEDICINE
SCIENTIFIC
CURRICULUM**

**The Academic Curriculum for
the Board Study (Fellow-Degree)
in Community Medicine
Specialty “FIBMC/CM”**



2024-2025

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**Four Year Residency
Training Programme**



ACADEMIC CURRICULUM FOR
COMMUNITY MEDICINE JOINT PROGRAM
2024-2025



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Academic Curriculum for Community Medicine Joint Program



- **Introduction:**

"An ounce of prevention is worth a pound of cure"

Community Medicine, also known as “Preventive Medicine” or “Social medicine” is a medical specialty that focuses on promoting and protecting the health of populations and communities through the primary healthcare approach. It encompasses the study and practice of preventing diseases, prolonging life, and improving the overall well-being of communities by addressing the social, environmental, and economic factors that influence health outcomes through a comprehensive approach to healthcare delivery in various community settings.

The field of community medicine takes a holistic approach to health, considering not only individual patients but also the social, environmental, and economic factors that influence health outcomes. It recognizes that the health of individuals is interconnected with the health of the community and aims to address health disparities and promote health equity.

The study of Community Medicine plays a vital role in the comprehensive education and training of healthcare professionals to work in the field of community health promotion, preventing diseases, and improving the overall well-being of populations. It encompasses a comprehensive curriculum designed to equip physicians with the knowledge, skills, and competencies necessary to understand and address the health needs of communities.

- **Vision:**

The program reflects a vision of the community medicine specialist as a healthcare practitioner who can effectively prioritize and address the health needs of populations and communities.



- **Goal:**

The goal of the study is to enhance the role of community medicine within the health system by providing specialists of Community Medicine who recognize the health needs of the community and carry out professional obligations ethically and in keeping with objectives of the national health policy. These professionals, equipped with the latest knowledge, skills, ethical principles, and a strong commitment to social standards and moral values, aim to address the preventive care initiatives, to contribute in the planning for national health programs, to conduct field research, to gather data, and analyze community health needs, and to implement evidence-based strategies meet the demand of unique health needs of Iraqi populations.

- **Learning Objectives**

At the end of the program it is expected to have a physician specialist in family medicine that can fulfill the following job description criteria to:

- 1) Acknowledge the significance of Community Medicine within the framework of community health needs and national priorities in the healthcare sector.
- 2) Possess knowledge of the structure and operations of the healthcare system at both national and international levels, including an understanding of its organizational perspectives.
- 3) Apply an ethical and collaborative approach, working alongside other healthcare specialties, to implement preventive measures and promote health within the healthcare provision.
- 4) Recognize the social, economic, environmental, biological, and emotional factors that influence health in a specific case, and consider them when designing strategies and interventions for promoting health, preventing illness, providing treatment, and facilitating rehabilitation.
- 5) Diagnose and manage majority of the health conditions in the community on the basis of clinical assessment and conduct appropriate investigations.
- 6) Display the ability to accurately document individual and community case details, along with relevant morbidity and mortality data, in accordance with the assigned situation.
- 7) Play the assigned role in the planning, implementation and monitoring of National Health Programs, effectively and responsibly.

- 8) Effectively organize and supervise healthcare services in a clinic, hospital, or field setting, demonstrating strong managerial skills.
- 9) Establish Surveillance System and respond to public health threats efficiently and effectively
- 10) Develop skills as a self-directed learner, recognize continuing educational needs and select & use appropriate learning resources.
- 11) Exhibit a strong understanding of the fundamental principles of research methodology and epidemiology, enabling the effective conduct of health research, interpreting the measurements, and the critical analysis of literature.
- 12) Demonstrate proficient leadership skills in supervision a healthcare team involved in various healthcare tasks and education, including the efficient management of logistics and resources.

• **Study Period:**

It encompasses a four-year curriculum designed to equip physicians with the knowledge, skills, and competencies necessary to understand and address the health needs of communities. Each year includes three academic courses, each lasting four months, as shown in the following table.

Four-Year Community Medicine (CM) Study Curriculum Map

Year	Course (4 Months)											
	1				2				3			
	<i>Oct</i>	<i>Nov</i>	<i>Dec</i>	<i>Jan</i>	<i>Feb</i>	<i>Mar</i>	<i>Apr</i>	<i>May</i>	<i>Jun</i>	<i>Jul</i>	<i>Aug</i>	<i>Sep</i>
I	Basic Principles and Foundations of Community Medicine (College of Medicine)				Advanced Courses in Community Medicine: Case Studies, and Review of MoH Statistics & Surveys. (College of Medicine)				Data Collection and Analysis of Statistics related to the Population and Community. (MoH)			
II	Prevention and Control of Communicable Diseases (CDC)				Provision of PHC for Vulnerable Groups (women, children, students).				Quality and Safety Monitoring in Healthcare and Food (PHD)			
III	Prevention and Control of Non-Communicable Diseases (NCD)				Preventive and Therapeutic Healthcare Services at Specialized Centers, including Health and Safety of Workers.				Practical Application of Primary Healthcare Programs (PHC Centers)			
IV	Specialized Healthcare Services in Hospitals (Tertiary Healthcare)				Patient and Staff Safety in Hospitals and Protection of the Community from Biological Hazards.				Revision of the Prevalent Diseases in the Iraqi Community.			

• **Topics of Study:**

Year I

A- Course 1: Basic Academic Course

Site: Community & Family Medicine Department in Medical College.

1) Introduction to and evolution of Community Medicine

Learning objective: Understand and describe the evolution and the concepts of the specialty of community medicine.

Required Topics:

- ✓ History and Evolution of community medicine
- ✓ Pioneers in Public Health and Community (Preventive) Medicine
- ✓ Definitions and Terms
- ✓ Concepts of Health and Disease (Theories, determinants, & Natural history of disease)
- ✓ Concepts of Prevention and Control (Definition & Levels)
- ✓ Ethics in Public Health

2) Principles and Practice of Epidemiology & Evidence Based Medicine (EBM)

Learning objective: Properly calculate, interpret, and use measures of disease, injuries, and death in human populations.

Required Topics:

- ✓ Commonly Used Definitions and Terms
- ✓ Descriptive and Analytic Triad & Epidemiology
- ✓ Health Indicators including Quality of Health (QoH)
- ✓ Measurement of Morbidity Indicators (incidence, prevalence)
- ✓ Measurement of Disability Indicators (Disability Adjusted Life Years [DALYs], Quality Adjusted Life Years [QALYs], Years of Potential Life Lost [YPLL])
- ✓ Measurement of Mortality Indicators (Crude mortality rate, specific mortality rates, case fatality)
- ✓ Socioeconomic indicators (life expectancy, family size, growth rate)
- ✓ Screening for Disease (Principles, Types, & Biases)
- ✓ Epidemiological Studies (Methods: Descriptive and Analytic Studies)

- ✓ Measures of association and Effect (OR, RR, AR, AR%, NNT, NNP).
- ✓ Causal Inferences: Bias, Confounding, and Interaction
- ✓ Writing scientific paper (including proposal writing)
- ✓ Evidence Based Medicine

3) Biostatistics & Public Health Informatics

Learning objective: Apply descriptive and inferential statistical methodologies for testing specific public health or research hypotheses according to the type of study design and measurement scale.

Required Topics:

- ✓ Principles and Applications of Biostatistics (Descriptive Vs Inferential)
- ✓ Variability & Variables (Definition, Measuring Scales)
- ✓ Population, Sample and Sampling Variation (Parameters vs Statistics)
- ✓ Tabulation & Diagrammatic Presentation
- ✓ Measures of Location & Dispersion
- ✓ Probability and Probability Distribution
- ✓ Normal and Skewed Distributions
- ✓ Hypothesis testing (z test, t test, X² test, ANOVA)
- ✓ Estimation of Confidence Interval

4) Epidemiology of Communicable Diseases and Related National Health Programs

Learning objective: Describe the fundamental concepts of epidemiology, including modes of transmission, risk factors, principles of disease surveillance & outbreak investigation, and methods of control & prevention for common communicable diseases in Iraq.

Required Topics:

- Introduction to Communicable Diseases (concepts & Terms) & Medical entomology
- Diseases Controlled Primarily by Vaccination
 - ✓ Measles, Mumps, Rubella, Pertussis, Tetanus, Diphtheria
 - ✓ Influenza, Hemophilus Influenzae Infections, Pneumococcal Infections
 - ✓ Varicella And Herpes Zoster
 - ✓ Poliomyelitis (including Eradication program)

- Infections Spread by Close Personal Contact
 - ✓ Viral Hepatitis
 - ✓ Tuberculosis, Leprosy
 - ✓ Aseptic Meningitis & Meningococcal Disease
 - ✓ Epstein-Barr Virus And Infectious Mononucleosis
 - ✓ Herpes Simplex Virus & Cytomegalovirus Infections
 - ✓ Group A Streptococcal Diseases
- Diseases Spread by Food and Water
 - ✓ Rotavirus diarrhea
 - ✓ Typhoid Fever & Salmonellosis
 - ✓ Escherichia Coli & other acute bacterial gastroenteritis
 - ✓ Cholera, Shigellosis
 - ✓ Amebiasis, Giardiasis
- Sexually Transmitted Diseases
 - ✓ Human Immunodeficiency Virus (HIV) Infection and Acquired Immunodeficiency Syndrome (AIDS)
 - ✓ Human Papillomavirus (HPV)
 - ✓ Chlamydia, Syphilis, Gonorrhea
 - ✓ Trichomoniasis
- Diseases Transmitted Primarily by Arthropod Vectors
 - ✓ Viral Hemorrhagic Fevers
 - ✓ Leishmaniasis
 - ✓ Malaria
 - ✓ Plague.
 - ✓ Rickettsial Infections
 - ✓ Trypanosomiasis,
 - ✓ Lymphatic Filariasis
- Diseases Transmitted Primarily from Animals to Humans (Zoonoses)
 - ✓ Rabies
 - ✓ Anthrax
 - ✓ Brucellosis
 - ✓ Toxoplasmosis
 - ✓ Hemorrhagic fever

- Other Infection-Related Diseases of Public Health Import
 - ✓ Head and pubic lice
 - ✓ Hookworm Disease
 - ✓ Intestinal Nematodes
 - ✓ Schistosomiasis
 - ✓ Hydatid disease
 - ✓ Scabies
 - ✓ Nosocomial Infections

5) Epidemiology of Non-communicable Diseases and Related National Health Programs

Learning objective: Describe the fundamental concepts of epidemiology, including risk factors, complications, principles of disease surveillance, and methods of prevention for common non-communicable diseases in Iraq.

Required Topics:

- Introduction, Prevention and Control of Non-communicable Diseases
- Hypertension, Ischemic Heart Disease
- Rheumatic Heart Disease (& Congenital Heart Diseases)
- Asthma & other Respiratory Disease
- Stroke
- Obesity and Diabetes Mellitus
- Cancer
- Renal and Urinary Tract Disease
- Neurological and psychological disorders

6) Primary Healthcare, Education and Communication for Health and Related National Health Programs

Learning objective: Describe the essential concepts, advantages, contents, programs, methods of delivery of PHC services in health system.

Required Topics:

- Genetics and Health
- Maternal and Child Health

- Family Planning
- Adolescent health
- Geriatric Health
- Nutrition and Health
- Mental Health,
- School health services
- Primary health care programs and indicators in Iraq
- Communication and Medical Ethics
- Health Promotion and Health Education

7) Social & Behavioral life

Learning objective: Describe the essential concepts, contents, problems, of social and behavioral life in our community, and the social and behavioral roots of disease.

Required Topics:

- Principles of Sociology in Health Care
- Demography, Family & culture
- Social Environment and Health
- Child labor & Juvenile Delinquency
- Violence
- Smoking dependency, Alcoholism, and substance addict

8) Occupational and Environment Health

Learning objective: Describe current environmental and occupation risks, assessment methods, health impacts of different environmental hazards, and be able to specify approaches for assessing, preventing, and controlling environmental problems that pose risks to human health and safety.

Required Topics:

- Safe Occupational Health & environment
- Burden of occupational disease
- Physical, Chemical, and Biological hazards
- Accident, injuries, and Sickness Absenteeism
- Toxicology

- Vulnerable and disabled workers
- Prevention and Control of Occupational Hazards
- Ergonomics
- Water Quality & Pollution
- Food safety & Security
- Air Pollution
- Sanitation, Housing & Health, including Control of Insects & Rodents
- Waste Disposal, including Biological Waste and Waste Recycling
- Environmental Health Risk Assessment and Programs
- International Health & Global Environment

9) Health Management & Economics

Learning objective: Develop and demonstrate effective strategies to plan for, evaluate, and lead the healthcare programs and activities, and apply effective strategies to improve healthcare services.

Required Topics:

- Planning & Evaluation in of Health Services / Programs (logic model, SMART objectives, Gantt chart, SWOT analysis)
- Leadership & Setting Priorities
- Health Care System and Delivery
- Disaster Management
- International Health and Voluntary Health Agencies
- Introduction to Health Economics
- Financial Analysis & Control in Health Settings
- Economic Indicators
- Quality management & Human Resources Development

10) Preventive Health programs and activities of the Ministry of Health (MoH).

Learning objective: Describe the current preventive activities in our community and recognize the effectiveness of these programs on diseases occurrence in our community.

B- Course 2: Advanced Courses, Case Studies, and Review of MoH Surveys.

Site: Community & Family Medicine Department in Medical College.

1) Advanced Course in Epidemiology

Learning objective: Apply advanced epidemiological principles and methods to describe health events and draw appropriate inferences from public data.

Required Topics:

- ✓ Standardization of Rates
- ✓ Investigating an Epidemic (or Outbreak)
- ✓ Surveillance for health Events
- ✓ Clinical Trials Design
- ✓ Interpretation of research findings
- ✓ Critical Appraisal of a Published Article
- ✓ Referencing a scientific Paper
- ✓ Ethical Issues in Medical Research (including plagiarism)
- ✓ Guidelines in medical practice

2) Advanced course in Biostatistics

Learning objective: Apply advanced biostatistical principles and methods to describe health events and draw appropriate inferences from public data

Required Topics:

- ✓ Analysis of Variance (ANOVA) & Analysis of Covariance (ANCOVA)
- ✓ Nonparametric Distributions & Tests (signed rank test, Wilcoxon rank test, Mann-Whitney test, Kruskal–Wallis test)
- ✓ Clinical Trials Analysis
- ✓ Correlation and Regression (multiple regression & logistic regression)
- ✓ Life Table & Survival analysis
- ✓ ROC Curve
- ✓ Storage, analysis and Management of public health data
- ✓ Statistical Software for Data Analysis (Epi info, Minitab, SPSS)

3) Case Study in Epidemiological Investigations and revision of MoH Surveys

Learning objective: Describe the current health situation in our community and recognize the impact of different diseases on healthcare system. And, develop and demonstrate effective strategies to communicate community medicine topics in finding solutions for community health problems.

Required Topics:

- a) Study cases of epidemiological investigation: An in-depth investigation of an individual, group, or community affected by a particular health condition or disease (communicable or non-communicable). It involves the comprehensive analysis of various factors, such as demographic information, exposure history, clinical manifestations, risk factors, and outcomes, in order to understand the patterns and determinants of the disease.
- b) Study the surveys and publications of Ministry of Health (MoH), including the Annual Statistical Report (Last version): Involves engaging in a comprehensive analysis of the data and information provided by the MoH. This done by:
 1. Identify relevant surveys and publications: This may include annual reports, health indicators reports, epidemiological bulletins, and specific surveys related to various health topics.
 2. Review the methodology and data sources: Examine the methodology to understand the data sources, sampling techniques, data collection methods, and any limitations or biases associated with the data.
 3. Analyze the data: Conduct a thorough analysis of the data presented in the surveys and publications. Identify trends, patterns, and key findings related to public health and healthcare services.
 4. Interpret the findings: Interpret the analyzed data in the context of public health policies, healthcare system performance, and national health priorities.
 5. Consider the recommendations: Pay attention to any recommendations or action points provided in the surveys and publications to guide decision-making and policy development.

C) Course 3: Data Collection and Analysis of Statistics related to the Population and Community.

- Site:** 1) Planning and Resource Development Directorate (MoH)/ 3 months
 2) National Center for Training and Human Development (MoH)/ 1 months

Learning objective:

- ☞ Describe the current health situation in our community
- ☞ Observe the health statistics of Iraqi population
- ☞ Recognize the impact of different diseases on healthcare system.
- ☞ Provide updated information and insights on the latest statistics, trends, and data about common diseases in Iraq.
- ☞ Describe the organization of Iraqi health system and distribution of health resources
- ☞ Identify the steps of field research of common health problems in Iraq
- ☞ Develop and demonstrate effective strategies to communicate community medicine topics in finding solutions for community health problems.

Year I Timetable Summary

Course	Topics	Site	Time
1	Basic Principles and foundations of Community Medicine	Community & Family Medicine Department/ College of Medicine)	4 Months
2	Advanced Courses in Community Medicine: Case Studies, and Review of MoH Surveys.	Community & Family Medicine Department/ College of Medicine)	4 Months
3	Data Collection and Analysis of Statistics related to the Population and Community.	☞ MoH/ Planning and Resource Development Directorate: ✓ Department of Vital Statistics ✓ Department of Workforce ✓ Department of Financial Planning ✓ Department of Policies ☞ MoH/ National Center for Training and Human Development	1 Month 1 Month 2 Weeks 2 Weeks 1 Month

Year II

A) Course 1: Prevention and Control of Communicable Diseases (CDC)

Site: MoH/ Public Health Directorate: The Center for Communicable Disease Control

- Acute Intestinal Diseases Section, Schistosomiasis and Intestinal Parasites Section (1 Month).
- Zoonotic Diseases Section, Malaria Section (1 Month).
- Acute Respiratory Diseases Section (1 Month).
- Disease Vector Control Section, Epidemiological Surveillance Section (1 Month).

Learning objective:

- ☞ Identify the common communicable diseases in Iraq
- ☞ Analyze the trends and patterns within communicable diseases, including their frequency, prevalence, and how they are distributed among different groups and geographic areas, in order to identify areas of higher risk and disparities.
- ☞ Understand the factors influencing transmission, such as population density, environmental factors, and social determinants of health.
- ☞ Evaluate how communicable diseases impact public health
- ☞ Study the epidemiology of communicable diseases and the impact of control measures on disease prevalence.
- ☞ Understand vector-borne diseases and the role of vectors such as mosquitoes, flies, and ticks in disease transmission.
- ☞ Develop skills in outbreak investigation and management especially zoonotic diseases and malaria-endemic areas.
- ☞ Analyze surveillance systems for tracking common communicable disease outbreaks and implementing control measures.
- ☞ Become proficient in epidemiological surveillance systems, including data collection, analysis, and reporting.
- ☞ Gain insight into the national strategies and programs employed to prevent and control communicable diseases, encompassing methods like vaccination strategies, hygiene protocols, isolating affected individuals, vector control, and educational campaigns.

B) Course 2: Providing Basic Healthcare for Vulnerable Groups (women, children, students).

Site: MoH/ Public Health Directorate

- Immunization Department (1 Month)
- Health Promotion Department (1 Month)
- Reproductive Health and School Health Department (2 Month)
 - ✓ Women's Health Section
 - ✓ Child Health Section
 - ✓ School Health Section.

Learning objective:

- ☞ Understand the core principles of public health, including disease prevention, health promotion, and the implementation of community health programs.
- ☞ Review national immunization programs and policies, including routine childhood immunizations, catch-up immunizations, and campaigns for vaccine-preventable diseases (VPDs).
- ☞ Learn the importance of vaccines, their administration, storage, and the management of immunization programs to prevent infectious diseases.
- ☞ Develop skills in designing, implementing, and evaluating health promotion campaigns aimed at improving individual and community health behaviors.
- ☞ Understand reproductive health, maternal care, and school health programs, focusing on preventive care, health education, and services for women, children, and students.
- ☞ Learn about the healthcare needs of women & children, including reproductive health, maternal care, child development, and disease prevention strategies.
- ☞ Gain knowledge on improving health within the school setting through preventive measures, mental health support, nutrition, and hygiene promotion for students.

C- Course 3: Quality and Safety Monitoring in Health and Food Sectors.

Site: MoH/ Public Health Directorate

- Nutrition Research Institute (2 Months)
- Epidemiology Department (1 Month)
- Health Monitoring Department (1 Month)

Learning objective:

- ☞ Identify common nutritional problems, such as undernutrition, food item deficiencies, and obesity, in our community.
- ☞ Recognize the national nutritional programs and surveys
- ☞ Understand the principles of nutrition science and its role in public health.
- ☞ Learn the principles of public health research, including nutrition, epidemiology, and health safety, to address population health needs.
- ☞ Understand the fundamental concepts of epidemiology, including disease distribution and determinants in populations.
- ☞ Learn how to design and conduct epidemiological studies for disease surveillance and control.
- ☞ Understand the role of health monitoring in preventing foodborne illnesses and promoting public health safety.

Year II Timetable Summary

Course	Topics	Site	Time
1	Prevention and Control of Communicable Diseases (CDC)	<p style="text-align: center;"><u>MoH / Public Health Directorate</u> <u>Communicable Diseases Control Center</u></p> <ul style="list-style-type: none"> ☞ Acute Intestinal Diseases Section ☞ Schistosomiasis and Intestinal Parasites Section. ☞ Zoonotic Diseases Section ☞ Malaria Section. ☞ Acute Respiratory Diseases Section. ☞ Disease Vector Control Section, ☞ Epidemiological Surveillance Section 	<p>2 Weeks</p> <p>2 Weeks</p> <p>2 Weeks</p> <p>2 Weeks</p> <p>1 Month</p> <p>2 Weeks</p> <p>2 Weeks</p>
2	Providing Basic Healthcare for Vulnerable Groups (women, children, students)	<p style="text-align: center;"><u>MoH/ Public Health Directorate</u></p> <ul style="list-style-type: none"> ☞ Immunization Department ☞ Health Promotion Department ☞ Reproductive Health and School Health Department <ul style="list-style-type: none"> ✓ Women's Health Section ✓ Child Health Section ✓ School Health Section. 	<p>1 Month</p> <p>1 Month</p> <p>1 Month</p> <p>2 Weeks</p> <p>2 Weeks</p>
3	Quality and safety Monitoring in Health and Food Sectors.	<p style="text-align: center;"><u>MoH/ Public Health Directorate</u></p> <ul style="list-style-type: none"> ☞ Nutrition Research Institute ☞ Epidemiology Department ☞ Health Monitoring Department 	<p>2 Months</p> <p>1 Month</p> <p>1 Month</p>

Year III

A) Course 1: Prevention and Control of Non-Communicable Diseases

Site: MoH/ Non-Communicable Diseases Prevention and Control Department

- Elderly Health Section (1 Month).
- Mental Health Section (1 Month).
- Tobacco Control Section (1 Month).
- Integrated Care Section (1 Month).

Learning objective:

- ☞ Learn about the major non-communicable diseases (NCDs), including cardiovascular diseases, diabetes, chronic respiratory diseases, and cancer, and their impact on national public health.
- ☞ Define the NCDs etiology, modifiable and non-modifiable risk factors, progression, complications, and impact on community prosperity patients' quality of life.
- ☞ Explain the principles of multidisciplinary care and coordinated management in addressing physical, emotional, & social needs of patients with NCDs.
- ☞ Understand the principles of mental health promotion.
- ☞ Develop skills in coordinating comprehensive care for individuals with chronic conditions, integrating medical, psychological, and social services to improve patient outcomes.
- ☞ Identify national prevention approaches, including, risky population approach, lifestyle modification (dietary changes, regular exercise, stress management, and smoking cessation), and psychosocial support.
- ☞ Assess the impact of socioeconomic determinants of health, such as income, education, and access to healthcare, on the prevalence & management of NCDs.
- ☞ Evaluate the effectiveness of integrated community-based interventions aimed at reducing NCD risk factors, such as public awareness campaigns, health education, and behavioral change strategies.

B) Course 2: Providing Preventive and Therapeutic Health Services in Specialized Centers, including The Health and Safety of Workers.

Site: 1) MoH/ Public Health Directorate

- National Institute for Tuberculosis (1 Month)
 - National Center for Control of HIV (1 Month)
 - Central Public Health Laboratory (2 Weeks)
 - Antimicrobial Resistance Control Section (2 Weeks)
- 2) Ministry of Labor - National Center for Occupational Health and Safety (1 Month).

Learning objective:

- ☞ Learn about the diagnosis, treatment (DOTs program), and national preventive programs of tuberculosis in Iraq, including the latest clinical guidelines and public health strategies for effective tuberculosis (TB) treatment.
- ☞ Learn to develop prevention, treatment, and management programs for HIV and TB, including awareness campaigns.
- ☞ Learn about various laboratory testing methods used in public health, including diagnostic tests for infectious diseases and health conditions.
- ☞ Gain skills in creating and implementing strategies to combat antimicrobial resistance, including stewardship programs and infection control measures.
- ☞ Identify common environmental, and occupational, problems in our community
- ☞ Learn about the principles of occupational health and safety, including regulations, risk assessment, and prevention strategies.
- ☞ Recognize the preventive programs and activities towards above problems especially among vulnerable groups.

C) Course 3: Practical Application of Primary Healthcare Programs.

Site: MoH/ Primary Healthcare Centers (4 Month).

Learning objective:

- ☞ Gain a comprehensive understanding of the principles and goals of primary healthcare, including its role in providing accessible, comprehensive, and continuous care.
- ☞ Learn the principles of primary healthcare, including accessibility, continuity, community participation, and equity in care.

- ☞ Develop and apply clinical skills necessary for diagnosing, treating, and managing common health conditions encountered in primary care settings.
- ☞ Develop skills in promoting preventive healthcare, including immunizations, screening programs, and health education for the prevention of communicable and non-communicable diseases.
- ☞ Learn methods for assessing the effectiveness of primary healthcare programs, including quality improvement techniques and patient feedback mechanisms to enhance service delivery.
- ☞ Gain a comprehensive understanding of the administrative and operational aspects of managing a PHC center, and administrative challenges to ensuring smooth operations and maintaining quality healthcare services.
- ☞ Understand and apply principles of patient-centered care, fostering strong doctor-patient relationships to enhance trust, communication, and shared decision-making in the primary healthcare setting.

Year III Timetable Summary

Course	Topics	Site	Time
1	Prevention and Control of Non-Communicable Diseases (NCDs)	<p style="text-align: center;"><u>MoH / Public Health Directorate</u> <u>Non-Communicable Diseases</u> <u>Prevention and Control Department</u></p> <ul style="list-style-type: none"> ☞ Elderly Health Section. ☞ Mental Health Section. ☞ Tobacco Control Section. ☞ Integrated Care Section. 	1 Month 1Month 1 Month 1 month
2	Providing Preventive and Therapeutic Health Services in Specialized Centers, including The Health and Safety of Workers.	<p style="text-align: center;"><u>MoH/ Public Health Directorate</u></p> <ul style="list-style-type: none"> ☞ National Institute for Tuberculosis ☞ National Center for Control of HIV ☞ Central Public Health Laboratory ☞ Antimicrobial Resistance Control Section ☞ Ministry of Labor - National Center for Occupational Health and Safety. 	1 Month 1 Month 2 Weeks 2 Weeks 1 Month
3	Practical Application of Primary Healthcare Programs.	<p style="text-align: center;"><u>MoH/ Primary Healthcare Centers</u></p>	4 Months

Year IV

A) Course 1: Specialized Healthcare Services (Tertiary Level Healthcare)

Site: MoH/ Specialized Clinics in Teaching Hospitals

- Geriatric Clinic (1 Month).
- Medical Nutrition Therapy Clinic (1 Month).
- Chronic Diseases Clinic (1 Month).
- Oncology Clinic (1 Month).

Learning objective:

- ☞ Learn about the range and purpose of specialized health services, including their role in addressing complex and specific medical conditions beyond PHC.
- ☞ Learn about common health issues and diseases affecting the elderly, including preventive measures and management strategies.
- ☞ Understand the challenges of managing multiple health conditions in elderly patients and develop strategies for integrated care.
- ☞ Gain skills in assessing dietary needs and creating personalized nutrition plans to support patient health and treatment goals.
- ☞ Learn to track and evaluate the effectiveness of nutrition interventions and adjust plans as needed based on patient progress.
- ☞ Learn about the management and treatment of chronic diseases such as diabetes, hypertension, and chronic respiratory conditions.
- ☞ Gain skills in creating and implementing care strategies for managing chronic diseases, including medication management and lifestyle modifications.
- ☞ Learn about the different types of cancer, their diagnosis, and treatment options, including chemotherapy, radiotherapy, and targeted therapies.
- ☞ Understand the principles of supportive and palliative care to manage symptoms and improve the quality of life for cancer patients.
- ☞ Learn how to work effectively with multidisciplinary teams to provide comprehensive care for patients requiring specialized services, ensuring integrated and holistic treatment approaches.
- ☞ Develop the ability to assess the quality and effectiveness of specialized health services, using data and feedback to drive improvements and enhance patient outcomes.

B) Course 2: Patient and Staff Safety in Hospitals and Protection of the Community from Biological Hazards)

Site: 1) MoH/ Teaching Hospitals (3 Month).

- Public Health Section (Health Prevention)
- Patient Safety and Preventive Procedures in Hospital Wards
- Medical Isolation
- Handling of Biological Waste

2) Technical Affairs Directorate

- Therapeutic Department (1 Month).

Learning objective:

- ☞ Learn about the best practices and protocols for ensuring the safety of patients and healthcare workers within hospital settings, including infection control and emergency procedures.
- ☞ Learn about and apply protocols for ensuring patient safety in hospital wards, including risk assessment and incident management.
- ☞ Learn about public health strategies focused on preventing diseases and promoting health within hospital settings.
- ☞ Gain skills in applying infection prevention and control measures to minimize the risk of infections and ensure a safe hospital environment.
- ☞ Learn about the protocols and procedures for isolating patients with contagious or infectious diseases.
- ☞ Understand the principles of managing and mitigating risks associated with biological hazards, including the safe handling and disposal of potentially infectious materials.
- ☞ Develop strategies for protecting the community from biological hazards, including public health education, surveillance, and response planning for outbreaks and emergencies.
- ☞ Develop methods to educate patients and staff on health prevention practices and disease prevention strategies.
- ☞ Learn about the guidelines and regulations for managing and disposing of biological waste safely and effectively.

C) Course 3: Review of the Most Common Diseases in the Iraqi Community

Site: MoH/ Public health Directorate.

- NCDs Prevention and Control Department (2 Months)
- Communicable Diseases Control Center (2 Months)

Learning objective:

- ☞ Review and update knowledge of the epidemiology of key communicable and non-communicable diseases in Iraq, including incidence, prevalence, and risk factors.
- ☞ Review key public health strategies for the prevention and control of CDs and NCDs, including surveillance, and other activities.
- ☞ Review guidelines for the management of diseases with significant public health impact, focusing on evidence-based protocols.
- ☞ Develop skills in designing and implementing community health interventions and public health campaigns aimed at prevention strategies, and appropriate responses.

Year IV Timetable Summary

Course	Topics	Site	Time
1	Specialized Healthcare Services (Tertiary Level Healthcare)	MoH / Specialized Clinics in Teaching Hospitals ☞ Geriatric Clinic. ☞ Medical Nutrition Therapy Clinic. ☞ Chronic Diseases Clinic. ☞ Oncology Clinic.	1 Month 1 Month 1 Month 1 month
2	Patient and Staff Safety in Hospitals and Protection of the Community from Biological Hazards	MoH/ ☞ Teaching Hospitals (3 Month). ✓ Public Health Section (Health Prevention) ✓ Patient Safety and Preventive Procedures in Hospital Wards ✓ Medical Isolation ✓ Handling of Biological Waste ☞ Technical Affairs Directorate ✓ Therapeutic Department	1 Month 1 Month 2 Weeks 2 Weeks 1 Month
3	Review of the Most Common Diseases (CDs & NCDs) in the Iraqi Community	MoH/ Public Health Directorate ☞ NCDs Prevention and Control Department ☞ CDC Center	2 Months 2 Months

Requirements of practical course:

- ☞ The candidate will spend four months in each course and carry out the following tasks:
 - 1) Engage in all departmental or section activities including report writing and scientific research.
 - 2) Collect, analyze, present, and evaluate health information.
 - 3) Plan, organize, and assess health programs.
 - 4) Administer health services.
 - 5) Conduct health education activities.
- ☞ At the end of each rotation of four months duration, he/she will submit a scientific report. The report should be approved by the field trainer in the directorate.

Assessment of Students

The student assessment is done through the following:

- 1- Continues Assessment (Mandatory for Mid Study and Part II Exams):
 - a) Log book: The students are required to keep a logbook where he/or she will record all procedures and activities. The activities must be dated and categorized to the rotation of the training and whether it was performed or observed by the resident. Participation and attendance in seminars and CME activities are also included.
Each activity registered in the logbook must be countersigned by the Trainer.
 - b) Active participation in group discussion and seminar presentation
 - c) Formative assessment: Assignment, Quizzes
 - d) Each week, Thursdays are reserved exclusively for formative assessment, supervisor communication and participating in the Journal Club
- 2- Part I (Primary) exam (summative assessment): At the end of first year
The Part I consists of a single-paper examination comprising 120 multiple-choice questions (MCQs). The exam is designed to assess foundational knowledge across the range of disciplines. The credit of each topic in the exam is as follow:

Topics	Credits %	No of MCQs
1) Introduction to Community Medicine (Evolution & pioneers) and preventive healthcare services.	2	3
2) Principles of Epidemiology, including Research Methods & Writing, and Evidence Based Medicine	17	21
3) Essentials of Biostatistics & Public health informatics	17	21
4) Epidemiology of Communicable Diseases	17	20
5) Epidemiology of Non-Communicable	10	10
6) Primary Healthcare including mental health & Public Health Nutrition	17	20
7) Occupational and Environment Health	10	13
8) Social & Behavioral life	5	6
9) Health Management & Economics	5	6
Total	100	120

3- Mid-study exam (at the beginning of Year III, mandatory for entering the Part II Exam): a 50 MCQ exam in the Principles of Community Medicine with a 60% passing score.

4- Discussion of dissertation (Year III, mandatory to enter part II Exam)

5- Part II (final) exam (summative assessment): at the end of forth year consists of the following:

a) Written (Two papers) exam

Part II, Paper 1 Exam Topics: EBM, Epidemiology & Biostatistics (100 MCQs)	Credits % (No of MCQs)
1) Advanced Principles and Methods of Epidemiology	30
2) Advanced Principles of Biostatistics	25
3) Evidence Based Medicine including Research Methods,	20
4) Principles of Research Work, including Writing and Critique of a Scientific Paper	20
5) Health Informatics and Demography (including National Data)	5

Part II, Paper 2 Exam Topics: PHC, CDC, NCDC, Occupational & Environmental health (100 MCQs)	Credits % (No of MCQs)
1) Epidemiology of Communicable Diseases (Common in Iraq)	30
2) Principles of primary Healthcare, including Maternal and child healthcare	15
3) Epidemiology of Non-Communicable Diseases	12
4) Public Health Nutrition	10
5) Mental Health & Geriatric Health	10
6) Principles of Environmental health, Occupational Health, & Global Health	10
7) Principles of Health System Management & Economics	8
8) Principles of Social and Behavioral Health	5

b) Objective Structured Practical Examination (OSPE) with 20 stations.

c) Viva Exam: Two committees, each with two examiners.

Final OSBE of Community Medicine Blueprint (20 Stations)					
Topics Domains		Prevention	Skills & Management	Interpretation	Total
1	Health system, services and public health programs		1	1	2
2	Statistical Methods (Advanced)		1	1	2
3	Non Communicable diseases	1	1		2
4	Communicable diseases and Infection Control	1	1	1	3
5	Maternal and Child Health	1	1	1	3
6	Critical Appraisal		1	1	2
7	Geriatric health, Mental health & Nutrition	1	1		2
8	Social Health	1			1
9	Occupational Health	1	1		2
10	Environmental Health		1		1
Total Questions		6	9	6	20

NOTES

1) Each student is given four attempts to pass either the Part I or Part II exam. Failure to do so will result in their dismissal from the study.

2) The minimum passing mark for primary or final exam is 70%.

- In final theory exam, the minimum pass mark is 60% for any paper giving that the Mean passing score of the two papers is 70%. Otherwise, the student can't do the practical exam.
- In practical exam, The Mean passing score of the two practical exams is 70%

3) The preliminary and final exams are scheduled for October and April, while the mid-term exams are scheduled for December and June.

• **Recommended Books in Community Medicine (last versions) :**

- 1) Wallace/Maxcy-Rosenau-Last: Public Health and Preventive Medicine by Robert B. Wallace, MD, MSc
- 2) Textbook of Preventive and Social Medicine" by K. Park
- 3) Public Health and Preventive Medicine" by Roger Detels, James McEwen, and Robert Beaglehole
- 4) Community Medicine with Recent Advances. AH Suryakantha
- 5) Community Medicine: A Student's Manual" by Parikshit Sanyal
- 6) Biostatistics: A Foundation for Analysis in the Health Sciences by Wayne W. Daniel.
- 7) National Health Reports, Programmes and surveys by MoH

• **Recommended websites in Community Medicine**

- 1) World Health Organization (WHO) website (www.who.int).
- 2) Centers for Disease Control and Prevention (CDC) website (www.cdc.gov)
- 3) PubMed - PubMed (www.pubmed.ncbi.nlm.nih.gov)
- 4) Public Health Agency of Canada (PHAC) website (www.canada.ca/en/public-health.html)
- 5) The Community Guide - The Community Guide (www.thecommunityguide.org)