

DEPARTMENT OF COMMUNITY MEDICINE

i) GOAL:

The broad goal of the teaching of undergraduate students in Community Medicine is to prepare them to function as community and first level physicians in accordance with the institutional goals.

ii) OBJECTIVES

a) KNOWLEDGE

At the end of the course, the student should be able to :-

- (1) Describe the health care delivery system including rehabilitation of the disabled in the country;
- (2) Describe the National Health Programmes with particular emphasis on maternal and child health programmes, family welfare planning and population control.
- (3) List epidemiological methods and describe their application to communicable and non-communicable diseases in the community or hospital situation.
- (4) Apply biostatistical methods and techniques;
- (5) Outline the demographic pattern of the country and appreciate the roles of the individual, family, community and socio-cultural milieu in health and disease.
- (6) Describe the health information systems.
- (7) Enunciate the principles and components of primary health care and the national health policies to achieve the goal of 'Health for All'.
- (8) Identify the environmental and occupational hazards and their control.
- (9) Describe the importance of water and sanitation in human health.
- (10) To understand the principles of health economics, health administration, health education in relation to community.

b) SKILLS

At the end of the course, the student should be able to :-

- (1) Use epidemiology as a scientific tool to make rational decisions relevant to community and individual patient intervention.
- (2) Collect, analyse, interpret and present simple community and hospital based data.
- (3) Diagnose and manage common health problems; identify emergencies at the individual, family and community levels and manage or refer properly keeping in mind the existing healthcare resources and in the context of the prevailing socio-cultural beliefs.

(4) Diagnose and manage maternal and child health problems and advise a couple and make aware the community on the family planning methods available in the context of the national priorities.

(5) Diagnose and manage common nutritional problems at the individual and community level.

(6) Plan, implement and evaluate a health education programme with the skill to use simple audio-visual aids.

(7) Interact with other members of the health care team and participate in the organisation of health care services and implementations of national health programmes.

c).INTEGRATION ;

Develop capabilities of synthesis between cause of illness in the environment or community and individual health and respond with leadership qualities to institutional remedial measures for this.

Community Medicine Curriculum

Topic: Concept of Health and Disease

CM1.1 Define and describe the concept of Public Health

CM1.2 Define health; describe the concept of holistic health including concept of spiritual health and the relativeness & determinants of health

CM1.3 Describe the characteristics of agent, host and environmental factors in health and disease and the multi factorial etiology of disease

CM1.4 Describe and discuss the natural history of disease

CM1.5 Describe the application of interventions at various levels of prevention

CM1.6 Describe and discuss the concepts, the principles of Health promotion and Education, IEC and Behavioral change communication (BCC)

CM1.7 Enumerate and describe health indicators

CM1.8 Describe the Demographic profile of India and discuss its impact on health

CM1.9 Demonstrate the role of effective Communication skills in health in a simulated environment

CM1.10 Demonstrate the important aspects of the doctor patient relationship in a simulated environment

Topic: Relationship of social and behavioural to health and disease

CM2.1 Describe the steps and perform clinico socio-cultural and demographic assessment of the individual, family and community

CM2.2 Describe the socio-cultural factors, family (types), its role in health and disease & demonstrate in a simulated environment the correct assessment of socio-economic status

CM2.3 Describe and demonstrate in a simulated environment the assessment of barriers to good health and health seeking behaviour

CM2.4 Describe social psychology, community behaviour and community relationship and their impact on health and disease

CM2.5 Describe poverty and social security measures and its relationship to health and disease

Topic: Environmental Health Problems

CM3.1 Describe the health hazards of air, water, noise, radiation and pollution

CM3.2 Describe concepts of safe and wholesome water, sanitary sources of water, water purification processes, water quality standards, concepts of water conservation and rainwater harvesting

CM3.3 Describe the aetiology and basis of water borne diseases /jaundice/hepatitis/ diarrheal diseases

CM3.4 Describe the concept of solid waste, human excreta and sewage disposal

CM3.5 Describe the standards of housing and the effect of housing on health

CM3.6 Describe the role of vectors in the causation of diseases. Also discuss National Vector Borne disease Control Program

CM3.7 Identify and describe the identifying features and life cycles of vectors of Public Health importance and their control measures

CM3.8 Describe the mode of action, application cycle of commonly used insecticides and rodenticides

Topic: Principles of health promotion and education

CM4.1 Describe various methods of health education with their advantages and limitations

CM4.2 Describe the methods of organizing health promotion and education and counselling activities at individual family and community settings

CM4.3 Demonstrate and describe the steps in evaluation of health promotion and education program

Topic: Nutrition

CM5.1 Describe the common sources of various nutrients and special nutritional requirements according to age, sex, activity, physiological conditions

CM5.2 Describe and demonstrate the correct method of performing a nutritional assessment of individuals, families and the community by using the appropriate method

CM5.3 Define and describe common nutrition related health disorders (including macro-PEM, Micro-iron, Zn, iodine, Vit. A), their control and management

CM5.4 Plan and recommend a suitable diet for the individuals and families based on local availability of foods and economic status, etc in a simulated environment

CM5.5 Describe the methods of nutritional surveillance, principles of nutritional education and rehabilitation in the context of sociocultural factors.

CM5.6 Enumerate and discuss the National Nutrition Policy, important national nutritional Programs including the Integrated Child Development Services Scheme (ICDS) etc

CM5.7 Describe food hygiene

CM5.8 Describe and discuss the importance and methods of food fortification and effects of additives and adulteration

Topic: Basic statistics and its applications

CM6.1 Formulate a research question for a study

CM6.2 Describe and discuss the principles and demonstrate the methods of collection, classification, analysis, interpretation and presentation of statistical data

CM6.3 Describe, discuss and demonstrate the application of elementary statistical methods including test of significance in various study designs

CM6.4 Enumerate, discuss and demonstrate Common sampling techniques, simple statistical methods, frequency distribution, measures of central tendency and dispersion

Topic: Epidemiology

CM7.1 Define Epidemiology and describe and enumerate the principles, concepts and uses

CM7.2 Enumerate, describe and discuss the modes of transmission and measures for prevention and control of communicable and noncommunicable diseases

CM7.3 Enumerate, describe and discuss the sources of epidemiological data

CM7.4 Define, calculate and interpret morbidity and mortality indicators based on given set of data

CM7.5 Enumerate, define, describe and discuss epidemiological study designs

CM7.6 Enumerate and evaluate the need of screening tests

CM7.7 Describe and demonstrate the steps in the Investigation of an epidemic of communicable disease and describe the principles of control measures

CM7.8 Describe the principles of association, causation and biases in epidemiological studies

CM7.9 Describe and demonstrate the application of computers in epidemiology

Topic: Epidemiology of communicable and non- communicable diseases

CM8.1 Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for communicable diseases

CM8.2 Describe and discuss the epidemiological and control measures including the use of essential laboratory tests at the primary care level for Non Communicable diseases (diabetes, Hypertension, Stroke, obesity and cancer etc.)

CM8.3 Enumerate and describe disease specific National Health Programs including their prevention and treatment of a case

CM8.4 Describe the principles and enumerate the measures to control a disease epidemic

CM8.5 Describe and discuss the principles of planning, implementing and evaluating control measures for disease at community level bearing in mind the public health importance of the disease

CM8.6 Educate and train health workers in disease surveillance, control & treatment and health education

CM8.7 Describe the principles of management of information systems

Topic: Demography and vital statistics

CM9.1 Define and describe the principles of Demography, Demographic cycle, Vital statistics

CM9.2 Define, calculate and interpret demographic indices including birth rate, death rate, fertility rates

CM9.3 Enumerate and describe the causes of declining sex ratio and its social and health implications

CM9.4 Enumerate and describe the causes and consequences of population explosion and population dynamics of India.

CM9.5 Describe the methods of population control

CM9.6 Describe the National Population Policy

CM9.7 Enumerate the sources of vital statistics including census, SRS, NFHS, NSSO etc

Topic: Reproductive maternal and child health

CM10.1 Describe the current status of Reproductive, maternal, newborn and Child Health

CM10.2 Enumerate and describe the methods of screening high risk groups and common health problems

CM10.3 Describe local customs and practices during pregnancy, childbirth, lactation and child feeding practices

CM10.4 Describe the reproductive, maternal, newborn & child health (RMCH); child survival and safe motherhood interventions

CM10.5 Describe Universal Immunization Program; Integrated Management of Neonatal and Childhood Illness (IMNCI) and other existing Programs.

CM10.6 Enumerate and describe various family planning methods, their advantages and shortcomings

CM10.7 Enumerate and describe the basis and principles of the Family Welfare Program including the organization, technical and operational aspects

CM10.8 Describe the physiology, clinical management and principles of adolescent health including ARSH

CM10.9 Describe and discuss gender issues and women empowerment

Topic: Occupational Health

CM11.1 Enumerate and describe the presenting features of patients with occupational illness including agriculture

CM11.2 Describe the role, benefits and functioning of the employees state insurance scheme

CM11.3 Enumerate and describe specific occupational health hazards, their risk factors and preventive measures

CM11.4 Describe the principles of ergonomics in health preservation

CM11.5 Describe occupational disorders of health professionals and their prevention & management

Topic: Geriatric services

CM12.1 Define and describe the concept of Geriatric services

CM12.2 Describe health problems of aged

CM12.3 Describe the prevention of health problems of aged population

CM12.4 Describe National program for elderly

Topic: Disaster Management

CM13.1 Define and describe the concept of Disaster management

CM13.2 Describe disaster management cycle

CM13.3 Describe man made disasters in the world and in India

CM13.4 Describe the details of the National Disaster management Authority

Hospital waste management

CM14.1 Define and classify hospital waste

CM14.2 Describe various methods of treatment of hospital waste

CM14.3 Describe laws related to hospital waste management

Topic: Mental Health

CM15.1 Define and describe the concept of mental Health

CM15.2 Describe warning signals of mental health disorder

CM15.3 Describe National Mental Health program

Topic: Health planning and management

CM16.1 Define and describe the concept of Health planning

CM16.2 Describe planning cycle

CM16.3 Describe Health management techniques

CM16.4 Describe health planning in India and National policies related to health and health planning

Topic: Health care of the community

CM17.1 Define and describe the concept of health care to community

CM17.2 Describe community

CM17.3 Describe primary health care, its components and principles

CM17.4 Describe National policies related to health and health planning and millennium development goals

CM17.5 Describe health care delivery in India

Topic: International Health

CM18.1 Define and describe the concept of International health

CM18.2 Describe roles of various international health agencies

Topic: Essential Medicine

CM19.1 Define and describe the concept of Essential Medicine List (EML)

CM19.2 Describe roles of essential medicine in primary health care

CM19.3 Describe counterfeit medicine and its prevention

Topic: Recent advances in Community Medicine

CM20.1 List important public health events of last five years

CM20.2 Describe various issues during outbreaks and their

CM 20.3 Describe any event important to Health of the Community

CM 20.4 Demonstrate awareness about laws pertaining to practice of medicine such as Clinical establishment Act and Human Organ Transplantation Act and its implications

Integration

Physiology

PY9.6 Enumerate the contraceptive methods for male and female. Discuss their advantages & disadvantages

Biochemistry

BI8.5 Summarize the nutritional importance of commonly used items of food including fruits and vegetables. (macro-molecules & its importance)

Pathology

PA12.1 Enumerate and describe the pathogenesis of disorders caused by air pollution, tobacco and alcohol

PA26.5 Define and describe the etiology, types, exposure, environmental influence, pathogenesis, stages, morphology, microscopic appearance and complications of Occupational lung disease

PA26.7 Define and describe the etiology, types, exposure, genetics environmental influence, pathogenesis, morphology, microscopic appearance and complications of mesothelioma

Microbiology

MI1.3 Describe the epidemiological basis of common infectious diseases

MI8.4 Describe the etiologic agents of emerging Infectious diseases. Discuss the clinical course and diagnosis

MI8.5 Define Healthcare Associated Infections (HAI) and enumerate the types. Discuss the factors that contribute to the development of HAI and the methods for prevention

MI8.6 Describe the basics of Infection control

MI8.7 Demonstrate Infection control practices and use of Personal Protective Equipments (PPE)

MI8.16 Describe the National Health Programs in the prevention of common infectious disease (for information purpose only as taught in CM)

Pharmacology

PH1.55 Describe and discuss the following National Health programmes including Immunisation, Tuberculosis, Leprosy, Malaria, HIV, Filariasis, Kala Azar, Diarrhoeal diseases, Anaemia & nutritional disorders, Blindness, Non-communicable diseases, Cancer and Iodine deficiency

Forensic Medicine & Toxicology

FM2.33 Demonstrate ability to use local resources whenever required like in mass disaster situations

Dermatology, Venereology & Leprosy

DR9.1 Classify, describe the epidemiology, etiology, microbiology pathogenesis and clinical presentations and diagnostic features of Leprosy

DR9.5 Enumerate the indications and describe the pharmacology, administration and adverse reaction of pharmacotherapies for various classes of leprosy based on national guidelines

DR9.6 Describe the treatment of Leprosy based on the WHO guidelines

Ophthalmology

OP9.4 Enumerate, describe and discuss the causes of avoidable blindness and the National Programs for Control of Blindness (including vision 2020)

Psychiatry

PS19.1 Describe the relevance, role and status of community psychiatry

PS19.2 Describe the objectives strategies and contents of the of the National Mental Health Programme

PS19.4 Enumerate and describe the salient features of the prevalent mental health laws in India

PS19.5 Describe the concept and principles of preventive psychiatry and mental health promotion (positive mental health); and community education

General Medicine

IM2.1 Discuss and describe the epidemiology, antecedents and risk factors for atherosclerosis and ischemic heart disease

IM4.3 Discuss and describe the common causes, pathophysiology and manifestations of fever in various regions in India including bacterial, parasitic and viral causes (e.g. Dengue, Chikungunya, Typhus)

IM9.15 Describe the national programs for anemia prevention

IM12.12 Describe and discuss the iodisation programs of the government of India

IM14.4 Describe and discuss the impact of environmental factors including eating habits, food, work, environment and physical activity on the incidence of obesity

IM24.18 Describe the impact of the demographic changes in ageing on the population

IM25.1 Describe and discuss the response and the influence of host immune status, risk factors and comorbidities on zoonotic diseases (e.g. Leptospirosis, Rabies) and non-febrile infectious disease (e.g. Tetanus)

IM25.2 Discuss and describe the common causes, pathophysiology and manifestations of these diseases

IM25.4 Elicit document and present a medical history that helps delineate the aetiology of these diseases that includes the evolution and pattern of symptoms, risk factors, exposure through occupation and travel

IM25.13 Counsel the patient and family on prevention of various infections due to environmental issues

Obstetrics & Gynaecology

OG1.1 Define and discuss birth rate, maternal mortality and morbidity

OG1.2 Define and discuss perinatal mortality and morbidity including perinatal and neonatal mortality and morbidity audit

OG8.1 Enumerate describe and discuss the objectives of antenatal care, assessment of period of gestation; screening for high-risk factors

OG19.2 Counsel in a simulated environment, contraception and puerperal sterilisation

OG21.1 Describe and discuss the temporary and permanent methods of contraception, indications, technique and complications; selection of patients, side effects and failure rate including OC, malecontraception, emergency contraception and IUCD

OG33.3 Describe and demonstrate the screening for cervical cancer in a simulated environment

Pediatrics

PE3.5 Discuss the role of the child developmental unit in management of developmental delay
PE3.7 Visit a Child Developmental unit and observe its functioning

PE8.1 Define the term Complementary Feeding

PE8.2 Discuss the principles the initiation, attributes , frequency, techniques and hygiene related to complementary feeding including

PE8.3 Enumerate the common complimentary foods

PE8.4 Elicit history on the Complementary Feeding habits

PE8.5 Counsel and educate mothers on the best practices in Complimentary Feeding

PE9.1 Describe the age related nutritional needs of infants, children and adolescents including micronutrients and vitamins

PE9.2 Describe the tools and methods for Assessment and classification of Nutritional status of infants, children and adolescents

PE9.4 Elicit, Document and present an appropriate nutritional history and perform a dietary recall

PE9.5 Calculate the age related Calorie requirement in Health and Disease and identify gap

PE9.6 Assess and classify the nutrition status of infants, children and adolescents and recognize deviations

PE9.7 Plan an appropriate diet in Health and disease

PE10.4 Identify children with under nutrition as per IMNCI criteria and plan referral

PE17.1 State the vision and outline the goals, strategies and plan of action of NHM and other important national programs pertaining to maternal and child health including RMNCH A+, RBSK, RKSK, JSSK mission Indradhanush and ICDS

PE17.2 Analyse the outcomes and appraise the monitoring and evaluation of NHM

PE18.1 List and explain the components, plans, outcomes of Reproductive child health (RCH) program and appraise the monitoring and evaluation

PE18.2 Explain preventive interventions for Child survival and safe motherhood

PE18.3 Conduct Antenatal examination of women independently and apply at-risk approach in antenatal care

PE18.4 Provide intra-natal care and conduct a normal Delivery in a simulated environment

PE18.6 Perform Postnatal assessment of newborn and mother, provide advice on breast feeding, weaning and on family planning

PE18.8 Observe the implementation of the program by Visiting the Rural Health Centre

PE19.1 Explain the components of the Universal immunization Program and the sub National Immunization Programs

PE19.2 Explain the epidemiology of Vaccine preventable diseases

PE19.3 Vaccine description with regard to classification of vaccines, strain used, dose, route, schedule, risks, benefits and side effects, indications and contraindications

PE19.4 Define cold chain and discuss the methods of safe storage and handling of vaccines

PE19.5 Discuss immunization in special situations – HIV positive children, immunodeficiency, preterm , organ transplants, those who received blood and blood products, splenectomised children, Adolescents, Travellers

PE19.8 Demonstrate willingness to participate in the National and sub national immunisation days

PE19.12 Observe the Administration the UIP vaccines

PE29.5 Discuss the National anaemia Control program

PE34.3 Discuss the various regimens for management of Tuberculosis as per National Guidelines

PE34.4 Discuss the preventive strategies adopted and the objectives and outcome of the National Tuberculosis Control Program

General Surgery

SU7.1 Describe the Planning and conduct of Surgical audit

SU7.2 Describe the principles and steps of clinical research in surgery

Respiratory Medicine

CT1.1 Describe and discuss the epidemiology of tuberculosis and its impact on the work, life and economy of India

CT1.4 Describe the epidemiology, the predisposing factors and microbial and therapeutic factors that determine resistance to drugs

CT1.15 Prescribe an appropriate antituberculosis regimen based on the location of disease, smear positivity and negativity and comorbidities based on current national guidelines including directly observed tuberculosis therapy (DOTS)

CT1.16 Describe the appropriate precautions, screening, testing and indications for chemoprophylaxis for contacts and exposed health care workers

CT1.18 Educate health care workers on national programs of Tuberculosis and administering and monitoring the DOTS program

CT2.24 Recognise the impact of OAD on patient's quality of life, well being, work and family

CT2.25 Discuss and describe the impact of OAD on the society and workplace

CT2.26 Discuss and describe preventive measures to reduce OAD in workplaces

CT2.27 Demonstrate an understanding of patient's inability to change working, living and environmental factors that influence progression of airway disease

Clinical Posting 1

1. Introduction to clinical posting
2. Water Filtration Plant
3. Sewage Treatment Plant
4. Subcentre
5. Anganwadi Centre
6. Visit to Dairy
7. Visit to industry
8. NGO
9. Mamta Day
10. Environment and Sanitation
11. Entemology and Vector Control
12. CDHO Office
13. District Tuberculosis Office
14. Hospital for Mental Health
15. Investigation of Outbreak

Clinical Posting 2

1. Epidemiology
2. Screening

3. Biostatistics
4. Family Health Study
5. IMNCI
6. Family Planning

SUMMARY OF TIME ALLOTTED, TEACHING AND LEARNING METHODS AND
STUDENT ASSESSMENT

TIME ALLOTTED

Year	Lectures (Hours)	Small Group Learning (Tutorials, Seminar, Integrated Learning) (Hours)	Clinical Postings(Hours)	Self Directed Learning(Hours)	Total(Hours)
First Professional Year	20	27		5	52
Second Professional Year	20	30	4 Weeks (60 Hrs)	10	60
Third Professional Year Part I	40	60	6 Weeks (108 Hrs)	5	105

To be noted:

- The number of hours mentioned above are rough guidelines that can be modified to suit the specific requirements of a medical college.
- It is recommended that didactic teaching be restricted to less than one third of the total time allotted for that discipline.
- Greater emphasis is to be laid on hands-on training, symposia, seminars, small group discussions, problem-oriented and problem-based discussions and self-directed learning.
- Students must be encouraged to take active part in and share responsibility for their learning.

INTERNAL EXAM:

1ST Year MBBS: 1

PHASE	I-Exam (in March with II internal Assessment exam of First Phase)		
	Theory	Practical	Total Marks
FIRST MBBS	50	50	100

2nd Year MBBS: 2

PHASE	I-Exam (At the end of 1 st Term)			II-Exam (At the end of 2 nd Term)		
	Theory	Practical	Total Marks	Theory	Practical	Total Marks
SECOND MBBS	50	50	100	50	50	100

3rd Year MBBS Part I : 2 (Including Prelim)

PHASE	I-Exam (At the end of 1 st Term)			II-Exam (At the end of 2 nd Term)		
	Theory	Practical	Total Marks	Theory	Practical	Total Marks
THIRD MBBS	100	100	200	200	100	300

UNIVERSITY EXAMINATIONS

TABLE SHOWING SCHEME FOR CALCULATION OF UNIVERSITY
EXAMINATION MARKS

Name of the subject	Evolution parameter	Maximum marks	Passing marks
Community Medicine	Written - Theory		
	Paper - I	100	50
	Paper –II	100	50
	Practical/Oral	100	50

- Mandatory 50% marks in theory and practical (practical = practical/ clinical + viva) [theory=theory paper(s) only]
- Internal assessment marks are **not to be added** to marks of the University examinations and should be **shown separately** in the grade card.
- As per proposed GMER 2019, the University examinations will be held in the month of October for third phase Part I
- In subjects that have two papers, the learner must secure at least 40% marks in each of the papers with minimum 50% of marks in aggregate (both papers together) to pass in the said subject.

Paper 1

1. Man & Medicine; towards health for all
2. Concept of Health and disease
3. General Epidemiology and immunology
4. Screening for diseases
5. Environment & Sanitation including entomology
6. Biostatistics
7. Health Planning and Management
8. Healthcare of Community
9. Demography and Family Planning
10. National Health Programmes
11. Communication for Health Education

Paper 2

1. Communicable and Non communicable diseases epidemiology
2. Nutrition and Health
3. Preventive medicine in Obstetrics, paediatrics and geriatrics
4. Occupational Health
5. Genetics
6. Medical and Social Science
7. Mental Health
8. International Health

- 9. Hospital waste management
- 10. Disaster Management
- 11. MDG & SDG