MASTER OF PUBLIC HEALTH (MPH)

CURRICULUM

ACADEMIC YEAR 2026-27

AMRITA PATEL CENTRE FOR PUBLIC HEALTH

BHAIKAKA UNIVERSITY

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Executive summary/Overview of the Master of Public Health (MPH) - Program Curriculum

Effective From: Academic Year 2026-27

1. Program Profile

- **Degree:** Master of Public Health (MPH)
- **Target Audience:** Graduates of various disciplines (As per eligibility on Pg.No. 9)
- **Duration:** 2 Years (Divided into 4 Semesters)
- **Mode of Instruction:** Regular Classes (Monday - Friday : 9 AM - 5 PM; Saturday : 9 AM - 1 PM).
- **Medium:** English

2. Objectives

To develop a dedicated cadre of public health professionals equipped with multidisciplinary knowledge, practical skills and ethical grounding to address contemporary and future health challenges in the Indian context. The program is rooted in the NEP 2020 principles of holistic, flexible and learner-centric education, fostering critical thinking, problem-solving and a strong sense of social responsibility..

3. Semester-wise Curriculum Breakdown

Semester I: Foundations of Public Health

- **Courses:**
  - Principles and Practices of Public Health
  - Epidemiology
  - Biostatistics
  - Social and Behavioral Sciences in Public Health
  - Environmental and Occupational Health
- **Practical**

Semester II: Health Systems & Management

★ **Courses:**

- Health Systems and Policy in India
- Health Management Principles
- National Health Programmes
- Principles of Research Methodology
- Demography and Population Sciences

★ **Practical**

Semester III: Health Programs & Evaluation

★ **Courses:**

- Reproductive, Maternal, Newborn, Child, Adolescent health and Nutrition
- (RMNCAH+N)
- Health Economics, Financing and Budgeting
- Programme Management
- Law and Ethics in Public Health
- Elective - I *(Of advance level in addition to inclusion in the courses) (Any one)*
  - Advanced Epidemiology
  - Advanced Biostatistics
  - Global Health
  - Qualitative Research
- **Scientific Writing**

★ **Practical**

Semester IV: Research & Application

★ *Focus: Synthesis of learning through research and practical field application.*

★ **Courses:**

- Internship

- Thesis (Research Project)

4. Assessment & Evaluation Framework

The program follows a strict 40:60 weightage system (Internal:External) to ensure continuous learning.

A. Theory Assessment

Component	Weightage	Details
Internal Assessment	**40%**	**Internal Exam:** *Format:* MCQs (5 marks), Short Answer Question (10 marks), Short Note (5 marks); at the end of month 2 & 4 during each semester. The contribution is as follows: *20 marks for Internal Examination.* Continuous Evaluation Tests (Multiple Choice Question) - 20 marks at the end of month 1 & 3 during each semester. The contribution is as follows: *10 marks for Internal Examination.* Monthly presentations, seminars, attendance, in class interaction with faculty, field visits, attendance etc shall substantially account for remaining 10 marks of the internal assessment.
University Exam	**60%**	**Final Exam:** *Format:* MCQs (10 marks), Modified Long Answer (10 marks), Short Answers (20 marks), Short Notes (20 marks)

B. Practical Assessment

- **Internal (40%):** Evaluation in Internal Exams (Includes Biostatistics & Epidemiology

exercises, OSPE and Viva).

- **University (60%):** Includes Biostatistics & Epidemiology exercises, OSPE and Viva.

C. Grading & Passing Criteria

- **Passing Marks:** Minimum **40%** required individually in Theory and Practical for each subject.
- **Grading System:** UGC recommends a 10-point grading system (O to F).
- **Attendance:** Minimum 75% required in lectures and practicals to appear for exams.

5. Eligibility & Career Prospects

- **Eligibility:** Graduates (Medical/Allied Health/Science/General) with min. 55%* marks. *(* Details of relaxation are mentioned below)*
- **Other Relevant Disciplines:** Graduates with degrees in Science, Mathematics, Statistics, Economics, Environmental science, Nutrition and Demography are also eligible. The MPH program is not limited to these backgrounds and based on personal interview, if a suitable graduate candidate from another field is identified, admission to the program will be granted.
- **Career Opportunities:** Roles in Academics, Researcher, Epidemiologist, Research Associate, Health Policy Analyst, Healthcare Consultants, Community Health personnel.

Program Profile

- ➢ Introduction & Scope
- ➢ Duration & Mode of Delivery

1. Introduction

MPH is a two-year program spread across four (04) semesters. The professionals in this sector usually manage disease surveillance, community-based health programs, policy formulation, health research and emergency preparedness. The MPH personnel based on their work profiles are usually responsible for the health outcomes of entire populations.

This document outlines the syllabus, eligibility criteria, admission process and examination scheme for the Master of Public Health (MPH) program offered by the Amrita Patel Centre for Public Health (APCPH), Bhaikaka University.

2. Scope / Job Opportunities

Master of Public Health graduates are fit for the following industries:

- ➢ Hospitals and Healthcare Systems
- ➢ Clinics and Outpatient Care Centers
- ➢ Healthcare Consulting Firms
- ➢ Pharmaceutical and Biotechnology Companies
- ➢ Health Insurance Companies
- ➢ Government Health Agencies (at state and central levels)
- ➢ Academic and Research Institutions
- ➢ Other Healthcare-related Organizations

3. Duration

The duration of the 04 - four semesters will be covered in 02 (Two) years.

4. Mode of Delivery

All classes/contact sessions will be done offline(in-person) on Monday - Friday : 9 AM - 5 PM; Saturday : 9 AM - 1 PM.

Entry and Exit Points

Entry Point (Twice)	Exit Point (Once)	Credits-Cumulative	Qualification Awarded	NCrF/NHEQF Level (Proposed)
At Semester 1	-	20 Credits	-	6.0
	At Semester 2	40 Credits	Post-Graduate Diploma in Public Health (PG-DPH)	6.0
At Semester 3	-	60 Credits	-	6.5
	After Semester 4	80 Credits	Master of Public Health (MPH)	6.5

NOTE: A PROVISION OF EXIT AS PER NEP-2020 IS KEPT, AT SUCCESSFUL COMPLETION OF FIRST TWO SEMESTERS, A STUDENT CAN BE AWARDED POST GRADUATE DIPLOMA IN PUBLIC HEALTH

Admission & Eligibility

5. Eligibility Criteria*

- **Educational Qualification:** Graduates from recognized universities in India and abroad with a minimum of 55% aggregate marks in their final year are eligible to apply.

- **Reserved Categories (SC/ST/OBC-NCL/PwD):** A relaxation of 5% is allowed; candidates must have secured at least 50% marks aggregate marks in their final year are eligible to apply.

Preferred Backgrounds:

- **Medical and Allied Health Sciences:** MBBS, BDS, AYUSH, Nursing, Veterinary Sciences, Physiotherapy, Pharmacy and Occupational Therapy
- **Other Relevant Disciplines:** Graduates with degrees in Science, Mathematics, Statistics, Economics, Environmental science, Nutrition and Demography are also eligible. The MPH program is not limited to these backgrounds and based on personal interview, if a suitable graduate candidate from another field is identified, admission to the program will be granted.

6. Admission Process - A scrutiny committee shall review the below mentioned points and share the final list of students admitted to the program:

A. Educational Qualifications
B. Personal Interview

Curriculum Structure (Semester-wise)

Spread across fours (04) semesters over Two years (02)

- **Semester I:** Foundations of Public Health
- **Semester II:** Health Systems & Management
- **Semester III:** Health Programs & Evaluation
- **Semester IV:** Research & Application

Semester 1	Semester 2
➢ PRINCIPLES AND PRACTICES OF PUBLIC HEALTH ➢ EPIDEMIOLOGY ➢ BIOSTATISTICS ➢ SOCIAL AND BEHAVIORAL SCIENCES IN PUBLIC HEALTH ➢ ENVIRONMENTAL AND OCCUPATIONAL HEALTH ➢ PRACTICALS (FIELD VISITS & OBSERVATIONS)	➢ HEALTH SYSTEMS AND POLICY IN INDIA ➢ HEALTH MANAGEMENT PRINCIPLES ➢ NATIONAL HEALTH PROGRAMMES ➢ PRINCIPLES OF RESEARCH METHODOLOGY ➢ DEMOGRAPHY AND POPULATION SCIENCES ➢ PRACTICALS (FIELD VISITS & OBSERVATIONS)
Semester 3	**Semester 4**
➢ Reproductive Maternal Newborn Child Adolescent health and Nutrition ➢ (RMNCAH+N) ➢ HEALTH ECONOMICS, FINANCING AND BUDGETING ➢ PROGRAMME MANAGEMENT ➢ LAW AND ETHICS IN PUBLIC HEALTH ➢ ELECTIVE (n=1) *(OF ADVANCE LEVEL IN ADDITION TO INCLUSION IN THE COURSES)* - ADVANCED EPIDEMIOLOGY	➢ INTERNSHIP ➢ THESIS (RESEARCH PROJECT)

- ADVANCED BIOSTATISTICS
- GLOBAL HEALTH
- QUALITATIVE RESEARCH

➢ SCIENTIFIC WRITING

➢ PRACTICALS (FIELD VISITS & OBSERVATIONS)

Internship

The candidate will be posted for a period of two months in any private/government healthcare organization. During this period, his or her performance will be evaluated by the host administrator in a standard format under well defined parameters.

After completion of 2 (two) months of internship, a brief report on the topic chosen in the host organization dealt with and a solution proposed/implemented by the candidate should be submitted.

The Master of Public Health program aims to develop graduates who can:

Objectives of the Master of Public Health (MPH) Internship Program

The Master of Public Health internship program aims to develop graduates who can:

★ **Analyze and address critical public health issues** and epidemiological trends within target populations to enhance disease prevention and health promotion efforts.

★ **Implement effective disease surveillance and data monitoring systems** to track health indicators and manage public health risks within diverse communities.

★ **Evaluate the effectiveness and impact of public health initiatives** and interventions delivered within government or non-governmental health systems.

★ **Formulate and recommend evidence-based strategies** and health policies that align with national health goals, regulatory frameworks, and community needs.

★ **Cultivate robust leadership** and advocacy competencies essential for mobilizing resources, engaging stakeholders, and addressing the social determinants of health.

Thesis (Research project)

Candidates have to select an appropriate topic for the thesis and get it approved by the Institutional Ethics Committee (IEC) by the end of second semester; such that from the third semester they are able to work for their research project (thesis). They should submit the final thesis before two months of fourth (final) semester examination of the University.

The thesis work or research project must be an issue-based study focused on public health, selecting from the following areas:

- **Public Health Programme Design and Management:**
  - Planning and designing various public health programmes
  - Programme management
  - Policy analysis of any public health programme/s
- **Behaviour and Communication:**
  - Development and assessment of behaviour change communication strategy
  - Psychological or behavioural issues of key populations
- **Health Service Quality and Systems:**
  - Quality of patient services
  - Health insurance/PMJAY
- **Specialized Public Health Domains:**
  - Disaster management and occupational hazard studies
  - Public mental health
  - One health
  - Nutrition
  - Epidemiological studies

Logbook

The candidate has to maintain a logbook showing records of participation in academic events and completion of assignments including internship and thesis.

Faculty advisor

A faculty will be assigned to each candidate to facilitate planning and implementing academic program. The candidate will work under the guidance of this faculty advisor till the completion of the MPH program including internship and thesis.

Program Examination and Progression Policy

1. The program shall include four end-of-semester examinations.
2. To be eligible for program completion, each candidate must:
    - Appear in all scheduled end-of-semester examinations (University).
    - Achieve a minimum passing score of 40% in each individual subject
3. If a student fails in the University Examination, he shall be promoted to the next semester. However, he/she has to appear for the supplementary examination with the ongoing semester examination.
4. The examination fees (supplementary) shall be applicable per subject/course
5. For candidates who fail to clear any course(s) in the fourth semester's regular examination, a supplementary examination shall be conducted at the end of the fourth semester.
6. Successful completion of all the prescribed course(s), is mandatory for program completion.

Eligibility for Semester Exams:

75% attendance in theory
75% attendance in practicals
Submission of a brief internship report duly approved from respective department heads
Submission of a final copy of thesis in the fourth semester

Program Outcomes (PO) for MPH

Upon completion of the MPH program, graduates will be able to:

PO1 - Exhibit a comprehensive and critical understanding of public health principles, including epidemiology, biostatistics, health policy, management, and social sciences.

PO2 - Design and evaluate contextually appropriate, evidence-based public health interventions.

PO3 - Apply scientific research methods to conduct ethical public health research, manage health programs, and contribute to the generation of new knowledge.

PO4 - Explain complicated health issues in a way that different groups of people can understand, and support changes in laws or policies that make health fair and improve people's lives.

PO5 - Lead multidisciplinary teams with accountability, ethical integrity and collaborative skills.

PO6 – Demonstrate self-direction and a commitment to lifelong learning in order to adapt to the evolving landscape of public health.

Grading System

The program will follow the UGC-recommended 10-point grading system:

Marks (%)	Letter Grade	Grade Point
91-100	O	10
81-90	A^+	9
71-80	A	8
61-70	B^+	7
51-60	B	6
45-50	C	5
40-44	P	4
Below 40	F	0
Absent	Ab	0

Explanations:

1. Marks Obtained: First, a student's raw marks are obtained in each subject or course through examinations and internal assessments.

2. Percentage Calculation: These marks are converted into a percentage for each subject.

3. Grade Assignment: Based on the percentage obtained in a subject, a corresponding letter grade is awarded according to the pre-defined ranges (as shown in the table above).

4. Grade Point Assignment: Each letter grade has a specific grade point associated with it.

Further Calculations (for GPA/CGPA): The grade points are then used to calculate the Semester Grade Point Average (SGPA) and the Cumulative Grade Point Average (CGPA). This involves

considering the credits associated with each course:

• SGPA (Semester Grade Point Average): This is calculated for each semester and is the weighted average of the grade points obtained in all courses of that semester. The formula is: SGPA (Si) = Σ (Ci x Gi) / Σ Ci

Where:

o Ci = Number of credits for the ith course

o Gi = Grade point scored by the student in the ith course

o Σ represents the sum across all courses in the semester.

• CGPA (Cumulative Grade Point Average): This is the overall grade point average across all semesters. The formula is: CGPA = Σ (Ci x Si) / Σ Ci

Where:

o Ci = Number of credits for the ith semester

o Si = SGPA of the ith semester

o Σ represents the sum across all semesters.

• Minimum Passing Percentage: 40%, corresponding to the 'D' (Pass) grade. The candidate has to obtain at least 40% marks in each semester examinations (theory and practical separately) to be considered for passing the examination.

• A supplementary examination shall be held for these candidates; separate examination fees shall be applicable as per university norms.

• Certificates are awarded only after successful completion of all semesters.

Semester I: Examination & Evaluation Scheme

Course Code	Course Title	Credits			Teaching Hours			Theory			Practical		
		Theory (T)	Practical (P)	Total	Theory (T)	Practical (P)	Total	Internal	External	Total	Internal	External	Total
MPH-C101	Principles and Practices of Public Health	4	-	4	60	-	60	40	60	100	-	-	-
MPH-C102	Epidemiology	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C103	Biostatistics	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C104	Social and Behavioral Sciences in Public Health	4	-	4	60	-	60	40	60	100	-	-	-
MPH-C105	Environmental and Occupational Health	3	-	3	45	-	45	40	60	100	-	-	-
MPH-P101	Practical	-	3	3	-	90	90	-	-	-	40	60	100
Total		**17**	**3**	**20**	**255**	**90**	**345**	**200**	**300**	**500**	**40**	**60**	**100**
Theory Total – 500, Practical Total – 100, Grand Total – Semester – I = 600													

Minimum passing of 40 marks is 16 marks for internals - both Theory & Practical. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Programme Name	Master of Public Health
Semester	Semester I
Course Title	Principles and Practices of Public Health
Course Code	MPH-C101

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
04	-	-	04	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
I	a) Concept of health b) History of Public Health	12
2	a) Definition of Health b) Dimensions of Health	12
3	a) Concept of Well-being & Disease b) Natural History of Disease c) International Classification of Diseases	12
4	a) Determinants of Health b) Health Indices c) Concept of Prevention	12
5	a) Health Service Philosophies b) Millenium Development Goals c) Sustainable Development Goals	12

Reference Books

1. K. Park, *Park's Textbook of Preventive and Social Medicine*, 28th Edition, Banarsidas Bhanot Publishers, 2025, ISBN: 9789382219262
2. Matthew L. Boulton and Robert B. Wallace, *Maxcy-Rosenau-Last Public Health and Preventive Medicine*, 16th Edition, McGraw Hill, 2022, ISBN: 978125964511
3. Rajvir Bhalwar, *Textbook of Community Medicine*, 6th Edition, Wolters Kluwer India Pvt. Ltd., 2025, ISBN: 9789348816818

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH-C101: Principles and Practices of Public Health		
CO1	Describe the history, philosophy and core functions of public health.	Remember
CO2	Identify the major determinants of health and their interplay.	Understand
CO3	Analyze the structure and function of the Indian healthcare system.	Analyze
CO4	Apply the principles of health promotion and disease prevention in a public health context.	Apply

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH-C101	3	3	3	1	1	2

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

Programme Name	Master of Public Health
Semester	Semester I
Course Title	Epidemiology
Course Code	MPH-C102

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
I	History of Epidemiology • Measurements in Epidemiology • Incidence and prevalence	11
2	Causation and association • Measures of association	12
3	Outline of study designs • Cross sectional study design • Case control study design • Cohort study design • Randomised Control Trials	11
4	Introduction to confounding and bias • Screening tests- validity and reliability methods • Disease surveillance • Outbreak investigation • Communicable and non-communicable diseases	11

Reference Books

1. David D. Celentano, Moyses Szklo, and Youssef Farag, *Gordis Epidemiology*, 7th Edition, Elsevier, 2024, ISBN: 9780323877756
2. Centers for Disease Control and Prevention (CDC), *Principles of Epidemiology in Public Health Practice*, 3rd Edition (Updated), U.S. Department of Health and Human Services, 2012, ISBN: 9780160768462

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C102: Epidemiology		
CO1	Define and calculate measures of disease frequency and association.	Understand
CO2	Describe the different types of epidemiological study designs and their strengths and limitations.	Understand
CO3	Analyze and interpret epidemiological data to identify risk factors for disease.	Analyze
CO4	Evaluate the role of epidemiology in public health surveillance and outbreak investigation.	Evaluate

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH C102	3	3	1	1	1	2

Programme Name	Master of Public Health
Semester	Semester I
Course Title	Biostatistics
Course Code	MPH-C103

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
I	Types of variables • Scales of measurement • Measures of central tendency • Measures of dispersion	11
2	Types of distribution • Bayes theorem • Sample/sampling and population distribution • Central limit theorem	12
3	Type1 and type 2 error and power calculation • P-value and 95% confidence interval • Parametric and non-parametric test	11
4	How to choose the statistical test • Correlation • Basics of regression • One statistical software (SPSS/Stata)	11

Reference Books

1. Bratati Banerjee, *Mahajan's Methods in Biostatistics for Medical Students and Research Workers*, 11th Edition, Jaypee Brothers Medical Publishers, 2026, ISBN: 9789366166971
2. K. Visweswara Rao, *Biostatistics in Brief Made Easy*, 1st Edition (Reprint), Jaypee Brothers Medical Publishers, 2025, ISBN: 9788184487602
3. P.S.S. Sundar Rao and J. Richard, *Introduction to Biostatistics and Research Methods*, 5th Edition, PHI Learning, 2012, ISBN: 9788120345201

Course Outcomes (CO)

MPH C103: Biostatistics		
CO Code	**Course Outcome Statement**	**Bloom's Taxonomy Level**
CO1	Differentiate between different types of data and select appropriate statistical methods for analysis.	Understand and Analyze
CO2	Calculate and interpret descriptive statistics.	Apply
CO3	Apply basic concepts of probability and sampling distributions.	Apply
CO4	Formulate and test hypotheses using appropriate statistical tests.	Analyze

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH C103	3	3	1	1	1	2

Programme Name	Master of Public Health
Semester	Semester I
Course Title	Social and Behavioral Sciences in Public Health
Course Code	MPH-C104

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
04	-	-	04	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
I	Introduction on sociological perspectives on health • Key concepts in sociology as applied to the study of health • Social and cultural processes impacting health status • Access to health services Introduction to behaviour change theories and communication	15
2	Health and human behaviour • Medical anthropology • Human behaviour and communication, its role in public health problems and solutions	12
3	Implementing and managing social and behaviour change communication in public health: • Information Education and Communication (IEC) • Interpersonal Communication (IPC) • Behaviour Change Communication (BCC) • Social Behaviour Change Communication (SBCC)	18
4	Public speaking • Verbal vs. Non-verbal communication • Various forms of written communication • Evidence based advocacy • Consensus building • Using audio visual aid in communication • Etiquettes and professionalism	15

Reference Books

1. Karen Glanz, Barbara K. Rimer, and K. Viswanath, *Health Behavior: Theory, Research, and Practice*, 6th Edition, Jossey-Bass, 2024, ISBN: 9781394211302
2. Indira Gandhi National Open University (IGNOU), *Sociology of Health*, School of Social Sciences, IGNOU, New Delhi, 2024, (Course Material)

Course Outcomes (CO)

MPH C104: Social and Behavioral Sciences in Public Health		
CO Code	**Course Outcome Statement**	**Bloom's Taxonomy Level**
CO1	Describe the key social and behavioral science theories and models relevant to public health.	Remember
CO2	Analyze the social and cultural determinants of health and health behavior.	Analyze
CO3	Apply social and behavioral science principles to the design of public health interventions.	Apply
CO4	Understand the effectiveness of social and behavioral interventions in improving health outcomes.	Understand

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH C104	2	2	2	2	2	2

Programme Name	Master of Public Health
Semester	Semester I
Course Title	Environment and Occupational Health
Course Code	MPH-C105

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Sr. No.	Description	Hours
1	Theories and history of environmental health • Ecosystems in various settings (linking the built environment, transport, housing and green space to human health)	15
2	Environmental pollution, waste disposal and treatment • Water pollution, its effects, measurements & health effects • Water purification • Air pollution, its effects, measurements & health effects • Temperature indices • Ventilation & light • Housing & effects	12
3	Occupational Health: • Hazards at workplace and work safety • Prevention of occupational hazards • Laws related to occupational health • Various government and other schemes for working population in India • Climate Change & Health	18
4	Biomedical Waste Management • Management of environmental hazards, natural disasters • Central Pollution Control Board (CPCB) guidelines • Environmental health impact assessment	15

Reference Books

1. Howard Frumkin, *Environmental Health: From Global to Local*, 3rd Edition, Jossey-Bass, 2016, ISBN: 9781118984765
2. Barry S. Levy, David H. Wegman, Sherry L. Baron, and Rosemary K. Sokas, *Occupational and Environmental Health*, 7th Edition, Oxford University Press, 2017, ISBN: 9780190662677

Course Outcomes (CO)

MPH C105: Environmental and Occupational Health		
CO Code	**Course Outcome Statement**	**Bloom's Taxonomy Level**
CO1	Identify major environmental and occupational hazards and their health effects.	Analyze
CO2	Enumerate and describe the methods for assessing and controlling environmental and occupational exposures.	Understand
CO3	Analyze the role of policy and regulation in protecting environmental and occupational health.	Analyze
CO4	Apply risk assessment principles to environmental and occupational health problems.	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH C105	2	2	2	2	2	2

Programme Name	Master of Public Health
Semester	Semester I
Course Title	Practical
Course Code	MPH-P101

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
-	-	06	03	-	-	40	60	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description
I	• Biostatistics & Epidemiology Practicals • Define, calculate and interpret morbidity and mortality indicators based on given set of data • Causation & Association • Measure of Association • Types of Variables • Scales of Measurement • Perform descriptive statistics for given set of data • Measure of Central Tendency • Measures of dispersion
2	• Environment Health Practicals (Models,Specimens & Charts) • Mosquitoes, • Housefly • Sandfly • Louse • Ticks • Mites • Cyclops • Sanitary Well • Chloroscope • Horrock's Apparatus • Sewage Treatment Plant • Septic Tank • Different Latrines • Meteorological Instrument
3	• Occupational Health - Practicals (Models,Specimens & Charts) • Insecticide and Disinfectants • Rodents and Rodenticides • Occupational Hazards • Personal protective Equipments
4	• **Field Visits (As mentioned in Appendix 6)**

Semester II: Examination & Evaluation Scheme

Course Code	Course Title	Credits			Teaching Hours			Theory			Practical		
		Theory (T)	Practical (P)	Total	Theory (T)	Practical (P)	Total	Internal	External	Total	Internal	External	Total
MPH-C201	Health Systems and Policy in India	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C202	Health Management Principles	4	-	4	60	-	60	40	60	100	-	-	-
MPH-C203	National Health Programmes	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C204	Principles of Research Methodology	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C205	Demography and Population Sciences	3	-	3	45	-	45	40	60	100	-	-	-
MPH-P201	Practical	-	4	4	-	120	120	-	-	-	40	60	100
Total		**16**	**4**	**20**	**240**	**120**	**360**	**200**	**300**	**500**	**40**	**60**	**100**
Theory Total – 500, Practical Total – 100, Grand Total – Semester – II = 600													

Minimum passing of 40 marks is 16 marks for internals - both Theory & Practical. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Programme Name	Master of Public Health
Semester	Semester II
Course Title	Health Systems and Policy in India
Course Code	MPH-C201

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Detailed Syllabus

Unit	Description	Hours
1	Overview and Introduction to Health Policy • Health policy and system strengthening • Health policy: Meaning and concept • Primary components of health policy • Policy Actors	8
2	Historical Aspects of National Health Policy • Process of Policy Formulation & Policy Analysis • National Health policy	10
3	Major National & State Laws of Public Health Importance • National Public Health Laws • State Health laws	9
4	Health Systems • Health system of India • Private Sector in health system of India • WHO health system six building block framework	9
5	Universal Health coverage • Elements and importance of UHC • Country example with UHC • Efforts for UHC in India • Role of Private health sector in UHC • Role of SDG in UHC	9

Reference Books

1. Kent Buse, Nicholas Mays, and Gill Walt, *Making Health Policy*, 2nd Edition, Open University Press, 2012, ISBN: 9780335246342
2. David McCoy and Pascale Allotey, "An Introduction to Health Systems" in *Systems Thinking Analyses for Health Policy and Systems Development*, Cambridge University Press, 2021, ISBN: 9781108859738

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C201: Health Systems and Policy		
CO1	Describe the components of a health system and their interactions.	Remember
CO2	Analyze the health policies of India and their impact on population health.	Analyze
CO3	Compare and contrast the health systems of different countries.	Analyze
CO4	Evaluate the role of policy in addressing public health challenges.	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH 201	3	1	3	3	1	2

Programme Name	Master of Public Health
Semester	Semester II
Course Title	Health Management Principles
Course Code	MPH-C202

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
04	-	-	04	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Overview of Indian Public health system • Major health problems & Disease Burden • Health Indicators	12
2	Health Management Science • Management Science for Public Health • Approaches to management - Logistic management, Risk Management etc. • Principles of Management	15
3	Community Engagement for Effective Implementation of Health Programmes • Community Organization • Community Diagnosis • Community Health Need Assessment (CHNA) • Community Participation • Panchayati Raj Institutions	15
4	Organization Management • Individual Behaviour • Public Health Team • Communication Strategies • Leadership: Concept and styles • Motivation: Concept and Theories • SWOT Analysis • Root cause Analysis & Objective Analysis • Human Resource Management System • Private Sector in health system of India • HR reforms • Health Management Information System • Research in Health Management	18

Reference Books

1. Sunder Lal and Vikas, *Public Health Management: Principles and Practice*, 4th Edition, CBS Publishers & Distributors, 2025, ISBN: 9789348385499
2. Stephen P. Robbins and Timothy A. Judge, *Organizational Behavior*, 18th Edition, Pearson, 2018, ISBN: 9780134729329
3. Pravin Durai, *Human Resource Management*, 3rd Edition, Pearson India, 2020, ISBN: 9789353948603
4. Peter M. Ginter, W. Jack Duncan, and Linda E. Swayne, *Strategic Management of Health Care Organizations*, 9th Edition, Wiley, 2025, ISBN: 9781394288984

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH 202: Health Management Principles		
CO1	Explain principles and functions of management	Understand
CO2	Apply leadership, motivation, and HRM concepts	Apply
CO3	Know concepts of monitoring and supervision	Understand
CO4	Demonstrate skills of Assessment, RCA, SWOT etc	Analyze

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH 202	2	2	2	2	2	2

Programme Name	Master of Public Health
Semester	Semester II
Course Title	National Health Programmes
Course Code	MPH-C203

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Introduction to National Health Programmes - National Rural Health Mission - National Urban Health Mission - National Health Mission - Different Programme Areas - Introduction to SHSRC & NSHRC - Introduction to MoHFW	11
2	Non Communicable Disease control Programmes - National Programme for Prevention & Control of Cancer, Diabetes, CVDs, Stroke (NPCDCS) - National Programme for Control of Blindness & Visual Impairment (NPCBVI) - National Mental Health Programme (NMHP) - National Programme for Elderly Care (NPHCE) - National Programme for Prevention & Control of Deafness (NPPCD) - National Tobacco Control Programme (NTCP) - National Oral Health (NOHP) - National Palliative Care (NPPC) - National Programme for Prevention & Management of Burn Injuries (NPPMBI) - Other NCD Programmes	12
3	Communicable Disease Control Programmes - National Vector borne disease control programme (NVBDCP) - RNTCP & End TB - National Leprosy Eradication Programme (NLEP) - Integrated Disease Surveillance Programme (IDSP)	10
4	Health System Strengthening Initiatives - Free drug and diagnostic services - Patient transport services - HR - Infrastructure - MMUs - CPHC - Tribal Health - Blood Services - DH Strengthening - Other HS strengthening Initiatives (KAYAKALP, LaQshya, NQAS)	10

Reference Books

1. J. Kishore, *National Health Programs of India*, 15th Edition, Century Publications, 2024, ISBN: 9788196507138

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C203: National Health Programmes		
CO1	Thoroughly know the Indian public health system	Understand
CO2	Explain various Government Programmes & Schemes	Understand
CO3	Know Programme implementation level challenges	Analyze
CO4	Enumerate various programmatic components	Understand

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH 203	1	1	3	3	2	2

Programme Name	Master of Public Health
Semester	Semester II
Course Title	Principles of Research Methodology
Course Code	MPH-C204

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Introduction to Scientific Research - Characteristics of scientific research - History of research - Research paradigms and approaches - Types of research - Understanding and Formulating the Research Process	8
2	Selecting research topics - Choosing research topic - Formulating research questions and hypotheses - Choosing research topic and formulating research questions/hypotheses	9
3	Literature review - Types of literature review - Literature search process - Synthesizing evidence from the literature	9
4	Study Designs - Research designs - Sampling and types of sampling - Universe, population, sample size - Tool development and data collection procedure - Developing tools using digital platforms: Google Survey	10
5	Proposal Writing - Writing research proposal/protocol - Process of writing Thesis	9

Reference Books

1. C.R. Kothari and Gaurav Garg, *Research Methodology: Methods and Techniques*, 4th Edition (Multi Colour), New Age International, 2019, ISBN: 9789386649225
2. Ranjit Kumar, *Research Methodology: A Step-by-Step Guide for Beginners*, 5th Edition, Sage Publications, 2019, ISBN: 9781526449900

3. John W. Creswell and J. David Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 6th Edition, Sage Publications, 2023, ISBN: 9781071817940

Course Outcomes (CO)

MPH C204: Research Methodology		
CO1	Understand and describe different research designs	Understand
CO2	Select and apply appropriate research methods to address public health problem.	Evaluate
CO3	Develop skills to write research proposals/protocols	Apply
CO4	Interpret and disseminate research findings to different audiences.	Analyze

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH 204	2	2	2	1	2	2

Programme Name	Master of Public Health
Semester	Semester II
Course Title	Demography and Population Sciences
Course Code	MPH-C205

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Meaning and scope of Population Studies - Definition - Scope of Population studies - Application of population studies in public health	9
2	Demography: Basic concepts and sources - Concepts of demography - Sources of demographic data - Life Tables - Use of demographic data	9
3	Population - Composition of population - Structure and Growth of Population: Sex ratio, age dependency ratio, population pyramid, rate, and growth of population - Population projection	9
4	Demographic transition - Concept of demographic transition - Urbanization & Globalization - Population growth and economic development	9
5	Demographic Measures - Demographic measures related to Fertility - Demographic measures related to Mortality - Demographic measures related to Migration	9

Reference Books

1. Samuel H. Preston, Patrick Heuveline, and Michel Guillot, *Demography: Measuring and Modeling Population Processes*, Blackwell Publishing, 2001 (Reprint), ISBN: 9781557864512
2. Asha A. Bhende and Tara Kanitkar, *Principles of Population Studies*, 19th Edition, Himalaya Publishing House, 2024, ISBN: 9788184885347
3. R.K. Jain, *Textbook of Population Studies*, Astha Publishers & Distributors, 2012, ISBN: 9789382126331

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH 205: Demography and Population Sciences		
CO1	Select appropriate factors affecting population – emigration and immigration	Understand
CO2	Describe the mechanism of population determination and sampling	Remember

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

CO Code	PO1	PO2	PO3	PO4	PO5	PO6
MPH 205	1	1	3	3	1	2

Programme Name	Master of Public Health
Semester	Semester II
Course Title	Practical
Course Code	MPH-P201

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
-	-	06	03	-	-	40	60	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description
1	• Simulation & case based exercises
2	• Places of Public health Importance (As mentioned in Appendix 7)
3	• Health systems visit
4	• Field Visits (As mentioned in Appendix 6)

Semester III: Examination & Evaluation Scheme

Course Code	Course Title	Credits			Teaching Hours			Theory			Practical		
		Theory (T)	Practical (P)	Total	Theory (T)	Practical (P)	Total	Internal	External	Total	Internal	External	Total
MPH-C301	Reproductive Maternal Newborn Child Adolescent health and Nutrition (RMNCAH+N)	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C302	Health Economics, Financing and Budgeting	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C303	Programme Management	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C304	Law and Ethics in Public Health	3	-	3	45	-	45	40	60	100	-	-	-
MPH-C305	Scientific Writing	3	-	3	45	-	45	40	60	100			
MPH-E306	Elective - I* a. Advanced Epidemiology b. Advanced Biostatistics c. Global Health d. Qualitative Research	3	-	3	45	-	45	40	60	100	-	-	-
MPH-P301	Practical	-	3	3	-	90	90	-	-	-	40	60	100
Total		**18**	**3**	**21**	**270**	**90**	**360**	**240**	**360**	**600**	**40**	**60**	**100**
Theory Total – 600, Practical Total – 100, Grand Total – Semester – III = 700													

**Note: The title of the Elective course will depend on the stream chosen by the student.*

Minimum passing of 40 marks is 16 marks for internals - both Theory & Practical. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Programme Name	Master of Public Health
Semester	Semester III
Course Title	Reproductive, Maternal, Newborn, Child, Adolescent health and Nutrition (RMNCAH+N)
Course Code	MPH-C301

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Introduction to the Reproductive, Maternal, Newborn, Child, Adolescent health and Nutrition (RMNCAH+N) services - Historical context, evolution, coverage and innovations - Various components of service delivery under (RMNCAH+N) (including GoI programs)	12
2	Reproductive, Maternal, New-born, Child, Adolescent Health and Nutrition Programmes - Adolescent Health Programmes - Child Health Programmes - Maternal Health Programmes - Family Planning Programmes - Immunization Programmes - Aspirational District Program	18
3	Programmes and policies on nutrition and health (National and Global)	15

Reference Books

1. J. Kishore, *National Health Programs of India*, 15th Edition, Century Publications, 2024, ISBN: 9788196507138

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C301: Reproductive Maternal Newborn Child Adolescent health and Nutrition (RMNCAH+N)		
CO1	Analyze the major health issues affecting mothers and children in	Analyze
CO2	Evaluate the effectiveness of key national programs for maternal and child health.	Evaluate
CO3	Design a comprehensive MCH program for a specific community.	Apply
CO4	Advocate for policies to improve maternal and child health outcomes.	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH C301	1	1	3	3	1	2

Programme Name	Master of Public Health
Semester	Semester III
Course Title	Health Economics, Financing and Budgeting
Course Code	MPH-C302

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Key concepts of economics, micro and macro economics - Strategizing and prioritizing within scarce resources (decision making) - Determinants of demand, supply and costs of production	11
2	Concepts of efficiency, effectiveness, equity, elasticity of demand, costing, production, marginal cost analysis, and opportunity cost - Market model, market failure, and the roles and limitations of markets in health care	11
3	Universal health coverage and role of health care financing - Principles and application of economic evaluation in health care including Cost Benefit Analysis (CBA) and Cost-Effective Analysis (CEA)	12
4	Introduction to financial management - Tools of financial analysis and planning in health care - Cash flow, accounts and balancing budgets - Cost and dividends for health outcomes - Effectiveness and efficiency	11

Reference Books

1. Sherman Folland, Allen C. Goodman, and Miron Stano, *The Economics of Health and Health Care*, 8th Edition, Routledge, 2017, ISBN: 9781138208056
2. Himanshu S. Rout and Prasant Kumar Panda, *Health Economics in India*, New Century Publications, 2007, ISBN: 9788177081398
3. Kesavan Sreekantan Nair, *Health Economics and Financing*, New Century Publications, 2009, ISBN: 9788177081978
4. Shuvendu Bikash Dutta, *Health Economics for Hospital Management*, 1st Edition, Jaypee Brothers Medical Publishers, 2014, ISBN: 9789350906231
5. Jayanta Bhattacharya, Timothy Hyde, and Peter Tu, *Health Economics*, 1st Edition, Palgrave Macmillan, 2013, ISBN: 9781137029966

6. Gisela Kobelt, *Health Economics: An Introduction to Economic Evaluation*, 3rd Edition, Office of Health Economics, 2013, ISBN: 9781899040158
7. Simon Eckermann, *Health Economics from Theory to Practice*, 2nd Edition, Springer, 2024, ISBN: 9783031539223
8. Shahidur R. Khandker, Gayatri B. Koolwal, and Hussain A. Samad, *Handbook on Impact Evaluation: Quantitative Methods and Practices*, World Bank Publications, 2010, ISBN: 9780821380284

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C302: Health Economics, Financing and Budgeting		
CO1	Apply economic principles to understand the market for health and healthcare.	Apply
CO2	Analyze the different methods of health financing and their implications for equity and efficiency.	Analyze
CO3	Conduct a cost-effectiveness analysis of a public health intervention.	Apply
CO4	Evaluate health financing reforms and their impact on health system performance.	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH C302	1	1	1	3	3	2

Programme Name	Master of Public Health
Semester	Semester III
Course Title	Programme Management
Course Code	MPH-C303

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Introduction to Project Management - Need & Importance of Projects - Project, Programme & Portfolio - Project Life Cycle - Determinants of Projects	08
2	Strategy & organization structure - Implementing strategy through Projects - Projects & Organizational Strategy - Stakeholder Management - SWOT Analysis - 80:20 Principle	10
3	Leadership - Leader Vs Manager - Traits of Effective Project Leaders - Project Management - Time Management	9
4	Quality Management Framework - TQM & Kaizen - Cost Estimation & Budgeting - Cost Management - Creating a Project Budget - Developing Budget Contingencies	9
5	Monitoring & Evaluation (M&E) - Introduction to M&E - M&E Framework - Planning Cycles - Control Cycles - Monitoring Project Performance	9

Reference Materials

1. Roger Atkinson, "Project Management: Cost, Time and Quality, Two Best Guesses and a Phenomenon, Its Time to Accept Other Success Criteria", *International Journal of Project Management*, 17(6), 1999, pp. 337-342
2. Clara B. Aranda-Jan, N. Mohutsiwa-Dibe, and S. Loukanova, "Systematic Review on What Works, What Does Not Work and Why of Implementation of Mobile Health (mHealth) Projects in Africa", *BMC Public Health*, 14(1), 2014, pp. 1-15
3. Karin Källander et al., "Mobile Health (mHealth) Approaches and Lessons for Increased Performance and Retention of Community Health Workers in Low- and Middle-Income Countries", *Journal of Medical Internet Research*, 15(1), 2013, e17
4. Pieter Van Herck et al., "Systematic Review: Effects, Design Choices, and Context of Pay-for-Performance in Health Care", *BMC Health Services Research*, 10(1), 2010, pp. 1-13
5. Basit Chaudhry et al., "Systematic Review: Impact of Health Information Technology on Quality, Efficiency, and Costs of Medical Care", *Annals of Internal Medicine*, 144(10), 2006, pp. 742-752

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C303: Programme Management		
CO1	Thoroughly know about basic concepts of Programme Management	Remember, Understand
CO2	Explain and Enumerate various components of Programme Management	Understand
CO3	Apply concepts of leadership, Managerial function, skills	Apply
CO4	Able to prepare Monitoring & Evaluation Frameworks for a project	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH C303	2	2	3	3	3	2

Programme Name	Master of Public Health
Semester	Semester III
Course Title	Law and Ethics in Public Health
Course Code	MPH-C304

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Public Health laws and ethics • Human rights in public health • Role of governments in managing health of people • Public health regulations in Indian context	15
2	Public health information and privacy • Research ethics in public health • Regulations during emergencies and outbreaks • Addressing newer challenges: Bioterrorism, conflicts and emerging infectious diseases	10
3	Public Health laws in global economy • Global health hazards and security • Different forms of power, influential to policy making • Concept of governance and institutions • Different theories useful in policy analysis	10
4	Political nature of evidence for policy making in health • Written and verbal competence in communicating evidence to inform policy • Different theories useful in policy analysis	10

Reference Materials

1. Indian Council of Medical Research (ICMR), *National Ethical Guidelines for Biomedical and Health Research Involving Human Participants*, ICMR, New Delhi, 2017
2. Pooja Garg and Jitender Nagpal, "A Review of Literature to Understand the Complexity of Equity, Ethics and Management for Achieving Public Health Goals in India", *Journal of Clinical and Diagnostic Research*, 8(2), 2014, p. 1
3. Nancy E. Kass, "An Ethics Framework for Public Health", *American Journal of Public Health*, 91(11), 2001, pp. 1776–1781

4. Lisa M. Lee, "Public Health Ethics Theory: Review and Path to Convergence", *Journal of Law, Medicine and Ethics*, 40(1), 2012, pp. 85-98
5. Roli Mathur, "Ethics Preparedness for Infectious Disease Outbreaks Research in India: A Case for Novel Coronavirus Disease 2019", *The Indian Journal of Medical Research*, 151(2-3), 2020, p. 124

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C304: Laws and Ethics in Public Health		
CO1	Enhanced understanding of principles and values in public health.	Understand
CO2	Knowledge about human rights in public health.	Understand
CO3	Apply ethical principles in design and delivery	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH C304	3	1	3	3	3	2

Programme Name	Master of Public Health
Semester	Semester III
Course Title	Scientific Writing
Course Code	MPH-C305

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Sr. No.	Description	Hours
1	Fundamentals of Scientific Communication - Definition of scientific writing - Core principles for effective written communication - Various forms of academic and professional documentation - Project reports, Study reports - Proposal/Protocol development - Grant submissions - Statement of Purpose/Letters of Recommendation - Theses - Manuscripts	12
2	Structural Elements of Scientific Writing - Initial stages of scientific writing – the pre-writing phase - Standard document structure: Introduction, Methods, Results, Discussion, Conclusion (IMRaD) - Structure specific to thesis writing - Criteria for selecting an appropriate journal for publication - Manuscript submission process	11
3	Stylistic and Technical Elements of Scientific Writing - Appropriate length of written work - Grammatical accuracy and precise language usage - Design of effective tables and figures - Accurate citation and reference management: Utilization of reference managers (e.g., Mendeley, Zotero, EndNote) - Proper integration of photographs and images - Pre-submission proofreading of documents	11

	- Online resources for scientific writing enhancement - Copy editing procedures - Peer review methodology - Strategies for responding to peer review feedback	
4	Ethical and Integrity Issues in Scientific Writing - Policies concerning data sharing - Plagiarism and academic dishonesty - Methods and techniques for preventing plagiarism	11

Reference Materials

1. Subhash Chandra Parija and Vikram Kate, *Writing and Publishing a Scientific Research Paper*, 2nd Edition, Springer, 2017, ISBN: 9789811047190
2. Piyush Gupta and Dheeraj Shah, *How to Write the Thesis and Thesis Protocol*, 2nd Edition, Jaypee Brothers Medical Publishers, 2020, ISBN: 97893527011 93
3. Kenneth Roman and Joel Raphaelson, *Writing That Works: How to Communicate Effectively in Business*, 3rd Edition, HarperCollins, 2000, ISBN: 9780060956431
4. Devendra Mishra and Dheeraj Shah, *The Art and Science of Writing a Scientific Paper*, CBS Publishers & Distributors, 2023, ISBN: 9789354664748

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH C305: Scientific Writing		
CO1	Learn types of academic and professional writings	Understand
CO2	Apply principles of the scientific narrative and plain language to written professional and scientific documents	Apply
CO3	Exercise accepted methods for literature discussion, citing and quoting to written scientific documents while avoiding plagiarism.	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH C305	1	3	3	1	1	2

Programme Name	Master of Public Health
Semester	Semester III
Course Title	Elective - [Advanced Epidemiology OR Advanced Biostatistics OR Global Health OR Qualitative Research] – Student can choose only one elective
Course Code	MPH-E306

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
03	-	-	03	40	60	-	-	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Unit	Description	Hours
1	Advanced Biostatistics: • Principles of regression • Methods of regression • Linear regression • Logistic regression • Poisson regression • Cox proportional hazards regression • Regression diagnostics • Introduction to multilevel modelling	45
2	Advanced Epidemiology • Confounding and methods to reduce confounding • Selection bias • Information bias • Measures of validity and reliability • Tool development • Conduct of surveys • Quality control and assurance in surveys • Survey data analysis • Nested study designs • Advanced designs in clinical trials • Systematic reviews and meta-analysis overview • Various public data sources: CRS, SRS, Census, NFHS, DLHS, HMIS, MCTS, etc	45
3	Global Health • Introduction to Global Health • Global Health Evolution and its importance • Difference between Global Health, Public Health and International Health • Attributes and Elements of Global Health Governance	45

	• Challenges & Actors for Global Health Governance • Global Health System and Its functions • Introduction of food system and food safety • Challenges for food system • One Health approach for global food system • Use of Science and Technology in advancement of Global Health • SDG and its importance in Global Health	
4	Qualitative Research • Identify appropriate research designs for a range of questions in health • Describe the steps involved in planning and conducting a research project • Evaluate the strengths and weaknesses of various data collection methods • Qualitative Interviews • Focus Group Discussions • Coding • Evaluate the strengths and weaknesses of various data collection methods • Transcription • Translation	45

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3. Development Monitoring and Evaluation Office (DMEO), *Evaluation Reports*, NITI Aayog, Government of India, (Various Years)
4. Government of India, *Bare Acts: The Epidemic Diseases Act (1897), PCPNDT Act (1994), Mental Healthcare Act (2017)*, Universal Law Publishing, (Latest Years)
5. Lawrence O. Gostin, *Public Health Law and Ethics: A Reader*, 3rd Edition, University of California Press, 2010, ISBN: 9780520261921
6. P.V. Sathe and A.P. Sathe, *Epidemiology and Management for Health Care for All*, 4th Edition, Popular Prakashan, 2011, ISBN: 9788179916698
7. Sunder Lal, Adarsh, and Pankaj, *Textbook of Community Medicine: Preventive and Social Medicine*, 7th Edition, CBS Publishers & Distributors, 2022, ISBN: 9789354661815
8. Anne-Emanuelle Birn, Yogan Pillay, and Timothy H. Holtz, *Textbook of Global Health*, 4th Edition, Oxford University Press, 2017, ISBN: 9780199392285

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH E305: Elective		
CO1	Demonstrate advanced knowledge and skills in a chosen area of public health specialization.	Understand
CO2	Critically synthesize and evaluate the evidence base in the chosen elective area.	Evaluate
CO3	Develop a proposal for a research study or intervention in the area of specialization.	Apply
CO4	Present and explain complex ideas and evidence using appropriate specialist language, formats, and tools to engage and inform expert audiences	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

CO-PO Mapping Matrix

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH E305	2	2	2	2	2	2

Programme Name	Master of Public Health
Semester	Semester III
Course Title	Practical
Course Code	MPH-P301

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks (Maximum / Passing)				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
-	-	06	03	-	-	40	60	40/100

Minimum passing of 40 marks is 16 marks for internals. Eligibility for appearing for the University semester examination is 40%. Practical includes field visits, but the calculations are kept and considered as for practical

Sr. No.	Description
1	• Simulation & case based exercises
2	• Clinical Postings (As mentioned in Appendix 7)
3	• Field Visits (As mentioned in Appendix 6)

Semester IV: Examination & Evaluation Scheme

Course Code	Course Title	Credits			Teaching Hours			Theory			Practical		
		Theory (T)	Practical (P)	Total	Theory (T)	Practical (P)	Total	Internal	External	Total	Internal	External	Total
MPH-I401	Internship	-	8	8	-	360	360	-	-	-	100	150	250
MPH-R402	Thesis (Research Project)	-	12	12	-	540	540	-	-	-	160	240	400
Total		**-**	**20**	**20**	**-**	**900**	**900**	**-**	**-**	**-**	**260**	**390**	**650**
Practical Total – 650, Grand Total – Semester – IV= 650													

Minimum passing of 100 marks is 40 marks for internals & for 160 marks is 64 marks. Eligibility for appearing for the University semester examination is 40%.

Programme Name	Master of Public Health
Semester	Semester IV
Course Title	Internship
Course Code	MPH-1401

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
-	-	-	08	-	-	100	150	100/250

Minimum passing of 100 marks is 40 marks for internals. Eligibility for appearing for the University semester examination is 40%.

Sr. No.	Description	Hours
1	Details of all attended teaching Learning activities to be recorded by the students with signature from faculty/mentor - A duly signed report from the host organization where the student underwent two-month (eight week) internship - Viva voce of the entire internship & the topics covered in the previous semesters	360

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH 1401: Internship		
CO1	Apply public health competencies in a real-world setting under supervision.	Apply
CO2	Demonstrate professionalism, ethical conduct, and effective communication in a public health organization.	Apply
CO3	Contribute to the planning, implementation, or evaluation of a public health program or project.	Apply
CO4	Reflect on the internship experience and its contribution to personal and professional development.	Evaluate

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH 1401	3	3	3	3	3	3

Programme Name	Master of Public Health
Semester	Semester IV
Course Title	Thesis (Research Project)
Course Code	MPH-R402

Teaching & Examination Scheme

Contact hours per week			Course Credits	Examination Marks				
				Theory		Practical		Total
Lecture	Tutorial	Practical		Internal	External	Internal	External	
-	-	-	12	-	-	160	240	160/400

Minimum passing of 160 marks is 64 marks for internals. Eligibility for appearing for the University semester examination is 40%.

Sr. No.	Description	Hours
1	- A duly completed and signed research thesis submitted to the University before two months of the completion of fourth semester. - Viva voce of the Thesis (research project) done by the students and its evaluation - Viva voce of the topics covered in the previous semesters	540

Course Outcomes (CO)

CO Code	Course Outcome Statement	Bloom's Taxonomy Level
MPH R402: Thesis		
CO1	Formulate a research question and design a study to address a significant public health problem.	Apply
CO2	Independently conduct research, including data collection, analysis, and interpretation.	Apply
CO3	Write a dissertation that presents the research findings in a clear, coherent, and scholarly manner.	Apply
CO4	Defend the dissertation in an oral examination.	Apply

Level of Correlation of CO's with PO's -Scale: 3-High, 2-Medium, 1-Low

Course	PO1	PO2	PO3	PO4	PO5	PO6
MPH- R402	3	3	3	3	3	3

Appendices

Amrita Patel Centre for Public Health

Appendix - I

Teaching Learning Methods

- The program shall include teaching through didactic and interactive lectures, practical, demonstrations, group discussions, self-directed learning, use of kinesthetics & Information & communications technological (ICT) tools
- Structured problem-solving exercises
- Case based Learnings
- Simulation Exercises
- Field Based Learnings

Appendix - 2

Program Outcomes (PO) for MPH

Upon completion of the MPH program, graduates will be able to:

- PO1 - Exhibit a comprehensive and critical understanding of public health principles, including epidemiology, biostatistics, health policy, management, and social sciences.
- PO2 - Design and evaluate contextually appropriate, evidence-based public health interventions.
- PO3 - Apply scientific research methods to conduct ethical public health research, manage health programs, and contribute to the generation of new knowledge.
- PO4 - Explain complicated health issues in a way that different groups of people can understand, and support changes in laws or policies that make health fair and improve people's lives.
- PO5 - Lead multidisciplinary teams with accountability, ethical integrity and collaborative skills.
- PO6 – Demonstrate self-direction and a commitment to lifelong learning in order to adapt to the evolving landscape of public health.

Appendix - 3 - Courses Per Semester in MPH

Semester	Courses Name	Code	Credits	University Exam Name of the Course/semester	Code
I	Principles and Practices of Public Health	MPH-C101	4	Principles and Practices of Public Health	MPH-C101
	Epidemiology	MPH-C102	3	Epidemiology	MPH-C102
	Biostatistics	MPH-C103	3	Biostatistics	MPH-C103
	Social and Behavioral Sciences in Public Health	MPH-C104	4	Social and Behavioral Sciences in Public Health	MPH-C104
	Environmental and Occupational Health	MPH-C105	3	Environmental and Occupational Health	MPH-C105
	Practical	MPH-P101	3	Practical	MPH-P101
	Total Credits		**20**		
II	Health Systems and Policy in India	MPH-C201	3	Health Systems and Policy in India	MPH-C201
	Health Management Principles	MPH-C202	4	Health Management Principles	MPH-C202
	National Health Programmes	MPH-C203	3	National Health Programmes	MPH-C203
	Principles of Research Methodology	MPH-C204	3	Principles of Research Methodology	MPH-C204
	Demography and Population Sciences	MPH-C205	3	Demography and Population Sciences	MPH-C205
	Practical	MPH-P201	4	Practical	MPH-P201
	Total Credits		**20**		
III	Reproductive, Maternal, Newborn, Child, Adolescent health and Nutrition (RMNCAH+N)	MPH-C301	3	Reproductive, Maternal, Newborn, Child, Adolescent health and Nutrition (RMNCAH+N)	MPH-C301
	Health Economics, Financing and Budgeting	MPH-C302	3	Health Economics, Financing and Budgeting	MPH-C302
	Programme Management	MPH-C303	3	Programme Management	MPH-C303
	Law and Ethics in Public Health	MPH-C304	3	Law and Ethics in Public Health	MPH-C304
	Scientific Writing	MPH-C305	3	Scientific Writing	MPH-C305
	Elective - I* a. Advanced Epidemiology b. Advanced Biostatistics c. Global Health	MPH-E306	3	Elective - I* a. Advanced Epidemiology b. Advanced Biostatistics c. Global Health	MPH-E306

	d. Qualitative Research			d. Qualitative Research	
	Practical	MPH-P301	3	Practical	MPH-P301
	Total Credits		**21**		
IV	Internship	MPH-I401	08	Internship	MPH-I401
	Thesis (Research Project)	MPH R402	12	Thesis (Research Project)	MPH R402
	Total Credits		**20**		
	Total Credits of program		**81**		

Appendix 4 - Scheme of Assessment for Master of Public Health (MPH)

1. **Written Assessment -Schedule**

Semester	Subject	Internal Examination (1st) - 3rd Month	Internal Examination (2nd)- 5th Month	Total Marks	Weightage for internal Out of 100
First	MPH- C101 to MPH- C105	20	20	40	40%
Second	MPH- C201 to MPH- C205	20	20	40	
Third	MPH- C301 to MPH- C306	20	20	40	
Fourth	MPH- I401 & MPH- R402	-	-	-	-

2. **Practical Assessment -Schedule**

Semester	Subject	Internal Examination (1st)-3rd Month	Internal Examination (2nd)-5th Month	Total	Weightage for internal Out of 100 %
First	MPH- P101	20	20	40	40% collectively in all individual (1/2/3/4) semesters
Second	MPH- P201	20	20	40	
Third	MPH- P301	20	20	40	
Fourth	MPH- I401 & MPH- R402	130	130	260	

3. **Pattern of Question paper:**

Semester	Exam (Theory)	Type of Questions and Marks	Total exams
I **Total courses/subjects - 05** A total of 05 theory papers and 01 practical will be conducted.	**Internal Examination**	**Paper of 20 marks / ½ hr** 1. MCQs 1 mark x 5= 5 2. Short Answer Question (SAQ): 2 marks x 5 (no option) =10 3. Short Note (SN): 5 marks x 1 (with 1 option) =5	**02**
	University Examination	**Paper of 60 marks /2 hr** 1. MCQs 1 mark x 10= 10 2. Modified Long answer Question 10 marks x1=10 (With 1 option) 3. Short Answer Question (SAQ): 2 marks x 10 (no option) =20 4. Short Note (SN): 5 marks x 4 (with 1 option) =20	**01**

Semester	Exam (Theory)	Type of Questions and Marks	Total exams
II **Total courses/subjects - 05** A total of 05 theory papers and 01 practical will be conducted.	**Internal Examination**	**Paper of 20 marks / ½ hr** 1. MCQs 1 mark x 5= 5 2. Short Answer Question (SAQ): 2 marks x 5 (no option) =10 3. Short Note (SN): 5 marks x 1 (with 1 option) =5	**02**
	University Examination	**Paper of 60 marks /2 hr** 1. MCQs 1 mark x 10= 10 2. Modified Long answer Question 10 marks x1=10 (With 1 option) 3. Short Answer Question (SAQ): 2 marks x 10 (no option) =20 4. Short Note (SN): 5 marks x 4 (with 1 option) =20	**01**

Semester	Exam (Theory)	Type of Questions and Marks	Total exams
III **Total courses/subjects - 06** A total of 06 theory papers and 01 practical will be conducted.	**Internal Examination**	**Paper of 20 marks / ½ hr** 1. MCQs 1 mark x 5= 5 2. Short Answer Question (SAQ): 2 marks x 5 (no option) =10 3. Short Note (SN): 5 marks x 1 (with 1 option) =5	**02**

Semester	Exam (Theory)	Type of Questions and Marks	Total exams
	University Examination	**Paper of 60 marks /2 hr** 1. MCQs 1 mark x 10= 10 2. Modified Long answer Question 10 marks x1=10 (With 1 option) 3. Short Answer Question (SAQ): 2 marks x 10 (no option) =20 4. Short Note (SN): 5 marks x 4 (with 1 option) =20	**01**

Semester	Exam (Theory)	Type of Questions and Marks	Total exams
IV **Total courses/subjects - 02** Only 01 practical shall be conducted.	**Internal Examination**	**NA**	**NA**
	University Examination	**NA**	**NA**

Weightage & Mark Distribution for Assessments (Practical)

Each Semester	Assessment methods	Marks	Weightage Minimum Passing
Internal Examination (n=2) (For Semester 1/2/3)	Simulation/case based exercises	5	**Collectively 40%**
	OSPE	5	
	Table Viva	10	
	Total	**20**	
	Total Internals	**40**	

University Examination (For Semester 1/2/3)	Simulation/case based exercises OSPE Table Viva **Total**	15 15 30 **60**	**60%**
	Grand Total	**100**	40/100
Internal Practical exam (For Semester 4) - Internship	Simulation/case based exercises Logbook Internship (Interim Progress Report) **Total**	40 30 30 **100**	**40%**
University Examination (For Semester 4) - Internship	Simulation/case based exercises OSPE Table Viva **Total**	15 15 120 **150**	**60%**
Internal Practical exam (For Semester 4) - Thesis	Simulation/case based exercises Thesis (Interim Thesis Progress Report) **Total**	40 120 **160**	**40%**
University Examination (For Semester 4) - Thesis	Simulation/case based exercises OSPE Table Viva **Total**	15 15 210 **240**	**60%**
	Grand Total (Internship)	**250**	**100/250**
	Grand Total (Thesis)	**400**	**160/400**

Weightage for internal assessment :

Performance in Internal Assessment and eligibility to appear in University examination:

Learners must secure a ***minimum 40%*** marks of the total marks - combined in theory and practical; not less than 40 % marks in theory and practical individually in internal assessment in a subject in order to be considered as passed in that subject - applicable both for Internals & University. Marks of Internal assessment will be reflected under a separate head in the mark sheet at

the summative (University) examination. The results of internal assessment will be displayed on the notice board within 02 days of completion of the assessment.

Students who fail to achieve qualifying marks in internal examination:

Remedial examination will be provided to the students who are not able to score qualifying marks. Remedial examination will be conducted separately for the component of theory or practical within one week of declaration of internal assessment marks. The remedial written examination will be in the form of an objective [MCQ] test of 20 marks. Remedial practical examination will be in the form of practical exercises and viva-voce of 20 marks. The students are required to secure a minimum 40% marks in each remedial examination to be considered as pass in examinations. The students will be provided only a single opportunity for remedial examination.

Appendix - 5

Outlay of Practical & Field Visits Plan for all the semesters

Note : A total of three days per week as field visits shall be conducted throughout the entire semester across 150 villages of SPARSH & two days a week shall be the practical which shall be conducted at the institute.

No.	Course	Practical	Field Visit
	Semester I		
1	Practices & Principles of Public health	-	a. Transect Walk b. SPARSH Field Visit
2	Epidemiology	Define, calculate and interpret morbidity and mortality indicators based on given set of data Causation and association Measures of association Types of variables Scales of measurement	c.Participatory Rural Appraisal (PRA) d.Community Health Needs Assessments e. The Panchayat (Local Governance)
3	Biostatistics	Perform descriptive statistics of a given data-set and interpret Measures of central tendency Measures of dispersion	f. Anganwadi Center (ICDS) g. Mamta Diwas (Village Health Nutrition Day)

		Etiquettes and professionalism Verbal vs. Non-verbal communication	h. Subcenter / Health & Wellness Center (HWC), i. PHC (Primary Health Center) j. Urban Health Center k. UHTC l. RHTC m.Vector Borne Diseases - Larval Survey & Identification of potential breeding sites n. Palliative Care & Yoga
4	Social & Behavioral Sciences in Public Health	-	
5	Environment & Occupational Health	Spotters- - Mosquitoes, - Housefly - Sandfly - Louse - Ticks - Mites - Cyclops - Sanitary Well - Chloroscope - Horrock's Apparatus - Sewage Treatment Plant - Septic Tank - Different Latrines - Insecticide and Disinfectants - Rodents and Rodenticides - Occupational Hazards -Personal protective Equipments - Meteorological Instrument	
	Semester II		
	Health Systems and Policy In India	-	a. SPARSH Field Visit b. National Malaria Research Center c. National Institute of Occupational Health Ahmedabad d.District Tuberculosis Center e. Anganwadi f. Naturopathy Center g.State Health Directorate, Gandhinagar h.UNICEF (United Nations
	Health Management Principles	-	
	National Health Programmes	-	
	Principles of Research Methodology	Utilizing various critical appraisal checklists Project management Qualitative data and research Quantitative data and research Mixed methods research Conducting review of literature Practical Study designs Method of estimating sample size	

		Overview of data analysis using Excel and SPSS Field visits - Places of Public Health Importance	International Children's Emergency Fund) i.Municipal Corporation, Surat (Three days)
	Demography and Population Sciences	Define, calculate and interpret various demographic indices	
	Semester III		
	Reproductive Maternal Newborn Child Adolescent health and Nutrition (RMNCAH+N)	a. Microplanning for immunization at PHC, Immunization schedule, Vaccine Demand Calculation, Safe Delivery Kit b. Contraception I (Non hormonal and others) c. Contraception 2 (Hormonal) d. IMNCI e. Nutritional Assessment and calculation, Anthropometry, BMI Calculation f. Plan a diet for an adult which meets the protein (macro nutrients) requirements as per latest RDA-NIN guidelines for vegetarian/ovo-vegetarian/non-vegetarian	a. SPARSH Field Visit b. Three days clinical Postings at following departments of Shree Krishna Hospital - Internal Medicine - Psychiatry - Ophthalmology - TB - Chest - Oncology - Dermatology - ENT - Physiotherapy - Obstetrics and Gynecology - Pediatrics -MedicalRecords Department - Hospital Kitchen/Canteen - Hospital waste management - Palliative Care Department Simulation Lab
	Health Economics, Financing and Budgeting	-	
	Programme Management	-	
	Law and Ethics in Public	-	

	Health		
	Elective - I* a. Advanced Epidemiology b. Advanced Biostatistics c. Global Health d. Qualitative Research	-	
	Scientific Writing	Submission of Proposal Submission of report - Practical	
	Semester IV		
	Internship	-	-
	Thesis (Research Project)	-	-

Appendix - 6

Field visit Plan- Semester I

Sr.No	Visit / Activity	Specific Learning Objectives (SLOs)
1	**Village Walk**	• Understand the village through a transect walk • Develop observation skills
2	**Participatory Rural Appraisal (PRA)**	• Describe the basics of Participatory Rural Appraisal techniques and its importance in community engagement • Explain social determinants of health within a community
3	**The Panchayat (Local Governance)**	• Describe the structure and function of Panchayati Raj • Explain the importance of Panchayati Raj • Describe the challenges of Panchayati Raj and mechanisms involved to make it more participatory and inclusive in nature

4	**Community Health Needs Assessment**	• Identify key health issues as perceived by local residents • Interact with the local community, prioritize health problems of community and identify health need of community
5	**Reflection & Documentation**	*Activity: Students compile their social map and demographic data* • Document the activities in form of case report, success story, situational analysis, gap analysis

Maternal & Child Health (MCH) & Nutrition

Sr.No.	Visit / Activity	Specific Learning Objectives (SLOs)
6	**Anganwadi Center (ICDS)**	• Describe infrastructure and staff pattern of Anganwadi • Enumerate the beneficiaries of Anganwadi • Explain services provided at Anganwadi
7	**Mamta Diwas (Village Health Nutrition Day)**	• Describe the objectives of Mamta Diwas • Enlist the services provided during Mamta Diwas session • Explain about cold chain management, national immunization schedule, AEFI kit
8	**School Health & RBSK**	• Describe objectives and components of school health program • Describe RBSK program (Rashtriya Bal Swasthya Karyakram)

		• Describe mid-day meal program • Identify children in need of referral

Health Systems & Service Delivery

Sr.No.	Visit / Activity	Specific Learning Objectives (SLOs)
10	**Subcenter / Health & Wellness Center (HWC)**	• Observe and understand the staffing pattern and infrastructure • Get insights on the roles and responsibilities of the staff at the HWC • Elaborate on the services provided at HWCs under the Ayushman Bharat Program
11	**PHC (Primary Health Center)**	• Describe the infrastructure and staff pattern of PHC • Describe role and responsibility of the staff at PHC • Observe and understand the administrative aspects of running a PHC from the perspective of a Medical Officer
12	**Urban Health Center**	• Describe Indian healthcare system for urban area • Describe infrastructure and staff at UHC • Describe the various outreach activities conducted by health care providers in the field practice area of UHTC
13	**SPARSH**	• Describe the planning, conduct and monitoring of a SPARSH NCD screenings • Describe the concept and application of SPARSH • Describe the role of village health workers in filling

		the lacunae in existing public health system

Disease Control, Environment & Special Issues

Sr.No.	Visit / Activity	Specific Learning Objectives (SLOs)
16	**Vector Borne Diseases - Larval Survey & Identification of potential breeding sites**	• Understand life cycle and identification of vectors • Conducting Larval survey
17	**Palliative Care & Yoga**	• Describe the concept of Palliative Care • Describe the concept of Yoga and Asthanga yoga

Evaluation & Reflection Method

To ensure public health students are learning maximum, we will utilize the Reflection Writing system

DIEP Model: A simple four-stage model for quick application

a. Describe the situation
b. Interpret what happened
c. Evaluate how useful it was.
d. Plan how to apply the learning in the future

Faculty Assessment Checklist (based on SLOs):

- Did the student demonstrate health education techniques in a simulated environment (during SPARSH visit)?
- Can the student list the services provided at Mamta Diwas?
- Did the student identify high-risk pregnancy management at the community level?

Appendix - 7

Field visit Plan- Semester II

External Postings for places of Public Health Importance/Institutes & Health Systems (Duration – One day)

Sr.No.	Institute	Specific Learning Objectives
1	**National Malaria Research Center**	1. To understand life cycle, bionomics and identification of vectors. 2. To observe how the blood smears are prepared and to identify different stages of malarial parasites. 3. To understand the current epidemiological situation in Anand/Gujarat/India. 4. To gain knowledge about standard treatment for malaria. 5. To get insights on the current guidelines and strategy for Malaria. 6. To learn about the ongoing research projects at National Institute of Malaria Research. 7. To understand methodology followed for the evaluation of malaria control programs in a region. 8. To interact with the concerned Authorities/ service providers/functionaries and beneficiaries on site and to get first-hand knowledge.
2	**National Institute of Occupational Health Ahmedabad**	1. To describe the occupational hazards and risks in different industries 2. To see different laboratories in NIOH and learn about their experimentation 3. To learn about different projects handled at NIOH. 4. To learn about the usage of Personal protective equipment 5. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.

3	**District Tuberculosis Center**	1. To understand the job responsibilities of the District TB Officer. 2. To understand the implementation of the NTEP program and various administrative aspects of managing at DTC level. 3. To observe the documentation at various levels. 4. To learn sputum collection, AFB staining & identification of Mycobacterium. 5. To understand the process of GeneXpert test (CBNAAT) including the steps of collection, transport, processing and reporting. 6. To gain insights on technical guidelines on tuberculosis programmes. 7. To interact with the concerned Authority/service providers/functionaries on site and to get first-hand knowledge.
4	**Naturopathy Center**	1. To have insights on the basic knowledge and principles of Ayurveda, Yoga and Naturopathy as alternative medicines in health. 2. To get sensitized about the role of Ayurveda, Yoga and Naturopathy in health promotion and managing different health conditions/diseases. 3. To get insights about the integration of Allopathy medicine and alternative medicines in health promotion and managing different health conditions/diseases. 4. To interact with the concerned Authority/service providers/functionaries and beneficiaries on site and to get first-hand knowledge.
5	**State Health Directorate, Gandhinagar**	1. To understand the administrative structure of the State Health System. 2. To seek insights on the priority programs for Gujarat. 3. To seek insights on the implementation, monitoring and evaluation of these programs. 4. To understand the work portfolio of the State Health Directorate. 5. To understand the fund allocation and the priority health issues.

		6. To take part in meetings conducted at this level. 7. To interact with the concerned Authorities/service providers/functionaries on site and to get first-hand knowledge.
6	**UNICEF (United Nations International Children's Emergency Fund)**	1. To observe and understand various activities conducted by UNICEF. 2. To understand the staffing pattern and work responsibilities at each level. 3. To interact with the concerned Authorities/service providers/functionaries on site and to get first-hand knowledge.
7	**Municipal Corporation, Surat (Three days)**	1. To observe and understand the administrative setup of the Municipal Health system in terms of infrastructure and manpower. 2. To observe and understand the vector control measures being implemented. 3. To observe and understand sanitation and solid waste management. 4. To observe and understand surveillance activities and data management. 5. To understand the air pollution control activities being conducted. 6. To observe inspection of any food industry/hotel by health staff. 7. To understand the newer initiatives in Public Health in Surat. 8. To interact with the concerned Authorities/service providers/functionaries on site and to get first-hand knowledge.

	DHO office	1. Administration of CDHO office and concept of Panchayati Raj 2. Human resource at CDHO office and their duties 3. Review, Monitoring and Supervision activities 4. (field visit and meeting) 5. Coordination with AYUSH and partners of One Health 6. National Health Programmes implemented at CDHO office, status of 7. IMNCI, HWCs in district 8. Inter-sectoral coordination, IEC activities in district 9. Coordination with private sector and NGOs 10. Verbal autopsy
	THO	1. Administration of THO 2. Infrastructure of THO 3. Staff pattern of THO and their duties 4. Different activities carried out at THO 5. Data management, Review, Monitoring & Supervision
	CHC	1. To understand the infrastructure and staffing pattern of CHC. 2. To observe and participate in various activities conducted at CHC. 3. To have in sights on the implementation of the schemes like Janani Suraksha Yojana, Chiranjivi Yojana and other schemes for ensuring child survival and safe motherhood. 4. To interact with the concerned Authority/service providers/functionaries and beneficiaries on site and to get first-hand knowledge.

Appendix 8

Clinical Postings (Three days) -

1. Each student shall be posted in the below mentioned departments for duration of three working days

2. All activities done shall be reported in their logbook

Departments	Specific Learning Objectives
Medicine	1. To understand the management of common communicable & non-communicable diseases seen in the community like hypertension, diabetes, diarrhea, vertigo, anaemia, malaria, dengue, hepatitis, typhoid, fever with rash. 2. To observe the management of certain emergency situations like Dog bite, Snake bite, MI. 3. To observe/demonstrate skill on diagnosis, nursing care, treatment and prevention of geriatric problems. 4. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Psychiatry	1. To have insights on the early diagnosis and management of mental disorders (In children and adults) 2. To understand the functioning of the de-addiction clinic and the involved process. 3. To seek knowledge on the common screening instruments (questionnaires) used for diagnosis of depression, mental stress, anxiety and other mental health problems. 4. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Ophthalmology	1. To observe/perform visual acuity tests and determine refractory error. 2. To explain the ocular pathologies associated with NCDs. 3. To Identify foreign bodies in the eye and its management. 4. To observe/diagnose cataract. 5. To have insights on counselling for eye donation. 6. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
TB - Chest	1. To gain understanding of acute & chronic pulmonary diseases with emphasis on epidemiology and rehabilitation.

	2. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Oncology	1. To identify cancers for which the patients are seeking treatment. 2. To learn the necessary First Aid in cancer patients in the community. 3. To learn the referral mechanism of a cancer patient from the periphery. 4. To have insights on counselling for prevention and management strategies. 5. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Dermatology	1. To attend Dermat OPD to witness common skin conditions 2. To understand the role of skin clinics in surveillance of HIV and other Sexually Transmitted Diseases (STD). 3. To observe the functioning of STD clinics – Infrastructure, manpower, Information. 4. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
ENT	1. To identify common head and neck cancers found locally. 2. To observe/provide counselling for prevention of head and neck cancers. 3. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Physiotherapy	1. Understanding the role of Physiotherapy in general health conditions. 2. To understand the role of physiotherapy in disability prevention and functional restoration. 3. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Obstetrics and Gynecology	1. To observe/demonstrate skills on ante, intra & postnatal care. 2. To identify high risk pregnancy at community level. 3. To give advice during ANC /PNC based on diet and personal habits. 4. To observe/demonstrate skills on "Cafeteria approach" and usage of family welfare techniques. 5. To have insights on the implementation of the schemes like Janani Suraksha. Yojana, Chiranjivi Yojana and other schemes for ensuring child survival and safe motherhood. 6. To observe/demonstrate skills for common Obstetrics and Gynecology procedures.

	7. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Pediatrics	1. To get oriented to common childhood illnesses in the community. 2. To observe the treatment of the identified illness (OPD and IPD). 3. To observe/demonstrate skills to perform basic procedures related to this age group. 4. To identify children in need of referral. 5. To observe/perform BLS in children. 6. To observe the working pattern of the Special Newborn Care Unit. 7. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Medical Records Department	1. To understand the importance of hospital record keeping. 2. To gain insights regarding the process of maintaining the hospital records. 3. To interact with the concerned Authority/service providers/functionaries on site and to get first-hand knowledge.
Hospital Kitchen/Canteen	1. To apprise the hygiene measures. 2. To interact with the concerned Authority/service providers/functionaries on site and to get first-hand knowledge.
Hospital waste management	1. To understand the segregation of waste at point of generation, transport and disposal of BMW. 2. To get insights of the system for BMW collection from SKH (Agency-Samvedna). 3. To interact with the concerned Authority/service providers/functionaries on site and to get first-hand knowledge.
Palliative Care Department	1. Understand basic components of palliative care ie. history taking, pain. assessment, counselling, wound dressing, treatment including use of opioids. 2. To interact with the Faculties/service providers/functionaries on site and to get first-hand knowledge.
Simulation Lab	1. To observe/demonstrate skills in providing cardiopulmonary resuscitation [BCLS]