

**MASTER OF PUBLIC HEALTH
PROGRAMME DESIGN & MANAGEMENT
Syllabus**

SEMESTER I				
S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Introduction to Public Health	PH-701	3	(2-0-2)
2.	Basic Epidemiology	PH-702	3	(3-0-0)
3.	Research Methods in Health	PH-703	2	(2-0-0)
4.	Issues in Public Health I	PH-704	3	(2-0-2)
5.	Social and Behavioral Sciences	PH-705	3	(3-0-0)
6.	*Human Biology & Medical terminology	PH-605	2	(2-0-2)
7.	Information Technology	COMP-631	3	(2-0-2)
8.	Scientific communication	LNG-703	3	(2-0-2)
9.	Essentials of Management	PHM-753	3	(3-0-0)

SEMESTER II				
S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Issues in Public Health II	PH-711	3	(3-0-0)
2.	Disease Epidemiology	PH-712	2	(2-0-0)
3.	Reproductive & Child Health	PH-713	2	(2-0-0)
4.	Information Education & Communication	PH-714	3	(2-0-2)
5.	Bio Statistics I	MAS-712	3	(2-0-2)

6.	Quality in Health Care	PH-715	2	(2-0-0)
7.	Essentials of Health Economics & Public Finance	PHM-716	3	(2-0-2)
8.	Strategic Management	PHM-717	3	(3-0-0)
9.	Field Training	PH-800	3	(0-0-6)

SEMESTER III Common

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Bio Statistics II	MAS-716	3	(2-0-2)
2.	Medical Anthropology	PH-656	2	(2-0-0)
3.	Managerial Accounting	PHM-751	3	(3-0-0)
4.	Seminar	PH-780	2	(0-0-4)
	Programme Planning & Evaluation	PH-802	3	(2-0-2)
	Public Health Interventions	PH-803	3	(2-0-2)

SEMESTER IV

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Thesis /Project Works	PH-899	15	(0-0-30)
2.	Comprehensive Viva	PH-897	5	
	• Only for the students of non- medical background.			

DETAILED SYLLABUS OF COURSES FOR MPH

IST SEMESTER

Introduction to Public Health (PH-701) Credits 3 (2-0-2)

- 1. Public Health:** Genesis and Development of the concept, Healthcare versus Medical Care, Approaches to Public Health
- 2. Health and Disease:** Basic Concepts and Definition, Disease Control and Levels of Prevention, Determinants and Indicators of Health, Health situation and Trends in India.
- 3. Health Policy** National Health Policy of India, Nepal, global Health policy
- 4. Concept of primary health care,** Different sectors in health system including AYUSH
- 5. Health Infrastructure & Health care Delivery System: Government Committees** for health: Past and present, India, Nepal, other developed and developing countries.
- 6. Other Government Health Programs/ Systems:** ESI, Railways, Military, etc
- 7. National Health Programs:** An Overview of major National Health Programs

PRACTICUM

Visit to village for family health study

Visit to understand Health system functioning

a) Rural – i) Government ii) Private iii) Others

b) Urban- i) Government ii) Private iii) Others

Visit to understand other systems of Health eg. Railway, Military

Basic Epidemiology (PH-702)

Credits 3 (3-0-0)

1. Introduction
2. Data sources for Epidemiology
3. Epidemiological concept of disease
4. Measures of disease frequency
5. Epidemiological methods: Descriptive Epidemiology, Analytical Epidemiology, Experimental Epidemiology
6. Screening in health and disease: Principles underlying screening programme, Evaluating screening programmes
7. Errors in measurements
8. Epidemic Investigations
9. How to read Health Literature
10. Use of computers in Epidemiology and data management

Research Methods in Health (PH-703)

Credits 2 (2-0-0)

1. **Scientific research**: Nature and Scope, Basic Principles of scientific research, Steps involved in a scientific study/ investigation, Formulation of Hypothesis, sources, qualities of a workable hypothesis.
2. **Research Methods**: Social Surveys, Case Study, Experimental methods meaning. Types- Trial and Error, Observational studies, Natural experiment, Ex-post facto experiment, Laboratory experiments, attitude analysis.

3. **Design of Sample Survey:** Basic Principles of sample survey, Biases in sampling, simple random sampling, Stratified random sampling, Multistage sampling, double sampling, systematic sampling, cluster sampling, Purposive sampling.
4. **Data Collection:** Methods-Schedule Mailed Questionnaire, Interview, Observation, Instruments, Instruments & their test, Field Setting, Planning and Control, multicentric study, scaling techniques.
5. **Classification and Tabulation:** objects, characteristics, kinds and statistical series-array, discrete, continuous. Presentation of Data, Analysis of Data
6. **Report Writing:** Introduction, Objectives, Methodology, Major Findings, Discussion, Conclusion and Recommendations

Issues in Public Health I (PH-704)

Credit 3(2-0-2)

1. **Environment and Health:** Environmental degradation and human pathology, Examination of living/ working environment & its impact on human health; Laws on Environmental protection, the Right to a safe biosphere
2. **Nutrition and Health:** Classification and Nutritional profiles of various foods and drinks, Balanced diet, Diet survey, consumption unit, nutritional classification, Nutritional problems e.g. LBW, PEM, Xerophthalmia, IDD, etc. Nutritional factors in selected/ major diseases (Cardiovascular, Diabetes, Obesity, Cancer), Food toxicity, socio-ecology of nutrition
3. **Industrial and Occupational Health:** Industrial and Occupational hazards and accidents, Occupational diseases and their prevention, Measures for health protection of worker, Legislation and Acts

Practicum

1. Visit to sewage treatment Plant
2. Visit to water purification Plant
3. Visit to Biomedical waste treatment Plant
4. Visit to Magh Mela

5. Visit to Industry

Social and Behavioral Sciences (PH-705)

Credits 3 (3-0-0)

Introduction: i) Psychology and PH ii) Health psychology iii) Sociology & PH stress, well being & Quality of life

sociometrics Introduction

Culture and health: i) rural/urban migrant ii) cross cultural differences

Social Pathology, therapies

Human Biology & Medical Terminology (PH-605) Credits 2 (2-0-0)

Human Biology –

- i. Introduction to human Biology
- ii. Definition & structure of cell, Tissue structure & its Type
- iii. Organ Systems (Basic Anatomy & Physiology)
 1. Digestive system
 2. Skeletal system
 3. Respiratory system
 4. Cardiovascular System
 5. Lymphoid & haemopoiteic system
 6. Urinary system
 7. Nervous & the special senses
 8. Female Reproductive System
 9. Male Reproductive system

Medical Terminology-

Infection & Immunity& Sterilization

Introduction to bacteriology

Introduction to virology

Introduction to Mycology

Introduction to parasitology

Genetic diseases/ genetics
Pediatric diseases/problems
Neoplasia
Inflammation & healing

Scientific communication LNG-703

Credits 3 (2-0-2)

Section I:

1. Etiquette in different life style situation
2. Grammar
3. Vocabulary
4. Common errors in English

Section II:

Composition

1. Orientation of different type of letters
2. Essay writing
3. Précis or summary writing
4. Report writing
5. reading comprehension-translating global comprehension

Section III:

Practical/spoken English

1. JAM session
2. conversation
3. group discussion
4. Role plays
5. Techniques of discussion at medical meetings, making presentation at workshop, conference, seminars.
6. How to face interviews

7. Vote of thanks

Essentials of Management (PHM-753)

Credits 3 (3-0-0)

Concept and Evolution of Management: Nature and Functions of Management, Theories and Approaches to Management

Planning: Nature and Purpose, Types of plans and Planning process, Strategies Policies and Planning process

Decision Making: Importance and Limitations of Rational Decision Making, Steps of Rational Decision, Decision making environment, and Techniques of decision making

Organizing: Nature and purpose, Process of Organising, Span of management, Organisational structure, Levels of organisation, Line and Staff authority, Authority delegation and decentralization, Organizational culture.

Staffing: Recruitment, selection ; performance appraisal

Leading: Approaches to Leadership, Leadership behaviour and styles

Motivation: Motivators, Theories of motivation

Communication: Process, Media, Barriers to communication, Formal and Informal Communication

Controlling: Basic control process, Control techniques

Coordination: Importance and principles, External and Internal coordination

Information Technology (COMP 631)

Credits 3(2-0-2)

1. Information, concepts and processing.
2. Data concepts.
3. Elements of E.D.P.
4. Special applications: Medical transcription, e-health
5. Elements of computer system.
6. Concept of hardware and software devices.
7. Concept of operating systems.
8. Computer and communications.
9. Programming languages and classification.
10. Computer management and virus protection.
11. I.T. applications.

PRACTICAL:

Window and GUI.

Ms Word- full working & practice

MS Excel- how to operate, developing a work sheet, simple calculations

MS power Point- how to make a presentation

Use of internet- access, e-mail, search engine and health related websites, how to search for literature

Statistical package- SPSS, epi info, M-stat

II SEMESTER

Disease Epidemiology (PH-712)

Credits 2(2-0-0)

- 1. Respiratory Infections:** Chicken Pox, Measles, Tuberculosis and ARI, SARS
- 2. Intestinal Infections:** Poliomyelitis, Hepatitis, Cholera, Typhoid, Food Poisoning, Diarrhoeal Diseases,
- 3. Arthropod-borne infections:** Malaria, Dengue, JE
- 4. Zoonoses:** Rabies, Plague
- 5. Surface Infections:** Tetanus, Leprosy, STD, HIV-AIDS
- 6. National Health Programs:** An Overview of major National Programs, for control of diseases e.g. Tuberculosis, Malaria, National AIDS control programs,
- 7. Epidemiology of Chronic Non-communicable diseases/ conditions:** CHD, Hypertension, Stroke, Cancer, Diabetes, Obesity, Blindness, Accidents.

- 1. Gender and Health:** Status of women in society, Equity and Equality, Role of women in family decision making, life cycle approach, gender analysis framework, gender issues in different disease conditions.
- 2. Ethical issues:** Ethics and Medical experimentation, general ethical principles, ethical committee, Nuremberg code, Helsinki declaration
- 3. Healthcare Legislation in India:** Legal aspects of healthcare, the Medical Termination of Pregnancy Act, The maternity benefit act, The immoral traffic (prevention) act, The transplantation of human organs act, PNMT Act, The registration of birth and Death act, The child labour (prohibition and regulation) act, Biomedical waste Rules, COPRA Act, Indian factories act, ESI act
- 4. International Health:** Disease patterns around the world, Regions of the world according to WHO and their overall health status, effect of climate, politics and society on health, International bodies in health promotion and protection

Reproductive & Child Health (PH-713)

Credits 2 (2-0-0)

RCH: Definition, Concepts.

History of family planning. Importance of ICPD and Alma Ata conferences, ICPD+5 and beyond

FP Policy: Voluntarism versus Coercion, Current trends and status of FP in India,

Services under RCH package: RCH I, RCH II

Contraceptive Technology: Overview of various methods Surveillance and control

Benefits of family planning, Peoples perceptions regarding FP

Immunization: Basic concepts, schedule of Immunization, cold chain.

1. **Communication/ IEC:** Basic Concepts, Meaning, and scope, Theories of communication; Interpersonal, Intrapersonal and Mass Communication, their characteristic; Formal and informal communication;
2. **Barriers to Communication;** Fidelity in communication and associated factors affecting it.
3. **Tools and Techniques of communication:** Role play, FGD, Fish bowl technique, PLA techniques, Mass communication strategies, Counseling. Persuasive communication, techniques of ingratiation.
4. **Health Communication:** Interpersonal Communication (personal contact, home visit), intrapersonal communication (lecture, demonstration, Group discussion, panel discussion, symposium, workshop, conference, seminars, Role play) and mass communication (print, electronic media and folk method) P-Process, Principles and Methods of Health Education, Different types of Audio-Visuals Aids and Equipment. Health Promotions, Social Marketing, Advocacy
5. **Organizational communication:** Superior-Subordinate and Peer Communication, Communication Flow and patterns, Communication network in organization.
6. *Transactional analysis, skill for conduction of meeting & fact presentation.*

PRACTICUM

1. Writing of Health Messages
2. Handling of Communication Aids
3. Developing Communication Campaigns – PLA, FGD, Counseling
4. Microteaching
5. Video and computer systems and their handling,

Bio-Statistics I (MAS-712)

Credits 3 (2-0-2)

1. **Data and Data Presentation:** Types of data, simple, compound, percentage, bar chart, Histogram, Frequency Polygon, Frequency curve, Normal curves, Skewed diagram.

2. **Numerical Description of Data:** Measures of central tendency, Mean Median, Mode, Geometric mean, Harmonic mean, Measures of dispersion: range, Mean Deviation, Standard Deviation, quartile deviation, Co-efficient of variation, Standard Error
3. **Probability and Probability distribution :** events, Probability, sampling, Conditional probability, Addition and multiplication rules of Probability, Bays theorem, random variable, Probability distribution function, Exponential distribution, binomial Distribution, Poisson distribution, Normal Distribution.

Quality in Health Care Delivery (PH-715) Credits 2 (2-0-0)

1. The Concept of Quality,
2. Indicators of Quality and Measurement of quality
3. Quality Control Mechanisms and Frameworks with special reference to Quality of Family Planning and MCH Services.
4. Continuous Quality Improvement: Quality Circles Approach, Other concepts and frameworks.
5. Quality enhancement and control in health service delivery
6. The COPE approach.
7. ISO certification of health systems.

Essentials of Health Economics and Public Finance (PHM-716)

Credits 3(2-0-2)

1. Basic concepts of economics: principles of macroeconomics and microeconomics
2. Relationship between economics: economic development, economic aspect of health care.
3. Basic concept of demand and supply : law of demand and supply
4. Health care market, market failure-externalities and public goods

5. Cost concept- short term and long term costs, economies of scale, ABC costing and VED analysis (Vital, Essential & discernible)
6. Production: production function, laws of production, production in health care
7. Public finance: nature and concept, public expenditure and public revenue
8. five year plans: national outlays on health on health/ public health, budgets of central and state government
9. Financing health intervention

Practical:

1. Demand and supply graphs
2. Cost curves

Strategic Management (PHM-717)

Credits 3(3-0-0)

1. Introduction to strategic Management-importance-scope-concepts and characteristics
2. Strategic formulation: vision, mission and purpose- Environmental analysis and scanning- types of strategies- market entry strategy, social marketing, competitive strategy
3. Strategic analysis and choice: Environmental threat and opportunity profile (ETOP)- Strategic advantage profile- SWOT analysis-GAP analysis-McKinsey's 7S Framework-distinctive competitiveness
4. Strategic implementation-resource allocation-organization structure- Functions plans and policies
5. Strategy Evaluation-Symptoms of malfunctioning strategies- criteria for evaluation
6. strategic Control: Process of control
7. Case Study

Field Training (PH-800)

Credits 3 (0-0-6)

Purpose of the summer placement

To expose the student to various programmes/activities in health sector and develop a comprehensive understanding of programme design, strategies and planned intervention

Objectives of the training----

1. To collect the information about organization
2. To learn about the different projects run by the organization
3. To be familiar with communication procedure between health workers and community
4. To identify practical things about project planning and implementation
5. To discover the problems faced in implementing the project
6. To learn about working of the information system
7. To know about method and source of evaluation

Format for report writing -----

1. Title of the project
2. About the organization
3. Introduction and objectives of the project/programme / organization
4. Funding agency— about the agency, how to get funding, Nature of funding agency
5. Staffing pattern of the project with their functions
6. Major activities going under project
7. Results achieved so far (target Vs achievement)
8. Role of the candidate in the project/programme / organization
9. Evaluation by the candidate

The type written report should have seven to ten printed pages.

Guidelines for presentation-

1. Power point presentation
2. Time for presentation= 20 minutes
3. Time for discussion= 10 minutes

III SEMESTER

Managerial Accounting (PHM-751)

Credits 3 (3-0-0)

1. Basics of Accounting, Different types of Accounts, Journal and Ledgers entries
2. Concept of Managerial Accounting
3. Understanding Financial Statements –income statement, balance sheet
4. Funds Flows and related Concepts
5. Cost-Volume-Profit Analysis
6. Standard Costing
7. Budgeting and Budgetary Control –concept of Zero-based budgeting
8. Responsibility Accounting
9. Human Resource Accounting

Medical Anthropology (PH-656)

Credits 2 (2-0-0)

1. Medical Anthropology for Public Health research
2. The anthropological approach
3. Focused Health Ethnographies including anthropological approaches to the study of Selected issues: Communicable diseases, Non-communicable diseases, reproductive health and health systems.

Bio- Statistics II (MAS-716)

Credits 3(2-0-2)

1. **Testing of Hypothesis:** Hypothesis, Types of error, Critical Region, level significance, t-test, Chi2 test, Z-test and F-test, estimation of sample size, non parametric tests: sign test, median, Size of sample
2. **Regression:** Regression, Linear Regression Model, Multiple Regression, estimation of Coefficient in simple & Multiple regression, estimation, test for linearity of regression, Sequential Method of Model Selection, Study of Residuals and Violation of Assumptions, Application of Analysis of variance in multiple Regression
3. **Vital Statistics Methods:** Rates of Events , Measures of morbidity, Crude death Rates, Specific death Rates, Standardized death rates, Life tables construction and

use of life table, measurement of population growth crude rate of natural increase, Vital Index, Gross reproduction rate, Net reproduction rate.

Programme Planning and Evaluation (PH-802)

Credits 3(2-0-2)

1. Concept, principles and theories of programme planning;
2. Application of programme planning to Health education and extension
3. Systematic development of plan of work, programme projection; Some important National health programme. Machinery for planning at the National level.
4. Evaluation techniques and their applications; PERT and CPM: meaning, nature, scope, importance and methods of monitoring and evaluation; types, procedures, steps, techniques and principles of evaluation; health audit
5. Indicators for programs/Projects
6. Critical analysis of India's Five Year Plans in relation to developmental objectives and programmes for the rural India;

PRACTICAL:

Evaluation of any national health Programme

Public Health Interventions: (PH- 803)

Credits 3 (2-0-2)

- 1. Major Public Health Problems:** A Critical Review and analysis, Identification of Major areas of public health requiring interventions
- 2. Health Services:** Community Health Needs Assessment
- 3. Public Health System:** A Re-appraisal and SWOT analysis, A Critique on the Healthcare delivery system; Discussion on problems related to structural, Functional, management of public health interventions and delivery of healthcare services

- 4. On-going Public Health Interventions:** A critical analysis of Operational, Organizational and management processes.
- 5. Sustainability of Public Health Interventions:** Concept and mechanism of sustainability, models and examples of sustainability, Community ownership (Role of Panchayats), etc.
- 6. Designing of project and writing project proposal**

PRACTICUM

- Step I- Survey of area and resource mapping Presentation
- Step II- Identify major Health Problems
- Step III-Analyse problems
- Step IV- Find resources
- Step V- Plan specific, short term, small & effective intervention
- Step VI- Implementation
- Step VII- Analyze the result & write the report

Text Books recommended-

Introduction To Public Health

- Park & Park (Preventive & Social Medicine)
- National programmes of India by J Kishore
- Epidemiology & management for Health care for all- PV Sathe & AP Sathe

Immunization

- Park & Park (Preventive & Social Medicine)
- Infectious Diseases and Immunization by Utpal Kant Singh

Research Methods-

- Ranjit Kumar
- Good & Hatt
- P. V. Young
- Media research methods by Barrie Gunter
- R C Kothari

Communication intervention

- Roger & Shoemaker
- R. R. Reddy

Training in Health

- Kar & Alcala

Reproductive Health

- Park & Park (Preventive & Social Medicine)
- Holland & Brews
- Shaw's textbook of Gynaecology
- New Contraceptive Technology
- Margerate Myles

Basic Epidemiology

- Epidemiology- Leon Gordis
- Basics of Epidemiology-Robert Beaglehole & Bonita
- Epidemiology & management for Health care for all-PV Sathe & AP Sathe

Adolescent and child Health

- Park & Park (Preventive & Social Medicine)
- Essentials of Paediatrics
- Modules of MCHN

Health Information System

- Epidemiology & management for Health care for all-P V Sathe & A P Sathe

Biostatistics

- P. S. Sundar Rao

Journals

Indian Journal of Community Medicine

Bulletin of WHO

Reproductive Health Matters

Journal of Adolescent Health

Indian Journal of Public Health

International Journal of Epidemiology

Studies in Family Planning

FamilyPlanningPerspective

**PROGRAMME-MASTER OF PUBLIC HEALTH
SPECIALIZATION COMMUNITY DENTISTRY**

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4.	Seminar	PH-780	2	(0-0-4)
5.	Introduction to community Dentistry	PH-813	2	(2-0-0)
6.	Public Health Dentistry	PH-814	3	(3-0-0)

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Social and Behavioral Sciences (PH-705)

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sociometrics Introduction

Culture and health: i) rural/urban migrant ii) cross cultural differences

Social Pathology, therapies

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- i. Introduction to human Biology
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 3. Respiratory system
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 5. Lymphoid & haemopoietic system
 6. Urinary system
 7. Nervous & the special senses
 8. Female Reproductive System
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Infection & Immunity& Sterilization

Introduction to bacteriology

Introduction to virology

Introduction to Mycology

Introduction to parasitology

Genetic diseases/ genetics

Pediatric diseases/problems

Neoplasia

Inflammation & healing

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Staffing: Recruitment, selection ; performance appraisal

Leading: Approaches to Leadership, Leadership behaviour and styles

Motivation: Motivators, Theories of motivation

Communication: Process, Media, Barriers to communication, Formal and Informal Communication

Controlling: Basic control process, Control techniques

Coordination: Importance and principles, External and Internal coordination

Information Technology (COMP 631)

Credits 3(2-0-2)

1. Information, concepts and processing.
2. Data concepts.
3. Elements of E.D.P.
4. Special applications: Medical transcription, e-health
5. Elements of computer system.
6. Concept of hardware and software devices.
7. Concept of operating systems.
8. Computer and communications.
9. Programming languages and classification.
10. Computer management and virus protection.
11. I.T. applications.

PRACTICAL:

Window and GUI.

Ms Word- full working & practice

MS Excel- how to operate, developing a work sheet, simple calculations

MS power Point- how to make a presentation

Use of internet- access, e-mail, search engine and health related websites, how to search for literature

Statistical package- SPSS, epi info, M-stat

II SEMESTER

Disease Epidemiology (PH-712)

Credits 2(2-0-0)

- 1. Respiratory Infections:** Chicken Pox, Measles, Tuberculosis and ARI, SARS
- 2. Intestinal Infections:** Poliomyelitis, Hepatitis, Cholera, Typhoid, Food Poisoning, Diarrhoeal Diseases,
- 3. Arthropod-borne infections:** Malaria, Dengue, JE
- 4. Zoonoses:** Rabies, Plague
- 5. Surface Infections:** Tetanus, Leprosy, STD, HIV-AIDS
- 6. National Health Programs:** An Overview of major National Programs, for control of diseases e.g. Tuberculosis, Malaria, National AIDS control programs,
- 7. Epidemiology of Chronic Non-communicable diseases/ conditions:** CHD, Hypertension, Stroke, Cancer, Diabetes, Obesity, Blindness, Accidents.

Issues in Public Health II (PH-711)

Credits 3 (3-0-0)

- 1. Gender and Health:** Status of women in society, Equity and Equality, Role of women in family decision making, life cycle approach, gender analysis framework, gender issues in different disease conditions.
- 2. Ethical issues:** Ethics and Medical experimentation, general ethical principles, ethical committee, Nuremberg code, Helsinki declaration
- 3. Healthcare Legislation in India:** Legal aspects of healthcare, the Medical Termination of Pregnancy Act, The maternity benefit act, The immoral traffic (prevention) act, The transplantation of human organs act, PNDT Act, The registration of birth and Death act, The child labour (prohibition and regulation) act, Biomedical waste Rules, COPRA Act, Indian factories act, ESI act
- 4. International Health:** Disease patterns around the world, Regions of the world according to WHO and their overall health status, effect of climate, politics and society on health, International bodies in health promotion and protection

Reproductive & Child Health (PH-713)

Credits 2 (2-0-0)

RCH: Definition, Concepts.

History of family planning. Importance of ICPD and Alma Ata conferences, ICPD+5 and beyond

FP Policy: Voluntarism versus Coercion, Current trends and status of FP in India,

Services under RCH package: RCH I, RCH II

Contraceptive Technology: Overview of various methods Surveillance and control
Benefits of family planning, Peoples perceptions regarding FP

Immunization: Basic concepts, schedule of Immunization, cold chain.

Information, Education & Communication (PH-714)

Credits 3(2-0-2)

1. **Communication/ IEC:** Basic Concepts, Meaning, and scope, Theories of communication; Interpersonal, Intrapersonal and Mass Communication, their characteristic; Formal and informal communication;
2. **Barriers to Communication;** Fidelity in communication and associated factors affecting it.
3. **Tools and Techniques of communication:** Role play, FGD, Fish bowl technique, PLA techniques, Mass communication strategies, Counseling. Persuasive communication, techniques of ingratiation.
4. **Health Communication:** Interpersonal Communication (personal contact, home visit), intrapersonal communication (lecture, demonstration, Group discussion, panel discussion, symposium, workshop, conference, seminars, Role play) and mass communication (print, electronic media and folk method) P-Process, Principles and Methods of Health Education, Different types of Audio-Visuals Aids and Equipment. Health Promotions, Social Marketing, Advocacy
5. **Organizational communication:** Superior-Subordinate and Peer Communication, Communication Flow and patterns, Communication network in organization.
6. *Transactional analysis, skill for conduction of meeting & fact presentation.*

PRACTICUM

1. Writing of Health Messages
2. Handling of Communication Aids
3. Developing Communication Campaigns – PLA, FGD, Counseling
4. Microteaching
5. Video and computer systems and their handling,

Bio-Statistics I (MAS-712)

Credits 3 (2-0-2)

1. **Data and Data Presentation:** Types of data, simple, compound, percentage, bar chart, Histogram, Frequency Polygon, Frequency curve, Normal curves, Skewed diagram.

2. **Numerical Description of Data:** Measures of central tendency, Mean Median, Mode, Geometric mean, Harmonic mean, Measures of dispersion: range, Mean Deviation, Standard Deviation, quartile deviation, Co-efficient of variation, Standard Error
3. **Probability and Probability distribution :** events, Probability, sampling, Conditional probability, Addition and multiplication rules of Probability, Bays theorem, random variable, Probability distribution function, Exponential distribution, binomial Distribution, Poisson distribution, Normal Distribution.

Quality in Health Care Delivery (PH-715)

Credits 2 (2-0-0)

1. The Concept of Quality,
2. Indicators of Quality and Measurement of quality
3. Quality Control Mechanisms and Frameworks with special reference to Quality of Family Planning and MCH Services.
4. Continuous Quality Improvement: Quality Circles Approach, Other concepts and frameworks.
5. Quality enhancement and control in health service delivery
6. The COPE approach.
7. ISO certification of health systems.

Essentials of Health Economics and Public Finance (PHM-716)

Credits 3(2-0-2)

1. Basic concepts of economics: principles of macroeconomics and microeconomics
2. Relationship between economics: economic development, economic aspect of health care.
3. Basic concept of demand and supply : law of demand and supply
4. Health care market, market failure-externalities and public goods

5. Cost concept- short term and long term costs, economies of scale, ABC costing and VED analysis (Vital, Essential & discernible)
6. Production: production function, laws of production, production in health care
7. Public finance: nature and concept, public expenditure and public revenue
8. five year plans: national outlays on health on health/ public health, budgets of central and state government
9. Financing health intervention

Practical:

1. Demand and supply graphs
2. Cost curves

Strategic Management (PHM-717)

Credits 3(3-0-0)

1. Introduction to strategic Management-importance-scope-concepts and characteristics
2. Strategic formulation: vision, mission and purpose- Environmental analysis and scanning- types of strategies- market entry strategy, social marketing, competitive strategy
3. Strategic analysis and choice: Environmental threat and opportunity profile (ETOP)- Strategic advantage profile- SWOT analysis-GAP analysis-McKinsey's 7S Framework-distinctive competitiveness
4. Strategic implementation-resource allocation-organization structure- Functions plans and policies
5. Strategy Evaluation-Symptoms of malfunctioning strategies- criteria for evaluation
6. strategic Control: Process of control
7. Case Study

Field Training (PH-800)

Credits 3 (0-0-6)

**Field Training(For Community Dentistry only): PH-800:
2(0-0-2)**

Rural /community dental health: 1. collection of statistics using indices

2. Preparation of IEC material for oral health

3. Preventive dentistry including assessment of water fluoride
School health: visit to schools to assess oral health status of children, emergency treatment and health education

Total Oral health care approach:

The type written report should have seven to ten printed pages.

Guidelines for presentation-

1. Power point presentation
2. Time for presentation= 20 minutes
3. Time for discussion= 10 minutes

III SEMESTER

Managerial Accounting (PHM-751)

Credits 3 (3-0-0)

1. Basics of Accounting, Different types of Accounts, Journal and Ledgers entries
2. Concept of Managerial Accounting
3. Understanding Financial Statements –income statement, balance sheet
4. Funds Flows and related Concepts
5. Cost-Volume-Profit Analysis
6. Standard Costing
7. Budgeting and Budgetary Control –concept of Zero-based budgeting
8. Responsibility Accounting

9. Human Resource Accounting

Medical Anthropology (PH-656)

Credits 2 (2-0-0)

1. Medical Anthropology for Public Health research
2. The anthropological approach
3. Focused Health Ethnographies including anthropological approaches to the study of Selected issues: Communicable diseases, Non-communicable diseases, reproductive health and health systems.

Bio- Statistics II (MAS-716)

Credits 3(2-0-2)

1. **Testing of Hypothesis:** Hypothesis, Types of error, Critical Region, level significance, t-test, Chi2 test, Z-test and F-test, estimation of sample size, non parametric tests: sign test, median, Size of sample
2. **Regression:** Regression, Linear Regression Model, Multiple Regression, estimation of Coefficient in simple & Multiple regression, estimation, test for linearity of regression, Sequential Method of Model Selection, Study of Residuals and Violation of Assumptions, Application of Analysis of variance in multiple Regression
3. **Vital Statistics Methods:** Rates of Events , Measures of morbidity, Crude death Rates, Specific death Rates, Standardized death rates, Life tables construction and use of life table, measurement of population growth crude rate of natural increase, Vital Index, Gross reproduction rate, Net reproduction rate.

Introduction to community Dentistry PH-713: 2(2-0-0)

1. **Introduction:** Definition of dentistry, scope, aims and objectives of dentistry,
2. **Epidemiology aspect of community dental health-** dental carries periodontal diseases, malocclusion, dental fluorosis and oral cancer, otolaryngeal disorders related to dentistry
3. Sociocultural pattern of Dental Health in Rural areas
4. Nutrition in oral diseases
5. Place of community dentistry in primary health care system
6. Programmes for dental and oral health

Public Health Dentistry PH-714: 3(3-0-0)

1. **Survey procedures:** planning, implementation and evaluation, WHO oral health survey methods 1997, indices for dental diseases.
2. **Preventive dentistry:** role of individual, community and profession, fluorides in dentistry, plaque control program
3. **Delivery of dental care:** dental auxiliaries, operational and non operational, incremental and comprehensive health care, school dental health
4. **Payments of dental care:** methods of payments and dental insurance, govt. plans
5. **Functions of Public Health dentist:**
6. **Laws and acts related to dentistry:** Private practice administration, ethics, Dentist act 1948 with amendment, Dental Council of India and State dental council, Composition and responsibilities, Indian dental association, Head office, state, local and branches

Text Books recommended-

Introduction To Public Health

- Park & Park (Preventive & Social Medicine)
- National programmes of India by J Kishore
- Epidemiology & management for Health care for all- PV Sathe & AP Sathe

Immunization

- Park & Park (Preventive & Social Medicine)
- Infectious Diseases and Immunization by Utpal Kant Singh

Research Methods-

- Ranjit Kumar
- Good & Hatt
- P. V. Young
- Media research methods by Barrie Gunter
- R C Kothari

Communication intervention

- Roger & Shoemaker
- R. R. Reddy

Training in Health

- Kar & Alcala

Reproductive Health

- Park & Park (Preventive & Social Medicine)
- Holland & Brews
- Shaw's textbook of Gynaecology
- New Contraceptive Technology
- Margerate Myles

Basic Epidemiology

- Epidemiology- Leon Gordis
- Basics of Epidemiology-Robert Beaglehole & Bonita
- Epidemiology & management for Health care for all-PV Sathe & AP Sathe

Adolescent and child Health

- Park & Park (Preventive & Social Medicine)
- Essentials of Paediatrics
- Modules of MCHN

Health Information System

- Epidemiology & management for Health care for all-P V Sathe & A P Sathe

Biostatistics

- P. S. Sundar Rao

Journals

Indian Journal of Community Medicine
Bulletin of WHO

Reproductive Health Matters

Journal of Adolescent Health

Indian Journal of Public Health

International Journal of Epidemiology

Studies in Family Planning

FamilyPlanningPerspective

PROGRAMME-MASTER OF PUBLIC HEALTH

Specialization Communication & Training in Health

Syllabus

SEMESTER I				
S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Introduction to Public Health	PH-701	3	(2-0-2)
2.	Basic Epidemiology	PH-702	3	(3-0-0)
3.	Research Methods in Health	PH-703	2	(2-0-0)
4.	Issues in Public Health I	PH-704	3	(2-0-2)
5.	Social and Behavioral Sciences	PH-705	3	(3-0-0)
6.	*Human Biology & Medical terminology	PH-605	2	(2-0-2)
7.	Information Technology	COMP-631	3	(2-0-2)
8.	Scientific communication	LNG-703	3	(2-0-2)
9.	Essentials of Management	PHM-753	3	(3-0-0)

SEMESTER II

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Issues in Public Health II	PH-711	3	(3-0-0)
2.	Disease Epidemiology	PH-712	2	(2-0-0)
3.	Reproductive & Child Health	PH-713	2	(2-0-0)
4.	Information Education & Communication	PH-714	3	(2-0-2)

5.	Bio Statistics I	MAS-712	3	(2-0-2)
6.	Quality in Health Care	PH-715	2	(2-0-0)
7.	Essentials of Health Economics & Public Finance	PHM-716	3	(2-0-2)
8.	Strategic Management	PHM-717	3	(3-0-0)
9.	Field Training	PH-800	3	(0-0-6)

SEMESTER III Common

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Bio Statistics II	MAS-716	3	(2-0-2)
2.	Medical Anthropology	PH-656	2	(2-0-0)
3.	Managerial Accounting	PHM-751	3	(3-0-0)
4.	Seminar	PH-780	2	(0-0-4)
5.	Programme Planning & Evaluation	PH-802	3	(2-0-2)
6.	Training in Health	PH-807	3	(2-0-2)
7.	Communication Intervention in Public Health	PH-808	3	(2-0-2)

SEMESTER IV

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Thesis /Project Works	PH-899	15	(0-0-30)
2.	Comprehensive Viva	PH-897	5	

* Only for the students of non- medical background.

IST SEMESTER

Introduction to Public Health (PH-701) **Credits 3 (2-0-2)**

- 1. Public Health:** Genesis and Development of the concept, Healthcare versus Medical Care, Approaches to Public Health
- 2. Health and Disease:** Basic Concepts and Definition, Disease Control and Levels of Prevention, Determinants and Indicators of Health, Health situation and Trends in India.
- 3. Health Policy** National Health Policy of India, Nepal, global Health policy
- 4. Concept of primary health care,** Different sectors in health system including AYUSH
- 5. Health Infrastructure & Health care Delivery System: Government Committees** for health: Past and present, India, Nepal, other developed and developing countries.
- 6. Other Government Health Programs/ Systems:** ESI, Railways, Military, etc
- 7. National Health Programs:** An Overview of major National Health Programs

PRACTICUM

Visit to village for family health study

Visit to understand Health system functioning

a) Rural – i) Government ii) Private iii) Others

b) Urban- i) Government ii) Private iii) Others

Visit to understand other systems of Health eg. Railway, Military

Basic Epidemiology (PH-702)

Credits 3 (3-0-0)

1. Introduction
2. Data sources for Epidemiology
3. Epidemiological concept of disease
4. Measures of disease frequency
5. Epidemiological methods: Descriptive Epidemiology, Analytical Epidemiology, Experimental Epidemiology
6. Screening in health and disease: Principles underlying screening programme, Evaluating screening programmes
7. Errors in measurements
8. Epidemic Investigations
9. How to read Health Literature
10. Use of computers in Epidemiology and data management

Research Methods in Health (PH-703)

Credits 2 (2-0-0)

1. **Scientific research**: Nature and Scope, Basic Principles of scientific research, Steps involved in a scientific study/ investigation, Formulation of Hypothesis, sources, qualities of a workable hypothesis.
2. **Research Methods**: Social Surveys, Case Study, Experimental methods meaning. Types-Trial and Error, Observational studies, Natural experiment, Ex-post facto experiment, Laboratory experiments, attitude analysis.
3. **Design of Sample Survey**: Basic Principles of sample survey, Biases in sampling, simple random sampling, Stratified random sampling, Multistage sampling, double sampling, systematic sampling, cluster sampling, Purposive sampling.
4. **Data Collection**: Methods-Schedule Mailed Questionnaire, Interview, Observation, Instruments, Instruments & their test, Field Setting, Planning and Control, multicentric study, scaling techniques.
5. **Classification and Tabulation**: objects, characteristics, kinds and statistical series-array, discrete, continuous. Presentation of Data, Analysis of Data
6. **Report Writing**: Introduction, Objectives, Methodology, Major Findings, Discussion, Conclusion and Recommendations

Issues in Public Health I (PH-704)

Credit 3(2-0-2)

1. Environment and Health: Environmental degradation and human pathology, Examination of living/ working environment & its impact on human health; Laws on Environmental protection, the Right to a safe biosphere

2. Nutrition and Health: Classification and Nutritional profiles of various foods and drinks, Balanced diet, Diet survey, consumption unit, nutritional classification, Nutritional problems e.g. LBW, PEM, Xerophthalmia, IDD, etc. Nutritional factors in selected/ major diseases (Cardiovascular, Diabetes, Obesity, Cancer), Food toxicity, socio-ecology of nutrition

3. Industrial and Occupational Health: Industrial and Occupational hazards and accidents, Occupational diseases and their prevention, Measures for health protection of worker, Legislation and Acts

Practicum

1. Visit to sewage treatment Plant
2. Visit to water purification Plant
3. Visit to Biomedical waste treatment Plant
4. Visit to Magh Mela
5. Visit to Industry

Social and Behavioral Sciences (PH-705)

Credits 3 (3-0-0)

Introduction: i) Psychology and PH ii) Health psychology iii) Sociology & PH stress, well being & Quality of life
sociometrics Introduction

Culture and health: i) rural/urban migrant ii) cross cultural differences
Social Pathology, therapies

Human Biology & Medical Terminology (PH-605) Credits 2 (2-0-0)

Human Biology –

- i. Introduction to human Biology
- ii. Definition & structure of cell, Tissue structure & its Type
- iii. Organ Systems (Basic Anatomy & Physiology)
 1. Digestive system
 2. Skeletal system
 3. Respiratory system
 4. Cardiovascular System
 5. Lymphoid & haemopoietic system
 6. Urinary system
 7. Nervous & the special senses
 8. Female Reproductive System
 9. Male Reproductive system

Medical Terminology-

Infection & Immunity& Sterilization

Introduction to bacteriology

Introduction to virology

Introduction to Mycology

Introduction to parasitology

Genetic diseases/ genetics

Pediatric diseases/problems

Neoplasia

Inflammation & healing

Scientific communication LNG-703

Credits 3 (2-0-2)

Section I:

1. Etiquette in different life style situation
2. Grammar

3. Vocabulary
4. Common errors in English

Section II:

Composition

1. Orientation of different type of letters
2. Essay writing
3. Précis or summary writing
4. Report writing
5. reading comprehension-translating global comprehension

Section III:

Practical/spoken English

1. JAM session
2. conversation
3. group discussion
4. Role plays
5. Techniques of discussion at medical meetings, making presentation at workshop, conference, seminars.
6. How to face interviews
7. Vote of thanks

Essentials of Management (PHM-753)

Credits 3 (3-0-0)

Concept and Evolution of Management: Nature and Functions of Management, Theories and Approaches to Management

Planning: Nature and Purpose, Types of plans and Planning process, Strategies Policies and Planning process

Decision Making: Importance and Limitations of Rational Decision Making, Steps of Rational Decision, Decision making environment, and Techniques of decision making

Organizing: Nature and purpose, Process of Organising, Span of management, Organisational structure, Levels of organisation, Line and Staff authority, Authority delegation and decentralization, Organizational culture.

Staffing: Recruitment, selection ; performance appraisal

Leading: Approaches to Leadership, Leadership behaviour and styles

Motivation: Motivators, Theories of motivation

Communication: Process, Media, Barriers to communication, Formal and Informal Communication

Controlling: Basic control process, Control techniques

Coordination: Importance and principles, External and Internal coordination

Information Technology (COMP 631)

Credits 3(2-0-2)

1. Information, concepts and processing.
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4. Special applications: Medical transcription, e-health
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Window and GUI.

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Statistical package- SPSS, epi info, M-stat

II SEMESTER

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Credits 2(2-0-0)

- 1. Respiratory Infections:** Chicken Pox, Measles, Tuberculosis and ARI, SARS
- 2. Intestinal Infections:** Poliomyelitis, Hepatitis, Cholera, Typhoid, Food Poisoning, Diarrhoeal Diseases,
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Issues in Public Health II (PH-711)

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Services under RCH package: RCH I, RCH II

Contraceptive Technology: Overview of various methods Surveillance and control
Benefits of family planning, Peoples perceptions regarding FP

Immunization: Basic concepts, schedule of Immunization, cold chain.

Information, Education & Communication (PH-714)

Credits 3(2-0-2)

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PRACTICUM

1. Writing of Health Messages
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Bio-Statistics I (MAS-712)

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1. **Data and Data Presentation:** Types of data, simple, compound, percentage, bar chart, Histogram, Frequency Polygon, Frequency curve, Normal curves, Skewed diagram.

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3. **Probability and Probability distribution :** events, Probability, sampling, Conditional probability, Addition and multiplication rules of Probability, Bays theorem, random variable, Probability distribution function, Exponential distribution, binomial Distribution, Poisson distribution, Normal Distribution.

Quality in Health Care Delivery (PH-715)

Credits 2 (2-0-0)

1. The Concept of Quality,
2. Indicators of Quality and Measurement of quality
3. Quality Control Mechanisms and Frameworks with special reference to Quality of Family Planning and MCH Services.
4. Continuous Quality Improvement: Quality Circles Approach, Other concepts and frameworks.
5. Quality enhancement and control in health service delivery
6. The COPE approach.
7. ISO certification of health systems.

Essentials of Health Economics and Public Finance (PHM-716)

Credits 3(2-0-2)

1. Basic concepts of economics: principles of macroeconomics and microeconomics
2. Relationship between economics: economic development, economic aspect of health care.
3. Basic concept of demand and supply : law of demand and supply
4. Health care market, market failure-externalities and public goods

5. Cost concept- short term and long term costs, economies of scale, ABC costing and VED analysis (Vital, Essential & discernible)
6. Production: production function, laws of production, production in health care
7. Public finance: nature and concept, public expenditure and public revenue
8. five year plans: national outlays on health on health/ public health, budgets of central and state government
9. Financing health intervention

Practical:

1. Demand and supply graphs
2. Cost curves

Strategic Management (PHM-717)

Credits 3(3-0-0)

1. Introduction to strategic Management-importance-scope-concepts and characteristics
2. Strategic formulation: vision, mission and purpose- Environmental analysis and scanning- types of strategies- market entry strategy, social marketing, competitive strategy
3. Strategic analysis and choice: Environmental threat and opportunity profile (ETOP)- Strategic advantage profile- SWOT analysis-GAP analysis-McKinsey's 7S Framework-distinctive competitiveness
4. Strategic implementation-resource allocation-organization structure- Functions plans and policies
5. Strategy Evaluation-Symptoms of malfunctioning strategies- criteria for evaluation
6. strategic Control: Process of control
7. Case Study

Purpose of the summer placement

To expose the student to various programmes/activities in health sector and develop a comprehensive understanding of programme design, strategies and planned intervention

Objectives of the training----

1. To collect the information about organization
2. To learn about the different projects run by the organization
3. To be familiar with communication procedure between health workers and community
4. To identify practical things about project planning and implementation
5. To discover the problems faced in implementing the project
6. To learn about working of the information system
7. To know about method and source of evaluation

Format for report writing -----

1. Title of the project
2. About the organization
3. Introduction and objectives of the project/programme / organization
4. Funding agency— about the agency, how to get funding, Nature of funding agency
5. Staffing pattern of the project with their functions
6. Major activities going under project
7. Results achieved so far (target Vs achievement)
8. Role of the candidate in the project/programme / organization
9. Evaluation by the candidate

The type written report should have seven to ten printed pages.

Guidelines for presentation-

1. Power point presentation
2. Time for presentation= 20 minutes
3. Time for discussion= 10 minutes

III SEMESTER

Managerial Accounting (PHM-751)

Credits 3 (3-0-0)

1. Basics of Accounting, Different types of Accounts, Journal and Ledgers entries
2. Concept of Managerial Accounting
3. Understanding Financial Statements –income statement, balance sheet
4. Funds Flows and related Concepts
5. Cost-Volume-Profit Analysis
6. Standard Costing
7. Budgeting and Budgetary Control –concept of Zero-based budgeting
8. Responsibility Accounting
9. Human Resource Accounting

Medical Anthropology (PH-656)

Credits 2 (2-0-0)

1. Medical Anthropology for Public Health research
2. The anthropological approach
3. Focused Health Ethnographies including anthropological approaches to the study of
Selected issues: Communicable diseases, Non-communicable diseases, reproductive health and health systems.

Bio- Statistics II (MAS-716)

Credits 3(2-0-2)

1. **Testing of Hypothesis:** Hypothesis, Types of error, Critical Region, level significance, t-test, Chi² test, Z-test and F-test, estimation of sample size, non parametric tests: sign test, median, Size of sample
2. **Regression:** Regression, Linear Regression Model, Multiple Regression, estimation of Coefficient in simple & Multiple regression, estimation, test for linearity of regression, Sequential Method of Model Selection, Study of Residuals and Violation of Assumptions, Application of Analysis of variance in multiple Regression

3. **Vital Statistics Methods:** Rates of Events , Measures of morbidity, Crude death Rates, Specific death Rates, Standardized death rates, Life tables construction and use of life table, measurement of population growth crude rate of natural increase, Vital Index, Gross reproduction rate, Net reproduction rate.

Programme Planning and Evaluation (PH-802)

Credits 3(2-0-2)

1. Concept, principles and theories of programme planning;
2. Application of programme planning to Health education and extension
3. Systematic development of plan of work, programme projection; Some important National health programme. Machinery for planning at the National level.
4. Evaluation techniques and their applications; PERT and CPM: meaning, nature, scope, importance and methods of monitoring and evaluation; types, procedures, steps, techniques and principles of evaluation; health audit
5. Indicators for programs/Projects
6. Critical analysis of India's Five Year Plans in relation to developmental objectives and programmes for the rural India;

PRACTICAL:

Evaluation of any national health Programme

Training in Health (PH-807)

Credits 3 (2-0-2)

1. Training: Basic Concepts, Principles and Theories of Training
2. Training Needs Assessment (TNA), Training Design and Trainers Skills
3. Training processes: Pre-training, training and post-training; Different types of training interventions, Training strategies: external and internal
4. Importance of monitoring and evaluation in training;
5. Built in systems of monitoring in evaluation;
7. Important issues in evaluation of training
8. Appraisal of the monitoring and evaluation systems of different health training institutes and programmes.
9. PRA and training

PRACTICUM:

1. Planning strategies for various types of training for field functionaries and rural people;
2. Designing training programmes in Health;
3. PRA practice in the Community Health Needs Assessment

Communication Interventions in Public Health (PH-808)

Credits 3(2-0-2)

- 1. Public Health and Communication:** Conceptual framework, Importance of Values. Communication Needs Assessment in various areas of health.
- 2. Strategic Communication:** Meaning, Nature and concept, P-Process as an example of strategic communication
- 3. Health Communication:** Concept and Meaning, an emerging field of inquiry/ discipline?
- 4. Public Health Communication Interventions:** Meaning, Nature and Philosophies of health intervention, Level of Interventions in health, facets of interventions, Intervention Strategies,

5. Communication Campaigns: Meaning and scope, Types of campaigns and goals, developing and designing campaigns.

PRACTICAL:

Undertaking Communication Needs Assessment (CNA) studies, Developing and designing of specific campaigns for

Text Books recommended-

Introduction To Public Health

- Park & Park (Preventive & Social Medicine)
- National programmes of India by J Kishore
- Epidemiology & management for Health care for all- PV Sathe & AP Sathe

Immunization

- Park & Park (Preventive & Social Medicine)
- Infectious Diseases and Immunization by Utpal Kant Singh

Research Methods-

- Ranjit Kumar
- Good & Hatt
- P. V. Young
- Media research methods by Barrie Gunter
- R C Kothari

Communication intervention

- Roger & Shoemaker
- R. R. Reddy

Training in Health

- Kar & Alcala

Reproductive Health

- Park & Park (Preventive & Social Medicine)
- Holland & Brews

- Shaw's textbook of Gynaecology
- New Contraceptive Technology
- Margerate Myles

Basic Epidemiology

- Epidemiology- Leon Gordis
- Basics of Epidemiology-Robert Beaglehole & Bonita
- Epidemiology & management for Health care for all-PV Sathe & AP Sathe

Adolescent and child Health

- Park & Park (Preventive & Social Medicine)
- Essentials of Paediatrics
- Modules of MCHN

Health Information System

- Epidemiology & management for Health care for all-P V Sathe & A P Sathe

Biostatistics

- P. S. Sundar Rao

Journals

Indian Journal of Community Medicine
 Bulletin of WHO

 Reproductive Health Matters

 Journal of Adolescent Health

 Indian Journal of Public Health

 International Journal of Epidemiology

 Studies in Family Planning

 FamilyPlanningPerspective

**PROGRAMME-MASTER OF PUBLIC HEALTH
SPECIALIZATION HEALTH SYSTEMS MANAGEMENT**

Syllabus

SEMESTER I				
S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Introduction to Public Health	PH-701	3	(2-0-2)
2.	Basic Epidemiology	PH-702	3	(3-0-0)
3.	Research Methods in Health	PH-703	2	(2-0-0)
4.	Issues in Public Health I	PH-704	3	(2-0-2)
5.	Social and Behavioral Sciences	PH-705	3	(3-0-0)
6.	*Human Biology & Medical terminology	PH-605	2	(2-0-2)
7.	Information Technology	COMP-631	3	(2-0-2)
8.	Scientific communication	LNG-703	3	(2-0-2)
9.	Essentials of Management	PHM-753	3	(3-0-0)

SEMESTER II				
S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Issues in Public Health II	PH-711	3	(3-0-0)
2.	Disease Epidemiology	PH-712	2	(2-0-0)
3.	Reproductive & Child Health	PH-713	2	(2-0-0)
4.	Information Education & Communication	PH-714	3	(2-0-2)
5.	Bio Statistics I	MAS-712	3	(2-0-2)

6.	Quality in Health Care	PH-715	2	(2-0-0)
7.	Essentials of Health Economics & Public Finance	PHM-716	3	(2-0-2)
8.	Strategic Management	PHM-717	3	(3-0-0)
9.	Field Training	PH-800	3	(0-0-6)

SEMESTER III Common

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Bio Statistics II	MAS-716	3	(2-0-2)
2.	Medical Anthropology	PH-656	2	(2-0-0)
3.	Managerial Accounting	PHM-751	3	(3-0-0)
4.	Seminar	PH-780	2	(0-0-4)
5.	Logistics and Material Management	PHM-710	3	(3-0-0)
6.	Health System Operation Management	PH-809	3	(3-0-0)
7.	Organizational behavior	PHM-754	3	(3-0-0)
8.	Human Resource Management	PHM-767	3	(3-0-0)

SEMESTER IV

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Thesis /Project Works	PH-899	15	(0-0-30)
2.	Comprehensive Viva	PH-897	5	

* Only for the students of non- medical background.

DETAILED SYLLABUS OF COURSES FOR MPH

IST SEMESTER

Introduction to Public Health (PH-701) Credits 3 (2-0-2)

- 1. Public Health:** Genesis and Development of the concept, Healthcare versus Medical Care, Approaches to Public Health
- 2. Health and Disease:** Basic Concepts and Definition, Disease Control and Levels of Prevention, Determinants and Indicators of Health, Health situation and Trends in India.
- 3. Health Policy** National Health Policy of India, Nepal, global Health policy
- 4. Concept of primary health care,** Different sectors in health system including AYUSH
- 5. Health Infrastructure & Health care Delivery System: Government Committees** for health: Past and present, India, Nepal, other developed and developing countries.
- 6. Other Government Health Programs/ Systems:** ESI, Railways, Military, etc
- 7. National Health Programs:** An Overview of major National Health Programs

PRACTICUM

Visit to village for family health study

Visit to understand Health system functioning

a) Rural – i) Government ii) Private iii) Others

b) Urban- i) Government ii) Private iii) Others

Visit to understand other systems of Health eg. Railway, Military

Basic Epidemiology (PH-702)

Credits 3 (3-0-0)

1. Introduction
2. Data sources for Epidemiology
3. Epidemiological concept of disease
4. Measures of disease frequency
5. Epidemiological methods: Descriptive Epidemiology, Analytical Epidemiology, Experimental Epidemiology
6. Screening in health and disease: Principles underlying screening programme, Evaluating screening programmes
7. Errors in measurements
8. Epidemic Investigations
9. How to read Health Literature
10. Use of computers in Epidemiology and data management

Research Methods in Health (PH-703)

Credits 2 (2-0-0)

1. **Scientific research**: Nature and Scope, Basic Principles of scientific research, Steps involved in a scientific study/ investigation, Formulation of Hypothesis, sources, qualities of a workable hypothesis.
2. **Research Methods**: Social Surveys, Case Study, Experimental methods meaning. Types- Trial and Error, Observational studies, Natural experiment, Ex-post facto experiment, Laboratory experiments, attitude analysis.
3. **Design of Sample Survey**: Basic Principles of sample survey, Biases in sampling, simple random sampling, Stratified random sampling, Multistage sampling, double sampling, systematic sampling, cluster sampling, Purposive sampling.
4. **Data Collection**: Methods-Schedule Mailed Questionnaire, Interview, Observation, Instruments, Instruments & their test, Field Setting, Planning and Control, multicentric study, scaling techniques.

5. **Classification and Tabulation:** objects, characteristics, kinds and statistical series-array, discrete, continuous. Presentation of Data, Analysis of Data
6. **Report Writing:** Introduction, Objectives, Methodology, Major Findings, Discussion, Conclusion and Recommendations

Issues in Public Health I (PH-704)

Credit 3(2-0-2)

- 1. Environment and Health:** Environmental degradation and human pathology, Examination of living/ working environment & its impact on human health; Laws on Environmental protection, the Right to a safe biosphere
- 2. Nutrition and Health:** Classification and Nutritional profiles of various foods and drinks, Balanced diet, Diet survey, consumption unit, nutritional classification, Nutritional problems e.g. LBW, PEM, Xerophthalmia, IDD, etc. Nutritional factors in selected/ major diseases (Cardiovascular, Diabetes, Obesity, Cancer), Food toxicity, socio-ecology of nutrition
- 3. Industrial and Occupational Health:** Industrial and Occupational hazards and accidents, Occupational diseases and their prevention, Measures for health protection of worker, Legislation and Acts

Practicum

1. Visit to sewage treatment Plant
2. Visit to water purification Plant
3. Visit to Biomedical waste treatment Plant
4. Visit to Magh Mela
5. Visit to Industry

Social and Behavioral Sciences (PH-705)

Credits 3 (3-0-0)

Introduction: i) Psychology and PH ii) Health psychology iii) Sociology & PH stress, well being & Quality of life

sociometrics Introduction

Culture and health: i) rural/urban migrant ii) cross cultural differences

Social Pathology, therapies

Human Biology & Medical Terminology (PH-605) Credits 2 (2-0-0)

Human Biology –

- i. Introduction to human Biology
- ii. Definition & structure of cell, Tissue structure & its Type
- iii. Organ Systems (Basic Anatomy & Physiology)
 1. Digestive system
 2. Skeletal system
 3. Respiratory system
 4. Cardiovascular System
 5. Lymphoid & haemopoietic system
 6. Urinary system
 7. Nervous & the special senses
 8. Female Reproductive System
 9. Male Reproductive system

Medical Terminology-

Infection & Immunity & Sterilization

Introduction to bacteriology

Introduction to virology

Introduction to Mycology

Introduction to parasitology

Genetic diseases/ genetics

Pediatric diseases/problems

Neoplasia

Inflammation & healing

Scientific communication LNG-703

Credits 3 (2-0-2)

Section I:

1. Etiquette in different life style situation
2. Grammar
3. Vocabulary
4. Common errors in English

Section II:

Composition

1. Orientation of different type of letters
2. Essay writing
3. Précis or summary writing
4. Report writing
5. reading comprehension-translating global comprehension

Section III:

Practical/spoken English

1. JAM session
2. conversation
3. group discussion
4. Role plays
5. Techniques of discussion at medical meetings, making presentation at workshop, conference, seminars.
6. How to face interviews
7. Vote of thanks

Essentials of Management (PHM-753)

Credits 3 (3-0-0)

Concept and Evolution of Management: Nature and Functions of Management, Theories and Approaches to Management

Planning: Nature and Purpose, Types of plans and Planning process, Strategies Policies and Planning process

Decision Making: Importance and Limitations of Rational Decision Making, Steps of Rational Decision, Decision making environment, and Techniques of decision making

Organizing: Nature and purpose, Process of Organising, Span of management, Organisational structure, Levels of organisation, Line and Staff authority, Authority delegation and decentralization, Organizational culture.

Staffing: Recruitment, selection ; performance appraisal

Leading: Approaches to Leadership, Leadership behaviour and styles

Motivation: Motivators, Theories of motivation

Communication: Process, Media, Barriers to communication, Formal and Informal Communication

Controlling: Basic control process, Control techniques

Coordination: Importance and principles, External and Internal coordination

Information Technology (COMP 631)

Credits 3(2-0-2)

1. Information, concepts and processing.
2. Data concepts.
3. Elements of E.D.P.
4. Special applications: Medical transcription, e-health
5. Elements of computer system.
6. Concept of hardware and software devices.
7. Concept of operating systems.
8. Computer and communications.
9. Programming languages and classification.
10. Computer management and virus protection.
11. I.T. applications.

PRACTICAL:

Window and GUI.

Ms Word- full working & practice

MS Excel- how to operate, developing a work sheet, simple calculations

MS power Point- how to make a presentation

Use of internet- access, e-mail, search engine and health related websites, how to search for literature

Statistical package- SPSS, epi info, M-stat

II SEMESTER

Disease Epidemiology (PH-712)

Credits 2(2-0-0)

- 1. Respiratory Infections:** Chicken Pox, Measles, Tuberculosis and ARI, SARS
- 2. Intestinal Infections:** Poliomyelitis, Hepatitis, Cholera, Typhoid, Food Poisoning, Diarrhoeal Diseases,
- 3. Arthropod-borne infections:** Malaria, Dengue, JE
- 4. Zoonoses:** Rabies, Plague
- 5. Surface Infections:** Tetanus, Leprosy, STD, HIV-AIDS
- 6. National Health Programs:** An Overview of major National Programs, for control of diseases e.g. Tuberculosis, Malaria, National AIDS control programs,
- 7. Epidemiology of Chronic Non-communicable diseases/ conditions:** CHD, Hypertension, Stroke, Cancer, Diabetes, Obesity, Blindness, Accidents.

Issues in Public Health II (PH-711)

Credits 3 (3-0-0)

- 1. Gender and Health:** Status of women in society, Equity and Equality, Role of women in family decision making, life cycle approach, gender analysis framework, gender issues in different disease conditions.
- 2. Ethical issues:** Ethics and Medical experimentation, general ethical principles, ethical committee, Nuremberg code, Helsinki declaration
- 3. Healthcare Legislation in India:** Legal aspects of healthcare, the Medical Termination of Pregnancy Act, The maternity benefit act, The immoral traffic (prevention) act, The transplantation of human organs act, PNDT Act, The registration of birth and Death act, The child labour (prohibition and regulation) act, Biomedical waste Rules, COPRA Act, Indian factories act, ESI act
- 4. International Health:** Disease patterns around the world, Regions of the world according to WHO and their overall health status, effect of climate, politics and society on health, International bodies in health promotion and protection

Reproductive & Child Health (PH-713)

Credits 2 (2-0-0)

RCH: Definition, Concepts.

History of family planning. Importance of ICPD and Alma Ata conferences, ICPD+5 and beyond

FP Policy: Voluntarism versus Coercion, Current trends and status of FP in India,

Services under RCH package: RCH I, RCH II

Contraceptive Technology: Overview of various methods Surveillance and control
Benefits of family planning, Peoples perceptions regarding FP

Immunization: Basic concepts, schedule of Immunization, cold chain.

Information, Education & Communication (PH-714)

Credits 3(2-0-2)

- 1. Communication/ IEC:** Basic Concepts, Meaning, and scope, Theories of communication; Interpersonal, Intrapersonal and Mass Communication, their characteristic; Formal and informal communication;
- 2. Barriers to Communication;** Fidelity in communication and associated factors affecting it.
- 3. Tools and Techniques of communication:** Role play, FGD, Fish bowl technique, PLA techniques, Mass communication strategies, Counseling. Persuasive communication, techniques of ingratiation.
- 4. Health Communication:** Interpersonal Communication (personal contact, home visit), intrapersonal communication (lecture, demonstration, Group discussion, panel discussion, symposium, workshop, conference, seminars, Role play) and mass communication (print, electronic media and folk method) P-Process, Principles and Methods of Health Education, Different types of Audio-Visuals Aids and Equipment. Health Promotions, Social Marketing, Advocacy
- 5. Organizational communication:** Superior-Subordinate and Peer Communication, Communication Flow and patterns, Communication network in organization.
- 6. Transactional analysis, skill for conduction of meeting & fact presentation.*

PRACTICUM

1. Writing of Health Messages
2. Handling of Communication Aids
3. Developing Communication Campaigns – PLA, FGD, Counseling
4. Microteaching
5. Video and computer systems and their handling,

Bio-Statistics I (MAS-712)

Credits 3 (2-0-2)

- 1. Data and Data Presentation:** Types of data, simple, compound, percentage, bar chart, Histogram, Frequency Polygon, Frequency curve, Normal curves, Skewed diagram.

2. **Numerical Description of Data:** Measures of central tendency, Mean Median, Mode, Geometric mean, Harmonic mean, Measures of dispersion: range, Mean Deviation, Standard Deviation, quartile deviation, Co-efficient of variation, Standard Error
3. **Probability and Probability distribution :** events, Probability, sampling, Conditional probability, Addition and multiplication rules of Probability, Bays theorem, random variable, Probability distribution function, Exponential distribution, binomial Distribution, Poisson distribution, Normal Distribution.

Quality in Health Care Delivery (PH-715)

Credits 2 (2-0-0)

1. The Concept of Quality,
2. Indicators of Quality and Measurement of quality
3. Quality Control Mechanisms and Frameworks with special reference to Quality of Family Planning and MCH Services.
4. Continuous Quality Improvement: Quality Circles Approach, Other concepts and frameworks.
5. Quality enhancement and control in health service delivery
6. The COPE approach.
7. ISO certification of health systems.

Essentials of Health Economics and Public Finance (PHM-716)

Credits 3(2-0-2)

1. Basic concepts of economics: principles of macroeconomics and microeconomics
2. Relationship between economics: economic development, economic aspect of health care.
3. Basic concept of demand and supply : law of demand and supply
4. Health care market, market failure-externalities and public goods

5. Cost concept- short term and long term costs, economies of scale, ABC costing and VED analysis (Vital, Essential & discernible)
6. Production: production function, laws of production, production in health care
7. Public finance: nature and concept, public expenditure and public revenue
8. five year plans: national outlays on health on health/ public health, budgets of central and state government
9. Financing health intervention

Practical:

1. Demand and supply graphs
2. Cost curves

Strategic Management (PHM-717)

Credits 3(3-0-0)

1. Introduction to strategic Management-importance-scope-concepts and characteristics
2. Strategic formulation: vision, mission and purpose- Environmental analysis and scanning- types of strategies- market entry strategy, social marketing, competitive strategy
3. Strategic analysis and choice: Environmental threat and opportunity profile (ETOP)- Strategic advantage profile- SWOT analysis-GAP analysis-McKinsey's 7S Framework-distinctive competitiveness
4. Strategic implementation-resource allocation-organization structure- Functions plans and policies
5. Strategy Evaluation-Symptoms of malfunctioning strategies- criteria for evaluation
6. strategic Control: Process of control
7. Case Study

Purpose of the summer placement

To expose the student to various programmes/activities in health sector and develop a comprehensive understanding of programme design, strategies and planned intervention

Objectives of the training----

1. To collect the information about organization
2. To learn about the different projects run by the organization
3. To be familiar with communication procedure between health workers and community
4. To identify practical things about project planning and implementation
5. To discover the problems faced in implementing the project
6. To learn about working of the information system
7. To know about method and source of evaluation

Format for report writing -----

1. Title of the project
2. About the organization
3. Introduction and objectives of the project/programme / organization
4. Funding agency— about the agency, how to get funding, Nature of funding agency
5. Staffing pattern of the project with their functions
6. Major activities going under project
7. Results achieved so far (target Vs achievement)
8. Role of the candidate in the project/programme / organization
9. Evaluation by the candidate

The type written report should have seven to ten printed pages.

Guidelines for presentation-

1. Power point presentation
2. Time for presentation= 20 minutes
3. Time for discussion= 10 minutes

III SEMESTER

Managerial Accounting (PHM-751)

Credits 3 (3-0-0)

1. Basics of Accounting, Different types of Accounts, Journal and Ledgers entries
2. Concept of Managerial Accounting
3. Understanding Financial Statements –income statement, balance sheet
4. Funds Flows and related Concepts
5. Cost-Volume-Profit Analysis
6. Standard Costing
7. Budgeting and Budgetary Control –concept of Zero-based budgeting
8. Responsibility Accounting
9. Human Resource Accounting

Medical Anthropology (PH-656)

Credits 2 (2-0-0)

1. Medical Anthropology for Public Health research
2. The anthropological approach
3. Focused Health Ethnographies including anthropological approaches to the study of
Selected issues: Communicable diseases, Non-communicable diseases, reproductive health and health systems.

Bio- Statistics II (MAS-716)

Credits 3(2-0-2)

1. **Testing of Hypothesis:** Hypothesis, Types of error, Critical Region, level significance, t-test, Chi² test, Z-test and F-test, estimation of sample size, non parametric tests: sign test, median, Size of sample
2. **Regression:** Regression, Linear Regression Model, Multiple Regression, estimation of Coefficient in simple & Multiple regression, estimation, test for linearity of regression, Sequential Method of Model Selection, Study of Residuals and Violation of Assumptions, Application of Analysis of variance in multiple Regression

3. **Vital Statistics Methods:** Rates of Events , Measures of morbidity, Crude death Rates, Specific death Rates, Standardized death rates, Life tables construction and use of life table, measurement of population growth crude rate of natural increase, Vital Index, Gross reproduction rate, Net reproduction rate.

Health Systems Operational Management (PH-809) Credits 3 (3-0-0)

1. **Health Systems Management:** introduction
2. **Approaches to Health Systems Management:** System's approach, Functional approach, Structural approaches.
3. **Institutional Management:** (i) Primary health care management;
(ii) Hospital management as an Organization, Principles and Methods of Organizing services for different types of health facilities, functions of hospital administrator, Equipping and staffing different types of health facilities, Types of Clinical, supportive services required, inventory management, Queuing theory (waiting lines), Rogi Kalyan Samiti/Hospital Management society
5. Biomedical Waste management
6. Disaster management
7. HMIS

Logistics and Materials Management (PHM-710) Credits 3 (3-0 - 0)

1. **Materials Management:** Basic concepts, Objectives, Principles and Philosophy
2. **Logistics:** Meaning, Definition and importance, Market segmentation, Logistics Cycle and its components, Demand Forecasting, Transportation, Warehousing and Inventory management.

3. Purchase and Supply Chain Management: Roles and Objectives, Procedure and Information flows, Purchase description and specification, supplier selection, Outsourcing and Contracting, Supply chain management and TQM, Legal aspects of purchasing, Strategic Planning in Purchase and Supply Management, Supplier selection .

Organisational Behaviour (PHM-754)

Credits 3 (3-0-0)

1. Organisational Behaviour: Meaning and Nature,
2. Theories of Organisational Behaviour, Organisational setting,
3. Group Dynamics and Organisational Behaviour,
4. Conflict Resolution and inter-group behaviour,
5. Motivation and Organisational Behaviour,
6. Communication and Group decision making,
7. Leadership
8. Management of Change,
9. Organisational Development Process,
10. Team Building,
11. Organisational Climate and culture, and Socialization

Human Resource Management (PHM-767)

Credits 3 (3-0-0)

1. Nature and scope of HRM
2. Manpower Planning
3. Job analysis; Job evaluation
4. Recruitment, selection, placement
5. Training & development
6. Performance appraisal
7. Promotion, transfer & demotion

8. Wages & salary; rewards & incentives
9. Human resource audit and accounting
10. Job satisfaction, job enrichment, job empowerment
11. Disputes & their resolution
12. Trade union

Text Books recommended-

Introduction To Public Health

- Park & Park (Preventive & Social Medicine)
- National programmes of India by J Kishore
- Epidemiology & management for Health care for all- PV Sathe & AP Sathe

Immunization

- Park & Park (Preventive & Social Medicine)
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- R. R. Reddy

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- Margerate Myles

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- Essentials of Paediatrics

- Modules of MCHN

Health Information System

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Biostatistics

- P. S. Sundar Rao

Journals

Indian Journal of Community Medicine

Bulletin of WHO

Reproductive Health Matters

Journal of Adolescent Health

Indian Journal of Public Health

International Journal of Epidemiology

Studies in Family Planning

FamilyPlanningPerspective

**PROGRAMME-MASTER OF PUBLIC HEALTH
Specialization - Reproductive Health**

Syllabus

SEMESTER I				
S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Introduction to Public Health	PH-701	3	(2-0-2)
2.	Basic Epidemiology	PH-702	3	(3-0-0)
3.	Research Methods in Health	PH-703	2	(2-0-0)
4.	Issues in Public Health I	PH-704	3	(2-0-2)
5.	Social and Behavioral Sciences	PH-705	3	(3-0-0)
6.	*Human Biology & Medical terminology	PH-605	2	(2-0-2)
7.	Information Technology	COMP-631	3	(2-0-2)
8.	Scientific communication	LNG-703	3	(2-0-2)
9.	Essentials of Management	PHM-753	3	(3-0-0)

SEMESTER II

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Issues in Public Health II	PH-711	3	(3-0-0)
2.	Disease Epidemiology	PH-712	2	(2-0-0)
3.	Reproductive & Child Health	PH-713	2	(2-0-0)
4.	Information Education & Communication	PH-714	3	(2-0-2)
5.	Bio Statistics I	MAS-712	3	(2-0-2)

6.	Quality in Health Care	PH-715	2	(2-0-0)
7.	Essentials of Health Economics & Public Finance	PHM-716	3	(2-0-2)
8.	Strategic Management	PHM-717	3	(3-0-0)
9.	Field Training	PH-800	3	(0-0-6)

SEMESTER III Common

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Bio Statistics II	MAS-716	3	(2-0-2)
2.	Medical Anthropology	PH-656	2	(2-0-0)
3.	Managerial Accounting	PHM-751	3	(3-0-0)
4.	Seminar	PH-780	2	(0-0-4)
5.	Reproductive Biology	PH-804	2	(2-0-0)
6.	Safe Motherhood	PH-805	3	(3-0-0)
7.	Child & Adolescent health	PH-806	3	(3-0-0)

SEMESTER IV

S. N.	TITLE OF COURSE	COURSE CODE	CREDIT	CREDIT HOURS
1.	Thesis /Project Works	PH-899	15	(0-0-30)
2.	Comprehensive Viva	PH-897	5	

* Only for the students of non- medical background.

DETAILED SYLLABUS

1ST SEMESTER

Introduction to Public Health (PH-701) Credits 3 (2-0-2)

- 1. Public Health:** Genesis and Development of the concept, Healthcare versus Medical Care, Approaches to Public Health
- 2. Health and Disease:** Basic Concepts and Definition, Disease Control and Levels of Prevention, Determinants and Indicators of Health, Health situation and Trends in India.
- 3. Health Policy** National Health Policy of India, Nepal, global Health policy
- 4. Concept of primary health care,** Different sectors in health system including AYUSH
- 5. Health Infrastructure & Health care Delivery System: Government Committees** for health: Past and present, India, Nepal, other developed and developing countries.
- 6. Other Government Health Programs/ Systems:** ESI, Railways, Military, etc
- 7. National Health Programs:** An Overview of major National Health Programs

PRACTICUM

Visit to village for family health study

Visit to understand Health system functioning

a) Rural – i) Government ii) Private iii) Others

b) Urban- i) Government ii) Private iii) Others

Visit to understand other systems of Health eg. Railway, Military

Basic Epidemiology (PH-702)

Credits 3 (3-0-0)

1. Introduction
2. Data sources for Epidemiology
3. Epidemiological concept of disease
4. Measures of disease frequency
5. Epidemiological methods: Descriptive Epidemiology, Analytical Epidemiology, Experimental Epidemiology
6. Screening in health and disease: Principles underlying screening programme, Evaluating screening programmes
7. Errors in measurements
8. Epidemic Investigations
9. How to read Health Literature
10. Use of computers in Epidemiology and data management

Research Methods in Health (PH-703)

Credits 2 (2-0-0)

1. **Scientific research**: Nature and Scope, Basic Principles of scientific research, Steps involved in a scientific study/ investigation, Formulation of Hypothesis, sources, qualities of a workable hypothesis.
2. **Research Methods**: Social Surveys, Case Study, Experimental methods meaning. Types- Trial and Error, Observational studies, Natural experiment, Ex-post facto experiment, Laboratory experiments, attitude analysis.
3. **Design of Sample Survey**: Basic Principles of sample survey, Biases in sampling, simple random sampling, Stratified random sampling, Multistage sampling, double sampling, systematic sampling, cluster sampling, Purposive sampling.
4. **Data Collection**: Methods-Schedule Mailed Questionnaire, Interview, Observation, Instruments, Instruments & their test, Field Setting, Planning and Control, multicentric study, scaling techniques.

5. **Classification and Tabulation:** objects, characteristics, kinds and statistical series-array, discrete, continuous. Presentation of Data, Analysis of Data
6. **Report Writing:** Introduction, Objectives, Methodology, Major Findings, Discussion, Conclusion and Recommendations

Issues in Public Health I (PH-704)

Credit 3(2-0-2)

- 1. Environment and Health:** Environmental degradation and human pathology, Examination of living/ working environment & its impact on human health; Laws on Environmental protection, the Right to a safe biosphere
- 2. Nutrition and Health:** Classification and Nutritional profiles of various foods and drinks, Balanced diet, Diet survey, consumption unit, nutritional classification, Nutritional problems e.g. LBW, PEM, Xerophthalmia, IDD, etc. Nutritional factors in selected/ major diseases (Cardiovascular, Diabetes, Obesity, Cancer), Food toxicity, socio-ecology of nutrition
- 3. Industrial and Occupational Health:** Industrial and Occupational hazards and accidents, Occupational diseases and their prevention, Measures for health protection of worker, Legislation and Acts

Practicum

1. Visit to sewage treatment Plant
2. Visit to water purification Plant
3. Visit to Biomedical waste treatment Plant
4. Visit to Magh Mela
5. Visit to Industry

Social and Behavioral Sciences (PH-705)

Credits 3 (3-0-0)

Introduction: i) Psychology and PH ii) Health psychology iii) Sociology & PH stress, well being & Quality of life

sociometrics Introduction

Culture and health: i) rural/urban migrant ii) cross cultural differences

Social Pathology, therapies

Human Biology & Medical Terminology (PH-605) Credits 2 (2-0-0)

Human Biology –

- i. Introduction to human Biology
- ii. Definition & structure of cell, Tissue structure & its Type
- iii. Organ Systems (Basic Anatomy & Physiology)
 1. Digestive system
 2. Skeletal system
 3. Respiratory system
 4. Cardiovascular System
 5. Lymphoid & haemopoietic system
 6. Urinary system
 7. Nervous & the special senses
 8. Female Reproductive System
 9. Male Reproductive system

Medical Terminology-

Infection & Immunity & Sterilization

Introduction to bacteriology

Introduction to virology

Introduction to Mycology

Introduction to parasitology

Genetic diseases/ genetics

Pediatric diseases/problems

Neoplasia

Inflammation & healing

Scientific communication LNG-703

Credits 3 (2-0-2)

Section I:

1. Etiquette in different life style situation
2. Grammar
3. Vocabulary
4. Common errors in English

Section II:

Composition

1. Orientation of different type of letters
2. Essay writing
3. Précis or summary writing
4. Report writing
5. reading comprehension-translating global comprehension

Section III:

Practical/spoken English

1. JAM session
2. conversation
3. group discussion
4. Role plays
5. Techniques of discussion at medical meetings, making presentation at workshop, conference, seminars.
6. How to face interviews
7. Vote of thanks

Essentials of Management (PHM-753)

Credits 3 (3-0-0)

Concept and Evolution of Management: Nature and Functions of Management, Theories and Approaches to Management

Planning: Nature and Purpose, Types of plans and Planning process, Strategies Policies and Planning process

Decision Making: Importance and Limitations of Rational Decision Making, Steps of Rational Decision, Decision making environment, and Techniques of decision making

Organizing: Nature and purpose, Process of Organising, Span of management, Organisational structure, Levels of organisation, Line and Staff authority, Authority delegation and decentralization, Organizational culture.

Staffing: Recruitment, selection ; performance appraisal

Leading: Approaches to Leadership, Leadership behaviour and styles

Motivation: Motivators, Theories of motivation

Communication: Process, Media, Barriers to communication, Formal and Informal Communication

Controlling: Basic control process, Control techniques

Coordination: Importance and principles, External and Internal coordination

Information Technology (COMP 631)

Credits 3(2-0-2)

1. Information, concepts and processing.
2. Data concepts.
3. Elements of E.D.P.
4. Special applications: Medical transcription, e-health
5. Elements of computer system.
6. Concept of hardware and software devices.
7. Concept of operating systems.
8. Computer and communications.
9. Programming languages and classification.
10. Computer management and virus protection.
11. I.T. applications.

PRACTICAL:

Window and GUI.

Ms Word- full working & practice

MS Excel- how to operate, developing a work sheet, simple calculations

MS power Point- how to make a presentation

Use of internet- access, e-mail, search engine and health related websites, how to search for literature

Statistical package- SPSS, epi info, M-stat

II SEMESTER

Disease Epidemiology (PH-712)

Credits 2(2-0-0)

- 1. Respiratory Infections:** Chicken Pox, Measles, Tuberculosis and ARI, SARS
- 2. Intestinal Infections:** Poliomyelitis, Hepatitis, Cholera, Typhoid, Food Poisoning, Diarrhoeal Diseases,
- 3. Arthropod-borne infections:** Malaria, Dengue, JE
- 4. Zoonoses:** Rabies, Plague
- 5. Surface Infections:** Tetanus, Leprosy, STD, HIV-AIDS
- 6. National Health Programs:** An Overview of major National Programs, for control of diseases e.g. Tuberculosis, Malaria, National AIDS control programs,
- 7. Epidemiology of Chronic Non-communicable diseases/ conditions:** CHD, Hypertension, Stroke, Cancer, Diabetes, Obesity, Blindness, Accidents.

Issues in Public Health II (PH-711)

Credits 3 (3-0-0)

- 1. Gender and Health:** Status of women in society, Equity and Equality, Role of women in family decision making, life cycle approach, gender analysis framework, gender issues in different disease conditions.
- 2. Ethical issues:** Ethics and Medical experimentation, general ethical principles, ethical committee, Nuremberg code, Helsinki declaration
- 3. Healthcare Legislation in India:** Legal aspects of healthcare, the Medical Termination of Pregnancy Act, The maternity benefit act, The immoral traffic (prevention) act, The transplantation of human organs act, PNDT Act, The registration of birth and Death act, The child labour (prohibition and regulation) act, Biomedical waste Rules, COPRA Act, Indian factories act, ESI act
- 4. International Health:** Disease patterns around the world, Regions of the world according to WHO and their overall health status, effect of climate, politics and society on health, International bodies in health promotion and protection

Reproductive & Child Health (PH-713)

Credits 2 (2-0-0)

RCH: Definition, Concepts.

History of family planning. Importance of ICPD and Alma Ata conferences, ICPD+5 and beyond

FP Policy: Voluntarism versus Coercion, Current trends and status of FP in India,

Services under RCH package: RCH I, RCH II

Contraceptive Technology: Overview of various methods Surveillance and control
Benefits of family planning, Peoples perceptions regarding FP

Immunization: Basic concepts, schedule of Immunization, cold chain.

Information, Education & Communication (PH-714)

Credits 3(2-0-2)

1. **Communication/ IEC:** Basic Concepts, Meaning, and scope, Theories of communication; Interpersonal, Intrapersonal and Mass Communication, their characteristic; Formal and informal communication;
2. **Barriers to Communication;** Fidelity in communication and associated factors affecting it.
3. **Tools and Techniques of communication:** Role play, FGD, Fish bowl technique, PLA techniques, Mass communication strategies, Counseling. Persuasive communication, techniques of ingratiation.
4. **Health Communication:** Interpersonal Communication (personal contact, home visit), intrapersonal communication (lecture, demonstration, Group discussion, panel discussion, symposium, workshop, conference, seminars, Role play) and mass communication (print, electronic media and folk method) P-Process, Principles and Methods of Health Education, Different types of Audio-Visuals Aids and Equipment. Health Promotions, Social Marketing, Advocacy
5. **Organizational communication:** Superior-Subordinate and Peer Communication, Communication Flow and patterns, Communication network in organization.
6. *Transactional analysis, skill for conduction of meeting & fact presentation.*

PRACTICUM

1. Writing of Health Messages
2. Handling of Communication Aids
3. Developing Communication Campaigns – PLA, FGD, Counseling
4. Microteaching
5. Video and computer systems and their handling,

Bio-Statistics I (MAS-712)

Credits 3 (2-0-2)

1. **Data and Data Presentation:** Types of data, simple, compound, percentage, bar chart, Histogram, Frequency Polygon, Frequency curve, Normal curves, Skewed diagram.

2. **Numerical Description of Data:** Measures of central tendency, Mean Median, Mode, Geometric mean, Harmonic mean, Measures of dispersion: range, Mean Deviation, Standard Deviation, quartile deviation, Co-efficient of variation, Standard Error
3. **Probability and Probability distribution :** events, Probability, sampling, Conditional probability, Addition and multiplication rules of Probability, Bays theorem, random variable, Probability distribution function, Exponential distribution, binomial Distribution, Poisson distribution, Normal Distribution.

Quality in Health Care Delivery (PH-715)

Credits 2 (2-0-0)

1. The Concept of Quality,
2. Indicators of Quality and Measurement of quality
3. Quality Control Mechanisms and Frameworks with special reference to Quality of Family Planning and MCH Services.
4. Continuous Quality Improvement: Quality Circles Approach, Other concepts and frameworks.
5. Quality enhancement and control in health service delivery
6. The COPE approach.
7. ISO certification of health systems.

Essentials of Health Economics and Public Finance (PHM-716)

Credits 3(2-0-2)

1. Basic concepts of economics: principles of macroeconomics and microeconomics
2. Relationship between economics: economic development, economic aspect of health care.
3. Basic concept of demand and supply : law of demand and supply
4. Health care market, market failure-externalities and public goods

5. Cost concept- short term and long term costs, economies of scale, ABC costing and VED analysis (Vital, Essential & discernible)
6. Production: production function, laws of production, production in health care
7. Public finance: nature and concept, public expenditure and public revenue
8. five year plans: national outlays on health on health/ public health, budgets of central and state government
9. Financing health intervention

Practical:

1. Demand and supply graphs
2. Cost curves

Strategic Management (PHM-717)

Credits 3(3-0-0)

1. Introduction to strategic Management-importance-scope-concepts and characteristics
2. Strategic formulation: vision, mission and purpose- Environmental analysis and scanning- types of strategies- market entry strategy, social marketing, competitive strategy
3. Strategic analysis and choice: Environmental threat and opportunity profile (ETOP)- Strategic advantage profile- SWOT analysis-GAP analysis-McKinsey's 7S Framework-distinctive competitiveness
4. Strategic implementation-resource allocation-organization structure- Functions plans and policies
5. Strategy Evaluation-Symptoms of malfunctioning strategies- criteria for evaluation
6. strategic Control: Process of control
7. Case Study

Field Training (PH-800)

Credits 3 (0-0-6)

Purpose of the summer placement

To expose the student to various programmes/activities in health sector and develop a comprehensive understanding of programme design, strategies and planned intervention

Objectives of the training----

1. To collect the information about organization
2. To learn about the different projects run by the organization
3. To be familiar with communication procedure between health workers and community
4. To identify practical things about project planning and implementation
5. To discover the problems faced in implementing the project
6. To learn about working of the information system
7. To know about method and source of evaluation

Format for report writing -----

1. Title of the project
2. About the organization
3. Introduction and objectives of the project/programme / organization
4. Funding agency— about the agency, how to get funding, Nature of funding agency
5. Staffing pattern of the project with their functions
6. Major activities going under project
7. Results achieved so far (target Vs achievement)
8. Role of the candidate in the project/programme / organization
9. Evaluation by the candidate

The type written report should have seven to ten printed pages.

Guidelines for presentation-

1. Power point presentation
2. Time for presentation= 20 minutes
3. Time for discussion= 10 minutes

III SEMESTER

Managerial Accounting (PHM-751)

Credits 3 (3-0-0)

1. Basics of Accounting, Different types of Accounts, Journal and Ledgers entries

2. Concept of Managerial Accounting
3. Understanding Financial Statements –income statement, balance sheet
4. Funds Flows and related Concepts
5. Cost-Volume-Profit Analysis
6. Standard Costing
7. Budgeting and Budgetary Control –concept of Zero-based budgeting
8. Responsibility Accounting
9. Human Resource Accounting

Medical Anthropology (PH-656)

Credits 2 (2-0-0)

1. Medical Anthropology for Public Health research
2. The anthropological approach
3. Focused Health Ethnographies including anthropological approaches to the study of Selected issues: Communicable diseases, Non-communicable diseases, reproductive health and health systems.

Bio- Statistics II (MAS-716)

Credits 3(2-0-2)

1. **Testing of Hypothesis:** Hypothesis, Types of error, Critical Region, level significance, t-test, Chi2 test, Z-test and F-test, estimation of sample size, non parametric tests: sign test, median, Size of sample
2. **Regression:** Regression, Linear Regression Model, Multiple Regression, estimation of Coefficient in simple & Multiple regression, estimation, test for linearity of regression, Sequential Method of Model Selection, Study of Residuals and Violation of Assumptions, Application of Analysis of variance in multiple Regression
3. **Vital Statistics Methods:** Rates of Events , Measures of morbidity, Crude death Rates, Specific death Rates, Standardized death rates, Life tables construction and use of life table, measurement of population growth crude rate of natural increase, Vital Index, Gross reproduction rate, Net reproduction rate.

Reproductive Biology (PH-804)

Credits 2 (2-0-0)

1. **Reproductive Tract:** Anatomy
2. **Physiology of** Menstrual cycle and pregnancy
3. **Demography and fertility indicators**
4. **Infertility** and assisted reproduction
5. **Family Planning-** Unmet need, F .P. Methods: Temporary / Spacing methods: Oral Pills: hormonal, non-hormonal; Intra-uterine contraceptive devices (IUCDs); Injectable and Implants Hormonal methods F .P. Methods: Permanent Methods, Emerging methods of Family Planning, Traditional methods, LAM, Counseling informed choice in Family Planning, Pearl Index.
6. **Agging:** Problems of menopause, cardiovascular disease risk factors, postmenopausal osteoporosis and related risk factors,
7. **Cancers** screening of breast cancer & Cancer cervix

Safe Motherhood (PH-805)

Credits 3 (3-0-0)

1. **Maternal Health-**Antenatal Care, Intra-Natal care Identification of High Risk pregnancy and seeking help, and Post-natal care, Maternal and perinatal mortality causes significance and prevention, MCH problems; triad of problem in developing countries
2. **Abortion** and Post-abortion care, Prevention of unsafe abortion, MTP act
3. Problem of reproductive tract related to **harmful practices**

4. **Overview of RTIs I:** Infection and Patho-physiology, screening and diagnosis
5. **Overview of RTIs II:** Social aspects: high risk behavior, economic costs of RTIs, STDs, HIV-AIDS, counseling, Syndromic approach, Infection Prevention Practices
6. **Sexually Transmitted Diseases:** infections and pathology
7. **Patho-physiology of HIV-AIDS,** prognosis and treatment
8. Interventions in HIV-AIDS: Worldwide perspectives; the Indian scene; Surveillance and control

Child and Adolescent Health (PH-806)

Credits 3 (3 -0- 0)

1. **Growth and development:** Determinants
2. **Anthropometrical measurements**
3. **Normal growth;** reference value, growth curve, growth chart
4. **Behavioral development;** milestones in infancy and childhood
5. **Essential newborn care**
6. **Infant mortality** causes, factors affecting, preventive and social measures
7. **Child Health Care** Under five clinic, National policy for children, Rights of child, Social welfare program
8. **Problems in RCH:** An introduction to Different Problems
9. **Nutrition in MCH**
10. **Immunization** Active and passive Immunity, immunizing Agents, Cold Chain, Adverse reactions and precautions, vaccines given under immunization programme and hepatitis B hepatitis A, Chicken pox, Rabies.
11. **Family Life Education (FLE):** Adolescence: Definition-adolescence, pubescence, WHO definition, Stages of development and their disorders; Nutrition in adolescence, Prevention and care in illness, adolescent sexual and reproductive health, adolescent boys, adolescence friendly health services Physical, mental and social, School health, FLE Act.

Text Books recommended-

Introduction to Public Health

- Park & Park (Preventive & Social Medicine)
- National programmes of India by J Kishore
- Epidemiology & management for Health care for all- PV Sathe & AP Sathe

Immunization

- Park & Park (Preventive & Social Medicine)
- Infectious Diseases and Immunization by Utpal Kant Singh

Research Methods-

- Ranjit Kumar
- Good & Hatt
- P. V. Young
- Media research methods by Barrie Gunter
- R C Kothari

Communication intervention

- Roger & Shoemaker
- R. R. Reddy

Training in Health

- Kar & Alcalá

Reproductive Health

- Park & Park (Preventive & Social Medicine)
- Holland & Brews
- Shaw's textbook of Gynaecology

- New Contraceptive Technology
- Margerate Myles

Basic Epidemiology

- Epidemiology- Leon Gordis
- Basics of Epidemiology-Robert Beaglehole & Bonita
- Epidemiology & management for Health care for all-PV Sathe & AP Sathe

Adolescent and child Health

- Park & Park (Preventive & Social Medicine)
- Essentials of Paediatrics
- Modules of MCHN

Health Information System

- Epidemiology & management for Health care for all-P V Sathe & A P Sathe

Biostatistics

- P. S. Sundar Rao

Journals

Indian Journal of Community Medicine
Bulletin of WHO

Reproductive Health Matters

Journal of Adolescent Health

Indian Journal of Public Health

International Journal of Epidemiology

Studies in Family Planning

FamilyPlanningPerspective