

**SRIDEV SUMAN UTTARAKHAND UNIVERSITY
BADSHAHITHAUL TEHRI GARHWAL**



**SYLLABUS FOR
MASTER OF PUBLIC HEALTH**

**ORDINANCES AND SYLLABUS FOR MASTERS OF PUBLIC HEALTH
(M.P.H) (2017-19 ONWARDS)**

REGULATIONS FOR THE COURSE MASTER OF PUBLIC HEALTH (MPH)

Nomenclature of Degree:

The name of the course shall be Masters of Public Health (MPH)

Background of the course

This programme has been specially designed to meet the ever increasing demand for well trained personnel with advanced & appropriate skills and knowledge to plan and implement innovative Public Health Schemes and Programs at regional, national and international level.

Objectives of the Course:

- To strengthen the Public Health system together with the technical and managerial skills.
- To train and develop a cadre of competent public health educators, researchers, practitioners, administrators, managers and policy makers.

Eligibility for Admission to MPH Course:

A Candidate for admission to MPH should be a graduate in any stream (Physics, Chemistry, Mathematics, Botany, Zoology, Biotechnology, Dairy Science, Veterinary Science, Home Science, Health Science, Agriculture, etc.) Graduate in Social Sciences like Anthropology, Sociology, Psychology, LL.B, Journalism, Social Work, Graduate in Allied health sciences like public health, Health Sciences, nursing, physiotherapy, pharmacy, Veterinary etc. Graduate in medical sciences - MBBS, BDS, BAMS, and BHMS, from any recognized Indian university or equivalent degree from any foreign university.

Admission Process-

Those satisfying the eligibility requirements will be included in the selection process. The admission to MPH will be purely on merit basis at the qualifying examination and the procedure of the admission will be followed as per the guidelines provided by the university.

Duration of the course:

There shall be a full time Masters Degree programme that is Master of Public Health (M.P.H).The duration of the course shall be two Academic Years. The annual examination shall be held in or around June or as decided by the university.

Seats:

There shall be a maximum of 60 seats for the M.P.H programme.

The Scheme of Course along with their Marks in the Programme shall be as follows:

First Year

SUBJECT CODE:	SUBJECT	INTERNAL MARKS	EXTERNAL MARKS
MPH 101:	Introduction to Public Health	40	60
MPH 102:	Human Biology & Public Health Chemistry	40	60
MPH 103:	Biostatistics (Medical & Health Statistics)	40	60
MPH 104:	Research Methods in Public Health (Research Methodology)	40	60
MPH105:	Health Systems Development & Management	40	60

Second Year

SUBJECT CODE:	SUBJECT	INTERNAL MARKS	EXTERNAL MARKS
MPH -201:	Epidemiology	40	60
MPH -202:	Social and Behavioural Aspects of Public Health	40	60
MPH- 203:	Environmental Health & Sustainable Development	40	60
MPH- 204:	Health Care Policy, Planning & Economics	40	60
MPH - 205:	Research Project	50	100

FIRST YEAR

MPH 101: Introduction to Public Health	
UNIT	TOPIC
1	<ul style="list-style-type: none"> • Introduction- Definition, Significance, Evolution of Public & Community Health. • Genesis and Development of the concept, Healthcare versus Medical Care, • Approaches to Public Health
2	<ul style="list-style-type: none"> • Concept of Health & Disease • Determinants of Health – Biological, Behavioural, Socio-economic, Cultural, Environmental, Geographical etc Concept of Primary Health Care • Indicators of Health
3	<ul style="list-style-type: none"> • Concept of Primary Health Care • Community Diagnosis • Community perception and priorities on health and disease • Public Health care delivery system in India • Disease profiles & Epidemiological transition • Right to health • Ecology of health
4	<ul style="list-style-type: none"> • Introduction to National Health Policy • National Population Policy • National Rural Health Mission (NRHM) and National Urban Health Mission (NUHM)
5	<ul style="list-style-type: none"> • National Public Health Programs <ul style="list-style-type: none"> ➤ National Vector borne Disease Control Programme. ➤ National AIDS Control Programme. ➤ National Malaria eradication Programme. ➤ National TB Control Programme. ➤ National Polio eradication Programme. ➤ National leprosy eradication Programme.

MPH 102: Human Biology & Public Health Chemistry	
UNIT	TOPIC
1	<ul style="list-style-type: none"> • Public Health Biology – Introduction, Scope and Applications • Human Life Cycle
2	<ul style="list-style-type: none"> • Medical Terminology- Introduction to bacteriology/virology/Mycology/Parasitology/Genetic diseases/ genetics /Pediatric diseases/problems/Neoplasia/Inflammation & healing.
3	<ul style="list-style-type: none"> • Human Anatomy - General Anatomy of Human body Structure and function of organs and systems - Digestive, Respiratory, Excretory, Circulatory and lymphatic, Endocrine, Musculo-skeletal, Nervous, Reproductive.
4	<ul style="list-style-type: none"> • Human Immunology-Basic Principles & concepts of Immunology & Role of Nutrition, immunity to infection and role of vaccination.
5	<ul style="list-style-type: none"> • Human Physiology - Introduction, Environmental Physiology (Respiratory), Cardiovascular Physiology, GIT, Reproductive Physiology, Blood Physiology.
6	<ul style="list-style-type: none"> • Human Pathology - General Pathology, Disease pathogenesis, diagnosis, diagnostic techniques – its role, importance and applications in public health.
7	<ul style="list-style-type: none"> • Human Microbiology - Introduction, Sterilization, Anatomy of Bacteria, Bacteria in Water and Milk, Culture Media/Methods, T.B., Malaria, STI, RTI, AIDS.

MPH 103: Biostatistics (Medical & Health Statistics)

UNIT	TOPIC
1	<ul style="list-style-type: none"> • Introduction, Scope & applications of Biostatistics in Medical & Public Health Sciences
2	<ul style="list-style-type: none"> • Concept & applications of descriptive statistics – collection, measurement, presentation and analysis of medical & public health data
3	<ul style="list-style-type: none"> • Measures of Central Tendency(Mean,Median,Mode), Measures of Variability, Coefficient of Variation
4	<ul style="list-style-type: none"> • Survey methods - quantitative and qualitative survey methods in medical & public health sciences • Sampling methods and techniques
5	<ul style="list-style-type: none"> • Estimation of Population Parameters – Standard Errors • Testing of Hypothesis and Significance – Introduction & Concept
6	<ul style="list-style-type: none"> • Correlation – Concept and Computation of Spearman's and Rank Correlation Coefficient • Regression - Concept and Computation of Regression Coefficient
7	<ul style="list-style-type: none"> • Health Statistics - Measurement of Health, Sickness, and Disease in a population • Vital Statistics – Rates & Ratio's • Hospital Statistics – Hospital Management Information Systems & Medical Records, Rates & Ratio's • Classification of Diseases (ICD)

MPH 104: Research Methods in Public Health (Research Methodology)

UNIT	TOPIC
1	<ul style="list-style-type: none"> • Introduction to Research- Definition, Types, Strategies & Designs • Research Process and Cycle, Criteria for good research
2	<ul style="list-style-type: none"> • Descriptive/epidemiological studies–Cross sectional, Operational Research and correlation studies • Analytical Studies-Case control study, Cohort study • Experimental Studies- Quasi-experimental Studies & Clinical trials- Introduction to various types and its application
3	<ul style="list-style-type: none"> • Statistical Methods in Public Health Research-Application and Interpretation • Research Data Collection Tools & Methods-Sampling and survey methods, Sample size, Survey design & Planning, Interview schedule, questionnaire construction, validation etc
4	<ul style="list-style-type: none"> • Participatory Research and Analysis (PRA) Methods
5	<ul style="list-style-type: none"> • Research paper/Proposal-Formulation, writing & critical review

MPH 105: Health Systems Development

UNIT	TOPIC
1	<ul style="list-style-type: none"> • Introduction to various Health System • Health care providers (Government, Private, Voluntary/NGO, Indigenous)
2	<ul style="list-style-type: none"> • Levels of health care-Primary, Secondary & Tertiary
3	<ul style="list-style-type: none"> • Alternative systems of medicine (AYUSH) • Integrated health care delivery-Preventive, promotive, curative & rehabilitative • Inter-sectoral approach for health care delivery • Decentralized health care delivery system
4	<ul style="list-style-type: none"> • Sustainable, Grassroots & Comprehensive Health Models
5	<ul style="list-style-type: none"> • Health Communication-Concept, Principles, Contents, Models, Approach

SECOND YEAR

MPH 201: Epidemiology	
UNIT	TOPIC
1	<ul style="list-style-type: none"> • Introduction to Epidemiology- Definition, History, Aims, Basic principles, Uses of Epidemiology • Epidemiological methods: Descriptive Epidemiology, Analytical Epidemiology, Experimental • Epidemiological study designs –Descriptive (cross-sectional), Analytical (case control & Cohort) and Experimental
2	<ul style="list-style-type: none"> • Natural history of disease • Epidemic investigations • Association and causation • Risk measurement, Measurement of morbidity and mortality, use of morbidity and mortality • Disease prevention and control
3	<ul style="list-style-type: none"> • Epidemiology of Communicable & Non-communicable Diseases Pathogenesis and pathology, clinical presentation of common infections – <ul style="list-style-type: none"> ➤ Respiratory : Tuberculosis, Leprosy, ARI's including pneumonia, measles, mumps , rubella ➤ Intestinal: Diarrhoea, typhoid, polio, hepatitis, worm infestations ➤ Contact: STDs and AIDS ➤ Vector borne: Plague, rabies, malaria and filaria, dengue
4	<ul style="list-style-type: none"> • Epidemiology of Non-communicable Diseases Etiology, Pathophysiology, Epidemiology, Prevention and Control– <ul style="list-style-type: none"> ➤ Asthma ➤ Cancer ➤ Cardiovascular diseases ➤ Diabetes
5	<ul style="list-style-type: none"> • Concept of Mental Health <ul style="list-style-type: none"> ➤ Mental Health: Classification, clinical manifestations, diagnosis and treatment and intervention and support services ➤ Burden of Mental diseases Depression, Schizophrenia, Alzheimer's, Parkinson's, Dementia , Suicides, Substance Abuse ➤ National Mental Health Programme

MPH 202: Social and Behavioural Aspects of Public Health	
UNIT	TOPIC
1	<ul style="list-style-type: none"> • Definition and Concept of Vulnerable Populations • Vulnerable groups their health and human rights • Vulnerable Groups facing Structural Discrimination in India–Women, children, SC, ST etc
2	<ul style="list-style-type: none"> • Vulnerability by different factors- Race and ethnicity (Tribal, Dalits, Indigenous populations), Gender (male, female, transgender), Geographical area (rural/urban, remote & hilly areas), Age (Child, adolescent, elderly), Disability (Physical & Mental– Social and health inequalities) Migration & Displacement, Stigma and Discrimination (HIV/AIDS, Sexual Minorities, Sex workers), High Risk Occupations (Farmers-Farm workers, Industrial workers, Mining workers, Sex Workers, Child Labour, Street Children) Environment, War and Natural calamities.
3	<ul style="list-style-type: none"> • Violation of right to health of vulnerable populations- Concept of gender, Social structure and gender, Gender discrimination, Consequences of gender discrimination on

	health, Gender in the context of development, Violence against women, Girl trafficking, Global issues related to gender, Legal aspects and acts related to gender: MTP, PNDDT, Prostitution, homosexuality etc.
4	<ul style="list-style-type: none"> • Issues related to Children and Adolescent- Child abuse/Child labour/Street Children & malnutrition, Girl trafficking & anaemia in adolescents, reproductive rights of adolescents.

MPH 203: Environmental Health & Sustainable Development	
UNIT	TOPIC
1	<ul style="list-style-type: none"> • Environment-Definition, Concept, Components
2	<ul style="list-style-type: none"> • Environmental Pollution- Sources, Impacts and treatments of Air (Indoor/Outdoor), Water, Soil, Nuclear, Solid waste, Biomedical waste, e- waste etc
3	<ul style="list-style-type: none"> • Development & Environmental issues -Environmental Ethics, Global Warming, Climate Change, Ozone Depletion, Acid Rain etc.
4	<ul style="list-style-type: none"> • Eco-friendly environmental practices-Waste management, Energy practices, Agriculture Practices
5	<ul style="list-style-type: none"> • Environmental Disaster- Definition, types and management
6	<ul style="list-style-type: none"> • Sustainable Development-Definitions & Concept • Development theories- Modernization, structuralism, dependency, basic needs, neoclassical, sustainable, human development
7	<ul style="list-style-type: none"> • Sustainable Development –Introduction, principles, models • Developmental Planning-Macro & Micro level • Healthy Settings-Cities, Villages, Schools
8	<ul style="list-style-type: none"> • Poverty & Its Measurements • Wellbeing and its measurements
9	<ul style="list-style-type: none"> • Human Development and Its measurements • Societal Health & Development • Community Organization and participation

MPH 204:Health Care Policy, Planning & Economics	
UNIT	TOPIC
1	<ul style="list-style-type: none"> • Health Care Policy • Health Policy:-Understanding, need and goals for various policies related to public health - Health policy, population policy, nutritional policy-food security, research policy, women policy, child policy , Environment policy Methods to assess the needs of for the policy development / assessment process • Healthcare Legislation in India: Legal aspects of healthcare, the Medical Termination of Pregnancy Act, The maternity benefit act, The transplantation of human organs act, PNDDT Act, The registration of birth and Death act, The child labour (prohibition and regulation) act, Biomedical waste Rules, Indian factories act, ESI
2	<ul style="list-style-type: none"> • Health Planning <ul style="list-style-type: none"> ➤ Health Planning –History, Concept, models ➤ Strategic planning, implementation ➤ Health care manpower planning and development ➤ Health Care Utilization Patterns ➤ Management of Primary Health Care

	<ul style="list-style-type: none"> ➤ Privatization, commercialization & globalization of health care ➤ Public- Private Partnership
3	<ul style="list-style-type: none"> • Health Economics <ul style="list-style-type: none"> ➤ Demand and Supply in Health Care- Concept of demand, Law of Demand, Factors affecting demand, Demand of Services, ➤ Structure of Health care, Characteristics of health care system, ➤ The price system, Demand for health, Demand and supply in Medical care, Determination of demand for medical care, Supply- introduction, law of supply, Determinants of Supply, Theory of demand and supply, demand and supply schedule, Elasticity of demand for health care, Price Elasticity of demand for health care
4	<ul style="list-style-type: none"> • Financing of Health Care – Public, Private & Community/Individual, Introduction to Finance, Sources of Health financing/ Revenue collection for health care, Health Insurance Schemes, Health Plans and Outlays in India, Role of State and Central Govt., Factors influencing State's ability to finance Health Care, Voluntary Health Agencies in India, Health related spending in India, Public Private Partnership, Health care personnel Health Insurance Schemes.

Assessment:

Assessment of the student shall be made in terms of an internal assessment and an external assessment. The internal and external assessment will constitute separate heads of passing and they will be shown separately in the marks sheet. For each paper meant for University evaluation, the ratio of marks for internal assessment in relation to external assessment shall be 40:60. The internal assessment will be continuous throughout the year; however the external assessment shall be based upon the external written examination to be held at the end of year.

Scheme of Examination

There will be 60 marks assessment of all subjects by the university at the end of each year.

Question Paper Format

Time: 2.00 Hours (Max Marks: 60)

- **Instruction to the candidates:-**

1. Attempt any three from Section I and three from Section II
2. Neat diagrams must be drawn wherever necessary
 - The pattern of question paper of all other papers will cover the entire syllabus. The paper will consist of Short Answer Questions and Long answer Questions
 - **Section – I (30 Marks)**
Short Answer Questions 5X6=30 marks or 3X10=30 marks
 - **Section – II (30 Marks)**
Long answer Questions 10X 3=30marks
 - Subject MPH-205(Research Project) will be evaluated by the external examiner appointed by the university for the purpose.
 - Sessional tests may employ one or more assessment tools such as objective tests, assignments, paper presentation, laboratory work, etc suitable to the course. This requires an element of openness. Students shall compulsorily attend two sessional tests. The sessional test as a part of the continuous internal assessment shall be conducted and evaluated by the teacher offering the course.