

# PUBLIC HEALTH FROM SESSION 2018-2019 Syllabus

CIA – Continuous Internal Assessment, ESE – End Semester Examination  
T/L – Theory / Laboratory

## Teaching Scheme

CODE	PAPER NAME	T/L	Pd/W	CIA	ESE	TOTAL
<b>I Semester</b>						
PHLT111	Foundations of Public Health	T	2	20	80	100
PHLT112	Human Biology and First Aid	T	2	20	80	100
PHLT121	Human Biology and first aid Lab	P	1	20	80	100
<b>II Semester</b>						
PHLT211	Epidemiology I	T	2	20	80	100
PHLT212	Biostatistics and Computer Applications	T	2	20	80	100
PHLT221	Epidemiology and biostatistics Lab	P	1	20	80	100
<b>III Semester</b>						
PHLT311	Epidemiology II	T	2	20	80	100
PHLT312	Biostatistics and Health Informatics	T	2	20	80	100
PHLT321	Epidemiology and biostatistics Lab II	P	1	20	80	100
<b>IV Semester</b>						
PHLT411	Health Education, Promotion & IEC	T	2	20	80	100
PHLT412	Social and Behavioral Sciences	T	2	20	80	100
PHLT421	Health Promotion Lab	P	1	20	80	100
<b>V Semester</b>						
PHLT511	Research Methodology	T	2	20	80	100
PHLT512	Public Health Management	T	2	20	80	100
PHLT521	Research Methodology Lab	P	2	20	80	100
<b>VI Semester</b>						
PHLT611	Special Issues in Public Health I	T	2	20	80	100
PHLT612	Special Issues in Public Health II	T	2	20	80	100
PHLT621	Field Project	P	2	40	160	200

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**Syllabus applied for batch admitted in session 2018-19**

CODE	PAPER NAME	T/L	Pd/W	CIA	ESE	TOTAL
<b>I Semester</b>						
<b>PHLT111</b>	<b>Foundations of Public Health</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	History and Concepts of Public Health, Healthcare versus Medical Care, Approaches to Public Health					
UNIT 2	Health Basic Concepts and Definition, Dimension , Determinants and Indicators of Health , Concept of well being					
UNIT 3	Health situation and Trends and Transition in India					
UNIT 4	Health system in India: structure of health care delivery system , AYUSH, Different Systems of Medicine					
UNIT 5	Social Determinants of Public Health and Introduction to Cultural factors related to health.					
<b>PHLT112</b>	<b>Human Biology And First Aid</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Applied Anatomy and Physiology of Respiratory System, Digestive System, Reproductive System, Urinary System, Cardiovascular System					
UNIT 2	Applied Anatomy and Physiology of Muscular System, Endocrine System, Skeletal System, Nervous System					
UNIT 3	First Aid: Aim, responsibilities of first aid, Snake bite, Insect bite, Anaphylaxis, Wounds, Burns, Heat stroke, Frost bite, Seizure, sprain and strain, cardiac arrest, CPR					
UNIT 4	Communicable Diseases : Concepts and Principles, Prevention and Control : TB, Vector born diseases, Leprosy, Influenza, water borne disease , AIDS and others STD.					
UNIT 5	Non-Communicable Diseases : Concepts and Principles, Prevention and Control : Cardiovascular diseases, Stroke, Hypertension, Diabetes, Cancer and others, obesity and accidents, blindness					
<b>PHLT121</b>	<b>Human anatomy and First Aid Practical include general demonstration of human organs, measurement of vitals, First Aid and BLS demonstration</b>	<b>P</b>	<b>1</b>	<b>20</b>	<b>80</b>	<b>100</b>
<b>II Semester</b>						
<b>PHLT211</b>	<b>Epidemiology I</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>

UNIT 1	Epidemiology: Introduction, objectives, types, Data sources for Epidemiology					
UNIT 2	Epidemiological concept of disease, Measures of disease frequency					
UNIT 3	Epidemiological methods: Descriptive Epidemiology, Analytical Epidemiology,					
UNIT 4	Experimental Epidemiology: uses, types: Screening in health and disease: Principles underlying screening program					
UNIT 5	Outbreaks and Epidemic Investigations, Prevention and Control: with examples					
<b>PHLT212</b>	<b>Biostatistics and Computer Applications</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Data and Data Presentation: Types of data, simple, compound, percentage, bar chart, Histogram, Frequency Polygon, Frequency curve, Normal curves, Skewed diagram.					
UNIT 2	Sample , sampling methods, estimation of sample size					
UNIT 3	Numerical Description of Data: Measures of central tendency, Mean Median, Mode, Geometric mean, Harmonic mean					
UNIT 4	Measures of dispersion: range, Mean Deviation, Standard Deviation, quartile deviation, Co-efficient of variation, Standard Error					
UNIT 5	Probability and Probability distribution : events, Probability, sampling, Conditional probability, Addition and multiplication rules of Probability					
<b>PHLT221</b>	<b>Epidemiology and Biostatistics Lab include presentation of data, measurement of incidence and prevalence rate, central tendency, dispersion.</b>	<b>P</b>	<b>1</b>	<b>20</b>	<b>80</b>	<b>100</b>
	<b>Internship program</b> Field visits for understanding the health programs like Immunization camps/ programs, , Geriatric dept., PHC/CHC/ District Hospital visits, Subcentres/ Asha worker visits, Trauma/ Emergency dept.					

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<b>III Semester</b>						
<b>PHLT311</b>	<b>Epidemiology II</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Measures of Association and causality: Association Between Two Variables, Strength Of The Association, Impact of the Association, Hills Criteria of Causation.					
UNIT 2	Confounding and Bias; Selection bias, Information bias, Confounding bias, Prevention of Bias in Basic Study Design					
UNIT 3	Communicable Disease Epidemiology; epidemiological characteristics ,Risk factors, Treatment challenges and approaches for major ID ( Measles, Polio, Acute respiratory infections-hep A,E, Influenza, Acute diarrheal diseases, Malaria and Dengue, Helminthic Infections- Ascariasis, Hookworm , TB, Leprosy, HIV, Hepatitis B,C, Rabies, Sexually Transmitted Infections), Emerging and re-emerging of diseases, immunization					
UNIT 4	Non Communicable Disease Epidemiology; epidemiological characteristics of the major NCD: CHD, Diabetes, Obesity, Cancer, Blindness, & Accidents; Risk factors for major NCD ,Treatment challenges and prevention and control approaches for major NCD					
UNIT 5	Surveillance; Types and aims of surveillance, Key Elements of Surveillance System, steps in setting up surveillance, criteria for undertaking surveillance, need for surveillance, IDSP.					
<b>PHLT312</b>	<b>Biostatistics and Health Informatics</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Testing of Hypothesis: Hypothesis, level significance, parametric tests: t-test, Z-test and, non-parametric tests: Chi2 test.					
UNIT 2	Correlation: types, scattered diagram, Karl Pearson's coefficient of correlation.					
UNIT 3	Study of Vital Statistics , Introduction to different statistical soft wares					
UNIT 4	Introduction to Health and Medical Informatics: Definition and concept, information management, information technology and informatics, Use of health informatics. History of Medical Informatics, Hospital management and information system, Computer-based patient record.					
UNIT 5	Telehealth: definition, telehealth and telemedicine, uses and scope. e-health and mhealth: introduction, definition and uses and application					
<b>PHLT321</b>	<b>Epidemiology and Computer Application Lab II include BMI, Anthropometric measures and Training of EPI INFO</b>	<b>P</b>	<b>1</b>	<b>20</b>	<b>80</b>	<b>100</b>

<b>IVSemester</b>						
<b>PHLT411</b>	<b>Health Education, Promotion &amp; IEC</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Introduction to health education: Definition, concept, goals and objective of health education, role of health educator.					
UNIT 2	Introduction to health promotion : Definition, concept and charters of health promotion					
UNIT 3	Theories of Health Behavior : Stages of Change Model ,Social learning/social cognitive theory, Health Belief Model, Diffusion of Innovations Theory					
UNIT 4	Methods and Approaches to health education: IEC, Individual and group approach- Medical or Preventive, Behavior Change, Educational, Empowerment, Social Change; Mass media, Social marketing, Counseling					
UNIT 5	Workplace health promotion: Concept and guidelines, key elements of a workplace health program; health promotion at school, hospital and for vulnerable population and high risk group.					
<b>PHLT412</b>	<b>Social and Behavioral Sciences</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Psychology and Public Health: Scope, Dynamics Of Behavior, Emotions, Attitudes, Learning ,Habits, Frustration And Conflict, Personality, Intelligence					
UNIT 2	Sociology and Public Health: Social psychology, medical Sociology, Individual, Social organization,					
UNIT 3	Social Pathology, immoral traffic (prevention) act, child labor (prohibition and regulation) act, COPRA, ESI act and demography. Social welfare schemes					
UNIT 4	Culture and health: Impact of Culture on health, Indian cultural practices and health risk, cultural competence and health care, i) rural/urban migrant ii) cross cultural differences					
UNIT 5	Community need assessment approach: Introduction and Overview, Planning and Organizing Phase, Need Assessment Methodology, Review and Rate the Data, Record and Summarize data, Action Plan, Conclusion					
<b>PHLT421</b>	<b>Health Education and Promotion Lab include one way- two way communication, poster making, role model, report writing</b>	<b>P</b>	<b>1</b>	<b>20</b>	<b>80</b>	<b>100</b>
	<b>Internship Program</b> A total 28 days of internship training program can be attached with any corporate hospitals/ District hospitals/CHC/ Medical college/					

	Research organization/ NGO in health field/ social society in health care recognized by Institute.					
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<b>V Semester</b>						
<b>PHLT511</b>	<b>Research Methodology</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 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.					
UNIT 2	Ethical issues: Ethics and Medical experimentation, general ethical principles, ethical committee, Nuremberg code, Helsinki declaration.					
UNIT 3	Research Methods: Social Surveys, Case Study, Clinico-social case study (family study) Experimental methods meaning. Types-Trial and Error, Observational studies, multicentric study, Natural experiment, post facto experiment, Laboratory experiments, attitude analysis.					
UNIT 4	Design of Sample Survey: Basic Principles of sample survey, types of sampling. Data Collection: Methods-Schedule Mailed Questionnaire, Interview, Observation, testing of instrument, scaling technique for data analysis  Classification and Tabulation: objectives, characteristics, kinds and statistical series-array, discrete, continuous. Presentation of Data, Analysis of Data.					
UNIT 5	Report Writing: Abstract, Introduction, Objectives, Methodology, Results, Discussion, Conclusion and Recommendations					
<b>PHLT512</b>	<b>Public Health Management</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Concept, principles and theories of programme planning; Application of programme planning to Health education and extension					
UNIT 2	Systematic development of plan of work, programme projection; Machinery for planning at the National level. Inventory programs.					
UNIT 3	National health programme					
UNIT 4	Evaluation techniques and their applications. Methods of monitoring and evaluation; types, procedures, steps, techniques and principles of evaluation; health audit					
UNIT 5	Indicators for programs/Projects, Critical analysis of India's Five Year Plans in relation to developmental objectives and programmes for the rural India;					
<b>PHLT521</b>	<b>Research and Health Management Lab include sample size estimation, questionnaire and interview. Immunization program</b>	<b>P</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>

	<b>Internship program</b> Health awareness programs, conferences, old age home/ water sanitation/ PWD dept., Pollution control dept./ Medical waste dept., Health Insurance companies/ Bhamashah scheme, Industrial visit, PMR dept.					
<b>VI Semester</b>						
<b>PHLT611</b>	<b>Special Issues in Public Health I</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Gender and Health: Status of women in society, Equity and Equality, Role of women in family, life cycle approach, gender issues in different disease conditions.					
UNIT 2	Public Health Leadership: The role of Leader, Attributes of a Good Leader, Leadership Development and Level of Leadership, The 7Habits of Highly Effective People (Covey), Understand the key concept of Leadership Theory and the Key difference between Management and Leadership and their Relevance to Public Health Practice, Team Building.					
UNIT 3	Occupational health and Healthcare Legislation in India: definition: law, legislation and program, the Medical Termination of Pregnancy Act, The transplantation of human organs act, PCPNDT Act, The registration of birth and Death act					
UNIT 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, and International Health organizations, International Health Regulation					
UNIT 5	Disaster management: natural and manmade disaster – pre, post preparedness.					
<b>PHLT612</b>	<b>Special Issues in Public Health II</b>	<b>T</b>	<b>2</b>	<b>20</b>	<b>80</b>	<b>100</b>
UNIT 1	Air and Noise Pollution Control: Definition of air pollution – pollutants and their sources – effects on human health, vegetation and climate of air pollution –air pollution control legislation – noise pollution –sources and effects – control measures.					
UNIT 2	Water Pollution: Definition, sources, classification of water pollutants – organic waste, oxygen demanding waste, disease causing wastes, synthetic organic compounds. Sanitation, inorganic pollutants suspended solids and sediments, radioactive materials, BOD, COD, Waste water treatment- primary secondary, tertiary.					
UNIT 3	Solid waste management – classification, origin, methods of solid waste treatment and disposal composting, sanitary land filling, thermal process (incineration, Pyrolysis) Recycling and reuse. Biomedical waste  Hazardous waste – sources, identification and management of hazardous waste – treatment and disposal					

UNIT 4	Development and The Environment: Climate change - ozone depletion global warming, green house effect. From unsustainable to sustainable development – urban problems related to energy – water conservation, rainwater harvesting, and watershed management – resettlement and rehabilitation of people – its problems and concerns.					
UNIT 5	Nutrition and health: nutritional intervention program, food Safety Act					
<b>PHLT621</b>	<b>Field Project</b>			<b>40</b>	<b>160</b>	<b>200</b>

**Dr. Arvind Mathur**

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