Varendra University
Department of Public Health

Syllabus

Master Program in Public Health
Session: 2014-15

Introduction to MPH Programme

The social, economic and cultural dimensions of health and population are a major focus of both governments and non-governmental organizations (NGOs) in Bangladesh and in other developing countries. It is now increasingly being recognized that there is a need for professionals who are well trained in the multi-faceted complex interactions of social, economic and cultural factors affecting health and population, such as plateauing fertility rates, inadequate health services coverage, the ongoing epidemiological transition from infectious to chronic diseases, and emerging public health issues such as HIV-AIDS and Arsenic contamination of water supplies. There is however a critical shortage of such professionals in these countries. This increased demand for such personnel comes at a time where funding for this kind of education abroad (United States, Europe, Australia/New Zealand, Asia) is extremely limited and will continue to be so in the future. Thus there exists a window of opportunity for in-country training of high quality at the master's level in Public Health, which focuses on social-economic and cultural dimensions of health and population.

Varendra University Bangladesh is pleased to offer the following post-graduate program leading to the Master of Public Health (M.P.H.). This program will create facilities in higher study for Doctors, Nurses and Non medical health professionals.

The Objectives

Among the overall educational objectives for all graduates of the School is the development of individual competence and improved skills, particularly in (1) recognizing and defining public health problems, setting priorities, and using scientific approaches to problem solving; (2) accumulating appropriate data information, analyzing and interpreting findings, and assessing relevance and validity; and (3) communicating effectively with colleagues and a variety of groups involved in delivering health services. (4) To build up capacity and to prepare individual to become public health practitioner, thinker, researcher.

THE MAJOR COURSE OBJECTIVES ARE:

- To provide the highest level of education to public health scientists, practitioners, and leaders
- To foster new discoveries leading to improved health for the people of this country and all nations
- To strengthen health capacities and services for communities
- To inform policy debate, disseminate health information, and increase awareness of public health as a public good and fundamental right.

The master of public health (MPH) degree is the most widely recognized professional Credential for leadership in public health. The program emphasizes active, student-directed learning, problem solving, and the acquisition of skills essential to the practice of public health. For many candidates, the MPH will not be their first professional degree. Many students enter the MPH degree program with previous master's or doctoral degrees or with varying years of practical experience in professional fields related to public health. Graduates of medical, nursing, dental, and other clinical programs, and applicants who have earned master's or doctoral degrees in other health-related areas, or in other academic or professional areas, will find their academic backgrounds well suited to this program.

ADMISSION REQUIREMENTS

The minimum qualifications for admission to Graduate programs are:
Academic Qualifications
1. Bachelors degree in Medicine and Surgery (MBBS) or equivalent professional degree in Alternate medicine, dentistry or Doctor of Medicine (MD) from any recognized national and Overseas university with at least two years of practical exposure in the professional field. The Doctor must have to be registered with Bangladesh medical and Dental Council/ National Registration Authority
Or
2. four-year undergraduate degree from a recognized university with a grade point average of 2.5 Or more on a scale of 4.0 in Pharmacy, Botany, Zoology, Biotechnology, Biochemistry, Psychology, Veterinary Science, Fisheries, Microbiology, Genetics, social sciences, anthropology and economics,
Or
3. three-year bachelors' degree with honors, with at least a second class in social sciences, Anthropology and psychology
Or
4. Master degree in a health related subject or in any social science and science subjects with An experience of working in health related fields
Or
5. BSc. degree with diploma in medical related subject after SSC such as 4 years diploma in pharmacy, BSc. in Nursing, BSc. in Physiotherapy, BSc in Health technology
Or
6. A two years graduation in nursing from any recognized university after duly completed Four years registered nursing course from government recognized institutes.

Students other than medical graduate required to appear in a written one hour MCQ Examination to prove their understanding about human health and diseases. They may require taking additional preparatory courses at Varendra University even after qualifying the test. The non medical candidate must qualify both in written admission test and viva. Since English is the medium of instruction, all applicants (both medical and non medical) must also take an English placement test for their application to be considered. Applicants will be selected based upon an interview process including a review of both academic and professional experience. The entrance examination designed to measure basic knowledge on primary health care system and level of English so that they can build up their skills in public health.

Coursework

The 51 credits of coursework required for the MPH degree include core courses; program Required courses and usually some electives Core Courses (Total 51 credits: Total course work to be completed by 4 semesters):

The core curriculum(18 Credits , 252 credit hours) : Required for all MPH candidates is comprised of courses in Public Health Administration and management , Epidemiology I, Biostatistics I, Environmental Health, Research methodology and Public Health Information, Education and Communication. These courses provide a common body of knowledge in basic public health philosophy and practice, and are required of all candidates for the MPH degree regardless of previous training, professional interest’s career objectives, or program

concentration. By successfully completing 18 credits in core area, a student may be permitted to substitute a course in the same or another area.

Foundation Courses (11 Credits, 154 credit hours): fundamental courses may be selected from within a student's area of Concentration or in a related field, and from courses offered within the program or in other parts of the University. The choice of selection is made with the approval of the student's faculty advisor, including introduction to public health and practicum and excluding subjects they will get in desire major area.

Major Courses (Total 9 credits, 126 credit hours): These courses provide a series of educational experiences focusing on specific public health areas and offer students opportunities to concentrate on particular issues, skills, interests, or career goals. All candidates for the MPH degree are expected to select one of the following programs and to follow the prescribed program of study within that area:

a. Epidemiology
b. Reproductive & Child Health
c. Communicable disease control
d. Health management & development
e. Hospital management
f. Health behavior & change communication
g. Public health nutrition
h. Health Management Information system.
i. Environmental health
j. Non communicable disease control

Applicants must indicate on the application form which concentration they would like to pursue. Each of these areas of concentration has specific educational objectives, requirements, and methods of study.

Practicum (Practical experience) [Total credit 3, 42hours]:

All MPH degree candidates must meet a practical experience requirement equivalent in time and effort to a minimum of one academic term. The practicum provides educational opportunities that are different from, and supplementary to, the more academic aspects of the program. The focus, content, approach, and timing of the practicum vary with the major courses and with the particular needs of each student.

To provide a full range of work experience, placement will be made of each student in a health development agency of their choice to enable them to explore the application of their public health knowledge and skills. These placements may be with an NGO, a specific health program in a Department or Ministry of Health, UN agencies and other national and international agencies, wherein an analysis of public health activities of interest to the agency will be undertaken which may include managerial analysis, technical content of program, analysis of impact, etc. A final paper would be written and submitted for evaluation as well as shared with the agency wherein the student is placed.

Dissertation (Total credit 10, 140 credit hours: to be completed in one exclusive semester of 4 months):

All MPH students are required to complete a dissertation (minimum 15,000 words within one semester) on a topic related to public health like comprehensive primary health care, gender

and sexuality, tuberculosis, social determinants of health, chronic disease, health systems and nutrition. Planning for this work will be initiated during the elective period along with their supervisor(s). In its research endeavor, the Supervisor may work in partnership with world reputed The James P Grant School of public health of Brac University, International Centre for Diarrheal Disease Research (ICDDR,B), the population council and other International and national organizations and he/she will play a vital role in the project. Furthermore, The University/supervisor may established MOU with several international schools of public health that provide an extensive access to a rich array of academic resources and faculty to attack fund from different sources including The Department for International Development, Global fund to Fight against AIDS, Tuberculosis and Malaria, The Canadian International Development Research Centre, Swedish International Development Agency, the European Union, the US based National Institutes of Health, World Health Organization etc. For the dissertation, if necessary, fieldwork can be done in Bangladesh or in home country for international students. All the cost of the research work will provide by the University. Synopsis of Research topic must be approved by Dissertation committee of the MPH program before commencing the research work. The dissertation will presented and defended at a committee composed of at least two faculty members and one external examiner.

The dissertation will involve:

1. Research design and development of research protocol.
2. Ethics and ethical issues arising.
3. Data collection including design of the research tools and techniques.
4. Data analysis.
5. Writing of the dissertation and paper preparation.
6. Oral presentation and defense.

Outline of the MPH Course Curriculum

Sl. No.	Type of courses	Number of Courses	Total credits	Total credit hours
01.	Foundation Course	4	11	154
02.	Core Courses	6	18	252
03.	Major Courses	3	09	126
04.	Dissertation		10	140
05.	Practicum/internship	1	03	42
	Total		51	714

Overview and Degree Programs

CORE COURSES (Total 18 credits)

The Following courses are core courses and students have to enroll for all the courses below to complete the degree:

Course Code	**Course title**	**Credit**	**Credit Hours**
MPH 502	Public Health	3	42

	Administration and management		
MPH 503	Epidemiology I	3	42
MPH 504	Biostatistics I	3	42
MPH 505	Environmental health	3	42
MPH 506	Research Methodology	3	42
MPH 507	Public Health Information, Education and Communication	3	42
	Total	18	252

Major areas of MPH program

a. Epidemiology
b. Reproductive & Child Health
c. Communicable disease control
d. Health management & development
e. Hospital management
f. Health behavior & change communication
g. Public health nutrition
h. Health Management Information system.
i. Environmental health
j. Non communicable disease control

Elective Courses of each Major Area

Elective Courses: (Total 9 credits: Total course work 1 semester)
Prerequisite: core courses

a. Major Area: epidemiology

Course Code	Course Title	Credits	Credit hours
MPH-508	Epidemiology -II	3	42
MPH-509	Biostatistics II	3	42
MPH-510	Clinical Epidemiology	3	42

b. Major Area: Reproductive & Child health

Course Code	Course Title	Credits	Credit hours
MPH-514	Maternal and Child health	3	42
MPH-515	Reproductive Health	3	42
MPH-516	Maternal and Child Nutrition	3	42

c. Major Area: Communicable Disease Control

Course Code	Course Title	Credits	Credit hours
MPH-517	Epidemiology of Communicable disease	3	42
MPH-518	Disease Control (Communicable & Non Communicable disease)	3	42

MPH-519	Tropical Medicine	3	42

d. Major Area: Health Management & development

Course Code	Course Title	Credits	Credit hours
MPH-520	Leadership development & performance Appraisal	3	42
MPH-521	Health Information Technology	3	42
MPH-522	Disaster Management	3	42

e. Major Area: Hospital Management

Course Code	Course Title	Credits	Credit hours
MPH-523	Principles of Hospital Management	3	42
MPH-524	Hospital Resources planning & Management	3	42
MPH-525	Human Resource Development & management	3	42

f. Major Area: Health Behavior & Change Communication

Course Code	Course Title	Credits	Credit hours
MPH-526	Health Education & health promotion	3	42
MPH-527	Behavioral Aspects of health & Illness	3	42
MPH-528	Behavior Change Communication	3	42

g. Major Area: Public Health Nutrition

Course Code	Course Title	Credits	Credit hours
MPH-529	Public Health Nutrition	3	42
MPH-530	Public Health aspects of Nutritional Deficiency	3	42
MPH-531	Clinical Nutrition	3	42

h. Major Area: Health Management Information System

Course Code	Course Title	Credits	Credit hours
MPH-532	Health Management Information System	3	42
MPH-508	Epidemiology II	3	42
MPH-509	Biostatistics II	3	42

i. Major Area: Environmental Health

Course Code	Course Title	Credits	Credit hours
MPH-533	Occupational Hazard &	3	42

	Diseases		
MPH-534	Environmental Toxicology	3	42
MPH-535	Race, Culture and Ethnicity	3	42

j. Major Area: Non-Communicable Disease Control

Course Code	Course Title	Credits	Credit hours
MPH-536	Epidemiology of Non-Communicable Diseases	3	42
MPH-537	Epidemiology of Accident and Injury	3	42
MPH-538	Public health Genetics	3	42

Foundation Courses (11 Credits)

Students have to complete 11 credits from the following courses. They have to choose any 4 subject including introduction to public health (2 credits) and practicum (3 credits) and excluding subjects they will get in desire major area.

a. MPH 501 Introduction to Public Health (mandatory) - 2 Credits
b. MPH 539 Demography & Population dynamics - 3 Credits
c. MPH-523 Principles of Hospital management - 3 Credits
d. MPH-515 Reproductive Health - 3 Credits
e. MPH-517 Epidemiology of Communicable disease - 3 Credits
f. MPH-536 Epidemiology of Non Communicable disease - 3 Credits
g. MPH-537 Epidemiology of Accident & injuries - 3 Credits
h. MPH-526 Health Education & health promotion - 3 Credits
i. MPH-529 Public Health Nutrition - 3 Credits
j. MPH-540 Public Health aspect of STDS & HIV/AIDS - 3 Credits
k. MPH-541 Health Economics - 3 Credits
l. MPH-542 Public Health aspects of Microbiology - 3 Credits
m. MPH-522 Disaster Management - 3 Credits
n. MPH-532 Health management information system - 3 Credits
o. MPH-543 Practicum (Mandatory) - 3 Credits

Teaching Plan for MPH program

Classes will be hold in Friday whole day (9am – 12pm, 3pm-6pm) & Saturday evening (3pm-9pm). So basically it is a weekend Program so that job holder may attend the program.

1st semester

Course code	Course title	Credits	Class hours
MPH 501	Introduction to Public Health (mandatory)	2	28
MPH 502	Public Health Administration and management	3	42
MPH 503	Epidemiology I	3	42
MPH 504	Biostatistics I	3	42
	total	11	154

2nd Semester

Course code	Course title	Credits	Class hours

MPH 505	Environmental health	3	42
MPH 506	Research Methodology	3	42
MPH 507	Public Health Information, Education and Communication	3	42
	Any 1 course from fundamental elective	3	42
		12	168

3rd Semester

Course code	Course title	Credits	Class hours
	Major Courses (3x3)	9	126
	Any 1 course from fundamental elective	3	42
	total	12	168

4th Semester

Course code	Course title	Credits	Class hours
	Any 1 course from fundamental elective	3	42
MPH-543	Practicum	3	42
MPH-544	Dissertation/ Seminars	10	140
		16	224

Core Public Health Courses

MPH 502 Public Health Administration and Management	3 credit
Aim: *The overall aim of the Module is to train the students in project management with special focus on formulation, implementation, supervision and evaluation.*	
Key Topics	• Principles Of Planning, Management, • PIME, HMIS • Management Of Health Services • Disaster Management With Focus On Nutrition, And Livelihood Assistance

Course Content	• Principles of Management and results based management • Project management cycle • Situational analysis - SWOT • Strategy formulation (formulation of alternatives and selection of a strategy) • Planning tools: Log frame, PERT, CPM • Quality assurance in project management • Activity based implementation plan • Human aspects of project management like motivating people, team building, improving personal Influence and effectiveness. • Gender issues in Project Management. • Monitoring • MIS • Evaluating the projects • Developing action plans for project implementation.
Books: Public Health Administration: Principles for Population-Based Management by Lloyd F. Novick, Glen P. Mays ISBN-10: 0763738425, 2nd edition.	

MPH 503 Epidemiology I	3 credit
Aim: To provide an introduction to the basic concepts and methods of Epidemiology and to highlight Inter-relationship between epidemiology and medicine to understand evidence based medicine.	
Key Topics	• Fundamentals Of Epidemiology • Epidemiologic Study Design And Analysis • Methodological Challenges In Epidemiologic Research • Epidemiological Inferences In epidemics and Outbreak Investigations • Critical Analysis of Published Epidemiological Studies • Disease Surveillance Clinical/ Field trial methodology
Course Content	• Basic Concepts / Basics of Epidemiology • Introduction • Measuring the occurrence of diseases o Measures of Morbidity (Incidence, Prevalence) o Measures of Mortality (Mortality Rates) • Measures of Prognosis o Case Fatality rate o Five Year Survival o Observed Survival (Life Table) o Median Survival Time o Relative Survival Time • Measurement of Risk

	o Relative Risk o Odds Ratio o Attributable Risk • Epidemiological study design and Analysis: • Study Design: Cross sectional, cohort, case control and intervention studies • Assess strengths and limitations of different study designs • association and Causation • Causality, random errors, Bias, Interaction and Confounding factors • Methods for assessment of Effect Modification • Strategies to allow / adjust for confounding in design and analysis • Design, application, strength and weakness of studies • Concepts of Validity and Reliability(Causation and Casual interference) • Preventive Strategies: • Concepts of Screening, • Disease Surveillance. • Out break investigation, • Benefits and limitations of different forms of epidemiological evidence in formulating policy decisions • Interpretations of published epidemiological studies
Books:1. Epidemiology for Public Health Practice ***Authors*** *: R. Friis, & T. Sellers* ***Publisher:*** *Jones and Bartlett Pub* ***ISBN #*** *9780763789688* *2. Friss, H.R., & Seller T.A., (2004). Epidemiology for Public Health Practice. 3rd Edition, Jones and Bartlett Publishers.* *3.Benenson, A.S. (1990). Control of Communicable Disease in Man. American Public Health Association. 4.Lilienfeld, A.M., & Lilienfeld, D.E. (1980). Foundation of Epidemiology. 2nd Edition. Oxford University Press. 5.Last, J.M. (Editor). (1995). A Dictionary of Epidemiology. 3rd Edition, Oxford University Press. 6. Textbook of Preventive and Social Medicine Author K. Park , ISBN 8190607995*	

MPH 504 Biostatistics I	3 Credits
Aim: To introduce the basic statistical methods used in public health research. As part of this introduction, students will learn to make practical use of statistical computer packages.	
Key Topics	• Principles Of Biostatistics and Organization of Data • Properties of measurement, Statistical Procedures and Analysis • Sampling • Developing indices, Measuring Reliability and validity, Life-Tables And Vital Statistics • Analysis of data Statistical Methods and SPSS Application

Course content	• Organization of data - Primary and Secondary • sources of data – Nature and functions of primary and • Secondary data. Difference between scores and other non-score data. • Properties of measurement - Measuring and • interpretation of score/ other data – Methods of scaling – Nominal, Ordinal, Ratio and Interval scale. • Developing indices - Nature and function of an • Index. Building composite scales- simple and weighted scale – Developing weighted scores by Statistical • Methods – Data Reduction techniques. • Measuring Reliability and validity of scales and such scales. • Statistical Methods and Application through SPSS processing. • Data Organization – Raw data files and Matrix data files. • Transformation and Manipulation of SPSS file. • Statistical Procedures. - Descriptive Statistics - Univariate Statistics - Bi variate Statistics. - Multivariate Statistics.
Books: 1. Biostatistics: A Foundation for Analysis in the Health Sciences (Wiley Series in Probability and Statistics) Ninth (9th) Edition By Wayne W. Daniel. 2.Basic Statistics for the Health Sciences (2007) by Jan W Kuzma, and Stephen Bohnenblust: Edition 5; ISBN10: 0072844035; ISBN13: 9780072844030. Year Published: 2005. Publisher: McGraw-Hill Publishing 3. Zar, J.H. (1999). Biostatistical Analysis. 4th Edition, Prentice Hall.3. D Colqhoun (1971), Introduction Biostatistics : An introduction to statistics with Application in Biology and Medicine, Clarendon Press, Oxford.	

MPH 505 Environmental Health	Credit 3
Aim: provides the knowledge and skills necessary to investigate and manage these occupational health hazards, in an effort to reduce their exposure and promote healthy living.	
Key Topics	▪ Occupational and Environmental Diseases ▪ occupational hygiene and hazardous substances ▪ Controlling occupational environments ▪ Workplace hazards ▪ Identifying Safety and Health Hazards

Course Content	▪ Introduction to environmental and occupational health ▪ Fundamentals of occupational hygiene and hazardous substances ▪ Risk assessment and management ▪ Measurement of hazardous substances ▪ Ergonomics, manual work and physical agents ▪ Controlling occupational environments ▪ Occupational safety, physical hazards and biohazards ▪ Occupational hygiene field work and occupational health legislation
Books: Yassi, A. (2001) Basic Environmental Health Oxford University Press, USA. ISBN: 978-0195135589	

MPH 506 Research Methodology	Credits 3
Aim: *The students will be able understand various steps research able to design and develop research proposals*	
Key Topics	• Quantitative And Qualitative • Data Management: Packages For Analysis – Quantitative And Qualitative • Health Care Organizations : Public Health System And Its Boundaries • Comparative Health Systems
Course Content	• Basics of Research - Definitions and designs • Uses of Research in public health • Formulation of research problems • Developing hypothesis • Writing research questions • Sampling: How much sample and how to choose , principles of sampling and terminology • Design and development of Interview schedule, questionnaire construction, pre-testing (reliability and validity) • Research ethics (protection of human subjects) , • Data collection – Filed work, mapping and listing operations, selecting of respondents and MIS for major research projects • Data management - editing, entry and preparing data sets for analysis • Data analysis using spss/epi. Info/stata • Qualitative research - Development of conceptual framework, - Qualitative methods: FGDs, indepth interviews, biographies, participatory methods, participant

	observation etc.. - Data collection, recording Data analysis (manual and computer based using QSR)
Books: 1.Research Methodology: A Stepby- Step Guide for Beginners by Ranjit Kumar Publisher : Sage Publication, second edition, ISBN # 9781412911948 *2. Research Methodology~Methods and Techniques by C.R. Kothari Publisher: New Age Publications (Academic),India, ISBN-10 / ASIN: 8122415229ISBN-13*	

MPH 507 Public Health Information, Education and Communication	Credits 3
Aim: The purpose of this model is to introduce different models of communication for use in health promotion activities and also in community based health activities.	
Key Topics	▪ Basics Of Communication ▪ Behavioral Change Model, ▪ BCC, Monitoring Behavioral Change ▪ Communication Research

Course Content	• Communication Process, Function and Types o Barriers to communication o Mass Communication o Communication Skills • Community Participation o Concepts and Types • Information, Education and Communication o IEC in Health and Family Welfare o IEC structure in districts o Innovative strategies and evaluation • Behavioral Change Communication o Best practices and strategic approaches o BCC framework, implementation strategy • Target Audience Segmentation o Different approaches to target audience • Physician – Patient Communication o Why and how of physician – patient relationship • Data for IEC Planning • Relationship Management
Books: 1. Public Health Communication: Evidence for Behavior Change by Robert Hornik Publication Date: January 3, 2002 , ISBN-10: 0805831770 , ISBN-13: 978-08058317712. eHealth Applications: Promising Strategies for Behavior Change Authors Seth M. Noar and Nancy Grant Harrington Publication Date: March 10, 2012 | ISBN-10: 0415888182 | ISBN-13: 978-0415888189 | Edition: 1	

Foundation Courses (11 credits)

a. **Introduction to Public Health (Mandatory):** Introduction to Public Health is a mandatory course designed to introduce students to public health topics such as biostatistics, epidemiology, environmental & occupational health, behavioral health, health policy & administration, maternal & child health, and ethics. The course provides methodology for understanding health and health policy matters at a population level and exposes students to various occupations in the field of Public Health. Course content will include guest lecturers who serve in a Public Health field and possible site visits to Public Health institutions.

b. Demography & Population dynamics: Provides an overview of the global population trends and patterns; population and health; enhance the technical skill and knowledge regarding use of demographic data for policy analysis development, program strategies and priorities. It would cover measures and indicators of fertility, mortality and migration, and migrant health issues and provide skills in making population estimation and projection. By the end of the course, the students will be able to explain population scenario, trends and patterns; discuss population composition and characteristics; and basic concepts in population dynamics, fertility, mortality, migration, urbanization and its relationship with health.

c. **Principles of Hospital Management**: This foundation course for students of public health covers the major areas of operations, human resource management, community relations, capital finance, physician relations and collective bargaining. Coursework often includes an in-depth study of several hospitals to examine how they function. By the end of the class students have a comprehension of the main issues surrounding the management of a modern hospital and are able to apply these concepts to healthcare settings internationally.

d. Reproductive Health: Students in this course will gain broad exposure to a number of women's reproductive health issues and the interdisciplinary theorizing of feminist, medical social scientists, and public health scholars. Topics highlighted in some of these works include the social construction of social/health problems and the female body; the essentialization of women as reproducers; reproductive health rights and choices; the effects of racism, poverty, sexism, violence, and inhumane conditions on reproductive health; and how women make meaning of their health experiences.

e. **Epidemiology of Communicable Disease:** This course covers the factors that suggest a disease has an infectious cause, those determining the spatial, temporal and social distributions of communicable diseases, and the measurement of the transmissibility of infections. By the end of the course, students should be able to design, carry out, analyze, interpret and report an outbreak investigation, understand the principles underlying mathematical models of communicable diseases, methods for the evaluation of vaccine efficacy, and practical applications of epidemiological methods through the study of specific diseases.

f. **Epidemiology of Non Communicable Disease:** This course will provide an overview of non-communicable diseases in both developed and developing country settings, the global burden of such diseases, temporal trends in mortality from cardiovascular diseases and cancer, diet and cancer and the epidemiology and prevention of mental disorders. By the end of the course, students will be able to develop and criticize strategies for prevention of cardiovascular disease at the community and individual level.

g. **Epidemiology of Accident & Injuries:** This course provides instruction on an array of topics specific to accident and injuries. The goal of the class is to provide students with a broad foundation on which to apply epidemiologic concepts and methods to injury research and prevention.

h. **Health Education & health promotion**: The Course will cover the core health promotion processes of planning, development, selecting of strategies, implementation and evaluation of programs, as well as contemporary skills in partnerships, alliances, use of settings and dissemination. Case Studies and exercise will allow for practical applications of the concept and frameworks covered in the course.

i. **Public Health Nutrition:** Public health nutrition focuses on issues that affect the whole population rather than the specific dietary needs of individuals. The emphasis is on promoting health and disease prevention. Public health nutrition exists within an extensive infrastructure of government and non-government organisations, service and program delivery systems and the food supply system covering production through to consumption.

j. **Public Health aspect of STDS & HIV/AIDS**: This course provides a sound introduction to the laboratory, clinical and public health aspects of STIs and HIV by describe the microbiological, immunological, clinical and public health dimensions of sexually transmitted infections, including HIV.

k. **Health Economics:** The aim of the course is to develop a thorough knowledge and applied competence in the fundamentals of health economics, including health technology assessment. Students will acquire the skills necessary to appraise existing policy interventions and to formulate improvements over these policies in order to get better health outcomes.

l. **Public health aspects of Microbiology**: The aim of the course is to provide training to a new generation of public health professionals to expand knowledge and expertise in the areas of disease mechanisms, with an emphasis on microbial pathogens, the use and application of modern biotechnologies and in epidemiologic skills relevant to the prevention and control of problems in the community arising from infectious diseases.

M. **Disaster management:** The course aims to inculcate up-to-date disaster management practical knowledge and field skills in participants to enable them effectively reduce risks, prepare, mitigate and respond to man-made and natural disasters. At the end of the course the students will be able to know various types of disasters acquire techniques for lessening impact of disaster and be all to involve community in disaster preparedness and develop a proper training mechanism for meeting such eventualities.

N. **Health management information system**: This course provides a managerial perspective on the effective use of data and information technology to improve organizational performance in the healthcare settings. Information systems and data management fundamentals will be reviewed. The use of databases and other analytical tools to structure and analyze and present information related to complex organizational problems will be examined. Approaches to identifying operational and strategic information needs and management and decision tools will be explored. Current and future healthcare information management, decision support and knowledge management applications will be examined in the context of challenges facing healthcare organizations today. Legal and ethical issues will be explored as will the use of the Internet in healthcare.

TEACHING METHODS

"Learning by doing" is at the core of the teaching-learning approach of the program. It combines face to face sessions with individual study, preparatory time and assignments. Debates, group discussions and dialogue will also play a prominent role. The students shall

also attend workshops, presentations and field trips. Varendra University has brought together a team of highly qualified and well reputed national and international faculty members and resource persons, adding diversity and richness to the learning environment.

MARKS DISTIBUTION

Class attendance: 5 marks
Class performance: 5 Marks
Assignments: 10 Marks
Mid Tram examination: 30 Marks
Semester Final Examination: 50 Marks
Total: 100marks
Pass Mark: 60

There will be 100 marks written examination for all courses.
There will be Viva examination for **Dissertation.**

TERM DESIGNATIONS

The academic year is divided into three semester, Fall, Spring, and Summer.

CREDITS OF COURSE CREDIT

The number of credits that a course carries appears after the title of the course in the sections that follow. Most courses carry 3 credits.

TRANSFER OF CREDITS

Transfer of credits from institutions having equivalent curriculum, grading system and grading standard may be allowed for a maximum of 30 credits provided that the student has obtained at least B^+ grade(s) in the course(s) eligible for transfer. The university will consider applications for transfer of credit on a case-by-case basis.

TUTORIALS

Students may have an interest in an area or specific topic that is not addressed in the curriculum. A tutorial (independent study), which is a leaning contract between a student and faculty member to explore an area of mutual concern, is intended to provide opportunities for specialized study. Tutorials are offered by every department and are available for 1 or more credits per semester. Before registering for a tutorial, the student must first obtain the approval of the sponsoring faculty member.

GRADES

Letter grades indicating the quality of course work completed is interpreted as follows

Numerical Scores	Letter Grade	Points Per Credit
93 and above	A	Excellent 4.0
90 – 92	A-	3.7
87 – 89	B+	3.3
83 – 86	B	Good 3.0
80 – 82	B-	2.7
77 – 79	C+	2.3
73 – 76	C	Average 2.0
70 – 72	C-	1.7
67 – 69	D+	1.3

60 – 66	D	Poor 1.0
Below 60	F*	Failure 0.0
	I**	Incomplete 0.0
	W**	Withdrawal 0.0
	R**	Retaken 0.0

* Credits for courses with this grade do not apply towards graduation.
** Credits for courses with this grade do not apply towards graduation and they are not accepted in the calculation of the grade point average. The exact cut off points for assigning letter grades is at the, discretion of individual instructor. The same applies to the assignment of + or - after a letter grade. It is meant to give more flexibility so that shades of performance can be distinguished and rewarded. The + and - has a value of 0.3 grade point.

Grade Point Average (GPA)
Students' grade-point averages are numerical values obtained by dividing the total grade points earned by the credits attempted. Only courses' graded A, A-, B+, B, B-, C+, C, C-, D+, D, and F are used to determine credits attempted.
Only the grades earned in the courses that are required for a degree are included in the GPA calculation. Grades earned in other courses are reported on the transcript but are not counted in calculating the GPA.

GPA - Class Equivalence
GPA 3.00 and above = First Class
GPA 2.50 to 2.99 = Second Class
GP A 2.00 to 2.49 = Third Class

Grade Change
Grade change is strongly discouraged. Letter grades may be changed only for posting errors or errors in calculation. If a grade change is inevitable, it must be completed within one semester following the submission of the grade. The program directors and department chairs will ask for necessary papers and records to substantiate the grade change.

Incomplete (I)
The grade of Incomplete (I) may be used in special circumstances. The Incomplete may be given only at the end of a semester to a student whose work is progressing, "but who has left unfinished a small amount of work for completion without further class attendance. The instructor must file with the Registrar an Incomplete Grade form describing the work to be completed, indicating a tentative final grade to be assigned if the work is not completed and the time period in which the work must be completed (no longer than the following semester).
The student has the responsibility to take the initiative in completing the work and is expected to make up the incomplete as specified by the instructor. If action is not taken the "I" grade will revert to the tentative final grade. The final grade becomes an "F" if no tentative grade is assigned. In the event the instructor from whom a student received an incomplete is not available, the disposition of a case involving an incomplete grade resides with the Head of the Department. The grade 'I' must be replaced within one semester after the grade is assigned.

Withdrawal (W)
The grade Withdrawal (W) is assigned when a student officially drops a course during the period between the ends of the third and sixth week. Prior to that time if a student drops a course no entry is made on the academic record. A "W" does not affect the student's GPA.

Retaking Courses

Students may elect to repeat a course. When a student retakes a course, the actual grade will be recorded instead of "R". All passing grades will be used to calculate the CGPA even if a course is retaken. When a student retakes a course in which student received "F" grade(s) earlier, he/she must apply not to include the "F" grade(s) in his/her CGPA calculation. An "F" grade earned in any credit course will be used to calculate CGPA until the course is retaken and an application is submitted. The retake policy in case of courses with "F" grades will apply immediately irrespective of the date of enrollment. There will be no limit on the number of times a course can be retaken. Students who wish to retake a course must register for the course again and will be assessed tuition and applicable fees.

Abandoning Course

Grades F will be recorded for students who have not fulfilled academic obligations and have not obtained a grade, and for students who abandon their courses without officially withdrawing from a course.