

REGULATIONS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH (MPH)

(See also General Regulations)

M.87 Admission requirements

To be eligible for admission to the programme leading to the Master of Public Health, a candidate shall:

- (a) comply with the General Regulations;
 - (b) hold a Bachelor's degree with honours or the degrees of MBBS of this University, or another qualification of equivalent standard from this University or from another University or comparable institution accepted for this purpose; and
 - (c) satisfy the examiners in a qualifying examination, if required.
-

M.88 Qualifying examination

- (a) A qualifying examination may be set to test the candidate's formal academic ability or his/her ability to follow the courses of study prescribed. It shall consist of one or more written papers or their equivalent and may include a project report.
 - (b) A candidate who is required to satisfy the examiners in a qualifying examination shall not be permitted to register until he or she has satisfied the examiners in the examination.
-

M.89 Award of degree

To be eligible for the award of the degree of Master of Public Health, a candidate shall:

- (a) comply with the General Regulations; and
- (b) complete the curriculum and satisfy the examiners in accordance with the regulations set out below.

Advanced standing of the Master of Public Health programme may be granted to a candidate who has successfully completed one or more modules of the Postgraduate Diploma/Postgraduate Certificate in Public Health subject to the following conditions:

- (a) the module is appropriate for the Master of Public Health concentration applied for;
- (b) advanced standing up to 3 modules may be granted to holders of the Postgraduate Certificate in Public Health;
- (c) advanced standing up to 6 modules may be granted to holders of the Postgraduate Diploma in Public Health; and
- (d) application for advanced standing is received not more than five years after successful completion of the relevant module(s) or graduation from the Postgraduate Diploma/Postgraduate Certificate.

A candidates may choose to:

- (a) exit the programme after having successfully completed a minimum of 100 hours of the coursework component and be considered for the award of a Postgraduate Certificate in Public Health; and
- (b) exit the programme after having successfully completed a minimum of 200 hours of the coursework component and be considered for the award of a Postgraduate Diploma in Public Health.

M.90 Length of curriculum

The curriculum shall extend over not less than one academic year of full-time study or two calendar years of part-time study, with a minimum of 400 hours prescribed work.

Holders of the Postgraduate Diploma/Postgraduate Certificate in Public Health may apply for admission to the Master of Public Health programme after a break of at least one year and not more than five years from graduating from the programme.

M.91 Completion of curriculum

To complete the curriculum, a candidate shall:

- (a) follow instruction in the syllabus prescribed for the programme and complete satisfactorily all required written, practical or clinical work;
- (b) satisfy the examiners in the modules by continuous assessments and/or written examinations, and
- (c) complete a satisfactory dissertation on an approved research project or a health care project report according to the curriculum option approved by the Board of Studies and may be required to present for an oral examination.

A candidate who fails to fulfil the requirements within the prescribed maximum period of study shall be recommended for discontinuation under the provisions of General Regulation G12, except that a candidate who is unable because of illness or circumstances beyond his/her control to complete the requirements within the prescribed maximum period of study, may apply to the Board of Studies for permission to extend his/her period of study.

M.92 Module selection

Selection of modules shall be made within the curriculum structure delineated for each option and concentration, in consultation with the taught course co-ordinator and subject to the approval of the Board of Studies.

M.93 Title of dissertation/project report

The title of the dissertation or project report, depending on the curriculum option approved, shall be submitted for approval on or before May 31st of the graduation year, and the dissertation/project report shall be presented for examination not later than August 31st of the graduation year. The candidate shall submit a statement that the dissertation/project report represents his/her own work (or in the case of conjoint work or work on a secondary dataset, a statement countersigned by his/her co-worker/supervisor, which shows his/her share of the work) undertaken after registration as a candidate for the degree.

All dissertations/project reports may be subject to oral examination.

M.94 Examinations

- (a) A candidate who has failed to satisfy the examiners in a module may be permitted:
 - (i) to attend a supplementary examination;
 - (ii) to re-take the module and the prescribed examination(s); or
 - (iii) to enrol in an alternative/additional module.
- (b) A candidate who is not permitted to present himself/herself for re-examination in any module(s) in which he/she has failed to satisfy the examiners shall be recommended for discontinuation of studies under General Regulation G12.

- (c) A candidate who has failed to achieve an overall average of 50% or above in the modules but have presented a satisfactory dissertation/project report may be permitted to undertake a further period of study in the module(s) of failure and to be re-examined by a specified date not less than one month after the publication of the overall results.
- (d) A candidate who has presented an unsatisfactory dissertation/project report but has satisfied the examiners in the modules may be permitted to revise the dissertation and to re-present it within a specified period of not more than four months after receipt of a notice that it is unsatisfactory.
- (e) A candidate who has failed to satisfy the examiners in a second attempt in the module(s) or in the dissertation/project report shall be recommended for discontinuation of studies under the provisions of General Regulation G12.

M.95 Examination results

At the conclusion of the examination a pass list shall be published. A distinction may be awarded to candidates who have demonstrated outstanding performance in the programme.

M.96 Publication based on work approved

Any publication based on work approved for a higher degree should contain a reference to the effect that the work was submitted to The University of Hong Kong for the award of the degree.

SYLLABUS FOR THE DEGREE OF MASTER OF PUBLIC HEALTH

CORE MODULE REQUIREMENTS

All candidates must enroll in the following core modules.

CMED 6200	Epidemiology and critical appraisal
CMED 6100	Statistical methods
CMED 6201	Principles of public health

All candidates must select either the Option A or Option B curriculum strategy. Option A comprises 10 taught course modules (200 hours) and 1 dissertation (200 hours). Option B comprises 16 taught course modules (320 hours) and 1 project (80 hour).

Dissertation (Option A)

Project (Option B)

For either Option A or Option B, candidates are required to choose one of the seven concentrations listed below and then select modules from the curriculum laid out for each concentration.

Public Health

1. Public Health Practice
2. Epidemiology and Clinical Effectiveness
3. Infectious Disease Epidemiology and Control
4. Medical Statistics
5. Clinical Trials Research Methodology

Health Policy and Management

6. Administrative Medicine
7. Health Economics and Policy

Concentration 1 Public Health Practice

Option A - 10 modules		Option B - 16 modules	
Candidates must choose at least 5 of the 10 modules listed below and up to 2 additional modules from the modules list.		Candidates must choose at least 8 of the 10 modules listed below and up to 5 additional modules from the modules list.	
CTCE6030	Advanced epidemiological methods	CTCE6030	Advanced epidemiological methods
CMED6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis	CMED6400	Evidenced-based practice: an introduction to clinical epidemiology and decision analysis
CMED6204	Health and society	CMED6204	Health and society
CMED6900	Health care systems and policy	CMED6900	Health care systems and policy
CMED6902	Health economics for public health	CMED6902	Health economics for public health
CMED6206	Health promotion and health education	CMED6206	Health promotion and health education
CMED6704	Psychosocial issues in health and illness	CMED6704	Psychosocial issues in health and illness
CMED6300	Research methods in health care	CMED6300	Research methods in health care
CMED6208	Risk: perceptions, decisions and communication	CMED6208	Risk: perceptions, decisions and communication
CMED6202	The practice of public health	CMED6202	The practice of public health

Concentration 2 Epidemiology and Clinical Effectiveness

Option A - 10 modules		Option B - 16 modules	
Candidates must enroll in all modules listed below and choose 1 additional module from modules list.		Candidates must enroll in all modules listed below. Candidates must choose an additional 7 modules from the modules list	
CMED6401	Advanced clinical epidemiology and decision analysis	CMED6401	Advanced clinical epidemiology and decision analysis
CTCE6030	Advanced epidemiological methods	CTCE6030	Advanced epidemiological methods
CTCE6020	Advanced statistical methods I	CTCE6020	Advanced statistical methods I
CTCE6040	Advanced statistical methods II	CTCE6040	Advanced statistical methods II
CMED6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis	CMED6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis
CMED6300	Research methods in health care	CMED6300	Research methods in health care

Concentration 3 Infectious Disease Epidemiology and Control

Option A - 10 modules		Option B - 16 modules	
Candidates must enroll in all modules listed below and 1 additional module from the modules list.		Candidates must enroll in all modules listed below and 3 additional modules from the modules list.	
CTCE6020	Advanced statistical methods I	CTCE6030	Advanced epidemiological methods
CTCE6040	Advanced statistical methods II	CTCE6020	Advanced statistical methods I
CMED6210	Infectious disease modeling	CTCE6040	Advanced statistical methods II
CMED6211	Infectious disease surveillance and epidemiology	CMED6206	Health promotion and health education
CMED6215	Historical and contemporary perspectives of infectious diseases	CMED6215	Historical and contemporary perspectives of infectious diseases
CMED6208	Risk: perception, decisions and communication	CMED6210	Infectious disease modelling
		CMED6211	Infectious disease surveillance and epidemiology
		CTCE6160	Introduction to clinical trials research methodology
		CMED6704	Psychosocial issues in health and illness
		CMED6208	Risk: perception, decisions and communication

The following modules are offered by the Centre of Infection. We recommend that all physicians registered in this concentration choose the equivalent of 1 module from the following modules listed below.

MICR6903	Common problems in infectious diseases (0.5 credit)
MICR6904	Infectious in immunocompromised hosts (0.5 credit)
MICR6905	Infectious disease emergencies (0.5 credit)
MICR6901	Infectious disease rounds (0.5 credit)
MICR6902	Local emerging infectious diseases (0.5 credit)
MICR6906	Tropical diseases in the developed world and public health (0.5 credit)

Concentration 4 Medical Statistics

Option A - 10 modules		Option B - 16 modules	
Candidates must choose all modules listed below.		Candidates must choose 7 of the 8 modules listed below and 6 additional modules from the modules list.	
CMED6401	Advanced clinical epidemiology and decision analysis	CMED6401	Advanced clinical epidemiology and decision analysis
CTCE6030	Advanced epidemiological methods	CTCE6030	Advanced epidemiological methods
CTCE6020	Advanced statistical methods I	CTCE6020	Advanced statistical methods I
CTCE6040	Advanced statistical methods II	CTCE6040	Advanced statistical methods II
CTCE6160	Introduction to clinical trials research methodology	CMED6210	Infectious disease modelling
CMED6102	Practical data analysis using R (0.5 credit)	CTCE6160	Introduction to clinical trials research methodology

CMED6101	Statistical inference (0.5 credit)	CMED6102	Practical data analysis using R (0.5 credit)
CTCE6050	Statistical principles for clinical trials	CMED6101	Statistical inference (0.5 credit)
		CTCE6050	Statistical principles for clinical trials

Concentration 5 Clinical Trials Research Methodology

Option A - 10 modules	
Candidates must choose 7 of the 8 modules listed below.	
CTCE6070	Good clinical practice (GCP) and study site operation
CTCE6160	Introduction to clinical trials research methodology
CTCE6100	Practical site operation
CTCE6150	Pre-clinical and early human drug development
CTCE6130	Protocol development
CTCE6140	Quality assurance and trial monitoring
CTCE6090	Regulatory and legal affairs in clinical trials
CTCE6050	Statistical principles for clinical trials

No Option B in this concentration

Concentration 6 Administrative Medicine

Option A - 10 modules		Option B - 16 modules	
Candidates must enroll in all modules listed below		Candidates must enroll in all modules listed below and 2 additional modules from the modules list.	
CMED6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis	CMED6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis
CMED6906	Financial management	CMED6906	Financial management
CMED6900	Health care systems and policy	CMED6204	Health and society
CMED6902	Health economics for public health	CMED6900	Health care systems and policy
CMED6901	Health services management	CMED6902	Health economics for public health
CMED6908	Quality health care	CMED6206	Health promotion and education
CMED6907	The practice of administrative medicine	CMED6901	Health services management
		CMED6704	Psychosocial issues in health and illness
		CMED6908	Quality health care
		CMED6208	Risk: perception, decisions and communication
		CMED6907	The practice of administrative medicine

Concentration 7 Health Economics and Policy

Option A - 10 modules		Option B - 16 modules	
Candidates must enroll in all modules listed below.		Candidates must choose all modules listed below and 6 additional modules from the modules list.	
CMED6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis	CMED6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis
CMED6906	Financial management	CMED6906	Financial management
CMED6204	Health and society	CMED6204	Health and society
CMED6903	Health care financing	CMED6903	Health care financing
CMED6900	Health care systems and policy	CMED6900	Health care systems and policy
CMED6902	Health economics for public health	CMED6902	Health economics for public health
CMED6907	The practice of administrative medicine	CMED6907	The practice of administrative medicine

CMED6401 Advanced clinical epidemiology and decision analysis (20 hours)

This is an intermediate/advanced-level module on methods of clinical epidemiology and decision science. It covers the techniques and growing range of applications of decision analysis and cost effectiveness analysis in health care technology assessment, health policy analysis, medical decision making, and health resource allocation. Students will learn to apply methods that are currently used at the frontiers of clinical epidemiology and decision science research in clinical and public health settings. While the primary emphasis is not mathematical theory, a certain amount of theoretical background is presented for each topic.

CTCE6030 Advanced epidemiological methods (20 hours)

Epidemiological survey design and methods, occupational epidemiology, environmental epidemiology, nutritional epidemiology, molecular and genetic epidemiology, infectious disease epidemiology, randomised controlled trials, systematic review and meta analysis.

CTCE6020 Advanced statistical methods I (20 hours)

Introduction to SPSS, analysis of variance and covariance, logistic regression, survival analysis, and factor analysis.

CTCE6040 Advanced statistical methods II (20 hours)

Introduction to Stata, analysis of contingency tables, count data and longitudinal data.

MICR6903 Common problems in infectious diseases (10 hours)

The practice of clinical infectious diseases depends on the support and proficiency in four major areas: (1) clinical knowledge and skill including routine laboratory investigations; (2) organ imaging; (3) diagnostic microbiological; and (4) histological examination of tissue biopsies. History, physical

examination, and preliminary test would usually lead to the formulation of a clinical diagnosis of a possible infectious process. The clinical symptoms and signs will also provide clues in the localization of the focus of infection so that relevant clinical specimens are taken for microbiological examinations. Students should visit <http://www.hku.hk/hkucoi/> for the latest update.

CMED6909 Comparative health systems: Hong Kong (20 hours)

The major aim of this course is to provide a comparative view of aging, public health, and allopathic, traditional and complementary treatment in Hong Kong and The United States within the perspectives of nursing, medicine, and interdisciplinary collaboration. Classroom experiences are designed – both in the U.S. and in H.K. – to build knowledge of how the U.S. and H.K. compare in demographics and aging; health, disease, and illness; and health care treatment from prevention through rehabilitation and palliation. Collaboration between nurses and physicians is emphasized throughout the course, in interaction with the faculty team, in home seminars and clinical observations, and in the seminars and clinical observations in Hong Kong. Clinical experiences include observation in a collaborative practice in the U.S. and in a variety of settings across the SAR of Hong Kong. All of these experiences will be reflected against the student's broader knowledge of the U.S. health care system and care delivery settings but do not require specific clinical background to achieve the objective of the course.

CMED6200 Epidemiology and critical appraisal (20 hours)

Epidemiology: definitions, uses, concepts of health, disease and risk factors; measurements: rates, proportions, variation, validity and reliability; Sources of information and vital statistics; descriptive epidemiology: person, place and time; study designs in epidemiology; screening, prevention, and evaluation; critical appraisal, meta-analysis and causality.

CMED6205 Epidemiology of important health conditions (20 hours)

Tobacco-related diseases, cancer and chronic disease, infectious disease, lifestyle factors (smoking, alcohol, diet, exercise) and health, pollution and health, accidents and injury, occupational hazards and diseases, psychological factors and health.

CMED6400 Evidence-based practice: an introduction to clinical epidemiology and decision analysis (20 hours)

Evidence-based practice (EBP) – What is it and why?; Where is the evidence? Searching the evidence-based literature; What should we do with the evidence? The EBP toolbox; Is the evidence valid? Critical appraisal of the evidence (diagnosis and screening); Is the evidence valid? Critical appraisal of the evidence (therapy); Is the evidence valid? Critical appraisal of the evidence (prognosis); How do we deal with different pieces of evidence? Systematic reviews and meta-analyses; How can we disseminate the evidence? Clinical practice guidelines and consensus statements; Does EBP matter in Hong Kong? EBP and knowledge management in the Hospital Authority; Are we practising according to the evidence? Evaluation of personal and programme performance.

CMED6906 Financial management (20 hours)

Introduction to public sector financial management. Basic concepts: definitions of capital and revenue expenditure; the basic structure of income statements, use of balance sheets, and cash flow statements, the role of internal/external audit, value for money and corporate governance. Cost accounting and

mechanisms for financial control. Introduce the concept of a business plan. Using financial information to inform decision making. Roles of directors of finance & others concerned with management of resources. Budget preparation and budgetary control.

CTCE6070 Good clinical practice (GCP) and study site operation (20 hours)

This module will provide an introduction to good clinical practices, responsibilities of the investigator, investigator's brochure, case report forms, recruitment of subjects, responsibilities of the clinical research coordinator, institutional review board and informed consent, drug accountability, study site standard operating procedures, planning for laboratory investigations and sample handling procedures, adverse events, drug accountability, audits and inspections of the study site.

CMED6204 Health and society (20 hours)

This module provides an overview of the field of the social determinants of health, and will focus on the theories, measurement tools, and analytical methods for investigating the causal influence of social contexts and social variables on population health. By the end of the course, student will be familiar with basic concepts in the field, including the prevention paradox and the two strategies of prevention; the measurement of socio-economic status (SES) and the mechanisms of its association with health outcomes; absolute vs. relative concepts of poverty; compositional vs. contextual influences of neighborhood environments on health; the measurement of social networks, social support, and social capital, and how each concept is related to health; the demands/control model of job stress; and policies to tackle social inequalities in health.

CMED6903 Health care financing (20 hours)

Funding is a major tool for shaping the delivery of health care, for both good and ill. Consequently, health care financing, the mechanisms by which money is mobilized to fund health care, and how it is allocated, is one of the most important issues to tackle when reforming the health system. This course aims to introduce major financing options and examine its potential impacts. International experiences from OECD and Asia-Pacific countries, drawing on extensive empirical evidence from ECuity and EQUITAP, will be used to illustrate the performance assessment of the health systems under discussion. This course will also familiarize the students with the use of OECD Health Data.

CMED6900 Health care systems and policy (20 hours)

Policy, public and health policy: an introduction; The ethical basis of policy formulation; Health systems: what, why and how?; Macroeconomics and health policy I: concepts; Macroeconomics and health policy II: UK and Canada; Macroeconomics and health policy III: US and Singapore; Case study: Hong Kong SAR; Microeconomics and health policy I: decision sciences; Microeconomics and health policy II: applications; Social inequalities and health.

CMED6902 Health economics for public health (20 hours)

This module introduces basic economic concepts to health care professionals. Topics include financing, simple economic evaluation and rationing of health care. The module emphasizes the uses and limitations of the economic approach in health care, with applications in medicine, nursing and health promotion.

CMED6206 Health promotion and health education (20 hours)

This course will be organized into two sections. The first section will provide students with a broad definition and understanding of health and health promotion at the individual, small group, community, and societal levels. Students will examine different theoretical models for health promotion in terms of their different aims, methods, and means of evaluation. A major emphasis is to critically examine the influences of socioeconomic environment on health and health promotion. The second section will focus on identifying and analyzing opportunities for and barriers to promoting health and wellness among individuals and populations. Students will assess and evaluate a variety of approaches and actions that form the basis of a strategic operation for promoting individual and populations health. (Students registering for the MPH in Psycho-oncology will focus on health promotion targets in cancer prevention and health promotion in cancer sufferers.)

CMED6901 Health services management (20 hours)

This module is an introductory course to organisational and management theory. Students will be introduced to the concepts of organisation design and behaviour, management theory, managing people and organising work, leadership, managing change and change theory, using evidence to guide management decision making and methods for the assessment of organisational effectiveness. A problem based approach will be adopted for most of the sessions.

CMED6215 Historical and contemporary perspectives of infectious diseases (20 hours)

History and evolution of infectious diseases; Causal agents in infectious diseases; Quarantine and other public health measures to protect populations; Risk communication and risk perception; Politics, health and social attitudes; Significance of infectious disease in an Asian context.

MICR6904 Infections in immunocompromised hosts (10 hours)

Infectious disease is as old as the history of mankind. Yet the systematic study of infectious diseases is relatively recent. The importance of the classical contagious and communicable diseases dwindled in the developed world, mainly because of improvements in public health measures. The spectrum of infection in many parts of the world has now been replaced by a predominance of hospital-acquired infections and infection in immunocompromised hosts, a “side effect” of our advances in the management of various diseases like malignancies and autoimmune diseases. In this course, we focus on the approach to infections in patients suffering from an impaired immune system, either as a result of the underlying illness or due to the effects of various therapeutic modalities. Antimicrobial therapy alone often does not completely control the infection or its damages, other means to modulate the immune system are sometimes necessary in order to effect a cure. This latter aspect is also looked into in this course. Students should visit <http://www.hku.hk/hkucoi/> for the latest update.

MICR6905 Infectious disease emergencies (10 hours)

Advances in medicine have brought with it an increased expectation from patients. Missing an infectious disease emergency is almost considered a sin because of its generally treatable nature and complete recovery is expected if the correct diagnosis and treatment is given at the early stage. One of the important advances in medical service is the implantation of indwelling medical devices for supplementing functions of vital organs or fulfilling the locomotive functions. However, such therapeutic measures are associated with a significant amount of complication from infection which by itself is life-threatening and at the very least, debilitating. Infectious disease emergencies and indwelling medical device-related infections could present in almost any patient group within any

medical specialties. It is therefore timely for the course to review these two topics. Students should visit <http://www.hku.hk/hkucoi/> for the latest update.

CMED6210 Infectious disease modelling (20 hours)

An introduction to the use of mathematical models as tools within infectious disease epidemiology. Simple models will be introduced and related to real-world data. The final section of the course will examine disease specific case-studies, drawing on the earlier work. In the final section of the course, students will be able to choose from the different approaches to the analyses of these models.

MICR6901 Infectious disease rounds (10 hours)

The gold standard for the testing of medical knowledge is its predictability of patients' outcome at the bedside. Despite the importance of large studies such as randomized controlled trials in the literature, case reports have always played a unique role in education and the initiation of break-through research. This course strives to use an interactive approach in the learning process by case presentation before a literature review. These cases include genitourinary infections, common problems with atypical presentation and rare problems with an unbelievably simple solution. Students should visit <http://www.hku.hk/hkucoi/> for the latest update.

CMED6211 Infectious disease surveillance and epidemiology (20 hours)

This course describes contemporary statistical methods for the study of infectious disease data. Topics include the surveillance of infectious diseases, outbreak detection, intervention and prevention, and specialised methodology for analysing epidemiological data. The course is illustrated with many topical examples including HIV, SARS, TB and influenza.

CTCE6160 Introduction to clinical trials research methodology (20 hours)

This module will cover topics on the drug development process, drug discovery and pre-clinical drug development; history of clinical trials, phases of clinical trials, main features of clinical trials; research ethics history, trial guidelines, research ethics practice; clinical trial players, responsibility and liability local regional guidelines and laws; quality assurance, audits and inspections; GCP education, accreditation and training; project operation, essential study documents, study monitoring; statistical principles in clinical trials, statistical practice of clinical trials, clinical data management; protocol development, reporting and CONSORT statement; network operation, trial applications, drug accountability; evidence-based medicine, fraud and misconduct, trial register.

MICR6902 Local emerging infectious diseases (10 hours)

Infectious diseases results when the normal human physiology is significantly affected by the virulence of the microbe which has overcome or over-excited the defence mechanism of the host. Epidemics are triggered when the delicate balance between man, microbe and environment is altered. In the recent years, unexpected outbreaks of SARS, Avian influenza, new variant Creutzfeldt-Jakob disease has shocked the world. This course is designed to acquaint the candidates of recently emerging infections in Hong Kong and our neighbourhood countries. Students should visit <http://www.hku.hk/hkucoi/> for the latest update.

CMED6102 Practical data analysis using R (10 hours)

This is an advanced course on the analysis of real-life datasets using state-of-the-art techniques applied in the statistical software R. In each session we will review a case study of a dataset and

analyse it together from start (descriptive statistics) to finish (inferential statistics) using R, ending with the methods and results sections of a publication-quality technical report. The course will include the following topics: 1. Exploratory data analysis; 2. Linear models; 3. Generalized linear models; 4. Generalized additive models; 5. Data resampling techniques.

CTCE6100 Practical site operation (20 hours)

Preparation and practical session on preparing informed consent documents, theory and practice of recruitment documents, clinical trial scenarios, and study site initiation visit practical.

CTCE6150 Pre-clinical and early human drug development (20 hours)

This module will cover key topics in relation to drug interactions; immunochemical basis of drug allergy; mechanism of drug resistance; molecular mechanisms of drug-receptor interaction; pharmacogenetic basis of drug idiosyncrasy; the adverse effects of drugs and the mechanisms responsible for the development of drug tolerance and physical dependence; the fate of drugs in the body - their absorption, distribution, excretion and metabolism; the theoretical basis of dose-response relations.

CMED6201 Principles of public health (20 hours)

History, concepts and concerns of public health, determinants of health, public health policies, health care systems, measurement of health and needs, public health advocacy, control of disease and health problems, health promotion. The sessions are based on the study of either historical or contemporary global health problems using a wide range of different types and sources of information.

CTCE6130 Protocol development (20 hours)

Topics include, introduction; outline of the source documentation required before writing can commence; use of ICH GCP, Guidelines, and validated tools of assessment; instruction on protocol writing; avoidance of common protocol shortfalls; inclusion of information required for the differing needs of various studies.

CMED6704 Psychosocial issues in health and illness (20 hours)

This course provides a comprehensive introduction to some core topics in understanding of the roles of psychological and social processes in relation to health and illness. This course will illustrate the interactions between cognition, behaviour, social environment, health and illness.

CMED6216 Public health genetics (20 hours)

Genetics is the study of variation in the genome, its inheritance, and its contribution to health and disease. Public health genetics focuses on the public health implications of advances in genetic and molecular science for preventing disease and for protecting and improving the health of the population. The curriculum will be centered on an understanding how genetic and environmental factors work together in determining disease susceptibility in individuals and populations. It will also address the implications of these developments for health services, and the ethical, legal, cultural, economic and policy issues involved in applying genomics to public health.

CTCE6140 Quality assurance and trial monitoring (20 hours)

Topics include: review of the responsibilities of the Institutional Review Board (IRB), Sponsor, and Investigators; how to initiate clinical research studies on behalf of a Sponsor, by planning and conducting study initiation visits; conducting routine monitoring visits; identification and reporting of adverse events; verification of data for quality; monitoring clinical supplies and investigational product accountability; detection of fraudulent patient information and data; data collection methods (e.g. fax, remote entry, decoupled Case Report Forms (CRFs)); resolving data queries; basics of communicating and negotiating with site coordinators and investigators; dealing with difficult sites and handling challenging situations; identifying and managing safety issues; solving problems with site personnel; addressing issues; preparation of site visit reports, documentation, and conduct of study closeout visits.

CMED6908 Quality health care (20 hours)

Methods and strategies for quality measurement in quality improvement and accountability. Measurement of clinical quality using process or outcome data. Measurement of patient expectations/experience with the health care system. Nature and causes of variation in quality, variation related to overuse, underuse and misuse of services. Strategies for changing physician and organizational practice. Traditional quality improvement techniques, regulation, credentialing education, CQI, organisational learning, systems design, managed care, practice guidelines, information systems, performance reports, mediation.

CTCE6090 Regulatory and legal affairs in clinical trials (20 hours)

This module will cover the key topics in relation to regulatory and legal affairs in clinical trials, including ethics committee mechanisms and procedures, international and local regulatory affairs, introduction to legal contracts, and budgeting and financial affairs. Students will also be required to participate in a practical session on ethics committee submission.

CMED6300 Research methods in health care (20 hours)

Principal types of research methods used in evaluation and audit; framing objectives, quantitative and qualitative approaches to evaluation; survey methods; designing questionnaires; sampling, validity, and reliability; measuring outcomes; using examples from health care and health programme evaluation.

CMED6208 Risk: perception, decisions and communication (20 hours)

Risk is inevitable in life, yet the ability to accurately judge risk and the decisions made thereafter are usually quite skewed by psychological, social and contextual factors, so much so that serious errors can occur in decision making. In health care, the ability to accurately assess risk and the psychological strategies that people adopt to avoid the threat that risk presents means that health hazards are often completely misrepresented both to ones self and to others. Health professionals also have the task of communicating health risk information to the community as well as individuals. How can information be presented in such a way as to effectively communicate the true nature of a hazard without distorting or falling into the trap of being ignored? This module looks in detail at the area of risk perceptions, the distortions of decisions by psychological and other factors and the communication of risk, all core skills for public health professionals.

CMED6101 Statistical inference (10 hours)

Statistical inference comprises the use of statistics to make quantitative statements about some unknown aspect (usually a parameter) of a population. This course will provide a basic, yet thorough

introduction to the probability theory and mathematical statistics that underlie many of the commonly used techniques in public health research. Topics to be covered include probability distributions (normal, binomial, Poisson, exponential), means, variances and expected values. The frequentist and Bayesian approaches to parameter estimation, interval estimation and hypothesis testing will be compared and contrasted. All theoretical material will be motivated with problems from epidemiology, biostatistics, environmental health and other public health areas.

CMED6100 Statistical methods (20 hours)

Statistics in clinical practice, measures for location and spread; normal distribution; probability and binomial distribution, logic in statistical inference; significance tests on the means, association and correlation; simple regression analysis; multiple regression; analysis of variance; logistic regression; survival analysis; non-parametric methods; sample size determination.

CTCE6050 Statistical principles for clinical trials (20 hours)

Statistical principles for clinical trials (ICH GCP E9), study design considerations, sample size determination, data analysis, analysis of phase I studies, analysis of serial measurements, statistical reporting of clinical trials.

CMED6907 The practice of administrative medicine (20 hours)

The module aims to promote the application of administrative science to a wide range of common problems and issues. Students will be expected to integrate diverse knowledge and skills in their approach to problem solving. Each session will include one or more problems which can be used to illustrate the wide range of disciplines applicable (from an evidence based perspective) to the practice of administrative medicine. The module will also support the preparation of candidates for the fellowship examination in administrative medicine.

CMED6202 The practice of public health (20 hours)

The content of this module aims to promote the application of public health sciences to a wide range of common problems and issues. Students will be expected to integrate the diverse knowledge and skill requirements of a competent public health practitioner in their approach to problem solving. Each session will include one or more problems which can be used to illustrate the wide range of disciplines applicable (from an evidence based perspective) to the practice of public health. The module will also focus on the presentation of solutions to specific problems and support the preparation of candidates for international professional examinations in public health medicine.

MICR6906 Tropical diseases in the developed world and public health (10 hours)

The term “tropical diseases” appears to be remote to most clinicians practising in developed countries, especially among the younger generation of doctors who seldom if ever see patients with tropical infections. However, as will be seen in the course, even people from the developed world can contract these exotic infections owing to ease and increasing international travel for occupational, recreational, and missionary purposes. Even more important is that missing these cases can have disastrous outcomes because a number of these infections may have a rapidly progressive clinical course and unless promptly diagnosed and treated, they may result in irreversible organ damage and even death. The situations in which they should be suspected and the methods for diagnosis are covered. Students should visit <http://www.hku.hk/hkucoi/> for the latest update.

Appendix 1

MPH Modules (by alphabetical order) Academic Year 2007-08					
	MPH Code (RPg Code)	Sem	Credit Value	Module Name	Module Coordinator
1	CMED6401	S	1	Advanced clinical epidemiology and decision analysis	Prof GM Leung/ Prof AJ Hedley
2	CTCE6030	II	1	Advanced epidemiological methods	Prof TH Lam
3	CTCE6020	II	1	Advanced statistical methods I	Dr CM Wong
4	CTCE6040	II	1	Advanced statistical methods II	Dr CM Wong
5	MICR6903	-	0.5	Common problems in infectious diseases	Dr VCC Cheng
6	CMED6909	CC	1	Comparative health systems: Hong Kong	Prof S Kagan (UPENN)/ Prof GM Leung
7	CMED6214**	II	1	Dental public health	Dr E Lo
8	CMED6200	I	1	Epidemiology and critical appraisal	Dr D Ho
9	CMED6205	I	1	Epidemiology of important health conditions	Prof TH Lam
10	CMED6400	II	1	Evidence based practice: an introduction to clinical epidemiology and decision analysis	Prof GM Leung
11	CMED6906	I	1	Financial management	Ms N Tse
12	CTCE6070	I	1	Good clinical practice (GCP) and study site operation	Dr S Tam
13	CMED6204	CC	1	Health and society	Prof I Kawachi
14	CMED6903	CC	1	Health care financing	Prof JFR Lu
15	CMED6900	I	1	Health care systems and policy	Prof GM Leung
16	CMED6902	II	1	Health economics for public health	Dr SM McGhee
17	CMED6206	II	1	Health promotion and health education	Prof R Fielding
18	CMED6901	II	1	Health services management	Dr J Johnston
19	CMED6215	S	1	Historical and contemporary perspectives of infectious diseases	Prof AJ Hedley/ Prof GM Leung
20	MICR6904	-	0.5	Infections in immunocompromised hosts <i>Dept of Microbiology Title: Infections in immunocompromised hosts & common infective problems in general practice</i>	Dr PL Ho
21	MICR6905	-	0.5	Infectious disease emergencies <i>Dept of Microbiology Title: Infectious disease emergencies, indwelling device and surgical infections</i>	Dr PCY Woo
22	CMED6210	II	1	Infectious disease modelling	Dr S Riley
23	MICR6901	-	0.5	Infectious disease rounds <i>Dept of Microbiology Title: Radiology, & radionuclide imaging in ID. Genitourinary medicine & HIV problems</i>	Dr S Lau
24	CMED6211	I	1	Infectious disease surveillance and epidemiology	Dr B Cowling/ Dr LM Ho
25	CTCE6160	I	1	Introduction to clinical trials research methodology	Prof JPE Karlberg

26	MICR6902	-	0.5	Local emerging infectious diseases <i>Dept of Microbiology Title: Infectious diseases update and emerging infections</i>	Dr S Wong
27	CMED6102	S	0.5	Practical data analysis using R	Dr B Cowling
28	CTCE6100	I	1	Practical site operation	Mr J Thorburn
29	CTCE6150	I	1	Pre-clinical and early human drug development	Prof JPE Karlberg
30	CMED6201	I	1	Principles of public health	Prof AJ Hedley
31	CTCE6130	II	1	Protocol development	Prof JPE Karlberg
32	CMED6704	II	1	Psychosocial issues in health and illness	Dr WS Wong
33	CMED6216	CC	-	Public health genetics	Prof RL Zimmern
34	CTCE6140	II	1	Quality assurance and trial monitoring	Prof JPE Karlberg
35	CMED6908	S	1	Quality health care	Dr J Johnston
36	CTCE6090	II	1	Regulatory and legal affairs in clinical trials	Mr H Yau
37	CMED6300	I	1	Research methods in health care	Dr SM McGhee
38	CMED6208	I	1	Risk: perception, decisions and communication	Prof R Fielding
39	CMED6101	S	0.5	Statistical inference	Dr B Cowling
40	CMED6100	I	1	Statistical methods	Dr CM Wong
41	CTCE6050	II	1	Statistical principles for clinical trials	Prof JPE Karlberg
42	CMED6907	II	1	The practice of administrative medicine	Dr H Fung
43	CMED6202	II	1	The practice of public health	Prof AJ Hedley
44	MICR6906	-	0.5	Tropical diseases in the developed world and public health <i>Dept of Microbiology Title: Surprises in daily medical practice: tropical diseases in the developed world</i>	Dr S Wong

** = Pending enrolment

S = Summer programme

CC = Concentrated courses