

## **REGULATIONS FOR THE POSTGRADUATE CERTIFICATE IN PUBLIC HEALTH (PCPH)**

*(See also General Regulations)*

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### **M.113 Admission requirements**

To be eligible for admission to the programme leading to the Postgraduate Certificate in 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.
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### **M.114 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.
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### **M.115 Award of certificate**

To be eligible for the award of the Postgraduate Certificate in 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.
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### **M.116 Length of curriculum**

The curriculum shall normally extend over one academic year of part-time study with a minimum of 100 hours of prescribed work.

Holders of the 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 PCPH programme.

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### **M.117 Completion of curriculum**

To complete the curriculum, a candidate shall:

- (a) follow courses of instruction as prescribed in the syllabus and complete satisfactorily all required written, practical and/or clinical work; and
- (b) satisfy the examiners in the modules by continuous assessments and/or written examinations.

A candidate who fails to fulfil the requirements within the prescribed maximum period of study shall be recommended for discontinuation under the provision 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.118 Module selection**

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

### **M.119 Examinations**

- (a) A candidate who has failed to satisfy the examiners in a module may be permitted:
  - (i) to attend a supplementary examination; or
  - (ii) to re-take the concentration module and the prescribed examination(s).
- (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 satisfy the examiners in a second attempt in the module(s) shall be recommended for discontinuation of studies under the provisions of General Regulation G12.

### **M.120 Examination results**

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

## **SYLLABUS FOR THE POSTGRADUATE CERTIFICATE IN PUBLIC HEALTH**

Candidates are required to choose one of the six concentrations below:

Postgraduate Certificate students must enrol in all highlighted modules and select the remaining modules for a total of 5 from the curriculum list for each concentration.

### **Concentration 1 Public Health Practice**

CTCE 6030	Advanced epidemiological methods
CMED 6200	Epidemiology and critical appraisal
CMED 6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis
CMED 6204	Health and society
CMED 6900	Health care systems and policy
CMED 6902	Health economics for public health
CMED 6206	Health promotion and health education
CMED 6201	Principles of public health
CMED 6704	Psychosocial issues in health and illness
CMED 6300	Research methods in health care
CMED 6100	Statistical methods
CMED 6202	The practice of public health

**Concentration 2 Epidemiology and Clinical Effectiveness**

CMED 6401	Advanced clinical epidemiology and decision analysis
CTCE 6030	Advanced epidemiological methods
CTCE 6020	Advanced statistical methods I
CTCE 6040	Advanced statistical methods II
CMED 6200	Epidemiology and critical appraisal
CMED 6205	Epidemiology of important health conditions
CMED 6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis
CMED 6902	Health economics for public health
CTCE 6160	Introduction to clinical trials research methodology
CMED 6201	Principles of public health
CMED 6300	Research methods in health care
CMED 6100	Statistical methods

**Concentration 3 Infectious Disease Epidemiology and Control**

CTCE 6020	Advanced statistical methods I
CMED 6200	Epidemiology and critical appraisal
CMED 6215	Historical and contemporary perspectives of infectious diseases
CMED 6210	Infectious disease modelling
CMED 6211	Infectious disease surveillance and epidemiology
CMED 6201	Principles of public health
CMED 6208	Risk: perception, decisions and communication
CMED 6100	Statistical methods

**Concentration 4 Medical Statistics**

CMED 6401	Advanced clinical epidemiology and decision analysis
CTCE 6030	Advanced epidemiological methods
CTCE 6020	Advanced statistical methods I
CTCE 6040	Advanced statistical methods II
CMED 6200	Epidemiology and critical appraisal
CTCE 6160	Introduction to clinical trials research methodology
CMED 6201	Principles of public health
CMED 6103	Statistical inference using R
CMED 6100	Statistical methods

**Concentration 5 Administrative Medicine**

CMED 6200	Epidemiology and critical appraisal
CMED 6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis
CMED 6906	Financial management
CMED 6204	Health and society
CMED 6900	Health care systems and policy
CMED 6902	Health economics for public health
CMED 6901	Health services management
CMED 6201	Principles of public health
CMED 6704	Psychosocial issues in health and illness
CMED 6908	Quality health care
CMED 6300	Research methods in health care
CMED 6100	Statistical methods
CMED 6907	The practice of health administration

### Concentration 6 Health Economics and Policy

CMED 6200	Epidemiology and critical appraisal
CMED 6400	Evidence-based practice: an introduction to clinical epidemiology and decision analysis
CMED 6204	Health and society
CMED 6903	Health care financing
CMED 6900	Health care systems and policy
CMED 6902	Health economics for public health
CMED 6201	Principles of public health
CMED 6704	Psychosocial issues in health and illness
CMED 6300	Research methods in health care
CMED 6100	Statistical methods

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#### CMED 6401 Advanced clinical epidemiology and decision analysis (20 hours) (suspended)

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. While the primary emphasis is not mathematical theory, a certain amount of theoretical background is presented for each topic.

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#### CTCE 6030 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.

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#### CTCE 6020 Advanced statistical methods I (20 hours)

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

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#### CTCE 6040 Advanced statistical methods II (20 hours)

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

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#### CMED 6600 Biological basis of common health problems (20 hours)

Biology and pathophysiology of common diseases including cancer, diseases of the cardiovascular, respiratory, gastrointestinal, neurological, musculoskeletal and reproductive systems, infections and psychiatric diseases; for each selected disease, the following will be included: aetiology and risk factors, pathophysiology and clinical manifestations, pattern and distribution in populations.

**MICR 6903 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.

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**CMED 6909 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.

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**CMED 6200 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.

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**CMED 6205 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.

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**CMED 6400 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.

**CMED 6906 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.

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**CMED 6204 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.

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**CMED 6903 Health care financing (20 hours)**

Examines issues under discussion for health care reform: health insurance, financing, methods for controlling health care costs, incentives for hospitals and physicians, quality of care, and long-term care. Competitive versus regulatory approaches are explored, as well as the role of government and the private sector. The distributional consequences of various programs and methods receive special focus. Money is a major tool for shaping the delivery of health care, for both good and ill. This course will follow the money as it flows through provider payment systems. Topics will include payment methods for hospital care, physician, pharmaceuticals, long-term care, dental services and new technologies. Cross-national examples including Hong Kong and China will be used occasionally to gain greater understanding of some of the challenges that face all health care systems in designing successful provider payment system.

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**CMED 6900 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.

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**CMED 6219 Health communication (20 hours)**

Covers the development of public communication campaigns in the field of health promotion: assessing what the mass media can accomplish to promote health; designing mass media messages that are consonant with principles of behavioral science and the public health model; and strategic planning for integrated mass media campaigns.

**CMED 6902 Health economics for public health (20 hours)**

This module introduces basic health economic concepts to health care professionals. Topics include scarcity, supply and demand, rationing mechanisms, economic evaluation and evidence-based decision-making. The module emphasizes the uses and limitations of the economic approach in health care, with applications in medicine, nursing, other health-related professions and health promotion.

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**CMED 6206 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.

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**CMED 6901 Health services management (20 hours)**

This module is an introductory course to organisational and management theory as applied in practice in HK. 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.

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**CMED 6215 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.

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**CMED 6218 Human health: futures in a globalized world (10 hours)**

The "big picture" module has as its focus the implications for the next 25 years. It will analyse globalization, economics, resource depletion, food and agricultural issues, population change, and societal reactions, and climatological impacts from current patterns of human population behaviour within an ecological systems-based perspective to infer likely futures and their health implications. In particular, we will examine current trends and models to attempt to estimate emerging public health issues and hazards linked to these.

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**MICR 6904 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.

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### **MICR 6905 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.

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### **CMED 6210 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. Different methods for the analyses of those models will be used; such as calculus, spreadsheets, modeling specific computer packages (Berkeley Madonna) and basic computer languages (C++). The final section of the course will examine disease specific case-studies, drawing on the earlier work. Note that in the final section of the course, students will be able to choose from the different approaches to the analyses of these models.

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### **MICR 6901 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.

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### **CMED 6211 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.



**CMED 6220 Informatics for health management (20 hours)**

The role of ICT (Information and Communication Technologies) in the future of healthcare provision is increasingly critical. This module introduces how new developments in information management and technology offer both exciting opportunities and challenges. In a series of seminars, guests with expertise in health informatics will share their experience on how and why timely and accurate information in a healthcare environment is to be provided. Through a class project and presentation, students will identify key issues relating to quality data collection in different healthcare environments and how to harness ICT to develop quality healthcare management system.

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**CTCE 6160 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.

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**CMED 6223 Leadership initiatives in international public health (20 hours)**

This course adopts an integrative approach to introduce major health challenges of underdeveloped, developing, and newly formed nations. Focusing on the social environmental, political, cultural and economical contexts, students will conduct in-depth analyses of health problems among various populations in different cultural settings. Structures and functions of international agencies and organizations as well as approaches to health care delivery systems around the world will be discussed. Students will examine case studies of successful global health interventions to understand features of successful programs. Students will have to work in small groups and design a plan for a real life health challenge in a developing country. Students may also seek a practicum opportunity to test their plan in the field.

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**MICR 6902 Local emerging infectious diseases (10 hours)**

Infectious diseases result 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 have 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.

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**CMED 6224 Practicum (42 hours)**

The practicum aims to prepare students with a broad mastery of subjects and methods necessary for the field of public health practice, bridging theory and practice. The recommended standard is a minimum of 42 hours. Students will gain relevant practical public health experience by completing an 8-12 week community based work placement in a local Department of Health clinic or unit, a local or regional hospital, Food and Health Bureau, or non-governmental agency, to apply what has been learned in a public health setting. The placement could involve any public health activities or functions: such as but not limited to surveillance, policy development, programme evaluation, or

communications. Most full-time students will complete the practicum in the summer semester. Alternatively the practicum may also be completed over a year with a defined weekly commitment to the sponsoring agency. With an agreed plan it would be possible for part time working students to complete the practicum within their current place of employment. The plan, structure and deliverables of the practicum will be agreed between the student, the academic advisor and field supervisor.

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#### **CMED 6201 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.

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#### **CMED 6704 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.

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#### **CMED 6216 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.

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#### **CMED 6221 Public health law and ethics (20 hours) (suspended)**

This course will lead students to understand and discuss the potential tension between respect for individual rights and morals, and the pursuit to protect the health of the public, or the so-called “private interest versus public good” debate. The course first introduces the conceptual foundations for health law, ethics and human rights, and issues relating to these fields. Students will then explore how government may, on behalf of the public’s health, conflict with the rights of individuals and businesses. These conflicts will be examined through critical current controversies in public health law and practices, e.g. surveillance vs. privacy rights, health promotion vs. freedom of expression and regulation of business. The course concludes by inviting students to critically review the roles of the government, communities, and individuals in some emerging issues in public health, e.g. infectious diseases, bioterrorism, and public health genetics.

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#### **CMED 6222 Public health nutrition (20 hours) (suspended)**

This course will provide students an overview of the literature addressing local and global issues in nutrition. It leads students to think beyond nutrition as an individual issue but as a public health concern. Factors that will influence nutrition status of a population and techniques for assessing community nutrition needs will be explored. Various nutrition programmes will be introduced and students will have to identify their strengths and weaknesses in different contexts. It aims to equip students with a scholarly capacity for critically analyzing nutrition problems from a multi-disciplinary perspective and formulating effective public health nutrition project.

**CMED 6217 Qualitative health research (10 hours)**

This course will provide a comprehensive introduction to qualitative health research, with the aim to helping students to acquire a sound knowledge base of the qualitative research process and to develop an appreciation of the importance of qualitative research in health science. During the course, various qualitative methods will be introduced and discussed. Students will have the opportunity to engage in activities involved in data collection, analysis, as well as appraising qualitative research evidence.

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**CMED 6908 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, credentialling education, CQI, organisational learning, systems design, managed care, practice guidelines, information systems, performance reports, mediation.

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**CMED 6300 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.

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**CMED 6208 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.

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**CMED 6103 Statistical inference using R (20 hours)**

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. The frequentist and Bayesian approaches to parameter estimation, interval estimation and hypothesis testing will be compared and contrasted. The open-source software package R will be introduced, and used to perform analyses. R also includes a powerful graphics engine which will be used to produce publication quality figures. All theoretical material will be motivated with problems from epidemiology and public health.

**CMED 6100 Statistical methods (20 hours)**

Probability; Binomial distribution; normal distribution; measure of location and dispersion of data; making inferences from a sample to a population; hypothesis testing for means; non-parametric methods; correlation; regression; errors in measurement; association; logistic regression; lifetable and survival analysis.

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**CMED 6907 The practice of health administration (20 hours)**

The module aims to stimulate concerns about important problems and issues facing health administration at both global and local levels, and to provide a comprehensive look at public health management and administration. Students will explore the characteristics, contemporary issues and controversies of health administration. Various theories and concepts in administrative science regarding strategic planning, governance and accountability, quality and risk management, human resources management, information management and leadership will be appraised and applied in the practice of administrative medicine. Students will also compare and contrast and evaluate cases in different health systems (e.g. Hong Kong, US, UK, China), as well as formulate solutions to problems in healthcare administration.

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**CMED 6202 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.

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**MICR 6906 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 the ease and increase of 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.

**MPH Modules (by alphabetical order)  
Academic Year 2009-2010**

	<b>MPH Code (RPg Code)</b>	<b>Sem</b>	<b>Credit Value</b>	<b>Module Name</b>	<b>Module Coordinator</b>
1	CMED 6401	S	1	Advanced clinical epidemiology and decision analysis (suspended)	Prof GM Leung/ Prof AJ Hedley
2	CTCE 6030 (MMPH 6106)	II	1	Advanced epidemiological methods	Prof TH Lam
3	CTCE 6020 (MMPH 6117)	II	1	Advanced statistical methods I	Dr CM Wong
4	CTCE 6040 (MMPH 6150)	II	1	Advanced statistical methods II	Dr CM Wong
5	CMED 6600 (MMPH 6014)	II	1	Biological basis of common health problems	Dr S Shetye
6	MICR 6903	-	0.5	Common problems in infectious diseases	Dr PL Ho
7	CMED 6909	CC	1	Comparative health systems: Hong Kong and US	Prof S Kagan (UPENN)/ Dr J Johnston
8	CMED 6200 (MMPH 6003)	I	1	Epidemiology and critical appraisal	Dr DSY Ho
9	CMED 6205 (MMPH 6107)	I	1	Epidemiology of important health conditions	Prof TH Lam
10	CMED 6400 (MMPH 6006)	II	1	Evidence-based practice: an introduction to clinical epidemiology and decision analysis	Dr S Straus (UT)/ Dr J Johnston
11	CMED 6906 (MMPH 6152)	I	1	Financial management	Ms N Tse
12	CMED 6204 (MMPH 6141)	CC	1	Health and society	Prof I Kawachi (HARVARD)/ Dr J Johnston
13	CMED 6903 (MMPH 6170)	CC	1	Health care financing	Prof JFR Lu (Chang Gung)/ Dr J Johnston
14	CMED 6900 (MMPH 6146)	I	1	Health care systems and policy (suspended)	Prof GM Leung
15	CMED 6219	CC	1	Health communication	Prof V Viswanath (HARVARD)/ Dr J Johnston
16	CMED 6902 (MMPH 6116)	II	1	Health economics for public health	Prof SM McGhee
17	CMED 6206 (MMPH 6154)	II	1	Health promotion and health education	Prof R Fielding
18	CMED 6901 (MMPH 6115)	II	1	Health services management	Dr J Johnston
19	CMED 6215	S	1	Historical and contemporary perspectives of infectious diseases	Dr D Ip
20	CMED 6218	S	0.5	Human health: futures in a globalized world	Prof R Fielding
21	MICR 6904	-	0.5	Infections in immunocompromised hosts <i>Dept of Microbiology Title: Infections in immunocompromised hosts &amp; common infective problems in general practice</i>	Dr PL Ho
22	MICR 6905	-	0.5	Infectious disease emergencies <i>Dept of Microbiology Title: Infectious disease emergencies, indwelling device and surgical infections</i>	Dr PL Ho

23	CMED 6210 (MMPH 6168)	II	1	Infectious disease modelling	Dr S Riley/ Dr J Wu
24	MICR 6901	-	0.5	Infectious disease rounds <i>Dept of Microbiology Title: Radiology, &amp; radionuclide imaging in ID. Genitourinary medicine &amp; HIV problems</i>	Dr PL Ho
25	CMED 6211 (MMPH 6167)	I	1	Infectious disease surveillance and epidemiology	Dr B Cowling
26	CMED 6220	II	1	Informatics for health management	Dr J Kong
27	CTCE 6160 (MMPH 6004)	I	1	Introduction to clinical trials research methodology	Prof JPE Karlberg
28	CMED 6223	II	1	Leadership initiatives in international public health	Dr SW Yoon
29	MICR 6902	-	0.5	Local emerging infectious diseases <i>Dept of Microbiology Title: Infectious diseases update and emerging infections</i>	Dr PL Ho
30	CMED 6224		1	Practicum	Dr J Johnston
31	CMED 6201 (MMPH 6108)	I	1	Principles of public health	Prof AJ Hedley
32	CMED 6704 (MMPH 6109)	II	1	Psychosocial issues in health and illness	Dr W Lam
33	CMED 6216 MMPH 6173	II	1	Public health genetics	Dr D Ip
34	CMED 6221		1	Public health law and ethics (suspended)	
35	CMED 6222		1	Public health nutrition (suspended)	
36	CMED 6217	II	0.5	Qualitative health research	Dr W Lam
37	CMED 6908 (MMPH 6114)	II	1	Quality health care	Dr J Johnston
38	CMED 6300 (MMPH 6157)	I	1	Research methods in health care	Dr M Schooling
39	CMED 6208 (MMPH 6164)	I	1	Risk: perception, decisions and communication	Prof R Fielding
40	CMED 6103 (MMPH 6177)	S	1	Statistical inference using R	Dr B Cowling
41	CMED 6100 (MMPH 6002)	I	1	Statistical methods	Dr B Cowling
42	CMED 6907 (MMPH 6158)	II	1	The practice of health administration	Dr H Tinsley/ Dr J Johnston
43	CMED 6202 (MMPH 6159)	II	1	The practice of public health	Prof AJ Hedley/ Dr SW Yoon
44	MICR 6906	-	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 PL Ho

**S = Summer Programme**  
**CC= Concentrated Course**