

REGULATIONS FOR THE POSTGRADUATE CERTIFICATE IN PUBLIC HEALTH (PCPH)

(See also General Regulations)

M.113 Admission requirements

To be eligible for admission to the programme leading to the Postgraduate Certificate in Public Health, a candidate shall:

- (a) possess the relevant necessary requirements which 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;
 - (c) obtain a score of 550 or above in the Test of English as a Foreign Language (TOEFL), within two years before submission of the application, if seeking admission on the basis of a qualification from a University or comparable institution outside Hong Kong of which the language of teaching and/or examination is not English; and
 - (d) 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 achievement 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 extend over not less than one academic year of part-time study with a minimum of 100 hours prescribed work.

Holders of the Postgraduate Certificate in Public Health awarded by this University 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 Postgraduate Certificate.

M.117 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; and
- (b) satisfy the examiners in the modules by continuous assessments and/or written examinations.

Candidates who fail 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 candidates who are unable because of illness or circumstances beyond their control to complete the requirements within the prescribed maximum period of study, may apply to the Board of Studies for permission to extend their period of studies.

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 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) Candidates who are not permitted to present themselves for re-examination in any subject or subjects in which they have failed to satisfy the examiners shall be recommended for discontinuation of studies under General Regulation G12.
 - (c) Candidates who failed to satisfy the examiners in a second attempt in the modules shall be recommended for discontinuation of studies under the provisions of General Regulation G12.
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M.120 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.

SYLLABUS FOR THE POSTGRADUATE CERTIFICATE IN PUBLIC HEALTH

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

Concentration I: Public Health Practice

Candidates must choose the 3 core modules listed below:

MODULE 1 – 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.

MODULE 2 – 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.

MODULE 3 – 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.

Candidates are required to choose 2 of these elective modules listed below:

MODULE 4 – 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.

MODULE 5 – CMED 6204 Health and society (20 hours)

This module provides an overview of the field of medical sociology and will focus on the basic concepts of health and illness in context including; socio-cultural influence on responses to illness and health care utilisation; social inequalities in health; social institutions and health care; relationships between health care professionals and patients; concept of deviance and social control in health and illness; medicalisation and everyday life and political economy and health.

MODULE 6 – 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.

MODULE 7 – CMED 6902 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.

MODULE 8 – 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 population health. (Students registering for the MPH in Psycho-oncology will focus on health promotion targets in cancer prevention and health promotion in cancer sufferers.)

MODULE 9 – 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.

MODULE 10 – 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.

MODULE 11 – CMED 6100 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.

MODULE 12 – 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.

Concentration II: Epidemiology and Clinical Effectiveness

Candidates must choose the 3 core modules listed below:

MODULE 1 – 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.

MODULE 2 – 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.

MODULE 3 – 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.

Candidates are required to choose 2 of these elective modules listed below:

MODULE 4 – CMED 6401 Advanced clinical epidemiology and decision analysis (20 hours)

Introduces the following topics: decision analysis methods relevant to clinical decision making and clinical research; the use of probability to express uncertainty; Bayes theorem and evaluation of diagnostic test strategies; sensitivity analysis; utility theory and its use to express patient preferences for health outcomes; cost-effectiveness analysis in clinical research and health policy; and uses and limits of decision analysis and cost-effectiveness in clinical decision making and research design.

MODULE 5 – CTCE 6020 Advanced statistical methods I (20 hours)

Analysis of variance and covariance, factor analysis, logistic regression, survival analysis, curve fitting.

MODULE 6 – CTCE 6040 Advanced statistical methods II (20 hours)

Analysis for count data, analysis for contingency tables, longitudinal data analysis, censored data analysis, survey data analysis.

MODULE 7 – 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.

MODULE 8 – CMED 6902 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.

MODULE 9 – CMED 6904 Introduction to health economics (20 hours)

This module introduces basic economic concepts to health care professionals. It is aimed to develop the students' foundation in their advancement to other health economics modules. Topics include opportunity cost, marginal analysis, utility and production functions, market supply-demand, competition analysis, asymmetric information, moral hazard, adverse-selection, equity and efficiency.

MODULE 10 – 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.

MODULE 11 – 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.

MODULE 12 – CMED 6100 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.

Concentration III: Infectious Disease Epidemiology and Control

Candidates must choose the 5 core modules listed below:

MODULE 1 – CTCE 6020 Advanced statistical methods I (20 hours)

Analysis of variance and covariance, factor analysis, logistic regression, survival analysis, curve fitting.

MODULE 2 – 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.

MODULE 3 – 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, modelling 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.

MODULE 4 – 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.

MODULE 5 – CMED 6100 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.

Concentration IV: Medical Statistics

Candidates must choose the 4 core modules listed below:

MODULE 1 – PAED 6100 Clinical trials research methodology (20 hours)

Clinical trials designs, blinding and placebo effects; data analysis; data interpretation and extrapolation; data processing; introduction to clinical trials; protocol writing and review; reports and publications; reviews and meta-analysis; roles of the team members conducting clinical trials; safety and efficacy parameters.

MODULE 2 – 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.

MODULE 3 – CMED 6100 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.

MODULE 4 – CTCE 6010 Statistical practice in clinical trials (20 hours)

Basic concepts of medical statistics, simple data analysis and getting started with SPSS, regression analysis and SPSS practice, non-parametric analysis and SPSS practice, sample size calculation.

Candidates are required to choose 1 of these elective modules listed below:

MODULE 5 – 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.

MODULE 6 – CTCE 6020 Advanced statistical methods I (20 hours)

Analysis of variance and covariance, factor analysis, logistic regression, survival analysis, curve fitting.

MODULE 7 – CTCE 6040 Advanced statistical methods II (20 hours)

Analysis for count data, analysis for contingency tables, longitudinal data analysis, censored data analysis, survey data analysis.

MODULE 8 – CTCE 6060 Critical appraisal and meta-analysis of clinical trials (20 hours)

At the completion of this module the student will understand the basic principles of critical appraisal and meta-analysis; understand the differences between a narrative and a systematic review; understand when meta-analysis should and should not be used; become familiar with statistical methods used in meta-analysis; and acquire 'hands-on' experience in conducting meta-analysis.

MODULE 9 – CTCE 6050 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.

Concentration V: Clinical Trials Research Methodology

Candidates must choose the 4 core modules listed below:

MODULE 1 – CTCE 6080 Clinical trial protocol, study documents and quality of life (20 hours)

Upon completion of this module the student will be able to understand the basic elements and how to write a clinical trial protocol; define the essential documents used in clinical trials; outline the requirements for preparing a simple clinical trial ethics committee submission; and understand the application and principles of quality of life questionnaires.

MODULE 2 – PAED 6100 Clinical trials research methodology (20 hours)

Clinical trials designs, blinding and placebo effects; data analysis; data interpretation and extrapolation; data processing; introduction to clinical trials; protocol writing and review; reports and publications; reviews and meta-analysis; roles of the team members conducting clinical trials; safety and efficacy parameters.

MODULE 3 – CTCE 6090 Ethics, law, contracts, budgets and finance (20 hours)

Upon completion of this module the student will be able to identify the legal ethics, law and local regulatory requirements applicable to clinical trials; understand the basic local regulatory/law requirements relevant to clinical studies; determine the factors that go towards making up a study budget; review the procedures involved in performing audits and inspections; examine issues relating to fraud and misconduct in clinical trials; and understand how Ethics Committee submissions are handled.

MODULE 4 – CTCE 6070 Good clinical practice (GCP) and study site management (20 hours)

Introduction to good clinical practice, responsibilities of the investigator, responsibilities of the CRC, Institutional Review Board and informed consent, drug accountability, audits of the study site, GCP, study site financial and legal aspects of clinical trials, study site operation procedures pre-study SOPs.

Candidates are required to choose 1 of these elective modules listed below:

MODULE 5 – CTCE 6060 Critical appraisal and meta-analysis of clinical trials (20 hours)

At the completion of this module the student will understand the basic principles of critical appraisal and meta-analysis; understand the differences between a narrative and a systematic review; understand when meta-analysis should and should not be used; become familiar with statistical methods used in meta-analysis; and acquire 'hands-on' experience in conducting meta-analysis.

MODULE 6 – 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.

MODULE 7 – CMED 6100 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.

MODULE 8 – CTCE 6010 Statistical practice in clinical trials (20 hours)

Basic concepts of medical statistics, simple data analysis and getting started with SPSS, regression analysis and SPSS practice, non-parametric analysis and SPSS practice, sample size calculation.

MODULE 9 – CTCE 6100 Study site management practice (20 hours)

Clinical trial protocol review, trial budget estimations, preparation of investigator's CV, IEC/IRB submissions, IEC/IRB review, study site initiation, definition of study team responsibilities adverse event reporting procedures, study site location visits.

Concentration VI: Administrative Medicine

Candidates must choose the 3 core modules listed below:

MODULE 1 – 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.

MODULE 2 – CMED 6901 Health services management (20 hours)

An introduction to organisational and management theory and the principles of organisational design, describe and apply measures to assess management effectiveness and utilisation of health services, apply principles of management decision making, describe and discuss the role of leadership, managing change and change theory in successful organisations.

MODULE 3 – CMED 6907 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.

Candidates are required to choose 2 of these elective modules listed below:

MODULE 4 – 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.

MODULE 5 – 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.

MODULE 6 – CMED 6204 Health and society (20 hours)

This module provides an overview of the field of medical sociology and will focus on the basic concepts of health and illness in context including; socio-cultural influence on responses to illness and health care utilisation; social inequalities in health; social institutions and health care; relationships between health care professionals and patients; concept of deviance and social control in health and illness; medicalisation and everyday life and political economy and health.

MODULE 7 – CMED 6902 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.

MODULE 8 – CMED 6904 Introduction to health economics (20 hours)

This module introduces basic economic concepts to health care professionals. It is aimed to develop the students' foundation in their advancement to other health economics modules. Topics include opportunity cost, marginal analysis, utility and production functions, market supply-demand, competition analysis, asymmetric information, moral hazard, adverse-selection, equity and efficiency.

MODULE 9 – 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.

MODULE 10 – 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, credentialing education, CQI, organisational learning, systems design, managed care, practice guidelines, information systems, performance reports, mediation.

MODULE 11 – 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.

MODULE 12 – CMED 6100 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.

Concentration VII: Health Economics and Policy

Candidates must choose the 3 core modules listed below:

MODULE 1 – 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.

MODULE 2 – CMED 6902 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.

MODULE 3 – CMED 6904 Introduction to health economics (20 hours)

This module introduces basic economic concepts to health care professionals. It is aimed to develop the students' foundation in their advancement to other health economics modules. Topics include opportunity cost, marginal analysis, utility and production functions, market supply-demand, competition analysis, asymmetric information, moral hazard, adverse-selection, equity and efficiency.

Candidates are required to choose 2 of these elective modules listed below:

MODULE 4 – CMED 6905 Advanced health economics and econometric methods (20 hours)

This module discusses selected topics in contemporary health economics. With reference to students' interest, the aim is to equip students with appropriate skills and tools to conduct quantitative research in health services and policy. Students can expect to acquire knowledge ranging from longitudinal data analysis, Monte Carlo simulation, bootstrapping, limited dependent variables and other econometric modelling in health topics such as smoking, healthcare cost projection, cost-effectiveness analysis and willingness to pay for health care.

MODULE 5 – 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.

MODULE 6 – 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.

MODULE 7 – CMED 6204 Health and society (20 hours)

This module provides an overview of the field of medical sociology and will focus on the basic concepts of health and illness in context including; socio-cultural influence on responses to illness and health care utilisation; social inequalities in health; social institutions and health care; relationships between health care professionals and patients; concept of deviance and social control in health and illness; medicalisation and everyday life and political economy and health.

MODULE 8 – 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 systems.

MODULE 9 – 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.

MODULE 10 – 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.

MODULE 11 – 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.

MODULE 12 – CMED 6100 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.