

**REGULATIONS FOR THE DEGREE OF
BACHELOR OF PHARMACY IN CHINESE MEDICINE [PART-TIME]
(BPharm[ChinMed])**

These regulations apply to students admitted to the first year of study in and after the academic year 2000-2001.

(See also General Regulations)

The degree of Bachelor of Pharmacy in Chinese Medicine is awarded for the satisfactory completion, on a part-time basis, of a prescribed course of study and training in pharmaceuticals of Chinese medicine. The degree programme is offered by the School of Chinese Medicine.

PHCM 1 To be eligible for admission to the degree of Bachelor of Pharmacy in Chinese Medicine, a candidate shall

- (a) comply with the General Regulations;
- (b) comply with G3(b)(I) of the General Regulations, and hold an Advanced Diploma in Pharmaceutical Management in Chinese Medicine (formerly known as Diploma in Pharmaceutical Management in Chinese Medicine) or a recognized equivalent qualification; or
- (c) comply with G3(b)(II) of the General Regulations, and hold a Higher Diploma in Chinese Medicines [formerly known as Higher Diploma in Pharmacy (Chinese Medicines)] or a recognized equivalent qualification.

PHCM 2 Applicants who hold qualifications under PHCM 1(b) or PHCM 1(c) may be exempt from part of the degree curriculum where such exempt courses are considered to constitute common modules in the Diploma in Pharmaceutical Management in Chinese Medicine/Advanced Diploma in Pharmaceutical Management in Chinese Medicine, Higher Diploma in Pharmacy (Chinese Medicines)/Higher Diploma in Chinese Medicines and the Bachelor of Pharmacy in Chinese Medicine.

PHCM 3 To be eligible for the award of the degree of Bachelor of Pharmacy in Chinese Medicine, 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.

PHCM 4

- (a) The curriculum shall comprise components of theoretical studies, practicum and a research project.
- (b) The curriculum shall extend over not less than four and one half years (1.5 years and 2.5 years for those holding qualification with PHCM 1(b) and PHCM 1(c) respectively with exemption under PHCM 2 above) and shall include examinations at the conclusion of each module.

PHCM 5 To complete the curriculum a candidate shall

- (a) follow the courses of instruction presented in the syllabus;
- (b) satisfy the examiners in the examinations and coursework assessments;
- (c) submit a report embodying the main findings and results of the research project at a level deemed satisfactory by the examiners; and
- (d) complete the requisite period of practicum.

PHCM 6 The prescribed sequence of course progression shall normally be followed except for candidates who hold qualification under PHCM 1(b) or 1(c) above.

PHCM 7

- (a) Examinations shall be held at the conclusion of each module; the examination of candidates who are permitted to represent themselves for re-examination or supplementary examination shall be held at the end of the academic year or in the next subsequent examination for those modules.
 - (b) A candidate must satisfy the examiners in the examinations and coursework assessments for all the prescribed modules in the curriculum to be eligible for the award of the degree of Bachelor of Pharmacy in Chinese Medicine.
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PHCM 8

- (a) The form of assessment for all prescribed modules in the degree curriculum may be undertaken by examination and coursework; the examination shall constitute not less than 50% of the total mark of each module.
 - (b) The practicum shall be assessed based on the candidate's work reports and performance during the placement period.
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PHCM 9

- (a) A candidate who has failed to satisfy the examiners in not more than two-third of the prescribed course load in any academic year may be permitted to present himself for re-examination in accordance with PHCM 7(a) above.
 - (b) A candidate who has failed to satisfy the examiners in more than two-third of the prescribed course load in any academic year may be required to (i) discontinue his/her studies; or (ii) repeat the academic year.
 - (c) A candidate who fails to satisfy the examiners in a re-examination shall be required to (i) repeat the modules; or (ii) repeat the academic year.
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PHCM 10 A candidate who is unable because of illness to present for examination may apply for permission to present for supplementary examination in accordance with PHCM 7(a) above. Any such application shall be made within two weeks of the first day of the candidate's absence from any examination. Any such supplementary examination shall constitute a first attempt in the module in which a supplementary examination is granted.

PHCM 11

- (a) The Chinese title of the degree of Bachelor of Pharmacy in Chinese Medicine shall be “中藥藥劑學學士”.
- (b) The examinations and assessments of the degree curriculum shall be conducted in Chinese.
- (c) The regulations and syllabus of the degree may be published in Chinese.

PHCM 12 The degree of Bachelor of Pharmacy in Chinese Medicine shall be awarded in five divisions:

First Class Honours
 Second Class Honours Division One
 Second Class Honours Division Two
 Third Class Honours
 Pass

SYLLABUSES FOR THE DEGREE OF BACHELOR OF PHARMACY IN CHINESE MEDICINE [PART-TIME]

These syllabuses apply to students admitted to the first year of study in and after the academic year 2010-2011.

(To be read in conjunction with Regulations for the degree of Bachelor of Pharmacy in Chinese Medicine)

YEAR ONE

<u>Course Code</u>	<u>Course</u>	<u>Credits</u>
PHCM1001	Foundations of Traditional Chinese Medicine	6
PHCM1002	Pharmaceutics of Chinese Medicine	9
PHCM2004	Medical Prescriptions in Chinese Medicine	6
PHCM1012	Foundations of Chemistry	6
PHCM1013	Physiology	6
PHCM2007	Biochemistry	6
PHCM3004	Pharmaceutical Advertising and Marketing in Chinese Medicine	6
	Total	45

YEAR TWO

<u>Course Code</u>	<u>Course</u>	<u>Credits</u>
PHCM2001	Pharmaceutical Chemistry of Chinese Medicine	12
PHCM2012	Analytical Chemistry	6
PHCM1004	Pharmacology of Chinese Medicine	12
PHCM1003	Medicinal Botany	9
	Total	39

YEAR THREE

<u>Course Code</u>	<u>Course</u>	<u>Credits</u>
PHCM2002	Pharmaceutical Analysis of Chinese Medicinal Formulations	9
PHCM3002	Authentication of Chinese Materia Medica	15
PHCM4004	Pharmaceutical Management in Chinese Medicine	6
PHCM3007	International Trading and Marketing of Chinese Medicine	3
PHCM3001	Pharmaceutical Formulation Design in Chinese Medicine	12
	Total	45

YEAR FOUR

<u>Course Code</u>	<u>Course</u>	<u>Credits</u>
PHCM4003	Medicinal Resources in Chinese Medicine	6
PHCM2003	Processing of Chinese Materia Medica	6

PHCM1005	Toxicology of Chinese Medicine	3
PHCM1006	Legal Aspects of Pharmaceutics in the PRC	3
PHCM4008	Methodology in Chinese Medicine Research Work	3
PHCM4009	Principium and Instrument of CMs Pharmaceutical	6
PHCM4010	Medical Statistics	6
PHCM4011	Biopharmaceutical Studies	3
PHCM3005	Pharmaceutical Informatics of Chinese Medicine	3
	Total	39

YEAR FIVE (half academic year only)

<u>Course Code</u>	<u>Course</u>	<u>Credits</u>
PHCM4005	Practicum	
PHCM4006	Research Project	24
	Total	24

PHCM1001. Foundations of traditional Chinese medicine (6 credits)

Explication of the philosophical foundation of Chinese Medicine. Introduction to the basic theory of Chinese Medicine, e.g. theory of *Yin & Yang*, Five Elements, *Zang-organs & Fu-organs*, Channels, *Qi*, Blood, essence of life, body fluid, differentiation principles of physiology, pathology, and principle of prevention and treatment.

PHCM1002. Pharmaceutics of Chinese medicine (9 credits)

Introduction to the basic theory of Chinese materia medica, the properties, effects of Chinese herbal medicine, and usage in clinic. Pharmaceutical properties of Chinese herbal medicine (four properties; five tastes, lifting, lowering, floating, sinking actions); Purposes and principles of medicinal compounding (seven emotional factors). The usage and contraindications of Chinese herbal medicine in clinic.

PHCM1003. Medicinal botany (9 credits)

Medicinal Botany is the study of medicinal plants with the knowledge of botany and related subjects. The following subject areas will be taught: basic botanical knowledge, morphological characteristics and authentication of Chinese herbal medicines with common interest. Students will be familiar with plant morphology and anatomy and plant taxonomy. The knowledge as a whole forms a fundamental basis of CM related subjects and provides students with proper identification of medicinal sources and growing habits.

PHCM1004. Pharmacology of Chinese medicine (12 credits)

This subject will cover the pharmacological activities, mechanisms of action, clinical applications and adverse reactions of common drugs. Structure-activity relationship and metabolism. Modern pharmacological properties of Chinese herbal medicines. Research methodology and current status of research in Chinese Medicines. Pharmacological actions, active principles and clinical applications of Chinese Medicines. Students will acquire the basic knowledge, mechanisms of action, research methodology and future direction on the pharmacology of Chinese Medicines.

PHCM1005. Toxicology of Chinese medicine (3 credits)

Toxicology and its mechanism of action. Research methodology on toxicology. The pharmacological, toxicological actions of toxic and potent medicinal materials. Elimination of toxicity and the influence of toxicological action upon processing.

PHCM1006. Legal aspects of pharmaceuticals in the PRC (3 credits)

Drug regulatory authority and pharmacy laws of Hong Kong and the PRC (and other countries). Law and subsidiary legislations on pharmaceuticals: The Law on Regulation of Pharmaceutical Products of the PRC and its Implementation Guidelines; Good Manufacturing practice (GMP); Guidelines on Review and Approval of New Drugs; The Law on Regulation of Pharmaceutical Product Importation; etc. Laws and subsidiary legislations on pharmaceutical product manufacturing and sales.

PHCM1012. Foundations of chemistry (6 credits)

This subject introduces basic chemical principles such as introductory chemistry, organic chemistry, functional group chemistry and heterocyclic chemistry to enable students to get a solid foundation for further advancement in CM related subjects.

PHCM1013. Physiology (6 credits)

Physiology is the study of how living organisms function. This course will offer the basic human physiological knowledge through different topics like “cellular physiology”, “cardiovascular system”, “nervous system” and “respiratory system”.

PHCM2001. Pharmaceutical chemistry of Chinese medicine (12 credits)

This subject employ modern chemical techniques in the study of Chinese Medicines. Structures, physio-chemical properties, methods of extraction, separation, and identification of different types of natural products from Chinese Medicines. General methods of structural elucidation. Students should be familiar with the basic principles and techniques, systematic identification of single drug and structural elucidation of active principles in order to get strong foundation to quality control, formulation design and new drug research.

PHCM2002. Pharmaceutical analysis of Chinese medicinal formulations (9 credits)

This subject employ modern analytical methodologies to study the quality of Chinese medicinal formulations. Theory and method for the analysis of chemical constituents of Chinese medicinal formulations. Qualitative and quantitative determinations of active constituents. Analysis of contaminants. Settings of quality standards for new drug development.

PHCM2003. Processing of Chinese materia medica (6 credits)

To study the theory, technology, standard, evolution history and development trend of the processing technology of Chinese materia medica, and the influence of modern science and technology on the physical and chemical properties of Chinese Medicines. Students will understand the underlying basis of processing principle and methodology in order to apply them in manufacturing and quality control.

PHCM2004. Medical prescriptions in Chinese medicine (6 credits)

Introduction to the compounding and the clinical usage of prescriptions. Common prescriptions: composition, efficacy and clinical usage in accordance with the principle of diagnosis in Chinese Medicine. The composition, efficacy and clinical usage of classic prescriptions including Chinese patent medicine.

PHCM2007. Biochemistry (6 credits)

Biochemistry is the study of the chemistry of living cells, tissues, organs and organisms. This course will cover the knowledge about the body constituents, metabolism, and relationship between physiological process.

PHCM2012. Analytical chemistry (6 credits)

This subject introduces instrumental analysis such as the principles and applications of UV-visible spectrophotometry, infrared spectrophotometry and chromatography to enable students to apply these techniques in various circumstances.

PHCM3001. Pharmaceutical formulation design in Chinese medicine (12 credits)

This subject employ TCM theories and modern technologies to study the theory and techniques of formulation design, manufacturing technology, quality control and efficacy of Chinese Medicines. Different types of formulations: basis, manufacturing technology and quality control. Students will be familiar with the properties and manufacturing technologies of different types of formulations, the progress on the development, improvements in formulation design, quality control and new drug development.

PHCM3002. Authentication of Chinese materia medica (15 credits)

This subject introduces the research and authentication on the identity and quality of Chinese herbal drugs. To study the origin, morphology, microscopic and physio-chemical properties of Chinese herbal drugs so that students can evaluate the identity and quality of commonly used Chinese Medicines and assure the safety and efficacy of clinically-used herbal drugs.

PHCM3004. Pharmaceutical advertising and marketing in Chinese medicine (6 credits)

This subject introduces the preparation of advertisements, marketing strategy and concepts. Students will acquire sales, marketing and advertising techniques for Chinese Medicines so that he/she can correctly establish the marketing strategy.

PHCM3005. Pharmaceutical informatics of Chinese medicine (3 credits)

This subject enables students to acquire the basic principles, tools and search strategies of Chinese medical and pharmaceutical literatures so that he/she can get the necessary information.

PHCM3007. International trading and marketing of Chinese medicine (3 credits)

Current status and problems of international trading of Chinese Medicines (including proprietary Chinese Medicines). Basic knowledge of international trading.

PHCM4003. Medicinal resources in Chinese medicine (6 credits)

To study the types, geographical and climactic factors, and the effective and scientific usage of medicinal resources. Survey, exploration, protection and regeneration of medicinal resources in Chinese medicine.

PHCM4004. Pharmaceutical management in Chinese medicine (6 credits)

Integration of modern management practices and principles of Total Quality Management (TQM) with requirements specified in GMP, GSP, ISO 19000, GB/T 19000 with topics on quality control, manufacturing, sales and usage.

PHCM4005. Practicum

Period of supervised training in various aspects of Chinese medicine pharmaceuticals. Placement will be arranged in Chinese medicine pharmacies of TCM hospitals, Chinese medicine manufacturing plants, pharmaceutical analysis laboratories and pharmaceutical research centres.

PHCM4006. Research project (24 credits)

A small scale research on a chosen topic of interest in Chinese medicine pharmaceuticals. The project can be an empirical study, a literature review or a field / case study.

PHCM4008. Methodology in Chinese medicine research work (3 credits)

The research methodology of Chinese Medicine including selection of research topics, literature review, experimental design, statistical analysis and conclusion.

PHCM4009. Principium and instrument of CMs pharmaceutical (6 credits)

This subject introduces the principles, performance and choice of instruments used in Chinese Medicine manufacturing such as material transportation system, pulverization system, extraction system, filtration system, evaporation and drying systems, etc to enable students to get a solid foundation in Chinese Medicine manufacturing.

PHCM4010. Medical statistics (6 credits)

This course is designed as an elementary subject for the studies of medical science and pharmacology. It focuses on the concepts of probability, inferential statistics and their applications. Probability theory covers on the definition and properties of probability, rules of probability and its relevant distributions. Inferential statistics explores the principles of hypothesis testing; regression analysis; analysis of variances (ANOVA) and design of experiment. Students will also be provided with a hands-on experience of data analysis by using some comprehensive statistical software, like SPSS.

PHCM4011. Biopharmaceutical studies (3 credits)

To provide students with a knowledge of the principle of absorption, distribution, metabolism, excretion, the relationship between interaction in drugs/pharmacokinetics with drug safety and efficiency. To illustrate the relationship between influencing factors, such as dosage form and physiology, and curative effect in order to provide scientific evidence on the evaluation of dosage forms, rational drug design and reasonable clinical use of drugs.