

FACULTY OF SCIENCE



Graduates of MSc in Analytical Chemistry Assisted to Run a Training Program for Secondary Students and Teachers

4.15 Master of Science (MSc) in Analytical Chemistry

(Two-year Part-time)

Prof. CHAN Wing Hong, Head, Department of Chemistry

Aims

- To provide an opportunity for further education for working professionals in the field of analytical chemistry and related areas.
- To offer a course of study relevant to the needs of public and industrial laboratories as well as research organizations.
- To ensure graduates will possess a more integral view on real life problems of analytical nature and the ways and means at their disposal to solve them. The course also provides training in laboratory management, quality assurance, computer applications and laboratory automation, and helps to instil an integrated analytical mind in students so that they can comfortably assume supervisory or managerial positions in establishments dealing in chemical analysis or related fields.

Admission Requirements

Applicants should possess:

- a Bachelor of Science (BSc) degree with honours in chemistry or in the physical and life sciences, such as

biochemistry, environmental science, food science, pharmacology, etc., where a strong emphasis is placed on analytical techniques and measurements from a recognized university or comparable institution; or

- a qualification deemed to be equivalent.

Applicants who do not possess a formal degree qualification but have substantial documented relevant and working experience in analytical chemistry may be considered.

To ensure that all the students have the appropriate standard in analytical chemistry before they proceed to the MSc course, non-chemistry major and non-standard entrant candidates are required to take a proficiency test soon after they are admitted into the course. If they pass the proficiency test, they can proceed directly to the MSc course in the fall semester. However, if they fail the proficiency test, they are required to take the remedial courses designed by the course team in the summer preceding their enrolment in the fall semester to make up for their deficiency in analytical chemistry. The proficiency test will be administered using the American Chemical Society (ACS) Graduate Level Placement Examination in Analytical Chemistry and the remedial courses will primarily rely on the self-learning computer-based packages.

Structure of the Course

This is a two-year part-time postgraduate course offered by the Department of Chemistry to candidates with BSc (Hons) or equivalent qualifications. Students are required to spend two evenings (about four hours per week) on lectures, tutorials and seminars. In addition they have to devote one Saturday, every alternate week, for laboratory and dissertation. As an integral part of a professional training process, each student is also required to complete an independent dissertation related to chemical analysis. The course normally spans an uninterrupted 24-month period. In special cases and subject to the approval of the Course Board, the course may be taken over a period not exceeding 36 months from the date of enrolment.

The distribution of lectures, laboratory and project hours in a 24-month schedule is as follows:

Hour Period	Lecture/ Tutorial	Seminar	Laboratory Sept-Aug	Dissertation
Year I				
1st Semester	48	4	120 (inclusive)	60
2nd Semester	54	4		
Summer				
Year II				
1st Semester	48	4	50	140#
2nd Semester	24	4		
Total	174	16	170*	200

* The number represents actual hours in the laboratory, students are expected to spend about an additional 50 per cent of the time in preparatory work and report writing.

Including summer

Requirements of the course are as follows:

Core Subjects	23 units
Analytical Process & Applied Statistics	2 units
Chemical Instrumentation	2 units
Separation Science	2 units
Analytical Spectroscopy	2 units
Laboratory Management	2 units
Selected Topics in Analytical Chemistry	2 units
Advanced Analytical Laboratory	4 units
Seminars	1 unit
Dissertation	6 units

Elective Subjects	2 units
<i>Any TWO of the following subjects:</i>	
Electroanalytical Chemistry	1 unit
Surface Analysis	1 unit
Thermal Analysis	1 unit
Environmental Analysis & Monitoring	1 unit
	25 units

Students who have satisfactorily completed all the above requirements and achieve a cumulative GPA of 2.50 or above will be awarded an MSc Degree in Analytical Chemistry. To be awarded Distinction for the course, students should attain a cumulative GPA of 3.7 or above, with no subject grade below B- and no repeated subjects. Students attaining a cumulative GPA between 3.40 and 3.69 will be awarded Merit. A terminal postgraduate

diploma may be awarded to those who have completed all the course work and attained a cumulative GPA of 2.50 or above with all subjects scoring grade C- or above (excluding Dissertation), but have not completed a satisfactory Dissertation within the normal study period for some reasons deemed acceptable by the Course Board.

4.16 Master of Science (MSc) in Environmental and Public Health Management

(One-year Full-time or Two-year Part-time)

Prof. WONG Ming Hung, Course Director, MSc in Environmental and Public Health Management

Aims

The major objective of the course is to incorporate management techniques into the technical aspects of environmental protection and effective maintenance of a healthy environment using an interdisciplinary approach. The course will focus on sustainable management, and environmental health and risk management. In addition to the conventional issues of environmental protection, the relationships among economics, regulation and policy, management techniques, health risk analysis, social and ethical value and environmental conservation will be explored in detail.

Admission Requirements

Applicants should possess:

- (a) a Bachelor's degree from a recognized university or comparable institution in any discipline; or
- (b) a qualification deemed to be equivalent.

Applicants such as higher diploma holders who do not possess a formal degree qualification, but have substantial documented relevant and working experience in environmental management (normally 5 years or above) may be considered. Applicants may be required to prove their language ability in English by means of interviews and/or written examination or, for those not available in Hong Kong, by means of performance on acceptable language indicators such as having a TOEFL