



## Short Courses in MSc (Analytical Chemistry) (2024-2025)

To meet with the demand of chemical analysis in a number of important value-added areas, such as environmental analysis, forensic science, biotechnology/bioanalysis, materials and foods, in Hong Kong as well as in the Greater China region, increasingly sophisticated analytical techniques are employed both in quality control and in research and development. Analytical chemists need to constantly upgrade their knowledge to meet this challenge.

Eight courses selected from our popular MSc in Analytical Chemistry programme will be offered to professionals in the field who need to enhance their knowledge and yet are too busy to commit two-year of their time to engage in the complete MSc programme. A certificate will be issued to those who have completed the lecture course(s) and perform satisfactorily in the course assessment.

### COURSES OFFERED

#### Semester One

\* Lecture dates are subject to change

Course	Duration *	Assessment	Contents
<b>CHEM 7015</b> Food Safety Analysis (1 unit)	12 lecture hours (6 weeks) Start date: 17 Oct 2024 19:00 – 20:50 (Thu)	2 hours final examination in Dec 2024	Thorough discussion on the analytical methods applied for food safety analysis. Emphasis will be put on the respective principles and applications, and up-to-date analytical techniques for food monitoring with local relevance.
<b>CHEM 7280</b> Surface Analysis (1 unit)	12 lecture hours (6 weeks) Start date: 15 Oct 2024 19:00 – 20:50 (Tue)	2 hours final examination in Dec 2024	Thorough discussion on the analytical methods applied for surface analysis, such as XPS, AES, SEM, and EDX. Emphasis will be put on the applications of these techniques in the studies of heterogeneous catalysis, polymer, semi-conductor, and/or material corrosion.

#### Semester Two

Course	Duration *	Assessment	Contents
<b>CHEM 7250</b> Laboratory Management (2 units)	24 lecture hours (12 weeks) Start date: 16 Jan 2025 19:00 – 20:50 (Thu) <b>**No class on 30 Jan, 6 Feb &amp; 17 Apr 2025</b>	Term paper and presentation at the end of the course	Equip students with the latest knowledge of laboratory management in modern chemical laboratories and clinical laboratories. Emphasis will be put on the up-to-date practices in different testing laboratories.
<b>CHEM 7350</b> Sample Pretreatment Methods (1 unit)	12 lecture hours (6 weeks) Start date: 3 Mar 2025 19:00 – 20:50 (Mon)	2 hours final examination in May 2025	This course aims to provide a thorough discussion on the principles and applications of traditional and modern sample pretreatment methods, e.g., LLE, SPE, Soxhlet extraction, SFE, ASE, and MAE.
<b>CHEM 7440</b> Biomedical Analysis (1 unit)	12 lecture hours (6 weeks) Start date: 28 Feb 2025 19:00 – 20:50 (Fri) <b>**No class on 4 Apr 2025</b>	2 hours final examination in May 2025	Provide a thorough discussion on the analytical methods applied for biomedical analysis. Emphasis will be put on the respective principles for the purification, isolation, and analysis of different classes of biomolecules.
<b>CHEM 7990</b> Separation Science (2 units)	24 lecture hours (12 weeks) Start date: 15 Jan 2025 19:00 – 21:50 (Wed) <b>**No class on 29 Jan &amp; 5 Feb 2025</b>	Continuous assessment and 3 hours final examination in May 2025	Thorough discussion on the basic principles and applications of chromatography at the advanced level. Emphasis will be put on the latest development of gas chromatography and liquid chromatography.

**APPLICATION DEADLINE****26 August 2024**[For enrollment of the course(s) in Semester 1 **OR**  
Semesters 1 & 2]**13 December 2024**[For enrollment of the course(s) in **Semester 2 ONLY**]**APPLICATION**Application form can be obtained by e-mail to:  
**analchem@hkbu.edu.hk****COURSE FEE #**

HK\$5,100 each course

(CHEM 7015, CHEM 7280, CHEM 7340 &amp; CHEM 7440)

HK\$10,200 each course

(CHEM 7250 &amp; CHEM 7990)