

# MSc in Accreditation Chemistry

*DEPARTMENT OF  
CHEMISTRY*

*Full time programme  
(1 year)  
or  
Part time programme  
(2 years)*



香港中文大學理學院  
**FACULTY OF SCIENCE**  
THE CHINESE UNIVERSITY OF HONG KONG

# Overview

This programme is offered by the Department of Chemistry of The Chinese University of Hong Kong. It is formulated and taught by experts in the education, testing and accreditation sectors, including professors of the University, former professional staff of the Government Laboratory, ex-accreditation officers and experienced assessors of the Hong Kong Accreditation Service and managerial staff of testing laboratories. The programme aims at giving graduates with a relevant Bachelor of Science degree a thorough understanding of the concepts of quality assurance in laboratory operations and is intended to develop their technical expertise in various fields of chemical testing. Upon successful completion of the programme, graduates are expected to acquire the knowledge and skills for the development and implementation of a quality management system required for a chemical testing laboratory, and understand the requirements for laboratory accreditation. The programme will also cover local regulatory requirements related to testing. International trade protocols will be discussed where relevant. The programme will also offer specific courses for chemical testing of foods, environment pollutants, construction materials, toys and consumer goods. Those who wish to pursue a career in chemical testing or related industries will find the programme useful and rewarding.

## About the Department

The Department of Chemistry is one of the largest and best equipped departments in the University. The four-year undergraduate programme provides students with training in all disciplines of modern chemistry. Being one of the best research departments in the University, the articulated MPhil-PhD programme involves course work and a thesis embodying the results of original research. The present MSc taught programme in Accreditation Chemistry is intended to provide training to graduates, in an integrated approach, on chemical testing, laboratory management, quality assurance and concepts and requirements for laboratory accreditation.

## Director's Message

Being established in 2013, the MSc Programme in Accreditation Chemistry is a unique taught postgraduate programme offered by Department of Chemistry at CUHK. The Programme intends to provide professional training to individuals who aspire to obtain an advanced degree in accreditation chemistry. The curriculum of our Programme is composed of a wide array of courses, covering various areas ranging from accreditation, quality assurance and chemical testing. The Programme has benefited from the unlimited support of Department of Chemistry and a large group of academics who specialize in a particular field in industry or chemistry research. We are committed to provide quality education and training to our students, and pave the way for their future endeavours in related areas. Through the curriculum and training of our Programme, our students will emerge as highly competent individuals at their respective professions.



# Course Details

## Required Courses (Total 9 credits)

### Laboratory Accreditation Based on ISO/IEC 17025

- provide a comprehensive coverage on the requirements of the international accreditation standard based on ISO/IEC 17025
- focus on understanding the concepts of quality assurance and their implementation in laboratory testing and management
- provide training on performance management, including planning of audit and the auditing skills to be used in laboratory audit, and relevant follow-up action
- emphasize the importance of the laboratory management system in quality assurance and effectiveness of laboratory operation

### Measurement Uncertainty

- provide fundamental knowledge of various statistical tools for treatment of analytical data
- realize the estimation of measurement uncertainty based on relevant international practices
- apply various approaches in evaluation of uncertainty of measurement for different analytical methods and uncertainty of in-house calibration of general equipment
- report test results and compliance taking into consideration of measurement uncertainty

### Method Validation and Quality Control in Analytical Laboratory

- provide training and guidance on method validation requirements to ensure traceability, reliability and adequacy in performance of the method developed
- give a comprehensive coverage on various quality control practices to ensure the quality of test data
- focus on equipment qualification of general equipment used in analytical laboratories

## Elective Courses ( Total 18 credits)

*\*The elective offerings are subject to change.*

**Analytical Atomic Spectroscopy**

**Chemical Applications in Forensic Analysis**

**Chemical Testing of Construction Materials**

**Chemical Testing of Consumer Products**

**Chemistry and Analytical Methods of Surface Finishing and Coatings**

**Drinking Water Treatment Processes and Testing of Water Quality**

**Environmental Pollutants, Analysis and Monitoring**

**Food Safety and Testing**

**Metrology in Chemistry**

**MSc Thesis**

**Pharmaceutical Testing and Analysis**

**Principle and Practice of Chromatography and Mass Spectrometry in Analytical Sciences**

**Research Project in Method Development**

**Risk Management in Chemical Testing Laboratory**

## Admission Requirements

- A Bachelor degree in Science or related disciplines
- Fulfilment of the English Proficiency Requirement stipulated by Graduate School
- Experience in Chemical Testing Industry is preferable

For more details, please visit Graduate School Website at <http://www.gs.cuhk.edu.hk/admissions>

Application will be processed on a rolling basis until all places have been filled. Therefore, early applications are strongly encouraged.



## Online Application

[https://www.gradsch.cuhk.edu.hk/OnlineApp/login\\_email.aspx](https://www.gradsch.cuhk.edu.hk/OnlineApp/login_email.aspx)



## Continuing Education Fund (CEF)

Tuition fees for the MSc in Accreditation Chemistry (both full-time and part-time) are reimbursable for CEF purposes.

Name of Institution: The Chinese University of Hong Kong

CEF Institution Code: 002

CEF Course Title: Master of Science in Accreditation Chemistry

CEF Course Code: 42M135324

## Contact Us

Address: Room G55, Ma Lin Building, Science Centre, South Block, CUHK

Email: [acchem@cuhk.edu.hk](mailto:acchem@cuhk.edu.hk)

Website: <https://chem.cuhk.edu.hk/postgraduate/acchem/>

Phone: (852)3943 1304

Fax: (852)2603 5057

