The Chinese University of Hong Kong
Faculty of Science
Science Academy for Young Talent

Summer Courses 2023
Course Outline

CUSA1081 Some Amazing Discoveries in Science: Principles behind, their Importance, and their Applications
科學中的一些精彩發現：其背後的原理、重要性及應用

Introduction:

This course covers the stories of some discoveries in science. Students will learn the principle behind, the importance of the discoveries, their applications and the science of a lot of related topics. Topics included: atomic and molecular structure, chemical bonding, fake gold, X-ray, radioactive decay, nuclear reactions, fluorescence and phosphorescence, noble gases, the father of organic chemistry, polymers, chemical analysis (physical methods, elemental analysis, and chromatography), etc. This course is conducted in the format of lecture, supplemented with demonstrations as well as in-class and at-home activities. Snapshots and PowerPoint sample can be downloaded from:

CUHK CUSA1081 YSCheung Snapshots and PowerPoint sample

https://gocuhk-my.sharepoint.com/:f:/g/personal/yscheung_cuhk_edu_hk/EmVcKWj0hk9Hsfat5sbcgvMBpehkuxFD6VhORyFEc4YYKA?e=sJtiMu

or https://bit.ly/419QkGX or QR-code below

本課程涵蓋了一些科學發現的故事。學生將學習其背後的原理、重要性、應用及許多相關主題的科學。主題包括：原子和分子結構、化學鍵、假金、X 射線、放射性衰變、核反應、熒光和磷光、貴族氣體、有機化學之父、聚合物、化學分析（物理方法、元素分析及色譜）等。本課程以講課形式進行，輔以示範以及課堂和居家活動。相片和 PowerPoint 樣本可從以下網址下載：

CUHK CUSA1081 YSCheung Snapshots and PowerPoint sample

https://gocuhk-my.sharepoint.com/:f:/g/personal/yscheung_cuhk_edu_hk/EmVcKWj0hk9Hsfat5sbcgvMBpehkuxFD6VhORyFEc4YYKA?e=sJtiMu

或 https://bit.ly/419QkGX 或以上二維碼

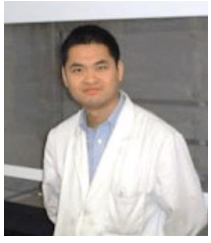
Medium of Instruction:

Cantonese supplemented with English (and written materials in English)
粵語主講及輔以英語 (講義為英語)

Organising Unit:

Department of Chemistry, Faculty of Science, CUHK

Teachers:



Dr. CHEUNG Yu San (張羽伸博士)
Senior Lecturer
Department of Chemistry, CUHK
Rm. 234, Science Centre North, CUHK
Tel: 3943 6265, Email: yscheung@cuhk.edu.hk

Course Content:

7 August 2023 (Monday) 9:30 am – 12:30 pm 2:00 pm – 5:00 pm	**Lecture:** • "All that glitters is not gold" • The discovery of X-ray • The discovery of radioactivity **Assessment:** • Short-answer exercise
9 August 2023 (Wednesday) 9:30 am – 12:30 pm 2:00 pm – 5:00 pm	**Lecture:** • Cold fusion • Noble gases • The father of organic chemistry **Assessment:** • Short-answer exercise
11August 2023 (Friday) 9:30 am – 12:30 pm 2:00 pm – 5:00 pm	**Lecture:** • Polymers **Assessment:** • Short-answer exercise
15 August 2023* (Tuesday) 9:30 am – 12:30 pm 2:00 pm – 5:00 pm	Make-up Class

Duration	3 day sessions (total 18 contact hours)
Date	7, 9, 11 August 2023 15 August 2023* (make-up class)
Time	9:30 am – 12:30 pm & 2:00 pm – 5:00 pm
Teaching Mode#	Face to face (The Chinese University of Hong Kong)
Enrollment	30
Expected Applicants	Students who are studying S2 – S3 (in the academic year 2022-2023)
Tuition Fee	HKD 3,180.00
Credit	1.25 Academy Unit Certificate of completion will be awarded to students who pass the assessment (if applicable) and attain at least 75% attendance.
Grading Methods	Letter grades range from A to F.

** This date is reserved for make-up classes in case there is any cancellation of classes due to unexpected circumstances.*