

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

Summer Courses 2024
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

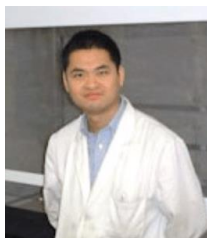


本課程涵蓋了一些科學發現的故事。學生將學習其背後的原理、重要性、應用及許多相關主題的科學。主題包括：原子和分子結構、化學鍵、假金、X 射線、放射性衰變、核反應、熒光和磷光、貴族氣體、有機化學之父、聚合物、化學分析（物理方法、元素分析及色譜）等。本課程以講課形式進行，輔以示範以及課堂和居家活動。相片和 PowerPoint 樣本可從以下網址下載：
CUHK CUSA1081 YSCheung Snapshots and PowerPoint sample
https://gocuhk-my.sharepoint.com/:f/g/personal/yscheung_cuhk_edu_hk/EmVcKWj0hk9Hsfat5sbcgvMBpehkuxFD6VhORyFEc4YYKA?e=sJtiMu
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（講義為英文）

Organising Unit: Department of Chemistry, Faculty of Science, CUHK

Teachers:



Dr. CHEUNG Yu San (張羽伸博士)
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Course Content:

<p>29 July 2024 (Monday)</p> <p>9:30 am – 12:30 pm 2:00 pm – 5:00 pm</p>	<p><u>Lecture:</u></p> <ul style="list-style-type: none"> • “All that glitters is not gold” • The discovery of X-ray • The discovery of radioactivity <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Short-answer exercise
<p>31 July 2024 (Wednesday)</p> <p>9:30 am – 12:30 pm 2:00 pm – 5:00 pm</p>	<p><u>Lecture:</u></p> <ul style="list-style-type: none"> • Cold fusion • Noble gases • The father of organic chemistry <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Short-answer exercise
<p>2 August 2024 (Friday)</p> <p>9:30 am – 12:30 pm 2:00 pm – 5:00 pm</p>	<p><u>Lecture:</u></p> <ul style="list-style-type: none"> • Polymers <p><u>Assessment:</u></p> <ul style="list-style-type: none"> • Short-answer exercise
<p>8 August 2024* (Friday)</p> <p>9:30 am – 12:30 pm 2:00 pm – 5:00 pm</p>	<p>Make-up Class</p>

Date	29, 31 July, 2, 8* August 2024 (18 hours)				
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 in S2 – S3 (in the academic year 2023-2024)				
Tuition Fee	HKD 3,180.00				
Credit	1.25 Academy Unit(s) <i>Students can accumulate credits which will be regarded as “Other Learning Experience” when applying University.</i>				
Grading Methods	Certificate	Assessment	Attendance	Credit(s)	
	Distinction	<i>Certificate of Distinction</i>	<i>Excellent</i>	<i>>75%</i>	<i>1.25</i>
	Pass	<i>Certificate of Merit</i>	<i>Pass</i>	<i>>75%</i>	<i>1.25</i>
	Attended	<i>Certificate of Attendance</i>	<i>Fail</i>	<i>>75%</i>	<i>0</i>
	Fail	<i>N/A</i>	<i>Fail</i>	<i>N/A</i>	<i>0</i>

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