

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

Summer Courses 2021
Course Outline

CUSA1041 Essentials of Organic Chemistry
有機化學精華

Introduction:

This course aims at introducing the essential concepts of organic chemistry and how it is closely related to our daily life. Students will learn the fundamental knowledge of organic chemistry with a particular emphasis on stereochemistry. Through lectures and video demonstration of important principles and interesting experiments, students will be introduced to lab techniques/instrumentation and scientific methods in organic chemistry. Students can therefore gain appreciation of the daily practice of a synthetic organic chemist in a university setting.

本課程旨在介紹有機化學的精華和這一學科與我們日常生活的緊密聯繫。學生將學習有機化學的基本知識及立體化學的專題討論。通過講座及視頻演示的方式對重要的化學原理以及實驗操作進行展示，學生將學到有機化學的實驗技術、儀器和科學方法，從而接觸到有機合成化學家在大學裏的日常工作。

Medium of Instruction:

Cantonese supplemented with English

Organising Unit:

Department of Chemistry, Faculty of Science, CUHK

Teachers:

Prof. Gavin Chit TSUI

Department of Chemistry, CUHK

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Course content:

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|------------------------------|--------------------|---|
| 2 August 2021 (Monday) | 9:30 am – 12:30 pm | Topic 1: Introduction to Organic Chemistry (lecture) |
| | 2:00 pm – 5:00 pm | Topic 2: Separation of Mixtures by Column Chromatography (lab demonstration) |
| 3 August 2021 (Tuesday) | 9:30 am – 12:30 pm | Topic 3: Alkanes and Stereochemistry (lecture) |
| | 2:00 pm – 5:00 pm | Topic 4: Resolution of <i>trans</i> -1,2-diaminocyclohexane (lab demonstration) |
| 4 August 2021 (Wednesday) | 9:30 am – 12:30 pm | Topic 5: Chemistry of Life and Basic Organic Reactions (lecture) |
| | 2:00 pm – 5:00 pm | Topic 6: Amazing Molecules that Changed the World (special lecture) |
| 5 August 2021* (Thursday) | make-up class | |

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| Duration | 3 days (total 18 contact hours) |
| Date | 2 – 4 August 2021 5 August 2021* (make-up class) |
| Time | 9:30am – 12:30pm, 2:00pm – 5:00pm |
| Teaching Mode[#] | Face to Face (The Chinese University of Hong Kong) |
| Enrollment | 30 |
| Expected applicants | Students who are promoting to or studying S4-S6 |
| Tuition Fee | HKD 3,380.00 |
| Credit | 1.25 Academy Unit Certificates or letters of completion will be awarded to students who attain at least 75% attendance. |

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

This course is offered face-to-face lessons at CUHK campus. It may switch to online teaching in accordance with the pandemic development and the policy of the university.