

**Enrichment Program for Gifted Learners (Summer Program 2026)**  
**優才增益課程 (暑期課程 2026)**

**Course Introduction 課程簡介**

The “**Enrichment Program for Gifted Learners (EPGL)**” offered by the Center for the Development of the Gifted and Talented (CDGT) will be held from July to August in face-to-face mode. EPGL offers short courses in Chemistry, Computer Science, Engineering, Humanities & Arts, Life Science, Mathematics, Anthropology, Social Science and Business & Technology to students from senior primary to secondary schools. The program emphasizes diversified in-class activities that give inspiration, enhance students’ thinking skills and expand their creative capacity. Students can also experience the teaching style and learning environment of a university under the guidance of HKUST’s faculty and professional instructors.

香港科技大學資優教育發展中心將於 7 至 8 月份舉辦「優才增益課程」。課程採用面授教學模式進行。優才增益課程提供短期課程涵蓋不同科目：包括化學、計算機科學、工程、人文藝術、生命科學、數學、人類學、社會科學及商業科技等不同範疇，供有興趣的高小學生及中學生選讀。優才增益課程著重多元化的課堂活動，啟發學生的思維及創意能力，在科大教授、教員及專業導師的指導下，引領學生體驗大學的教學模式和學習環境。

**Programming Fun with mBot x Scratch**  
**mBot x Scratch 趣味編程**

(Course Code 課程編號 : D001)

**Description** : With the recent advances in artificial intelligence (AI) technology, digital computers are providing a new future for human society. The world has changed - those who are kids today will be the adults that will live with this paradigm-shifting change. This course opens a door for kids to an entry level of machine intelligence through utilization of programming (Scratch) and robot (mBot) control, and offers them a steppingstone to explore the knowledge and a glimpse of this fundamentally changed future society.

**課程簡介** : With the recent advances in artificial intelligence (AI) technology, digital computers are providing a new future for human society. The world has changed - those who are kids today will be the adults that will live with this paradigm-shifting change. This course opens a door for kids to an entry level of machine intelligence through utilization of programming (Scratch) and robot (mBot) control, and offers them a steppingstone to explore the knowledge and a glimpse of this fundamentally changed future society.

Scratch is a programming language developed by MIT Media Lab. With drag-n-drop, learners can easily create projects with audio and video effects, and share creations with others. mBot is a do-it-yourself educational robot kit created by robotics experts.

The first half of this course will focus on sharpening the basic logical skills of the students through Scratch. Then we will proceed to teach students developing their own software to control the robotic device mBot. Students will build the mBot robots themselves from separate mechanical pieces in the first class. Then they will learn the basic skills for putting the intelligence into the otherwise dumb mBot and transforming the robot into an intelligent self-driving autonomous vehicle. This involves putting advanced abilities like dynamic sensing, dynamic decision-making, and inter-vehicle communication into the mBot robot and utilizes them to do self-driving – which is one of the hottest topics in the industry today.

Basic programming concepts, e.g. variables, arrays, controls, loops, data abstraction and objects, are infused into the course too. These are universal principles for any modern programming language, and will be beneficial if kids want to go further in coding.

The course will conclude with a rally competition of teams of mBots on a “line-chasing” map to practice what they have learnt from this course.

隨著人工智慧 (AI) 技術的最新進展，數位計算機為人類社會提供了嶄新的未來。世界已經改變了——今天的孩子將成為生活在未來新世界的成人。本課程透過教授編程 (Scratch) 和控制機械人 (mBot)，讓孩子開始接觸初階程度的機器智能，為他們打開探索相關知識的大門，一窺未來的社會。

Scratch 是麻省理工學院媒體實驗室開發的程式語言。透過「拖放」，學生可以輕鬆創建具有音訊和視訊效果的項目，並與他人分享創作。mBot 則是一款專為教育設計、雙輪外型的車輛機械人。

本課程的前半部分主要透過 Scratch 來提高學生的基本邏輯思考能力；後半部分則教導學生開發自己的軟體來控制 mBot 機械人。課程首課，學生將使用數十個獨立的機械部件來自行組裝 mBot，然後學習 Scratch 及利用 Scratch 邏輯來控制機械人等基本知識，把平平無奇的 mBot，轉變為智能化自動駕駛汽車——這亦是當今業界最熱門的科研項目之一。這涉及到為 mBot 置入 1) 動態感知、2) 動態決策、3) 車間通訊等高等技能。

課程同時滲透了計算機科學的基本概念，例如面向對象、參數、控制、交互等；將加強學生的邏輯思維及分析能力。這些概念適用於任何編程語言，可以幫助孩子在未來接觸更加深入、真正的編程領域。

課程的最後一堂將以團隊形式在「追線」地圖上進行 mBot 拉力賽，讓學生實踐所學的知識。

Instructor : **Dr. Alex Lam** — Dr. Lam is an assistant professor in engineering education at the Hong Kong  
導師 University of Science and Technology. He received his Ph.D. degree in Electronic and Computer Engineering from the McGill University of Canada. He has been teaching at the Department of Computer Science and Computer Engineering of HKUST in various courses at the undergraduate level for many years. Dr. Lam is extremely enthusiastic about teaching and he deeply enjoys sharing the joy of learning with his students. He feels that computer programming offers the best platform for the youth to unleash their full logical thinking capability.

**林岳博士** — 現為香港科技大學工程教育助理教授。林博士在加拿大麥基爾大學電子及計算機工程系取得哲學博士學位。他在計算機科學及工程學系任教過不少本科課程。他非常熱愛教學，享受與同學一起分享學習及思考的樂趣。他深信透過有系統地學習電腦編程，同學能更全面完整地發展他們的邏輯思考能力，為將來的個人發展打下良好基礎。

Date & Time : **Robot Assembly, Lectures & Practice**  
日期及時間 **17, 20, 22, 24 & 27 Jul 2026 (Fri, Mon & Wed) 【2:00pm – 5:00pm】**

**Project Demonstration & Presentation**  
**29 Jul 2026 (Wed) 【2:00pm – 5:00pm】**

*(In case of bad weather, make-up class(es) will be held on 31 Jul and/or 3 Aug. Please refer to the latest updates by CDGT.)*

**機械人組裝、講課及編程實踐**

**2026年7月17、20、22、24及27日（週五、週一及週三）【下午2時至5時】**

**項目示範及報告**

**2026年7月29日（週三）【下午2時至5時】**

*（倘遇惡劣天氣，補堂將於7月31日及／或8月3日進行，請留意本中心的最新公布。）*

Language : Cantonese supplemented with simple English (Lecture notes in Chinese)  
教學語言 粵語輔以英語（中文課程筆記）

Requirements : P.5 – P.6 students who are interested in computer science and programming  
修讀條件 (Suitable for students with no or less background in Scratch)  
小五至小六對計算機科學及編程有興趣之學生（適合對編程沒有或只有少許認識的學生）

Award : Students with 80% attendance, have submitted all the assessment assignments and taken part in  
獎勵 the final competition will be issued a certificate  
學生出席率達 80%，並遞交編程功課，及參與最後的比賽，將獲頒發證書乙張

Course Fee : HKD 4,600  
費用 港幣 4,600 元

**Materials Required** : **Each student is required to bring along with their own Makeblock mBot2 for lessons. (Reference price of mBot2: HKD\$1,258).**

**須自備材料** For purchase method and details, please refer to the website of Makeblock's Authorized Distributor in Hong Kong below:

<https://www.dtsl.asia/products/makeblock-mbot2-programmable-robotics-kit>

每名學生必須自備一部個人的 Makeblock mBot2 編程教學機械人上課（參考價為港幣 1,258 元）。

有關購買方法及詳情，請瀏覽 Makeblock 授權之香港代理商網頁：

<https://www.dtsl.asia/products/makeblock-mbot2-programmable-robotics-kit>

## Mathematics of Linear Functions: Concepts and Techniques

### 線性函數的數學：基本概念與應用

(Course Code 課程編號：M108)

**Description** : Linear functions are a fundamental concept and essential problem-solving tool in higher mathematics. They have a wide range of applications not only in pure and applied mathematics but also in fields such as science, engineering, and economics. This course will guide students in exploring linear functions, covering key areas that are vital for future studies in mathematics. The topics covered include vectors, systems of linear equations, matrices, the relationship between matrices and linear functions, simultaneous equations, and determinants. Through engaging face-to-face classroom activities and exercises, students will deepen their understanding of these concepts and enrich their mathematical knowledge.

**課程簡介**

線性函數是高等數學中重要的基本概念和解題工具。它在純數、應用數學、科學、工程、經濟等多個領域中有著廣泛的應用。本課程將引導學生初步探索線性函數，認識一些在未來數學學習中的重要主題。

課程內容包括向量、線性方程組、矩陣、矩陣與線性函數之間的關係、聯立方程和行列式。通過對面對面的課堂活動和練習，學生將加深對這些概念的理解，並豐富他們的數學知識。

**Instructor** : **Mr. Cheng Wing-cheong** — holds a master's degree from the Hong Kong University of Science and Technology. He taught at the Department of Mathematics of the University from 2014 to 2024 as an Instructional Assistant Coordinator. During this period, he also served as the Officer of the Mathematics Support Center. He has extensive experience in delivering gifted educational courses to cultivate students' mathematical abilities and has been teaching Level 1 Mathematics for Dual Program, offered by the Center for the Development of the Gifted and Talented, HKUST since 2018.

**導師**

**鄭永昌先生** — 香港科技大學碩士。在 2014 至 2024 年間任教於科技大學數學系，除了任職教學助理統籌，亦擔任數學輔導中心主任。鄭永昌先生在資優教育上擁有豐富的教學經驗，致力培養學生的數理才能。自 2018 年起，他在科技大學資優教育發展中心教授雙修課程之數學階段一的課程。

**Date & Time** : **Lectures**  
**日期及時間** **21, 23, 28, 30 Jul & 4, 6 Aug 2026 (Tue & Thu) 【10:00am – 12:30pm】**

*(In case of bad weather, make-up class(es) will be held on 11 Aug and/or 13 Aug. Please refer to the latest updates by CDGT.)*

#### **講課**

**2026 年 7 月 21、23、28、30 及 8 月 4、6 日 (週二及週四)【上午 10 時至下午 12 時 30 分】**

*(倘遇惡劣天氣，補堂將於 8 月 11 日及／或 8 月 13 日進行，請留意本中心最新公布。)*

**Language** : English supplemented with Cantonese (lecture notes in English)  
**教學語言** 英語輔以粵語 (英文課程筆記)

**Requirements** : P.5 – P.6 students who are interested in mathematics  
**修讀條件** 對數學有興趣的小五至小六學生

**Award** : Students who have attained 80% attendance and completed all assessment activities with passing grades will be issued a certificate  
**獎勵** 學生出席率達 80%，並完成及通過所有評核，將獲頒發證書乙張

**Course Fee** : HKD 3,800  
**費用** 港幣 3,800 元

**Disease Detective: Unraveling the Mysteries of Illness**  
疾控小偵探：探索疾病背後的奧秘

(Course Code 課程編號：S103)

**Description** : Diseases play a significant role in human life, affecting our health and well-being. They vary in their nature, with some being infectious, caused by pathogens like bacteria and viruses, while others are non-infectious, resulting from genetic factors or lifestyle choices. Understanding these differences is crucial for prevention and treatment, enabling us to lead healthier lives.

**課程簡介**

Throughout this interactive course, students will become "disease detectives", investigating common illnesses such as common cold, asthma and cancer through understanding their major symptoms, and discovering the links between causes, symptoms, effective remedies and preventive measures.

Join us in this adventure to unravel the mysteries of illness and become champions of health in your community!

擁有健康的身體才能有美滿的生活。為什麼有些疾病會傳染，而另一些則不會傳染？我們應該怎樣預防疾病？又如何及時分辨它們？充分認識疾病，才能有效保障我們的健康。

本互動課程將帶領學生瞭解一些常見疾病如何影響我們、講解疾病的傳染性、探索不同疾病的來源、如何對症下藥，以及怎樣可以保持健康。在整個課程中，學生將化身“疾病偵探”，透過了解主要症狀來偵查感冒、流感和哮喘等常見疾病，並發現有效的治療方法和預防措施。

現在就開始探索疾病背後的奧秘，成為家庭社區的健康小先鋒！

**Instructor** : **Dr. Amy Kwok** — Dr. Kwok obtained her Ph.D. majoring in molecular biology and endocrinology in the University of Hong Kong. She worked in research laboratories and life science companies in recent years. She is experienced in teaching and mentoring young students in undergraduate courses and summer internship programs. She has a keen interest in applying interactive in-class activities such as discussion and scenario-based problem-solving exercises to improve students' initiative and understanding of the subjects.

**導師**

**郭可茵博士** — 郭博士畢業於香港大學分子生物學及內分泌學，之後致力於學術研究及就職於生命科技行業。郭博士曾教授本科生課程及指導暑期實習課程，對於教導年輕學生有豐富經驗。郭博士熱愛教學，尤其擅於活用富有互動元素的課堂活動，比如小組討論、基於場景解決問題練習等等，以增加學生的自主學習性和對學習主題的認知及了解。

**Date & Time** : **Lectures**  
**日期及時間** **18, 25 Jul & 1, 8, 15 Aug 2026 (Sat) 【10:00am – 12:30pm】**

*(In case of bad weather, make-up class(es) will be held on 22 Aug and/or 29 Aug. Please refer to the latest updates by CDGT.)*

**講課**  
**2026年7月18、25日及8月1、8、15日（週六）【上午10時至下午12時30分】**

*(倘遇惡劣天氣，補堂將於8月22日及／或8月29日進行，請留意本中心最新公布。)*

**Language** : Cantonese supplemented with English (Lecture notes in Chinese)  
**教學語言** 粵語輔以英語（中文課程筆記）

**Requirements** : P.5 – P.6 students who are interested in health sciences  
**修讀條件** 對健康科學有興趣的小五至小六學生

- Award 獎勵 : Students who have attained 80% attendance and completed all assessment activities with passing grades will be issued a certificate  
學生出席率達 80%，並完成及通過所有評核，將獲頒發證書乙張
- Course Fee 費用 : HKD 3,200  
港幣 3,200 元

## Secondary Section 中學組

### Introduction to Microbiology: Germs or Gems?

#### 基礎微生物學：病菌或寶藏？

(Course Code 課程編號：B201)

Description 課程簡介 : Since microbes are the causative agent of most infectious diseases, the public tends to have a negative impression on them and becomes unaware of their positive role in our society as well as the entire ecosystem. In this course, we will explore the diversity of different microbes, including fungi, protists, archaea, bacteria as well as viruses. We will then investigate the disease-causing mechanisms of common pathogens, effective measures in microbial control, important applications of microbes, as well as the recent outbreak of Chikungunya fever.

In addition to informative lectures, a series of hands-on and virtual experiments will allow students to gain technical and analytical skills related to environmental and clinical microbiology. Interactive activities and scientific presentations will further develop their critical thinking and communication skills.

由於微生物能導致多種傳染病，大家一直對其有負面印象，從而忽略了它們對人類社會以及整個生態系統的重要性。此課程會引領學生了解各類微生物，包括真菌、原生生物、古菌、細菌及病毒。我們亦會探討常見病原體的致病機轉、有效控制微生物的措施、微生物的重要應用，以及近期爆發的基孔肯雅熱疫情。

除了內容豐富的講課外，學生亦會參與一系列的實踐性及虛擬實驗，從而掌握與環境及臨床微生物學相關的技術和分析。課程還包括互動活動和科學報告，可以進一步培養學生的批判性思維和溝通能力。

Instructor 導師 : **Dr. Amy Li** — Dr. Li is currently a Lecturer in Division of Life Science, HKUST. She received her Ph.D. in Microbiology from McGill University, Canada, and published a dozen of research articles in international academic journals. Apart from being a reviewer for the journal *Environmental Microbiology*, Dr. Li has over 10 years of local and overseas teaching experience in various biology courses. She is particularly good at integrating a combination of teaching strategies and class activities to develop students' critical thinking and communication skills, as well as inspire their interest in further study.

**李嵐博士** — 李博士為現任香港科技大學生命科學部教學助理講師。她於加拿大麥基爾大學取得微生物學博士學位，亦在國際性學術期刊發表過十多份研究文獻。除了擔任《環境微生物學》期刊的審稿員，李博士亦擁有超過 10 年的本地及海外教育生物學課程的經驗。她尤其善於靈活運用多種教學模式及課堂活動去訓練學生的批判性思維和溝通能力，以及啟發他們對深入學習的興趣。

Date & Time 日期及時間 : **4, 8, 11, 15, 18 & 22 Aug 2026 (Tue & Sat) 【10:00am – 1:00pm】**

*(In case of bad weather, make-up class(es) will be held on 25 Aug and/or 29 Aug. Please refer to the latest updates by CDGT.)*

**2026年8月4、8、11、15、18及22日（週二及週六）【上午10時至下午1時】**

*(倘遇惡劣天氣，補堂將於在8月25及/或8月29日進行，請留意本中心的最新公布。)*

Language 教學語言	: Cantonese supplemented with English (lecture notes in English) 粵語輔以英語（英文課程筆記）
Requirements 修讀條件	: S.2 or above students with genuine interest in Microbiology 對微生物學有興趣之中二或以上學生
Award 獎勵	: Students who have attained 80% attendance and passed the overall assessment will be issued a certificate. 學生出席率達 80%，並通過所有評核，將獲頒發證書乙張
Course Fee 費用	: HKD 4,800 港幣 4,800 元

### Intriguing Plants: From Physiology to Biotechnology 植物的奧妙：由生理學到生物技術

(Course Code 課程編號：B203)

**Description** : How do seedless plants reproduce? Why do plant stems grow towards light? What features protect plants from herbivores? In our daily lives, we encounter a wide variety of plants, many of which have unique adaptations that help them thrive in their habitats. This course will introduce students to the diversity of plants, as well as their basic structures and growth. Students will also explore different defence mechanisms of plants, their applications in human society, and the technique of plant tissue culture.

課程簡介

In addition to informative lectures, a series of hands-on experiments will allow students to gain technical and analytical skills related to plant science. Interactive activities and scientific presentations will further develop their critical thinking and problem-solving abilities.

無籽植物如何繁衍？為什麼植物的莖部會向光生長？植物怎樣保護自己免受草食動物的侵害？在日常生活中，我們會遇到各式各樣的植物，許多植物都有獨特的結構，以更好地適應其棲息地。本課程將會介紹植物的多樣性、其基本結構及生長過程。學生亦會探索植物的不同防禦機制、在人類社會中的應用，以及植物組織培養的技術。

除了課堂外，學生亦會參與一系列的實驗活動，學習有關植物科學的技術和分析。課程還包括互動活動和科學報告，進一步培養學生的批判思維和解難能力。

**Instructor** : **Dr. Amy Li** — Dr. Li is currently a Lecturer in Division of Life Science, HKUST. She received her Ph.D. in Microbiology from McGill University, Canada. Apart from a dozen of research publications in international academic journals, Dr. Li has over 10 years of local and overseas teaching experience in various biology courses, such as Plant Biology and Plant Biotechnology. She is particularly good at integrating a combination of teaching strategies and class activities to develop students' critical thinking and communication skills, as well as inspire their interest in further study.

導師

**李嵐博士** — 李博士為現任香港科技大學生命科學部講師。她於加拿大麥基爾大學取得微生物學博士學位。除了在國際學術期刊上發表十幾篇研究論文外，李博士亦擁有超過 10 年的本地及海外教育經驗，例如教授植物生物學及植物生物技術等不同級別的生物學課程。她尤其善於靈活運用多種教學模式及課堂活動去訓練學生的批判性思維和溝通能力，以及啟發他們對深入學習的興趣。

**Date & Time** : **4, 8, 11, 15, 18 & 22 Aug 2026 (Tue & Sat) 【3:00pm – 6:00pm】**

日期及時間

(In case of bad weather, make-up class(es) will be held on 25 Aug and/or 29 Aug. Please refer to the latest updates by CDGT.)

**2026年8月4、8、11、15、18及22日（週二及週六）【下午3時至下午6時】**

（倘遇惡劣天氣，補堂將於在8月25及／或8月29日進行，請留意本中心的最新公布。）

- Language : Cantonese supplemented with English (lecture notes in English)  
教學語言 粵語輔以英語（英文課程筆記）
- Requirements : S2 or above students with genuine interest in plant science  
修讀條件 對植物學有興趣之中二或以上學生
- Award : Students who have attained 80% attendance and passed the overall assessment will be issued a certificate.  
獎勵 學生出席率達 80%，並通過所有評核，將獲頒發證書乙張
- Course Fee : HKD 4,800  
費用 港幣 4,800 元

**Look Inside Our Body – Animal Physiology**  
**「解剖」動物生理學**

(Course Code 課程編號：B808)

- Description : In this course, we will use a comparative approach to examine the physiology of selected animal systems (such as the circulatory, nervous and sensory systems) with an emphasis on vertebrates. We will also examine how physiological systems are integrated and thus allow animals to respond in different environments. Moreover, dissection demonstrations will be conducted by the instructor, through which students can observe the structures and feel the textures of various animal organs, including hearts, lungs and eyes.  
課程簡介

本課程會以脊椎動物的生理結構為基礎，集中觀察幾個重要的系統，例如循環、神經與感官系統等，進而探討不同物種怎樣透過系統與系統之間的聯繫，去適應不同的生活環境。導師亦會在課堂上示範解剖動物器官（如心臟、肺、眼），讓學生可以第一身觀察器官的結構和感受器官的質感。

- Instructor : **Dr. Philip Lam**—Dr. Lam received his Ph.D. in Molecular Pharmacology and Toxicology from University of Southern California, USA. He is currently an Assistant Professor of Science Education at the Division of Life Science, HKUST. He has years of substantial teaching experience. He is familiar with various new pedagogical strategies such as e-learning and blended learning. Dr. Lam believes that it is of utmost importance to provide students with a learning environment that nurtures critical thinking.  
導師

**林陽博士** — 林博士畢業於美國南加州大學分子藥理及毒理學，現任香港科技大學生命科學部理學教育助理教授，有多年教學經驗，熟悉各種新穎的教學模式，如網絡化學習和混成學習。林博士重視為學生提供一個可以培養批判性思維的學習環境。

- Date & Time : **3, 5, 7, 10 & 12 Aug 2026 (Mon, Wed & Fri)**  
日期及時間 **【Class A: 10:00am – 1:00pm】**  
**【Class B: 3:00pm – 6:00pm】**

*(In case of bad weather, make-up class(es) will be held on 14 Aug and/ or 17 Aug. Please refer to the latest updates by CDGT.)*

**2026年8月3、5、7、10及12日（週一、週三及週五）**  
**【A班:上午10時至下午1時】**  
**【B班:下午3時至下午6時】**

(倘遇惡劣天氣，補堂將於8月14及／或8月17日進行，請留意本中心的最新公布。)

- Language : Cantonese supplemented with English (lecture notes in English)  
教學語言 粵語輔以英語（英文課程筆記）
- Requirements : Students who have a genuine interest in animal biology  
修讀條件 所有對動物生物學有興趣的學生
- Award : Students with 80% attendance will be issued a certificate  
獎勵 學生出席率達 80%，將獲頒發證書乙張
- Course Fee : HKD 4,200  
費用 港幣 4,200 元

### The Chemical Adventures of Sherlock Holmes: Chemistry in Forensic Science 福爾摩斯的化學歷險記：鑑證科學中的化學原理

(Course Code 課程編號 : C105)

- Description : Public perceptions of forensic science are heavily influenced by TV shows like *CSI: Crime Scene Investigation*, which often prioritize dramatic, high-tech imagery over an accurate understanding of its role in the criminal justice system. However, forensic science has undergone revolutionary advancements in recent decades, particularly with the advent of DNA profiling. These breakthroughs allow investigators to extract critical evidence—such as microscopic traces of body fluids, drugs, or explosives—of sufficient quality to play a pivotal role in criminal investigations and trials. Today, forensic science is an indispensable tool in the criminal justice process, providing answers to investigative questions more effectively than many other methods.
- 課程簡介

This course offers students a comprehensive introduction to the theories, techniques, and analytical tools used in forensic science. Topics include the analysis of fingerprints, bloodstains, DNA profiling, drugs and fibers analysis. Students will also conduct project-based studies on topics of their choice. To enhance understanding, laboratory demonstrations and hands-on explanations will illustrate how to analyze samples using various forensic instruments, providing students with a unique perspective on science that helps uncover the truth.

鑑證科學在刑事司法程序的重要性與日俱增，然而公眾的理解主要基於電視節目，例如CSI（犯罪現場調查），這些節目使用高科技圖像來產生戲劇性的效果，卻忽略解釋背後的科學原理。過去幾十年，科學上有眾多突破性的發展，尤其是發現了DNA分析技術，徹底改變了鑑證學。我們可以從體液、藥物和爆炸物等的微量痕跡中獲得足夠及有質量的證據，蛛絲馬跡都會成為調查中的關鍵。鑑證科學現已成為刑事司法議程不可或缺的一環。

本課程將向學生介紹鑑證科學的理論、技術和分析工具，其中包括指紋、血跡分析、DNA分析、藥物和纖維分析。學生可就自己感興趣的題目進行專題研習。此外，課程將提供實驗室演示和解釋，讓學生瞭解如何使用法醫科學儀器來分析樣品，了解有助揭露真相的科學。

- Instructor : **Dr. Veronica Tse** — Dr. Tse is an Assistant Manager (Laboratory) at the Department of Chemistry, HKUST. With a diverse educational background, she holds a bachelor's degree in Chemistry, a bachelor's degree in Health Science, a master's degree in Analytical Chemistry, and a Ph.D. degree in Chinese Medicine. Her expertise encompasses analytical chemistry, instrumental analysis, biomolecular analysis, and Traditional Chinese Medicine (TCM) research. Her extensive teaching experience spans various fields, including organic chemistry, inorganic chemistry, biomolecular chemistry, and analytical chemistry. She has successfully instructed chemistry laboratory courses, sharing her knowledge with students in a practical setting. Currently, she is actively involved in teaching general, synthetic, biomolecular, and pure
- 導師

chemistry laboratory courses at the Department of Chemistry, as well as courses offered by the Center for the Development of the Gifted and Talented at HKUST. Additionally, she contributes to postgraduate-level laboratory courses, further enriching the academic experience for advanced students.

**謝惠佩博士**——現任香港科技大學化學系實驗室助理經理，她擁有化學學士學位、健康科學學士學位、分析化學碩士學位和中醫藥博士學位。她擅長分析化學、儀器分析、生物分子分析和中醫藥研究。謝博士擁有豐富的教學經驗，教授不同化學領域的實驗課程，包括有機化學、無機化學、生物分子化學和分析化學。她目前在化學系教授普通化學、合成化學、生物分子化學和純化學實驗室課程，以及由資優教育發展中心提供的課程。她還參與研究生程度的實驗室課程。

Date & Time : **15, 17, 20, 22, 24 & 27\* Jul 2026 (Wed, Fri & Mon)**

日期及時間 **【10:00am – 1:00pm】**

\* 27 Jul will be the day for oral presentation and final exam.

*(In case of bad weather, make-up class(es) will be held on 29 Jul and/ or 31 Jul. Please refer to the latest updates by CDGT.)*

**2026年7月15、17、20、22、24及27\*日（週三、週五及週一）**

**【上午10時至下午1時】**

\*7月27日為口頭匯報及評核。

*（倘遇惡劣天氣，補堂將於7月29及/或7月31日進行，請留意本中心的最新公布。）*

Language : English supplemented with Cantonese (lecture notes in English)

教學語言 英語輔以粵語（英文課程筆記）

Requirements : S2 to S4 students who have an interest in forensic chemistry

修讀條件 對鑑證科學感興趣的中二至中四學生

Award : Students who have attained 80% attendance and completed all assessment activities with passing grades will be issued a certificate

獎勵 學生出席率達80%，並完成及通過所有評核，將獲頒發證書乙張

Course Fee : HKD 4,800

費用 港幣4,800元

### **From Molecules to Pills and Potions: Basics of Pharmaceutical Chemistry**

**從分子到靈丹妙藥：藥物化學基礎**

*(Course Code 課程編號：C106)*

Description : Drugs play a vital role in our lives by preventing, diagnosing, and treating diseases. But have you ever wondered how the medications that heal us are created? This course invites students to discover the secrets of Pharmaceutical Chemistry, where the realms of chemistry, medicine, and manufacturing technologies converge.

課程簡介

Students will explore fundamental concepts of pharmaceutical chemistry, including the physicochemical parameters of drug molecules, mechanisms of drug action, drug synthesis, formulation of common dosage forms, and drug analysis. Through engaging laboratory demonstrations, students will learn how to extract, isolate, identify, and analyse the active ingredients in pharmaceutical products using instrumental methods. Lessons will also incorporate interactive activities such as group discussions and presentations, enriching the overall learning experience for students.

藥物在我們的生活中扮演著重要的角色，幫助我們預防、檢測和治療疾病；但你知道藥物是如何研發出來的嗎？本課程將帶領學生一起揭開藥物化學的神秘面紗，探索這個由化學、醫藥和製藥技術交匯的領域。

學生將了解藥物化學的基礎知識，包括藥物分子的物理化學特性、藥物作用機制、合成方法、常見劑型的配方及藥物的分析方法。透過實驗示範，學生會學習如何提取、分離、和使用儀器來鑑定和分析藥物中的活性成分。課堂亦會結合互動式學習活動，如小組討論和匯報，豐富整體的學習體驗。

**Instructor** : **Prof. Ho-Wai Dennis Chan** — Dr. Chan is an Adjunct Associate Professor in the Department of Chemistry, HKUST. He specializes in organic synthesis of compounds with pharmaceutical potential and application of organometallic reagents in chemical synthesis. He currently teaches a University Common Core course (in science and technology area) and practical chemistry courses in the Department of Chemistry covering various areas of chemistry realm — including organic chemistry, inorganic chemistry, biomolecular chemistry, material chemistry and pure chemistry. He also supervises final year undergraduate students in completing their capstone projects. He has extensive experience in teaching gifted students and has been teaching a variety of courses offered by the Center for the Development of the Gifted and Talented, HKUST since 2007.

**導師**

**陳浩懷教授**——香港科技大學化學系兼任副教授。他擅長有機化學合成和有機金屬試劑在化學合成中的應用。他目前在化學系任教大學共同核心課程（科學和技術領域）和化學系的實驗課程，涉及化學領域的各個專業—包括有機化學、無機化學、生物分子化學合成和分析、材料化學製備和分析及高級化學合成和分析，還負責監督四年級本科生完成他們的畢業論文。陳博士於資優學生教學方面擁有豐富經驗，自 2007 年起為香港科技大學資優教育發展中心任教多項課程。

**Dr. Man Sing CHEUNG** — Dr. Cheung is currently an Assistant Manager (Laboratory) in the Department of Chemistry, HKUST. His research area mainly focuses on theoretical organic and organometallic chemistry, with the emphasis on designing catalysts and other useful materials. He is experienced in teaching chemistry to various types of students. He now teaches laboratory courses of general chemistry and synthetic chemistry in the Department of Chemistry and the chemistry courses offered by the Center for the Development of the Gifted and Talented, HKUST.

**張文星博士**——現任香港科技大學化學系的實驗室助理經理。他的研究領域主要集中於有機理論及有機金屬化學，著重於設計催化劑和其他有用的材料。張博士對於教導不同類型學生有豐富經驗。他現於化學系教授基礎化學和合成化學的實驗室課程，以及由資優教育發展中心提供的化學課程。

**Date & Time** : **15, 17, 20, 22, 24 & 27\* Jul 2026 (Wed, Fri & Mon)**

**日期及時間**

**【2:00pm – 5:00pm】**

*\* 27 Jul will be the day for oral presentation and final exam.*

*(In case of bad weather, make-up class(es) will be held on 29 Jul and/or 31 Jul. Please refer to the latest updates by CDGT.)*

**2026年7月15、17、20、22、24及27\*日（週三、週五及週一）**

**【下午2時至5時】**

*\*7月27日為口頭匯報及評核。*

*（倘遇惡劣天氣，補堂將於7月29日及/或7月31日進行，請留意本中心的最新公布。）*

**Language** : **English supplemented with Cantonese (lecture notes in English)**

**教學語言**

英語輔以粵語（英文課程筆記）

**Requirements** : **S3 or above who have an interest in the chemistry of pharmaceutical ingredients. Basic understanding of organic chemical structures would be preferred.**

**修讀條件**

對藥物成分化學有興趣之中三或以上學生。對有機化學結構有基本了解者優先。

- Award 獎勵 : Students who have attained 80% attendance and completed all assessment activities with passing grades will be issued a certificate  
學生出席率達 80%，並完成及通過所有評核，將獲頒發證書乙張
- Course Fee 費用 : HKD 4,800  
港幣 4,800 元

## Introduction to Game Development with Godot Engine 以 Godot 引擎學習遊戲開發

(Course Code 課程編號 : D004)

Description 課程簡介 : Do you enjoy playing computer games or mobile games? Have you ever thought of creating your own game? This course is designed to introduce students to the fundamentals of game development using the Godot Game Engine. Throughout the course, students will explore:

- **What is a Game Engine?** Discover the functionality of game engines, with a special focus on the features of the Godot Game Engine.
- **Programming Basics:** Gain hands-on experience with GDScript, Godot's built-in scripting language, while learning essential programming concepts.
- **Game Mechanics:** Dive into key elements such as animation and collision detection that make games captivating and fun.
- **Game Development:** Bring creativity to life by developing a 2D game under guidance.

By the end of this course, students will be cultivated with skills and knowledge to continue the journey in game development and turn any game ideas into reality.

你喜歡玩電腦遊戲或手機遊戲嗎？你是否曾經想過製作屬於自己的遊戲？本課程將帶領學生以 Godot 遊戲引擎為基礎，學習開發遊戲的基本知識。在課程中，學生將探索包括：

- **什麼是遊戲引擎？**了解遊戲引擎的功能，特別聚焦於 Godot 遊戲引擎的特點。
- **程式設計基礎：**透過 GDScript（Godot 的內建語言）獲得實作經驗，並學習基本的程式設計概念。
- **遊戲要素：**學習製作遊戲的關鍵元素，如動畫和碰撞檢測等效果。
- **遊戲製作：**在指導下親身創作出一款 2D 遊戲，把創意變為現實。

課程結束時，學生將具備繼續探索遊戲開發的基本技能和知識，並能將自己的遊戲創意付諸實現。

Instructor 導師 : **Dr. Cecilia Chan** — Dr. Chan is a lecturer at the Department of Computer Science and Engineering, HKUST. She received her Ph.D. from the Chinese University of Hong Kong and joined HKUST in 2012. Dr. Chan has a strong passion in education and has rich experience in teaching students from different backgrounds and at different levels. She teaches computer programming courses for both undergraduate and postgraduate students, including two popular languages, C++ and Python, and fundamental courses on Big Data. Her research interests include information extraction, text mining, machine learning, and knowledge system.

**陳祈博士** —— 現任香港科技大學電腦科學及工程學系講師。陳博士畢業於香港中文大學，於 2012 年加入香港科技大學。陳博士熱心教學，並擁有豐富的教學經驗，曾教授來自不同背景及不同程度的學生。陳博士教授多個為大學本科生及研究生而設的程式編寫課程，包括 C++ 及 Python 這兩種常用的編程語言，以及大數據基礎課程。陳博士的研究興趣包括信息提取、文本挖掘、機器學習和知識系統等。

Date & Time 日期及時間 : **20, 22, 24, 27, 29 & 31 Jul 2026 (Mon, Wed & Fri)**  
**【2:30pm – 5:00pm】**

(In case of bad weather, make-up class(es) will be held on 3 Aug and/or 5 Aug. Please refer to the latest updates by CDGT.)

2026年7月20、22、24、27、29及31日（週一、週三及週五）

【下午2時30分至5時】

(倘遇惡劣天氣，補堂將於8月3及/或8月5日進行，請留意本中心的最新公布。)

Language 教學語言	: English supplemented with Cantonese (lecture notes in English) 英語輔以粵語（英文課程筆記）
Requirements 修讀條件	: Secondary students with basic computer skills and interested in computer science and programming 熟悉一般電腦操作，對計算機科學及編程有興趣的中學生
Award 獎勵	: Students who have attained 80% attendance and completed all programming exercises and project with passing grades will be issued a certificate. 學生出席率達80%，並完成及通過所有編程功課及項目，將獲頒發證書乙張
Course Fee 費用	: HKD 4,000 港幣4,000元

**Python: Beyond the Basics**  
**Python 編程進階**

(Course Code 課程編號 : D104)

Description  
課程簡介 : This course is a continuation of the introductory course “Python for Everyone”. After learning some programming fundamentals of Python, are you ready to proceed to more advanced features and level up your programming skills to solve complex problems?

In this course, you will learn how to utilize functions in different ways to make the code more manageable and flexible. Advanced topics include basic file I/O, creating Graphical User Interface (GUI) using the turtle module, recursive functions (recursion) and introduction to object-oriented programming. Via lectures and programming exercises, you will be able to create an interactive program and visualize your creative ideas with file processing and GUI programming.

本課程是入門課程“Python 編程初探”之延續。學習了編程的基礎知識之後，你準備好進一步探索 Python 編程語言的進階功能並且提升編程技能以解決複雜的問題了嗎？

在本課程中，你將學習如何以不同的方式使用函數令編碼更容易管理和靈活。進階主題包括基本檔案輸入與輸出、運用海龜繪圖組件創建圖形使用者介面、遞歸函數（遞回）和物件導向程式編寫簡介。通過講課和編程練習，你可運用文件處理和圖形使用者介面編程，創建互動的程式並實現創意。

**Dr. Cecilia Chan** — Dr. Chan is a lecturer at the Department of Computer Science and Engineering, HKUST. She received her Ph.D. from the Chinese University of Hong Kong and joined HKUST in 2012. Dr. Chan has a strong passion in education and has rich experience in teaching students from different backgrounds and at different levels. She teaches computer programming courses for both undergraduate and postgraduate students, including two popular languages, C++ and Python, and fundamental courses on Big Data. Her research interests include information extraction, text mining, machine learning, and knowledge system.

Instructor  
導師 : **陳祈博士** — 現任香港科技大學電腦科學及工程學系講師。陳博士畢業於香港中文大學，於2012年加入香港科技大學。陳博士熱心教學，並擁有豐富的教學經驗，曾教授來自不同背景及不同程度的學生。陳博士教授多個為大學本科生及研究生而設的程式編寫課

程，包括 C++ 及 Python 這兩種常用的編程語言，以及大數據基礎課程。陳博士的研究興趣包括信息提取、文本挖掘、機器學習和知識系統等。

Date & Time : 20, 22, 24, 27, 29 & 31 Jul 2026 (Mon, Wed & Fri)  
日期及時間 【10:00am – 12:30pm】

*(In case of bad weather, make-up class(es) will be held on 3 Aug and/or 5 Aug. Please refer to the latest updates by CDGT.)*

2026 年 7 月 20、22、24、27、29 及 31 日（週一、週三及週五）  
【上午 10 時至下午 12 時 30 分】

*(倘遇惡劣天氣，補堂將於 8 月 3 日及／或 8 月 5 日進行，請留意本中心的最新公布。)*

Language : English  
教學語言 英語

Requirements : Students who have completed “D002 Python for Everyone” or with basic programming knowledge, such as variables, control flow and functions.  
修讀條件 已完成《D002 Python 編程初探》，或具基本編程知識(例如變量、條件語句和函數)的學生

Award : Students who have attained 80% attendance and completed programming exercises and projects will be issued a certificate  
獎勵 學生出席率達 80%，並完成編程功課，將獲頒發證書乙張

Course Fee : HKD 4,000  
費用 港幣 4,000 元

### **An Engineering Perspective: Renewable Energies & Energy Conversion**

工程視覺：可再生能源及能量轉換

*(Course Code 課程編號：E105)*

Description : Energy plays a significant role in both our daily lives and society. Without energy, we would not be able to perform any activities, as simple as cooking meals, taking a hot shower, charging smart devices to manufacturing, construction, etc. Energy shortage is one of the global challenges in the 21st Century and renewable energies are increasing in-demand as alternative energy solutions. This course will introduce students to different types of renewable energies, such as wind, solar, marine energies, etc. and how these natural resources can be converted into usable forms of energy through energy conversion processes.  
課程簡介

Students will work as a group and study i) a variety of energy conversion systems based on some exciting real-world applications of energy and its transfer, ii) the efficiencies of different energy conversion processes, and examine their impact on the environment. Various energy transformation systems, e.g. turbine or equivalent component will be demonstrated.

The course emphasizes on hands-on learning experience - through engaging in comprehensive measurement, and testing of solar energy, students will deepen their understanding of its principle and mechanism. Small group activities will also help students cultivate their skills in communication, problem solving as well as a teamwork spirit.

能源對我們社會及日常生活十分重要。缺乏能源，許多活動會變得難以進行，小至日常煮食、洗熱水澡、充電；以至製造、生產以及建築等，都會受到影響。能源短缺是廿一世紀全球面臨的挑戰之一。為解決能源危機，世界對再生能源的需求日益增加。本課程將會介紹不同類型的可再生能源，例如風能、太陽能、海洋能等，探討這些自然資源如何透過能量轉換過程化為可供我們利用的再生能源。

學生將以小組形式，研習多種能量轉換系統、能量及其傳輸的現實應用，並探索不同能量轉換過程之效率，明白它們對環境所帶來的影響。課堂將會展示各種能量轉換系統，例如渦輪或相類結構。

學習過程著重實踐—學生親手參與綜合測量、太陽能測試實驗，深入理解能量轉換的運作原理。透過小組活動，學生更可培養溝通、解難技巧以及團隊合作的精神和技巧。

**Instructor** : **Prof. Robin Ma** — Prof. Ma is an Associate Professor of Engineering Education in the Department of Mechanical and Aerospace Engineering (MAE) at HKUST. He is also a Chartered Engineer of Institution of Mechanical Engineers (IMechE), UK. He obtained his Ph.D. in the School of Materials Science and Engineering at the University of New South Wales (UNSW), Sydney. He has been active in engineering education for over 15 years. He has also had an increasing involvement with new approaches to education, including experiential learning, blended learning and undergraduate research. He believes that this broader contemporary approach is beneficial for students, especially for engineering students preparing for professional careers. He received the School of Engineering Teaching Award and the MSc program Teaching Excellence Appreciation Award in 2015 and 2018, respectively. On the other hand, Prof. Ma is the Director of the Center for Industry Engagement and Internship (IEI) in the School of Engineering (SENG) at HKUST, assisting students to find overseas and local internships and jobs. Prof. Ma is an advisor of two local technology start-up companies.

**導師**

**馬諾宏教授**— 現任香港科技大學機械及航空航天工程系工程教育副教授， 同為英國工程師學會註冊工程師，於澳洲新南威爾斯大學材料及科學工程學系取得博士學位，擁有超過 15 年工程教育的經驗。透過不同的教學方式，例如體驗式學習，混合式學習和本科研究，幫助學生確認自己的興趣。在 2015 及 2018 分別獲得香港科技大學工學院本科卓越教學獎和學分碩士卓越教學獎。馬教授目前同為科大工學院業界交流及實習中心總監，幫助工學院學生尋找海外及本地實習交流機會。現時在香港與學生共同擁有兩間科技創業公司。

**Date & Time** : **17, 18, 19, 20, 21 & 24 Aug 2026 (Mon to Fri)**  
**日期及時間** : **【2:00pm – 4:30pm】**

*(In case of bad weather, make-up class(es) will be held on 22 Aug and/or 25 Aug. Please refer to the latest updates by CDGT.)*

**2026 年 8 月 17、18、19、20、21 及 24 日（週一至週五）**  
**【下午 2 時至 4 時 30 分】**

*（倘遇惡劣天氣，補堂將於 8 月 22 及 / 或 8 月 25 日進行，請留意本中心的最新公布。）*

**Language** : English supplemented with Cantonese (lecture notes in English)  
**教學語言** : 英語輔以粵語（英文課程筆記）

**Requirements** : S1 - S6 students who are interested in mathematics, physics, energy and engineering  
**修讀條件** : 對數學、物理、再生能源及工程學有興趣之中一至中六學生

**Award** : Students who have attained 80% attendance and completed all assessment activities with passing grades will be issued a certificate  
**獎勵** : 學生出席率達 80%，並完成及通過所有評核，將獲頒發證書乙張

**Course Fee** : HKD 4,200  
**費用** : 港幣 4,200 元

## Music Speaks: An Introduction to Composition 會說話的音樂：作曲入門

(Course Code 課程編號：H002)

**Description** : Composition is the process of creating music that expresses your thoughts and emotions. When listening or playing masterpieces by Bach and Mozart, have you ever wondered how classical music works? How did Debussy and Satie convey the beauty of impressionistic style? And why are the tunes and harmony by John Williams and Joe Hisaishi so catchy and enchanting?  
**課程簡介**

This course will let students understand some basic principles of classical music and tonal contemporary music, and the elements of writing a beautiful melody and a good harmony. Students will explore the variety of styles and characters of musical writing — fundamental composition techniques that equip young composers to develop their musical ideas into an interesting musical piece. Under guidance, each student will create, with the use of music notation software, a unique music piece of their own at the end of the course.

作曲是透過創作音樂來表達思想和情感的過程。你聆聽或演奏巴赫與莫扎特的經典作品時，有否想過古典音樂包含哪些原理？德布西與薩提如何透過音樂表達優美的印象派音樂風格？為何約翰威廉斯與久石讓的旋律與和聲如此引人入勝？

這個課程讓學生理解古典音樂和有調性的當代音樂之基本原理，導師亦會講解寫作優美旋律及和聲的要素。學生將探索不同音樂風格與寫作技巧，將創作意念變成動人的音樂作品，讓年青作曲家打好音樂創作的基礎。在導師的指導下，學生將於課程中使用音樂打譜軟件，創作屬於自己獨一無二的音樂作品。

**Instructor** : **Dr. Phoebus Lee** — Dr. Lee graduated from the Chinese University of Hong Kong. He is a composer and educator. His compositions and papers have reached numerous international musical festivals and academic platforms, such as festivals in Hong Kong, Japan, Italy, Israel, Latvia, Shanghai, Singapore, Switzerland, Taiwan. His music covers a wide range of genres including solo, chamber, vocal, choral, orchestral, for moving pictures, and for art gallery.  
**導師**

Dr. Lee has extensive experience in music education at various colleges and universities. He gives lectures on composition, theory and contemporary music topics. He also served as tutor of composition programmes organized by the Hong Kong Composers Guild and Young Composers Workshop of Hong Kong Arts Festival. He was often invited by the Education Bureau to give workshop, consultation and adjudication service at various composition and creativity programmes.

**李家泰博士**——李博士畢業於香港中文大學。他熱衷於音樂創作、當代音樂研究、音樂教育及創意推廣。他曾於多個國際音樂節與學術平台發表作品與論文，包括香港、日本、意大利、以色列、拉脫維亞、上海、新加坡、瑞士、台灣的音樂節。作品涵蓋獨奏、室內樂、聲樂、合唱、管弦樂團、影片配樂、畫展委約等。

李博士從事音樂教育多年，曾於多間院校及大學教學，課題包括作曲、理論及當代音樂等。他曾獲香港作曲家聯會、香港藝術節及教育局等之邀請，於中小學作曲培訓計劃及青年作曲家工作坊擔任導師，為中小學生與老師主持講座，以及為作曲與創藝活動提供諮詢和出席評審。

**Date & Time** : **Lecture**  
**日期及時間** **15, 17, 20, 22, 24 & 27 Jul 2026 (Wed, Fri & Mon) 【10:00am – 1:00pm】**

**Composition Showcase**  
**29 Jul 2026 (Wed) 【10:00am – 1:00pm】**

*(In case of bad weather, make-up class(es) will be held on 31 Jul and/or 3 Aug. Please refer to the latest updates by CDGT.)*

## 講課

2026年7月15、17、20、22、24及27日(週三、週五及週一)

【上午10時至下午1時】

## 作品展示及分享

2026年7月29日(週三) 【上午10時至下午1時】

(倘遇惡劣天氣，補堂將於7月31日及／或8月3日進行，請留意本中心的最新公布。)

Language 教學語言	: Cantonese supplemented with English (lecture notes in English) 粵語輔以英語(英文課程筆記)
Requirements 修讀條件	: Secondary students with ABRSM Grade 5 Theory and/or Grade 5 Practical (or equivalent in standard). Students major in Chinese instrument are also welcome. 考獲皇家音樂學院樂理五級及／或術科五級(或同等程度)的中學生。主修中樂的學生亦可報名。
Award 獎勵	: Students who have attained 80% attendance and completed all assessment activities with passing grades will be issued a certificate 學生出席率達80%，並完成及通過所有評核，將獲頒發證書乙張
Course Fee 費用	: HKD 5,400 港幣5,400元
Remarks 備註	: <b>Enrolled students need to prepare their own earphone/headphone with 3.5mm plug, a USB-drive and set up a MuseScore (free) account for the use with computers during lessons.</b> 獲取錄的學生須自備3.5mm的耳機線、隨身手指和建立一個MuseScore(免費)帳戶，利用電腦上課。

### **Dreaming of Salted Fish: An Anthropological Perspective on Food, Ethnicity, and Cultural Heritage** 夢想鹹魚：飲食、族群與文化遺產的人類學觀點

(Course Code 課程編號: H003)

Description  
課程簡介 : There's a saying: "What's the difference between a person without dreams and a salted fish?" This course invites students to adopt the perspectives and methods of cultural anthropology to dream about the salted fish of Tai O, Lantau Island. Through class discussions, a field trip, and a documentary filming assignment, students will explore how transformations in food culture, dietary traditions, and concepts of cultural heritage within Hong Kong's rural communities shape ethnic identity and modes of social interaction.

In dreams, fragmented things often form surreal connections. Cultural anthropology, through fieldwork, immerses researchers in the lived reality of communities, using data gathered from observation, interviews, and participation to contextualize what is seen and heard within the holistic fabric of social life—its natural ecology, techno-economic systems, socio-political structures, and cosmological beliefs. Beyond classroom discussions, this course includes a one-day field trip to Tai O. Students will wander through its waterways, streets, and neighborhoods to observe and conduct interviews. Elderly fisherfolk will be invited to demonstrate and explain fishing techniques and seafood processing methods, including the making of salted fish, salted egg yolks, shrimp paste, and shrimp sauce, allowing students to film in small groups with smart phones. Through class discussions and collaborative editing, each group will produce a short documentary exploring the role of food culture, tradition, and the process of heritagization in the changing life of contemporary rural villages.

常言道：「做人如果沒有夢想，那跟鹹魚有什麼分別？」本課程邀請學生以文化人類學的觀點和方法，一同夢想大嶼山大澳的鹹魚。學生透過課堂討論，實地考察與拍攝紀錄片的作業，探討香港鄉郊社群的食品文化、飲食傳統與文物遺產等觀念和實踐的變遷，如何模塑族群身份認同與群體互動的方式。

夢想中，零碎的事物常常交織成超現實的關聯；文化人類學則透過田野考察，進入社群生活的現場，以觀察、訪問、和參與活動搜集得來的資料，將所見所聞置入自然生態、技術經濟、社會政治、宗教宇宙觀等社群生活的整全體制脈絡中探討。在課堂討論以外，本課程將安排一天在大澳實地考察，遊走河涌街道和社區進行觀察訪問，並邀請漁民長者示範和講解捕魚技術與傳統海產品加工處理，如製作鹹魚、鹹蛋黃、蝦膏和蝦醬等，讓學生分小組用智能手機進行拍攝。各組將結合課堂討論和合作剪輯，製作微紀錄片，探討飲食文化、傳統與文物化的過程在當今鄉郊村落生活變遷中的角色。

**Instructor** : **Dr. Siu-woo Cheung** — Dr. Cheung is an Associate Professor Emeritus in the Division of Humanities, HKUST. Prior to his retirement in 2025, he served as Deputy Director of South China Research Center in the School of Humanities and Social Science. His research interests include socio-cultural and historical studies on ethnic groups in Southern and South-western China, borderland and cross-border minorities, representation and transformation of identities, revitalization of marginalized rural communities in Hong Kong, and socio-political and economic analyses of intangible cultural heritage.

**導師**

In recent years, Dr. Cheung has led a Lantau Conservation Fund-supported project focusing on heritage research within local fishing and farming communities, as well as a heritage-revival and educational initiative that promotes urban-rural integration.

**張兆和博士**——張博士是香港科技大學人文學部的榮休副教授。在 2025 年退休之前，擔任華南研究中心的副主任。研究興趣包括華南與西南中國族群社會文化歷史研究，邊地與跨境族群研究，身份認同變遷與表述，香港邊緣鄉郊村落復興研究，漁民社區與客家村落研究，文化傳統與非物質文化遺產社會政治經濟分析等等。

張博士在過去數年來開展大嶼山保育基金資助的大嶼山在地漁民和農民社區文物研究計劃，以及村落文化復育和城鄉共融的文物教育推廣活動。

**Date & Time** : **Lecture**  
**日期及時間** : **27 Jul & 3, 10, 17, 24 Aug 2026 (Mon) 【1:00pm – 4:00pm】**

**Field Trip**  
**8 Aug 2026 (Sat) 【8:30am – 5:30pm】**

*(In case of bad weather, field trip will be arranged on 15 Aug and/or make-up class will be held on 26 Aug. Please refer to the latest updates by CDGT.)*

**講課**  
**2026 年 7 月 27 及 8 月 3、10、17、24 日（週一）【下午 1 時至 4 時】**

**實地考察**  
**2026 年 8 月 8 日（週六）【上午 8 時 30 分至下午 5 時 30 分】**

*（倘遇惡劣天氣，實地考察將於 8 月 15 日進行及／或補課將於 8 月 26 日進行，請留意本中心的最新公布。）*

**Language** : Cantonese (lecture notes in Chinese)  
**教學語言** : 粵語（中文課程筆記）

- Requirements : Secondary school students with an interest in local cultural heritage and fieldwork. Experience in filming or video editing is advantageous, though not required.  
修讀條件 歡迎對本地文化遺產與田野調查感興趣的中學生報名。具備攝影或影片剪輯經驗者優先，無相關經驗亦可參加。
- Award : Students who have attained 80% attendance, participation in the Tai O field trip, involvement in filming and video editing work and satisfactory completion of all assessment activities will be issued a certificate  
獎勵 學生出席率達 80%，參加大澳實地考察，參與拍攝與影片剪輯工作，並完成及通過所有評核活動，將獲頒發證書乙張
- Course Fee : HKD 5,600  
費用 港幣 5,600 元
- Remarks : (1) The course fee included the rental fee of tour boats at Tai O.  
備註 課程費用已包括租乘大澳的水上船隻。
- (2) The assembly and dismissal point for the field trip will be at **Tung Chung MTR Station**. Students are required to prepare their own Octopus cards with sufficient balance for the transportation between city, Tung Chung and Tai O and a small amount of cash for their own lunch.  
實地考察日的集合及解散地點在東涌港鐵站。學生需要帶備已充值的個人八達通及少量現金應付來往市區、東涌及大澳的交通，以及當日之午膳。
- (3) To maintain a focused learning environment, this is a **student-only event**. Parental accompaniment is **not permitted** during the field trip.  
為確保專注的學習氛圍，大澳實地考察僅限學生參與。活動期間不設家長隨行。

### Mathematical Insights: Graph Theory in Daily Life

#### 生活中的數學：圖論數學原理應用

(Course Code 課程編號 : M205)

- Description : This course offers a foundational understanding in mathematical graph theory to cultivate students in making informed decisions across real-life scenarios. By introducing different quantitative methods and mathematical tools in graph theory, students will gain insight into solving problems in daily life: Examples are finding the shortest path, allocating housing resources, improving traffic flow, etc., with the aim to maximize the efficiency and benefits when facing challenges.  
課程簡介

This course utilizes an experimental approach to teaching and learning. It incorporates hands-on, interactive experiences to help students understand abstract mathematical concepts through experiments accompanied by numerical examples.

本課程旨在教授數學圖論的基本知識，培養學生在不同的現實情境下，以最有效方法作出最佳決策。通過學習圖論中不同的數學方法和工具，學生將明白如何解決一些在日常生活中常見的問題，例如：尋找出最短路徑、房屋資源的分配、改進交通流量的問題等等，以最大效益面對及解決各種挑戰。

該課程採用實驗性教學模式。它融入了實踐性的互動體驗，以幫助學生透過實驗和例子理解抽象的數學概念。

- Instructor : **Dr. Alan Chu** — Dr. Chu received his Ph.D. in Mathematics from HKUST. He has been actively involved in teaching applied mathematics in different aspects at undergraduate level. Course topics include probability and statistics, financial mathematics, mathematics on the battlefield, solving mathematical problems using MATLAB, and applied graph theory.  
導師

Dr. Chu has received the HKUST Din-Yu Hsieh Teaching Award in 2019. His current research areas include the level set method, image processing, and numerical solution of Partial Differential Equations (PDEs).

**朱冠麟博士**——朱博士於香港科技大學數學系取得博士學位。他積極參與教學，擅長教授本科生有關不同領域上的應用數學原理。朱博士教授的課程主題包括概率與統計、金融數學、戰場上的數學理論、運用數學軟件 MATLAB 解決生活上的問題，及應用圖論等等。

朱博士於 2019 年獲得香港科技大學謝定裕教學獎項。他目前的研究領域包括水平集方法、圖像處理及偏微分方程中的數值解。

Date & Time : **17, 18, 19, 20, 21 & 22 Aug 2026 (Mon – Sat)**  
日期及時間 **【9:30am – 12:30pm】**

*(In case of bad weather, make-up class(es) will be held on 24 Aug and/or 25 Aug. Please refer to the latest updates by CDGT.)*

**2026 年 8 月 17、18、19、20、21 及 22 日 (週一至週六)**  
**【上午 9 時 30 分至下午 12 時 30 分】**

*(倘遇惡劣天氣，補堂將於 8 月 24 及 / 或 8 月 25 日進行，請留意本中心的最新公布。)*

Language : Cantonese (lecture notes in English)  
教學語言 粵語 (英文課程筆記)

Requirements : S.1 – S.4 students who are interested in mathematics and graph theory  
修讀條件 對數學及圖論有興趣，中一至中四學生

Award : Students who have attained 80% attendance and obtained a passing grade in the final  
獎勵 assessment will be issued a certificate  
學生出席率達 80%，並完成及通過最終評核，將獲頒發證書乙張

Course Fee : HKD 4,600  
費用 港幣 4,600 元

### **Becoming Me and Being Me: Understanding Self through Psychology**

心理學與個人成長 — 自我·自處

*(Course Code 課程編號 : SC001)*

Description : This course is designed for secondary school students who are interested in psychology.  
課程簡介 Throughout this course, students will explore the fundamentals and current debates in psychology, while emphasizing the practical application of psychological theories in the daily lives, such as using self-help skills when faced with stressors and challenges. Students are expected to gain higher self-understanding through exploring topics, including personality development, psychological well-being and stress management, social behavior, and the maintenance of healthy relationships. By joining lectures and class activities, this course will lead students to uncover the pervasive influence of psychology, ways of application of theories and strategies to take care of self-mental health and its profound impacts on our daily interactions and experiences.

此課程專為對心理學感興趣的中學生而設。學生將會探索心理學的基礎理論以及當前具爭議性的議題，同時著重教授在日常生活中如何實際應用所學到的心理學知識。課程將涉獵性格發展、心理健康及壓力管理、社會行為和維繫健康的人際關係等主題，從而讓學生加深自我認知；導師將透過講課和課堂活動，揭示心理學如何影響我們日常生活中的交流和經歷體驗，並探討對個人心理健康作自我照顧的態度與技巧。

Instructor  
導師 : **Mr. Kelvin Tang** — Registered Counselling and Educational Psychologist from Hong Kong Psychological Society, works for local universities, being dedicated to delivering psycho-educational support and advisory services to school-aged students with diverse learning needs (such as students with Attention Deficit / Hyperactivity Disorder, gifted potentials), their parents, teachers, and other professionals. Mr. Tang also has previous work experience in providing school-based educational psychology services for local mainstream primary and secondary schools through the Education Bureau.

**鄧軍樂先生** — 香港心理學會註冊輔導及教育心理學家，現主要在本港不同大學工作，致力於為有多元學習需要的中、小學生（如注意力不足／過度活躍症、資賦優異的學生等等）、及其家長、相關的教育和專業人員提供教育心理支援與諮詢服務。鄧先生亦曾於教育局擔任校本教育心理學家，為本地主流的中、小學提供教育心理服務。

Date & Time  
日期及時間 : **7, 10, 12, 14, 17, 19 & 21 Aug 2026 (Fri, Mon & Wed) 【10:00am – 12:30pm】**

*(In case of bad weather, make-up class(es) will be held on 24 Aug and/or 26 Aug. Please refer to the latest updates by CDGT.)*

**2026年8月7、10、12、14、17、19及21日（週五、週一及週三）  
【上午10時至下午12時30分】**

*（倘遇惡劣天氣，補堂將於8月24及／或8月26日進行，請留意本中心的最新公布。）*

Language  
教學語言 : Cantonese (lecture notes in English and/or Chinese)  
粵語（英文及／或中文課程筆記）

Requirements  
修讀條件 : All S3 or above students who are interested in psychology are welcome to join.  
對心理學有興趣，中三及以上的學生

Award  
獎勵 : Students who have attained 80% attendance and completed all assessment activities with passing grades will be issued a certificate  
學生出席率達 80%，並完成及通過所有評核，將獲頒發證書乙張

Course Fee  
費用 : HKD 4,400  
港幣 4,400 元

**Digital Da Vinci - When Arts meet Web3 and AI**  
**當數位藝術遇上 Web3 和人工智能**

*(Course Code 課程編號 : T001)*

Description  
課程簡介 : This 18-hour course empowers highly capable secondary students with the complete technical and creative workflow required to transform generative AI outputs into copyright protected digital assets on the blockchain.

Students will progress from conceptualising original IP using state-of-the-art text-to-image models to implementing industry-standard smart contracts with royalty support (i.e. ERC-721). The curriculum uniquely integrates creative direction, prompt engineering mastery, Solidity programming, front-end wallet integration, and Web3 copyright strategies — skills currently fully possessed by fewer than 10% of professionals worldwide.

Through project-based learning, students could create and launch their own branded digital asset complete with on-chain provenance, royalties, and dynamic metadata. The course emphasises ethical AI practices, sustainable blockchain deployment (i.e. Polygon), and on chain network verification.

這個 18 小時的課程為具備了一定程式開發經驗的學生而設：引導他們學習如何把生成式人工智能（AI）的輸出，轉化為受版權保障的數字資產，並掌握有關的區塊鏈技術和創作流程。

學生將學習從使用文字生成圖像的模型來構思原創 IP，逐步到編寫及應用支援版稅功能的行業標準的智能合約(如 ERC-721)。課程融合了創意指導、工程技術、Solidity 編程、Web3 錢包整合和版權策略——這些技能目前全球僅有不到 10% 的專業人士擁有。

透過專題學習，學生將打造並發布個人創作的數字資產，並包含鏈上溯源、版權及動態元數據。課程內容強調人工智能的倫理實踐、可持續性區塊鏈部署（如 Polygon）以及鏈上網絡驗證。

Instructor  
導師 : **Mr. Anthony LEUNG** — an Entrepreneur and Chief Technical Officer (CTO) specializing in Web3, Blockchain, and cybersecurity technologies, who led his teams to obtain eight national copyright administrations in mainland China. Apart from being a recurrent/guest lecturer and speaker at higher education institutions, trade bodies, international conferences, including HK PolyU, THEi, City University of Macau, HKPC Academy, HKTDC, HK Law Society, The Society of Chinese Accountants and Auditors, ASEAN Cyber Security Forum 2025, and UN 80th and UN University Macau AI Conference 2025, etc, he also served on the judging panel for the ICT Awards – Student Innovation Award 2024 and 2025, the qualification review panel for HKQF Levels 5 & 6, the departmental advisory committee of the Department of Digital Innovation and Technology, THEi, and the panel for Postal Accreditation for HKBU’s Higher Diploma in Financial Technology.

Anthony obtained a Bachelor of Science in Mathematics, minor in Computer Science, from the CUHK, and a Master of Science in Information Management from the National University of Ireland, Dublin, and was an R&D Lead for Timeless-Tsinghua Lab at the Department of Computer Science and Technology, Tsinghua University, Beijing. Anthony was the recipient of the CUHK Science Faculty Alumni Achievement Award 2024.

**梁國柱先生** —專注於 Web3、區塊鏈和網絡安全技術的創業家，作為首席技術官，曾帶領其團隊獲得八項國家版權管理局的認證。除了於香港生產力促進局學院擔任講師及為香港理工大學、香港高等教育科技學院、澳門城市大學等學院的客座講師；亦受邀至香港貿易發展局、香港律師會以及中國會計師公會、2025 年東盟網絡安全論壇和 2025 年聯合國 80 周年暨聯合國大學人工智慧會議等作演講。梁先生曾擔任 2024 年及 2025 年香港資訊及通訊科技獎 ICT Awards 學生創新獎的評審委員、香港高等教育科技學院數位創新及科技學系（DDIT）部門諮詢委員會主席、香港學歷資格架構（HKQF）5 級及 6 級資格審查委員會委員，以及香港浸會大學金融科技高級文憑認證資格委員會委員。

梁先生於香港中文大學獲得數學理學士學位（副修電腦科學），並於愛爾蘭國立大學都柏林分校獲得資訊管理理學碩士學位。他曾任清華大學電腦科學與技術系的 Timeless-Tsinghua Lab 研發主管。梁先生因其專業領域中取得傑出成就，而榮獲 2024 年香港中文大學理學院校友成就獎。

Date & Time : **1, 5, 8, 12, 15 & 19 Aug 2026 (Sat & Wed) 【10:00am – 1:00pm】**  
日期及時間

*(In case of bad weather, make-up class(es) will be held on 22 Aug and/or 26 Aug. Please refer to the latest updates by CDGT.)*

2026年8月1、5、8、12、15及19日（週六及週三）【上午10時至下午1時】

（倘遇惡劣天氣，補堂將於8月22及／或8月26日進行，請留意本中心的最新公布。）

Language : English supplemented with Cantonese (lecture notes in English)  
教學語言 英語輔以粵語（英文課程筆記）

Requirements : Secondary students with below skills and knowledge are welcome to join:  
修讀條件

- Prior coding experience in JavaScript, Python and Visual Studio Code. **Students are required to provide related proof like certificate(s) with syllabus when submitting application.**
- Proficient in using Google Chrome browser and browser add-ons.
- Owns a laptop (Windows/Mac, with at least 8GB RAM) for coding compiler execution. **(No Tablets)**
- Owns a free GitHub account (for submitting assignments and creating a project portfolio).

歡迎具備以下知識和技能的中學生參與：

- 有編程知識，如 JavaScript, Python 及 Visual Studio Code。 **學生在報名時必須遞交相關證明，例如證書連同課程大綱。**
- 能熟練使用 Google Chrome 瀏覽器及懂安裝瀏覽器 add-on 軟件。
- 擁有自己的手提電腦（Windows / Mac 均可，至少 8GB RAM）以運行編程碼。  
（平板電腦並不適用）
- 有免費 GitHub 帳戶（用來提交作業及成品展示）。

Award : Students who have attained 80% attendance and completed all assessment activities with passing  
獎勵 grades will be issued a certificate  
學生出席率達 80%，並完成及通過所有評核，將獲頒發證書乙張

Course Fee : HKD 4,800  
費用 港幣 4,800 元

### Enquiry 查詢

Tel 電話：3469 2006 / 3469 2643      Email 電郵：cdgt@ust.hk      Website 網址：cdgt.hkust.edu.hk  
The Center for the Development of the Gifted and Talented, HKUST 香港科技大學資優教育發展中心