

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

Autumn Courses 2023  
Course Outline

*CUSA1075 Wonderful World of Physics*  
奇妙的物理世界

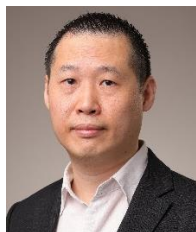
**Introduction:** This course is designed for students to learn about some basic physics topics and the important role of physics in understanding the way nature works. This course also allows students to learn the applications and development of physics in the modern world. Students will learn the basic physics topics including motions and forces, optics and waves, electricity and electric circuits, energy, etc. This course includes lectures sessions.

本課程的設計旨在讓同學學習到一些基礎物理學課題及物理學在了解大自然運作的重要性。課程同時讓同學認識物理學在現代世界中的應用和發展。同學在課程中將學習到運動與力、光學與波動、電與電路、能量等課題。課程以講課進行。

**Medium of Instruction:** Cantonese supplemented with English  
粵語輔以英語

**Organising Unit:** Department of Physics, Faculty of Science, CUHK

**Teachers:**



**Dr. LIN Lap Ming (練立明博士)**

Senior Lecturer

Department of Physics, CUHK

Rm. 221, Science Centre North Block, CUHK

Tel: 3943 4072, E-mail: [lmli@phy.cuhk.edu.hk](mailto:lmli@phy.cuhk.edu.hk)



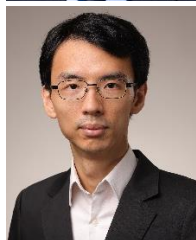
**Dr. LEUNG Po Kin (梁寶建博士)**

Senior Lecturer

Department of Physics, CUHK

Rm. 220, Science Centre North Block, CUHK

Tel: 3943 4078, E-mail: [pkleung@cuhk.edu.hk](mailto:pkleung@cuhk.edu.hk)



**Dr. Yu Hang Marco LAI (賴裕衡博士)**

Lecturer

Department of Physics, CUHK

Rm. 216A, Science Centre North Block, CUHK

Tel: 3943 4076, E-mail: [yhmlai@cuhk.edu.hk](mailto:yhmlai@cuhk.edu.hk)

**Course Content:**

11 November 2023 (Saturday) 9:30 am – 12:30 pm	<b>(3 hours: Dr. Lin Lap Ming)</b> -- Kinematics of translation motion -- Vectors -- Assessment
18 November 2023 (Saturday) 9:30 am – 12:30 pm	<b>(3 hours: Dr. Lin Lap Ming)</b> -- Newton's laws of motion -- Assessment
25 November 2023 (Saturday) 9:30 am – 12:30 pm	<b>(3 hours: Dr. Lai Yu Hang Marco)</b> -- Geometric optics -- Simple Optical Instrument -- Assessment
2 December 2023 (Saturday) 9:30 am – 12:30 pm	<b>(3 hours: Dr. Lai Yu Hang Marco)</b> -- Optical Phenomena in Nature -- Light and Wave motions -- Assessment
9 December 2023 (Saturday) 9:30 am – 12:30 pm	<b>(3 hours: Dr. Leung Po Kin)</b> -- Electricity, voltage and current -- Resistance and Ohm's law -- Equivalent resistance -- Assessment
16 December 2022 (Saturday) 9:30 am – 12:30 pm	<b>(3 hours: Dr. Leung Po Kin)</b> -- Kirchhoff's laws -- Power in electric circuits -- Assessment
20 December 2023* (Wednesday) 9:30 am – 12:30 pm	Make-up Class

<b>Duration</b>	6 half-day sessions (total 18 contact hours)
<b>Date</b>	11, 18, 25, November, 2, 9, 16 December 2023 20 December 2023* (make-up class)
<b>Time</b>	9:30 am – 12:30 pm
<b>Teaching Mode</b>	Face to Face (The Chinese University of Hong Kong)
<b>Enrollment</b>	24 – 30
<b>Expected Applicants</b>	Students who are promoting to or studying S2 – S3
<b>Tuition Fee</b>	HKD 3,380.00
<b>Credit</b>	1.25 Academy Unit Certificate of completion will be awarded to students who pass the assessment and attain at least 75% attendance.
<b>Grading Methods</b>	Pass or Fail

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