

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

Autumn Courses 2022
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

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

Teachers:

Dr. LIN Lap Ming

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Dr. LEUNG Po Kin

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Dr. Yu Hang Marco LAI

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Course Content:

29 October 2022 (Saturday) 9:30 am – 12:30 pm (Dr. Lin Lap Ming)	-- Kinematics of translation motion -- Vectors -- Assessment
5 November 2022 (Saturday) 9:30 am – 12:30 pm (Dr. Lin Lap Ming)	-- Newton's laws of motion -- Newton's law of gravitation -- Assessment
12 November 2022 (Saturday) 9:30 am – 12:30 pm (Dr. Lai Yu Hang)	-- Geometric optics -- Mirrors and lenses -- Simple Optical Instrument -- Assessment
19 November 2022 (Saturday) 9:30 am – 12:30 pm (Dr. Lai Yu Hang)	-- Optical Phenomena in Nature -- Light and Wave motions -- Assessment
26 November 2022 (Saturday) 9:30 am – 12:30 pm (Dr. Leung Po Kin)	-- Electricity, voltage and current -- Resistance and Ohm's law -- Equivalent resistance -- Assessment
3 December 2022 (Saturday) 9:30 am – 12:30 pm (Dr. Leung Po Kin)	-- Kirchhoff's laws -- Power in electric circuit -- Assessment
10 December 2022* (Saturday) 9:30 am – 12:30 pm	Make-up Class

Duration	6 half day sessions (total 18 contact hours)
Date	29 October, 5, 12, 19, 26 November, 3 December 2022 10 December 2022*
Time	9:30 am – 12:30 pm
Teaching Mode[#]	Face to Face (The Chinese University of Hong Kong)
Enrollment	24
Expected applicants	Students who are promoting to S2-S3
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.