



香港資優教育學苑

The Hong Kong Academy for Gifted Education

香港特別行政區政府教育局資助
Subvented by the Education Bureau, the Government of the HKSAR

E1STM008C-2

(Token- required)

[**Gifted Programme**]
STEM Course (Level I)

Energy is Omnipresent

Prof. Marshal Liu



Application Deadline
13 May 2024 12:00
noon

Intended Learning Outcomes

Result Release
24 May 2024

Upon completion of the programme, participants should be able to:

1. describe the indispensability and current status of energy utilization in the world;
2. explain energy generation, transfer, storage, and efficiency;
3. evaluate various renewable energy for the pros and cons, especially in HK ;
4. develop an awareness of the necessity of energy conservation and the development of renewable energy for sustainability.

◆ Gifted Programme Introduction

Energy is omnipresent. Human beings are using more and more energy, mainly from fossil fuel. However, fossil fuel is not sustainable, which may run out in this century. Meanwhile, wide use of fossil fuels generates tremendous environmental pollutants and global warming gases. This course will introduce the fundamentals on energy generation, conversion, utilization, transfer and storage, and discuss the incurred environmental problems. Renewable energy provides a promising yet challenging solution for future energy utilization in order to achieve carbon neutrality. Students will also have an opportunity to conduct experiments (making battery and solar car) in the labs of university to obtain first-hand information.

◆ Schedule

| Session | Date | Time | Venue |
|---------|--------|--|-------------------------------|
| 1 2 | 22 Jul | 9:30 a.m. – 12:30 noon 2:00 p.m. – 5:00 p.m | HKUST (map) |
| 3 | 24 Jul | 9:30 a.m. – 12:30 noon | |
| 4 5 | 26 Jul | 9:30 a.m. – 12:30 noon 2:00 p.m. – 5:00 p.m | |

◆ Suitable for

- P4 – P6 HKAGE student members in 2023/24 school year.
- Class size: 30
- Student members would be selected randomly by the computer system. The decision of HKAGE on the result of the selection should be final.

◆ Pre-requisite

No special prerequisites are needed

◆ Medium of Instruction

Putonghua with Chinese handouts

◆ Certificate

E-Certificate will be awarded to participants who have:

- attended at least 4 sessions; AND
- completed all the assignments with satisfactory performance