



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



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E3CSC001C

(Token- required)

[**Gifted Programme**]

Quantum Computing Course (Level III)

Introduction to quantum engineering

Representatives from SpinQ Technology (Hongkong) Co., Limited



Application Deadline

**26 May 2025 12:00
noon**

Result Release

9 Jun 2025

Intended Learning Outcomes

Upon completion of the gifted programme, gifted students should be able to:

1. explain quantum engineering and summarize the building blocks of quantum software;
2. identify and compare various quantum platforms used in quantum computer development;
3. describe principles of controlling quantum computers through classical analogies, while recognizing the societal impact of quantum engineering and fostering curiosity about future advancements;
4. develop a positive attitude toward quantum engineering and recognize its societal impact, fostering curiosity about future advancements.

If student members withdraw from the programme after the Application Deadline, the token will be deducted.

◆ Gifted Programme Introduction

Join this course for a hands-on, two-week journey into quantum tech! Dive into quantum engineering basics, quantum software, and hardware fundamentals, and advanced quantum control engineering. Engage in practical workshops and gain real-world experience with cutting-edge quantum devices and software. Enhance your technical skills and become a future innovator in this transformative field.

◆ Schedule

Session	Date	Time	Venue (TBC)
1	14 Jul		Buddhist Kok Kwong Secondary School
2	16 Jul		Buddhist Kok Kwong Secondary School
3	18 Jul	2:00 p.m. – 5:00 p.m.	SpinQ Technology (HongKong) Co., Cyberport
4	21 Jul		Buddhist Kok Kwong Secondary School
5	23 Jul		SpinQ Technology (HongKong) Co., Cyberport
6	25 Jul	10:30 a.m. – 12:30 p.m.	SpinQ Technology (HongKong) Co., Cyberport
7	25 Jul	2:00 p.m. – 5:00 p.m.	SpinQ Technology (HongKong) Co., Cyberport

Address 1: Buddhist Kok Kwong Secondary School, Sha Kok Estate, Shatin, N.T ([Map](#))

Address 2: Entrepreneurship Centre, 5/F, Core F, Cyberport 3, Cyberport Road 100, Pok Fu Lam, Hong Kong ([Map](#))

◆ Pre-requisite

Students should be able to:

- Introductory level of understanding in probability.
- Basic concept of 2x2 matrix multiplication.
- Some conceptual understanding of classical physics, such as energy, motion, atoms, and light.

◆ Certificate

E-Certificate will be awarded to gifted students who have:

- attended at least 5 sessions; and
- completed all the assignments with satisfactory performance

◆ Medium of Instruction

English with English Handouts

◆ Screening

Please answer the screening question in the online application form.

*The screening question is designed to help the applicant understand the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the question. Only students who can demonstrate motivation and the knowledge of mathematics/probability in the screening question can be enrolled in the programme

◆ Suitable for

- S3 to S6 HKAGE student members in 2024/25 school year
- Class size: 20