



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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A4ENG005C

(Token- required)

[Gifted Programme]

Engineering Course (Level IV)

How Railway Shapes Our City – Delving into the Hong Kong's Railway Industry (Railway systems and modern railway technologies) (Phase II)

Instructors from MTR Academy



Application Deadline
19 Mar 2025 12:00 noon

Result Release
20 Mar 2025

Intended Learning Outcomes

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

1. Understand the evolution of railway systems and their technological development;
2. Recognise various components of railway systems and their functions;
3. Describe the concepts of railway maintenance and familiarise with railway maintenance facilities and practices;
4. Gain practical experience in safety measures of system maintenance;
5. Understand the train depot operations
6. Analyse emerging technologies in the railway industry and their applications.

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

◆ Gifted Programme Introduction

This phase aims to provide participants with a comprehensive understanding of the various components and technologies involved in modern railway systems. Participants will have the opportunity to explore the fascinating interplay between technologies and railway systems, uncovering the secrets behind their efficient and reliable functioning. During this phase, participants can take part in a wide variety of interactive sessions, workshops, industry expert sharing and site visits designed to provide them with first-hand experience and understanding of the railway systems and their underlying technologies.

- Phase III: Jul – Aug 2025

◆ Schedule

Session	Date	Content	Time	Venue
1	5 Apr (Sat)	Railway Systems	9:00am – 12:00 noon	MTR Academy Hung Hom Centre
2	12 Apr (Sat)	Rolling Stock	9:00am – 12:00 noon	MTR Academy Hung Hom Centre
3	26 Apr (Sat)	Permanent Way	9:00am – 12:00 noon	MTR Academy Hung Hom Centre
4	3 May (Sat)	Power Distribution	9:00am – 12:00 noon	MTR Academy Hung Hom Centre
5	10 May (Sat)	Signalling System	9:00am – 12:00 noon	MTR Academy Hung Hom Centre
6		Technical Visit I	2:00 pm – 5:00 pm	MTR Pat Heung Depot
7	17 May (Sat)	Emerging Technologies and Railway Engineering System Development	1:30 pm – 4:30 pm	MTR Academy Hung Hom Centre
8	24 May (Sat)	Technical Visit II	9:00 am – 12:00 noon	Fo Tan Railway House & MTR Tai Wai Depot
9		System Maintenance	1:30 pm – 4:30 pm	MTR Academy Hung Hom Centre
10	31 May (Sat)	Group Presentation	9:00 am – 12:00 noon	MTR Academy Hung Hom Centre

◆ Suitable for

- S2 to S6 HKAGE student members in 2024/25 school year
- Class size: 35

This programme is same as Engineering Course (Level IV): How Railway Shapes Our City – Delving into the Hong Kong’s Railway Industry: Railway systems and modern railway technologies (Phase III) in 23/24 school year.

◆ Certificate

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

- attended at least 8 sessions; and
- completed all the assignments with satisfactory performance

◆ Screening

- Student from the Phase I are not required to answer the screening questions. Admission will be based on the performance in the assessment of phase I (A4ENG004C)
- For students who are **NEW** to this programme, please answer the screening question in the online application form.

*The screening question is designed to help the applicant understands 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 railway systems and technologies in the screening question can be enrolled in the programme.

◆ Medium of Instruction

Cantonese with English Handouts