



[Gifted Programme]

E3TEC001C

(Token- required)

Technology Course (Level III): Water Wisdom – Exploring the Science Behind Water Technologies (Qualitative and Quantitative)

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Application Deadline
2 Mar 2026 12:00 noon

Result Release
5 Mar 2026

Intended Learning Outcomes

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

1. Describe and interpret key scientific indicators of water quality, including chemical, physical, and biological parameters.
2. Analyse the application of modern technologies in water quality monitoring and treatment, such as sensors, IoT systems, UV, ozonation and filtration methods.
3. Explain the science and technological challenges in municipal water supply (in terms of quality and quantity).
4. Plan and execute a basic water quality investigation, applying scientific methods and technological tools to collect and analyse data.
5. Develop the awareness of environmental protection and water conservation.

◆ Gifted Programme Introduction

Water is crucial in our daily lives. This course covers the fundamentals of water technologies, focusing on water quality monitoring and treatment for municipal water supply. Students will learn about physical, chemical and biological parameters of water quality with reference to environmental factors. Modern technologies including sensors, IoT systems, and various filtration methods will be discussed. Site visits to reservoir / laboratory (in Hong Kong) and automated water treatment plant (in Macau) will be arranged. Moreover, students will conduct hands-on experiments and water quality investigations, while developing awareness of environmental protection and water conservation.

◆ Schedule

Session	Date	Time	Venue
1	21 Mar	1:00 p.m. – 4:00 p.m.	HKAGE (Details to be confirmed)
2	28 Mar		
* E3TEC001D	2 Apr	9:00 a.m. – 5:00 p.m.	Site Visit in Macau (To be confirmed)
3	11 Apr	1:00 p.m. – 4:00 p.m.	HKAGE (Details to be confirmed)
4	18 Apr		
5	25 Apr	1:00 p.m. – 4:00 p.m.	Site Visit in Hong Kong (To be confirmed)
6	2 May		
7	9 May		HKAGE (Details to be confirmed)

*** Remarks:** Students of this course (E3TEC001C) also need to participate in the “Technology Course (Level III): Visit to a Fully Automated Water Treatment Plant in Macau (E3TEC001D)”.

1. **E3TEC001D** is a 1-day visit, tentatively to be held on 2 Apr 2026 (Thu) 9:00 a.m. – 5:00 p.m.
2. **Fee:** Around HK\$160-200 per student. (Total fee is around HK\$320-400 per student. 50% will be on-charged to the student and the remaining 50% subsidised by HKAGE.)
 - a. For details of subsidy, please refer to the [Overseas Programme Subsidy Policy](#).
 - b. Students with financial difficulties may apply for fee remission on the 50% cost on-charged to each student. Please refer to the [Fee Remission Policy](#) for details.
 - c. The fee includes travel insurance, the transportation between Hong Kong and Macau, and the local transportation in Macau. Lunch is to be paid by students' own expense. Details will be explained in E3TEC001C sessions.

◆ Suitable for

- S3 to S6 HKAGE student members in 2025/26 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

Science knowledge of S3 or above level is recommended.

◆ Medium of Instruction

English with English Handouts

◆ Certificate

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

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