



A3ENV018C

<u>(Token- required)</u>

[ Gifted Programme ]

**Environmental Science Course (Level III)** 

# Urban Environmental Measurement and Geospatial Data Analytics

Mr CHANG Man Hei Jeffrey and his team GEOG STEM Education Limited



### **Intended Learning Outcomes**

Result Release 03 Jul 2025

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

- 1. describe some concepts related to urban microclimate;
- 2. use instruments and proper experimental procedures to collect microclimate data;
- 3. visualize the data using geographic information systems (GIS);
- 4. suggest ways to improve urban microclimates from various perspectives;
- 5. develop a habit of environmental concern and reflection.

### **Gifted Programme** Introduction

The programme is designed to enhance students' knowledge and interest in solving the interdisciplinary environmental and social problem with Geoinformation and STEAM application. Students will engage in hands-on challenges that focus on computer coding, electronic circuitry design, sensor calibration, geospatial data analysis and visualisation.

Through the course, student will learn the fundamentals in GIS, GPS and remote sensing, and relate the field work collected data with human activities and nature environment.

At the end of the course, students are encouraged to delve into a real-world environmental sustainability problem in Hong Kong by inquiry-based learning method, and student will use ArcGIS StoryMap to visualise their story to their peers.

#### **Schedule**

Session	Date	Time	Venue
1	17 Jul	1:00 - 4:00 p.m.	HKAGE, Classroom to be confirmed
2	22 Jul	1:00 - 4:00 p.m.	HKAGE, Classroom to be confirmed
3	8 Aug	1:00 - 4:00 p.m.	HKAGE, Classroom to be confirmed
4	12 Aug	9:30 a.m 12:30 p.m.	HKAGE, Classroom to be confirmed
5		2:00 p.m 5:00 p.m.	& Outdoor area nearby
6	15 Aug	1:00 - 4:00 p.m.	HKAGE, Classroom to be confirmed
7	22 Aug	1:00 - 4:00 p.m.	HKAGE, Classroom to be confirmed

### Suitable for

S1 – S6 HKAGE student members in 2024/25 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**

Cantonese with English handouts

#### Certificate

E-Certificate will be awarded to participants who have:

- attended at least 5 sessions: AND
- completed all the assignments with satisfactory performance