A3ENV006C
(Token- required)

Environmental Science Course (Level III)

Analytical Research on Climate and Sustainability (Phase 2)

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(GEOGSTEM Education Limited)

Application Deadline

22 Apr 2024

12:00 noon
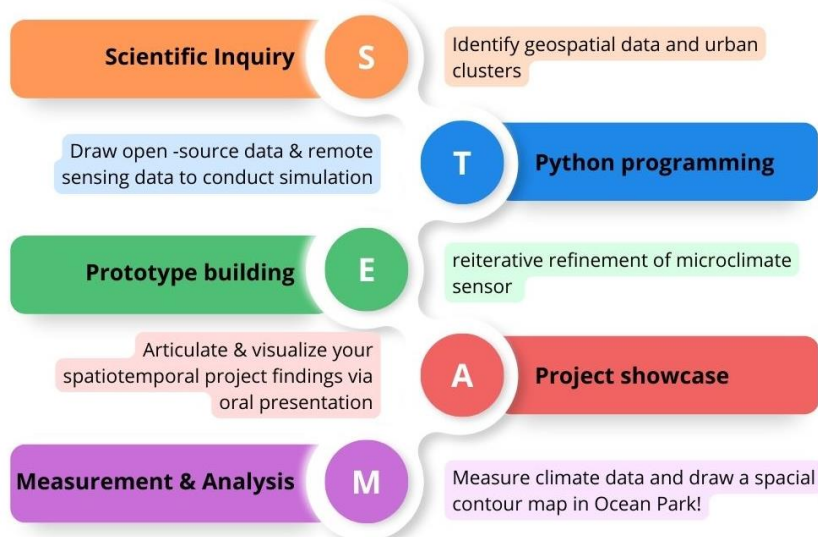
Result Release

29 Apr 2024

Intended Learning Outcomes

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

1. Apply geospatial measurement data in interpreting local microclimate and environmental issues;
2. Demonstrate the use of community and open-source data in geospatial analytics;
3. Use QGIS for data mappings and digitalization;
4. Use Python to extrapolate and model the spatiotemporal variation in local microclimate and environmental issues;
5. Acquire teamwork and communication skills via field trips (e.g. to Ocean Park).

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

◆ Introduction

Scientific Inquiry (S)	Identify geospatial data and urban clusters
Draw open-source data & remote sensing data to conduct simulation	**Python programming** (T)
Prototype building (E)	reiterative refinement of microclimate sensor
Articulate & visualize your spatiotemporal project findings via oral presentation	**Project showcase** (A)
Measurement & Analysis (M)	Measure climate data and draw a spacial contour map in Ocean Park!

As the advanced stage, Phase 2 is designed for students to further integrate the scientific knowledge and geographical analytical skills. with STEAM elements in mind, students will be able to apply via project studies like air pollution patterns and urban dispersion. WIth field trips like Ocean Park/ Disneyland, students will also be technically competent to independently use geospatial software tools and computer programming to perform simulations on environmental projects.

◆ Schedule

Session	Date	Time	Venue
1	11 May 2024	2:00 – 5:00 p.m.	Room 303, HKAGE
2	18 May 2024	2:00 – 5:00 p.m.	Room 203, HKAGE
3	25 May 2024	2:00 – 5:00 p.m.	Field trip to Sha Tin (TBC) Room 203, HKAGE
4	1 Jun 2024	~~9:00 a.m. – 5:00 p.m.~~ 2:00 – 5:00 p.m.	~~Field trip to Ocean Park/Disneyland (TBC)~~ Room 303, HKAGE
5-6	8 Jun 2024	~~2:00 – 5:00 p.m.~~ 9:00 a.m. – 5:00 p.m.	~~Room 303, HKAGE~~ Field trip to Ocean Park/Disneyland (TBC)
7	15 Jun 2024	2:00 – 5:00 p.m.	Room 303, HKAGE
8	22 Jun 2024	2:00 – 5:00 p.m.	Room 303, HKAGE

◆ Target Participants

- S1 to S6 HKAGE student members in 2023/24 school year
- Priority will be given to students who have completed phase 1 (A3ENV005C)
- Class size: 25

◆ Pre-requisite

- No special prerequisites are needed.

◆ Medium of Instruction

Chinese with English/Chinese Handouts

◆ Remarks

Participants should bring their own laptop to class.

◆ Screening

Please answer the screening question in the online platform.
*The screening question is designed to help the applicant to 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.

◆ Certificate

E-Certificate will be awarded to participants who have:

- Finished all assignments; and
- attended at least 6 sessions with good performance

◆ Enquiries 📞 3940 0101 ✉ programme@hkage.org.hk