



A4AIG001C

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Artificial Intelligence Course (Level IV) :

AI and Big Data Analysis (Phase 1)

Mr Norman Lok (Software Developer and Consultant, iRed Solutions Limited)



Application Deadline
28 Nov 2022 12:00 noon

Result Release
6 Dec 2022

Intended Learning Outcomes

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

1. Develop a comprehensive understanding of Machine Learning/AI concepts;
2. Start coding with Python and using different Python libraries to solve tasks;
3. Explain Data Visualisation and create different graphic representation of data;
4. Describe data ethics in daily life and reducing bias in data sets;
5. Understand how to use all the key tools for working with data in Python: *Jupyter Notebooks, NumPy, Pandas, and Matplotlib*;
6. Gain a solid foundation in AI through hands-on experience: Neural networks, Deep learning, and AI framework;
7. Collaborate well and work together with peers to reach a common goal.



◆ Introduction

The industry of Artificial Intelligence (AI) & Big Data Analysis are growing rapidly in the 21st century and developing different innovative products in the markets. They are also the driving forces behind a variety of technological innovations that have shaped today's digital environment and Industry 4.0. Throughout the programme, students will not only be able to participate in a series of lectures and practical workshops covering the basic essential knowledge of big data & AI, but students can also obtain an in depth understanding of the relationship between big data & AI and our daily life. At the same time, students will learn various statistical techniques and tools for big data analytics and experience Python programming using Python libraries.

The course consists of **THREE** phases. The selection for each phase will be based on students' performance. The tentative schedule for phase 2 and 3 are as follows:

Phase 2: 18 Mar – 29 Apr 2023

Phase 3: 20 May – 17 Aug 2023

◆ Schedule

Session	Date	Time	Venue
1	7 Jan 2023	2:00 p.m. – 5:00 p.m.	Room 403, HKAGE
2	14 Jan 2023		
3	28 Jan 2023		
4	4 Feb 2023		Room 203, HKAGE
5	11 Feb 2023		
6	18 Feb 2023		HKAGE (To-be-confirmed)
7	25 Feb 2023		

◆ Target Participants

- S2 – S6 HKAGE student members in 22/23 school year
- Class size: 30
- This programme is the same as Artificial Intelligence Course (Level IV): AI and Big Data Analysis (A4AIG001C) in 21/22 school year.

◆ Pre-requisite

Students should be able to understand programming languages, like Python

◆ Medium of Instruction

Cantonese with Chinese or English Handouts

◆ Remarks

Participants are required to bring their own laptop for each lesson (Tablets are not recommended. For further assistance, please contact us).

◆ Screening

Please answer the screening question in the online application form.

**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. Only students who can demonstrate motivation and the knowledge of data science and data analysis in the screening question would be selected for the programme.*

◆ Certificate

E-Certificate will be awarded to participants who have:

- Attended at least 5 sessions; AND
- Completed all the assignments with satisfactory performance in the final assessments.

