



Fun With Logic

(MATP1811)

Introduction

Mathematics is about deduction and reasoning. This course is an introduction to logical thinking. Students will learn logic through games, puzzles and other class activities. The basic languages and rules in logic will be introduced. Simple deduction and reasoning techniques will be taught.

Dr. Lau obtained his BSc degree from CUHK and PhD degree from HKU. He has almost twenty years of experience in secondary and tertiary education. During his teaching career, he was involved in many different programmes in gifted education organised by CUHK, HKAGE, the Education Bureau, etc.

Programme Type / Level

Across Domains and Interdisciplinary Course (Level 1) ([Token-required](#))

Instructor(s)

Dr. LAU Chi Hin
(Lecturer, Department of Mathematics, CUHK)

Pre-requisite

No special prerequisites are needed.

Target Participants

- P4 to P6 HKAGE student members
- Class size: 30

Medium of Instruction



Cantonese with Chinese/ English handouts

Certificate



E-Certificate will be awarded to participants who have:

- ❖ Attended **AT LEAST 3** sessions AND
- ❖ Completed all the assignments with satisfactory performance

Intended Learning Outcomes



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

- understand the basic definitions of logic.
- solve simple puzzles and problems with logic.
- apply rules of logic to solve logical problems.
- perform simple logic deduction and raise arguments.

Screening



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 logic in the screening question can be enrolled in the programme.

Application Deadline

11 May, 2020

12 : 00 n.n.

Application Result

Release Date

22 May, 2020

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

Schedule



Session	Date	Time	Venue
1	21 Aug	2:00p.m.-5:00p.m.	*HKPC Building, Room 107 Zoom Meeting
2	22 Aug		
3	24 Aug		
4	25 Aug		

*Address: 78 Tat Chee Avenue, Kowloon, Hong Kong ([Map](#))

Sample Example for the Programme

4. Let P, Q, R be three statements. Show that the statements ' P and $(Q$ or $R)$ ' and ' $(P$ and $Q)$ or $(P$ and $R)$ ' are equivalent by completing the following truth table.

P	Q	R	Q or R	P and $(Q$ or $R)$	P and Q	P and R	$(P$ and $Q)$ or $(P$ and $R)$
T	T	T	T	T	T	T	T
T	T	F	T	T	T	F	T
T	F	T	T	T	F		
T	F	F	F				
F	T	T	T	F	F		
F	T	F	T	F	F	F	F
F	F	T					
F	F	F	F	F	F		

5. Write down a statement which is equivalent to ' P or $(Q$ and $R)$ '.
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Enquiries



For enquiries, please contact us at 3940 0101 after language selection, press "1".