



# International Mathematics Olympiad Training

## 2021-22 (Phase II) Level 2 (E3IMO005C)

### Introduction

- A comprehensive mathematics programme which covers such as Algebra, Number Theory, Geometry and Combinatorics
- Introduce the basic curriculum of the International Mathematics Olympiad competition
- Broaden student's mathematical knowledge, strengthen their problem solving, higher order and logical thinking skills
- Training consists of 3 Phases: Phase I (July – August), Phase II (Sept – Dec) and Phase III (Jan – Mar 2022)
- Students with outstanding performance in the programme would be selected as the representatives of Hong Kong in the 63<sup>rd</sup> IMO 2022 in Oman

The International Mathematical Olympiad Training programmes are co-organized with International Mathematical Olympiad Hong Kong Committee (IMOHKC)

### Programme Type / Level

Advanced Course in Mathematical Olympiad ([Token-required](#))

### Instructor(s)

Dr Leung Tat Wing and other trainers

### Target Participants

NON-HKAGE Student members who

- ◆ were awarded **Honourable Mention or above in IMO Preliminary Selection Contest – Hong Kong**

HKAGE Student members who

- ◆ were awarded **Honourable Mention or above in IMO Preliminary Selection Contest – Hong Kong** *or*
- ◆ have been a trainee in any phase of **International Mathematics Olympiad (IMO) Training** *or*
- ◆ have completed **any Phase of CGMO** *or*
- ◆ have completed **any Phase of ITOM training with Distinction**

Class size: 20

### Medium of Instruction

Cantonese with English handouts

### Certificate

**E-Certificate** will be awarded to participants who have:

- ❖ Attended **at least 11 sessions including the last session AND**
- ❖ **Satisfactory performance in ALL assessments**

### Intended Learning Outcomes

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

1. Broaden their mathematical knowledge in a variety of areas on the basis of senior secondary mathematics curriculum;
2. Strengthen their problem solving and higher-order thinking skills.

### Application Deadline

~~8 Sep 2021~~  
**10 Sep 2021**  
**12:00 n.n.**

Application Result  
Release Date

**13 Sep 2021**

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

# Schedule

Session	Date	Time	Topic	Trainer	Venue (HKAGE)
1	18 Sep	2:00 p.m. – 5:00 p.m.	Cyclotomic Polynomials	T W Leung	204
2	25 Sep	2:00 p.m. – 5:00 p.m.	Probabilistic Methods	Omega Tong	
3	2 Oct	2:00 p.m. – 5:00 p.m.	Extremal Combinatorics	Omega Tong	
<b>Postponed</b>	<del>9 Oct</del> <b>(Postponed)</b>	<del>2:00 p.m. – 5:00 p.m.</del> <b>(Postponed)</b>	<del>Geometry in Figures I</del> <b>(Postponed)</b>	<del>C J Lam</del> <b>(Postponed)</b>	<del>204</del> <b>(Postponed)</b>
5	16 Oct	2:00 p.m. – 5:00 p.m.	<del>Geometry in Figures II</del> <b>Functional Equations</b>	<del>C J Lam</del> <b>Ching Tak Wing</b>	204
6	23 Oct	2:00 p.m. – 5:00 p.m.	<b>Oct Test</b>	T W Leung	105
7	30 Oct	2:00 p.m. – 5:00 p.m.	<del>Functional Equations</del> <b>Geometry in Figures I</b>	<del>Ching Tak Wing</del> <b>C J Lam</b>	204
8	5 Nov	<del>12:00 n.n. – 5:00 p.m.</del> <b>12:00 n.n. – 4:00 p.m. / 4:30 p.m.*</b>	<b>Iranian Geometry Olympiad</b>	T W Leung	105
9	6 Nov	2:00 p.m. – 5:00 p.m.	Inequalities and Convexity	Ching Tak Wing	204
10	13 Nov	2:00 p.m. – 5:00 p.m.	Counting	T W Leung	
11	20 Nov	2:00 p.m. – 5:00 p.m.	Algebraic Number Theory I	LongTin Chan	
12	27 Nov	2:00 p.m. – 5:00 p.m.	Algebraic Number Theory II	LongTin Chan	
13	4 Dec	2:00 p.m. – 5:00 p.m.	<b>CHKMO</b>	T W Leung	105
14	11 Dec	2:00 p.m. – 5:00 p.m.	Analytic Number Theory I	<del>Daniel Sheremata</del> <b>C J Lam</b>	204
15	18 Dec	2:00 p.m. – 5:00 p.m.	Analytic Number Theory II	<del>Daniel Sheremata</del> <b>Ching Tak Wing</b>	
<del>Make-up</del> <b>Cancelled</b>	<del>22 Dec</del> <b>Cancelled</b>	<del>2:00 p.m. – 5:00 p.m.</del>	<del>Geometry in Figures II</del>	<del>T W Leung</del> <b>Cancelled</b>	<del>204</del> <b>Cancelled</b>

Remarks: 奧林匹克數學深造課程: 國際數學奧林匹克訓練 2021-22 (第二期) 進階班 (E3IMO005C)

- Students **MUST ATTEND** the tests held on **23 Oct, 4 Dec 2021**. No make-up test will be arranged.
- Students are encouraged to participate in the Iranian Geometry Olympiad held on **5 Nov 2021**.

**\*The end time of Iranian Geometry Olympiad held on 5 Nov 2021 is different according to students' class level. For S1-S2 students, ends at 4:00 p.m.; For S4-S6 students, ends at 4:30 p.m.**

## Enquiries

For enquiries, please contact us on 3940 0101.