



S3IM0004C

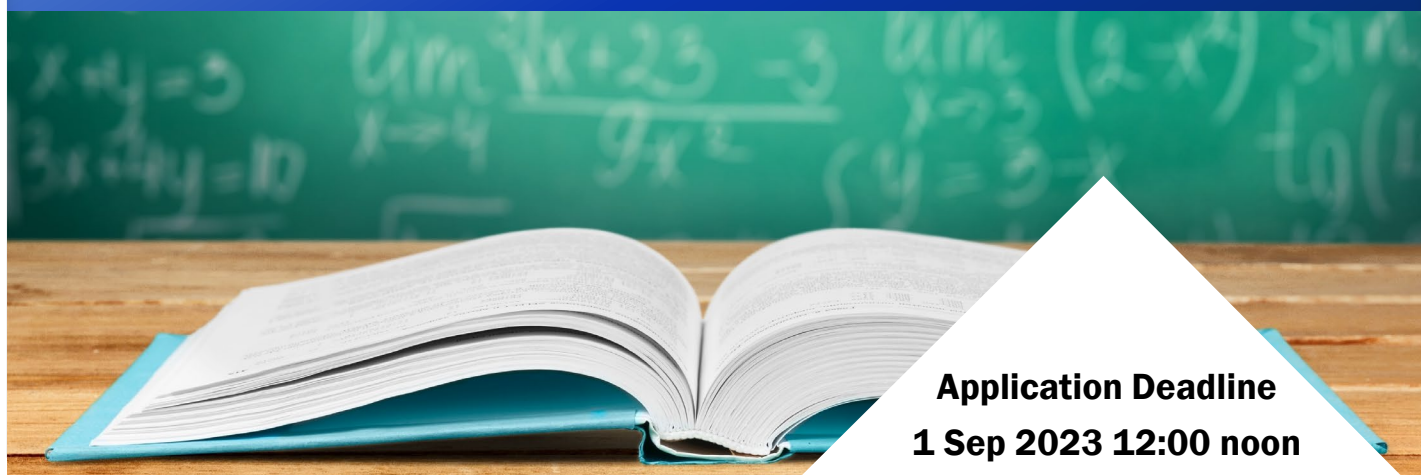
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Advanced Course in
Mathematical Olympiad

International Mathematical Olympiad Training 2023-24 (Phase II) Level 1

Dr Ching Tak Wing and other trainers

English version only 只供英文版



Application Deadline
1 Sep 2023 12:00 noon

Result Release
8 Sep 2023

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. learn more about the scope of International Mathematical Olympiad Training;
3. strengthen their problem solving and higher-order thinking skills.

◆ Introduction

- A comprehensive mathematics programme which covers such as Algebra, Number Theory, Geometry and Combinatorics
- Introduce the basic curriculum of the International Mathematical Olympiad competition
- Broaden student's mathematical knowledge, strengthen their problem solving, higher order and logical thinking skills
- Training consists of four phases: Phase I (Jul – Aug), Phase II (Sep – Dec), Phase III (Jan – Mar 2024) and Pre-IMO Intensive training.
- Students with outstanding performance in the programme would be selected to represent Hong Kong in the 65th IMO 2024

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

◆ 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 participated **any phase of International Mathematical Olympiad (IMO) training** **or**
- have completed **any Phase of China Girls Mathematics Olympiad (CGMO) training** **or**
- have completed **any Phase of Introduction to Olympiad Mathematics (ITOM) training with Distinction** **or both phases of ITOM with Merit.**

Class size: 40

This programme is the same as E3IM0004C in the school year 2021/22

◆ Certificate

E-Certificate will be awarded to participants who have:

- attended **at least 11 sessions**; and
- completed all the assignments with satisfactory performance

◆ Medium of Instruction

Cantonese with English Handouts

◆ Schedule

Session	Date	Time	Venue
1	16 Sep	2:00 p.m. – 5:00 p.m.	Room 303, HKAGE
2	23 Sep		Room 303, HKAGE
3	7 Oct		Room 303, HKAGE
4	14 Oct		Room 303, HKAGE
5	20 Oct	12:30 p.m. – 5:00 p.m.	Room 105, HKAGE
6	21 Oct	2:00 p.m. – 5:00 p.m.	Room 105, HKAGE
7	28 Oct		Room 303, HKAGE
8	4 Nov		Room 303, HKAGE
9	11 Nov		Room G01, HKAGE
10	18 Nov		Room 303, HKAGE
11	25 Nov		Room 303, HKAGE
12	2 Dec		Room 105, HKAGE
13	9 Dec		Room 303, HKAGE
14	16 Dec		Room 303, HKAGE

Remarks:

1. Students **MUST ATTEND** the test held on **21 Oct & 9 Dec 2023**. No make-up test will be arranged.
2. Students are encouraged to participated in the Iranian Geometry Olympiad held on **20 Oct 2023**.

◆ Appendix - IMO-related Programmes (1 Sep 2023 onwards)

- IMO-related programmes is a series of programmes that provide International Mathematical Olympiad (IMO) related training. It aims to equip students with the mathematics knowledge and curriculum of IMO, problem solving skills, and high-order thinking skills progressively.
- The programmes are divided into three levels: Introductory, Intermediate, and Advanced level.
- There are different enrollment methods, e.g. aptitude test. For details, please refer to each programme's poster

Introductory Level

Maths Ignition (MI) Programmes

- For S1-S3 HKAGE student members
- Introductory training in Mathematical Olympiad by topics
- Application for five MI programmes will be open in Apr, Jul & Oct each year
- Enroll through aptitude test

Introductory to Intermediate Level

Introduction to Olympiad Mathematics (ITOM)

- For S1-S6 HKAGE student members
- Two phases of training
- Application will be open in Jan each year
- Enroll through aptitude test; OR
- Students who attained (a) distinction in 2 MI courses; OR (b) merit or above in 3 MI courses; OR (c) completion or above in 4 MI courses could enroll directly

Introductory to Advanced Level

China Girls Mathematics Olympiad (CGMO) Trainings

- For S1-S6 HKAGE female HKAGE student members
- Three phases of training
- Application will be open in Jan each year
- Enroll through aptitude test; OR
- Students who have completed any phase of IMO/CGMO/ITOM Training could enroll directly
- CGMO HK Team members will be selected based on their performance in the trainings

Advanced Level

International Mathematical Olympiad (IMO) Trainings

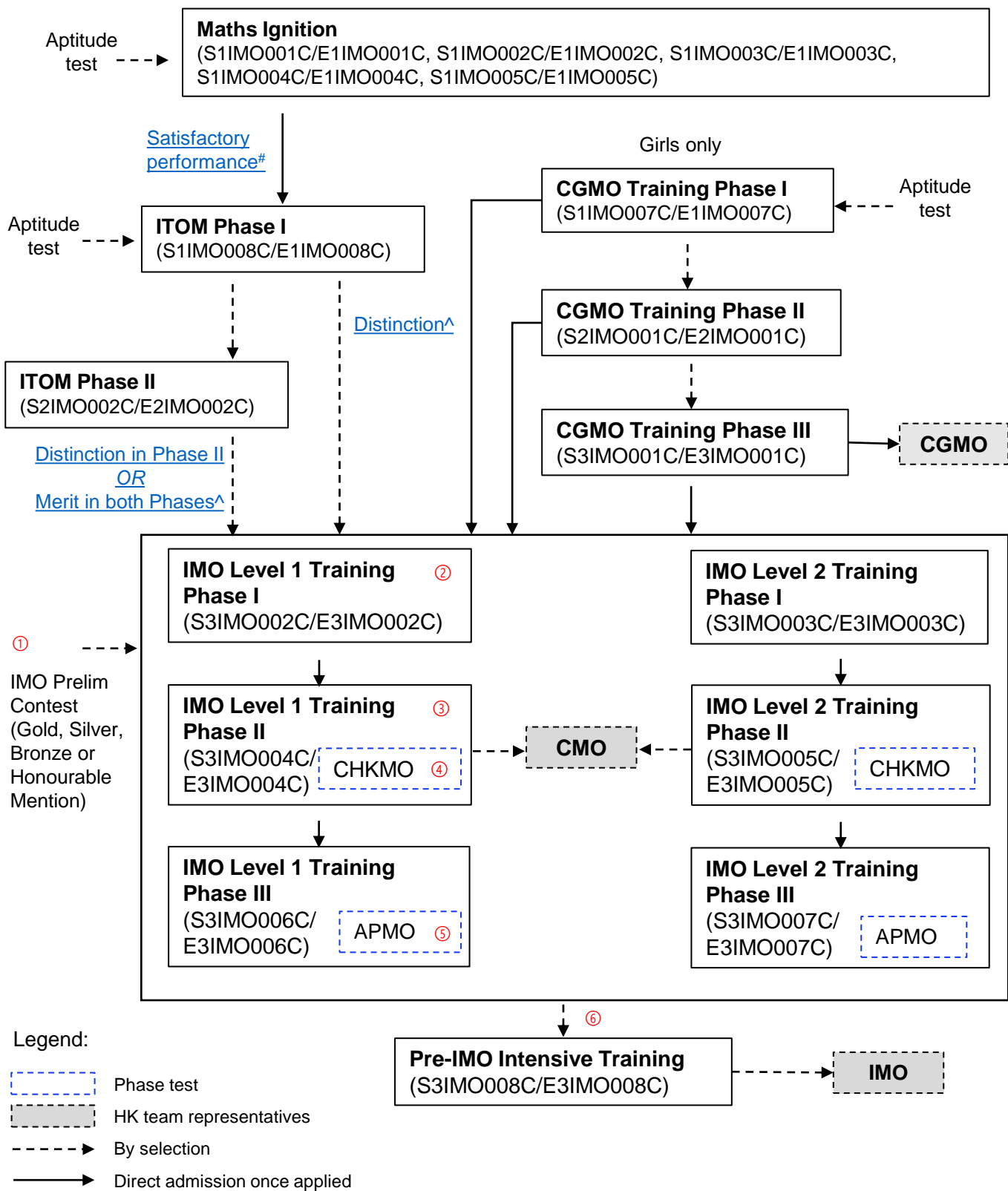
- For all awardees of IMO Preliminary Selection Contest - Hong Kong; OR students who got the certificate of distinction in any phase of ITOM training; OR students who got the certificate of merit in both phases of ITOM training; OR students who have participated in any phase of IMO/CGMO training
- Four phases of training
- IMO HK Team members will be selected based on their performance in the tests and trainings

*For detailed flowchart and timeline, please refer to the next page.



International Mathematical Olympiad Related Programmes

(English version only 只提供英文版)



IMO2024 HK Team representatives are selected based on their performance in the assessments from ① through ⑥
IMO2025 HK Team representatives are selected based on their performance in the assessments from ② through ⑥

IMPORTANT information for International Mathematical Olympiad (IMO) Training

IMO Training

Eligibility

- IMO Preliminary Selection Contest awardees ① or
- Student members who have completed any phase of the IMO Training or
- Student members who have completed any phase of CGMO Training or
- Student members who have completed any phase of ITOM Training with Distinction
- Student members who have completed both phases of ITOM Training with Merit

Training /Competition	Content	Tentative schedule	Remark
Phase I Training	13 x 3-hr lessons	Jul - Aug	
	Test 1 ② 3 hr, 6 proof problems	Aug	<ul style="list-style-type: none"> ▪ Phase test ▪ No make-up test
Phase II Training	17 x 3-hr lessons	Sep - Dec	
	Test 2 ③ 3 hr, 4 proof problems	Oct	<ul style="list-style-type: none"> ▪ Phase test ▪ No make-up test
	CHKMO ④ 3 hr, 4 proof problems	Dec	<ul style="list-style-type: none"> ▪ Phase test ▪ No make-up test
Phase III Training	8 x 3-hr lessons	Jan - Mar	
	APMO ⑤ 4 hr, 5 proof problems	Mar	<ul style="list-style-type: none"> ▪ End-of-phase test ▪ No make-up test
Selection Tests for Pre-IMO Intensive Training	Test 3 ⑥ 2 days x 4.5 hr, 3 proof problems	Apr or May	<ul style="list-style-type: none"> ▪ About 20 students to be selected based on previous tests ▪ No make-up tests
Pre-IMO Intensive Training	IMO HK Team (6 students) & Alternate Team (6 students)		<ul style="list-style-type: none"> ▪ 12 students to be selected based on previous tests
IMO	2 days x 4.5 hr, 3 proof problems		<ul style="list-style-type: none"> ▪ IMO HK Team
CMO	2 days x 4.5 hr, 3 proof problems		<ul style="list-style-type: none"> ▪ About 6 students to be selected based on previous tests
CGMO	2 days x 4 hr, 4 proof problems		<ul style="list-style-type: none"> ▪ About 8 female students selected via CGMO training

IMO2024 HK Team representatives are selected based on their performance in the assessments from ① through ⑥
 IMO2025 HK Team representatives are selected based on their performance in the assessments from ② through ⑥

Useful websites

IMO official website:	http://www.imo-official.org/
IMO website:	http://imo2023.jp/
Art of Problem Solving:	http://www.artofproblemsolving.com/
Mathematical Excalibur:	http://www.math.ust.hk/excalibur/

#Entering ITOM with Satisfactory Performance in Maths Ignition (MI) Programmes

Starting from 1 September 2023 onwards, students who fulfilled one of the criteria below are eligible to enter ITOM - "Introduction to Olympiad Mathematics (Phase I)" (S1IMO008C):

- good results in aptitude test; **OR**
- distinction in at least 2 different MI courses; **OR**
- merit/distinction in at least 3 different MI courses; **OR**
- pass/merit/distinction in at least 4 different MI courses

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^Entering IMO Training with Satisfactory Performance in ITOM or CGMO

Starting from 1 September 2023 onwards, students who fulfilled one of the criteria below are eligible to enter IMO training Phase I Level I (S3IMO002C):

- Non-HKAGE student members / HKAGE student members who were awarded Honourable Mention or above in IMO Preliminary Selection Contest – Hong Kong; **OR**
- HKAGE student members who have completed any phase International Mathematical Olympiad (IMO) Training; **OR**
- HKAGE student members who have completed any phase of CGMO; **OR**
- HKAGE student members who have attained distinction in any phase of ITOM; **OR**
- HKAGE student members who have attained merit in both phases of ITOM

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