



# CGMO Training 2021 (Phase I)

(E1IMO007C)

<b>Introduction</b>	<ul style="list-style-type: none"><li>● An introductory level comprehensive mathematics programme which covers a wide range of topics</li><li>● Broaden students' mathematical knowledge and strengthen their problem-solving skills</li><li>● Consists of 3 phases</li><li>● Outstanding students in the programme will represent Hong Kong in China Girls Mathematical Olympiad (CGMO) 2021 held in summer</li></ul> <p>This programme is co-organized with International Mathematical Olympiad Hong Kong Committee (IMOHKC)</p>
<b>Programme Type / Level</b>	CGMO Training Course ( <a href="#">Token-required</a> )
<b>Instructor(s)</b>	Dr Ching Tak Wing and other trainers
<b>Pre-requisites</b>	Students should know the basic knowledge of the following: Quadratic Equations and Functions, Binomial Theorem, Mathematical Induction, Remainder Theorem and Factor Theorem, Arithmetic and Geometric Sequences, Circles and Trigonometry
<b>Target Participants</b>	<ul style="list-style-type: none"><li>➢ S1 – S6 HKAGE <b>female</b> student members</li><li>➢ Class size: 20</li></ul> <p>All applicants <b>MUST</b> attend the <b>Aptitude Test</b> held on <b>20 Feb 2021</b>. Students Except for those who have</p> <ol style="list-style-type: none"><li>a) completed any phase of <i>International Mathematics Olympiad Training</i>, <i>CGMO Training</i> or <i>Introduction to Olympiad Mathematics</i> before</li></ol> <p><b>OR</b></p> <ol style="list-style-type: none"><li>b) attended the Aptitude Test held on 21 Nov 2020</li></ol> <p><b>Due to the limited seats in computer rooms, students who have attended the Aptitude Test on 21 Nov 2020 would not be allowed to take the test on 20 Feb 2021. Their results on 21 Nov 2020 will be used for this programme.</b></p> <p><b>Students will be selected randomly in attending the Aptitude Test if the application is over-subscribed.</b></p> <p><b>Only selected students could join the Aptitude Test held on 20 Feb 2021.</b></p> <p><b>All unselected students, except those with exemption as stated in a) or b), will be regarded as their application of this programme unsuccessful.</b></p> <p>This programme is the same as CGMO Training 2020 (Phase I) (MATS1121) in 19/20 school year.</p>
<b>Medium of Instruction</b>	Cantonese with English handouts

## Certificate

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

- ❖ Attended **at least 7 sessions** AND
- ❖ Had Satisfactory performance in all assessments

## Intended Learning Outcomes

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

1. Broaden mathematical knowledge in a variety of areas on the basis of senior secondary mathematics curriculum;
2. Strengthen the problem solving and higher-order thinking skills;
3. Learn more about the scope of International Mathematical Olympiad Training.

## Aptitude Test

Students who wish to apply for this programme must take a general aptitude test on **20 Feb 2021 (2:00 p.m. – 4:00 p.m.)**.

This general aptitude test consists of 100 multiple choice questions which covers a wide range of topics in mathematics. The purpose of the test is to figure out the applicant's knowledge in different fields of mathematics in order to choose the most suitable students for different programmes. Neither under-qualified nor over-qualified students will be admitted.

The next aptitude test is tentatively scheduled in **May 2021**. The result of an aptitude test will be valid for one year. If a student takes the test more than once, the latest result will prevail. The following table lists the programmes for which the results of this general aptitude test will apply

Programme Date	Code	Programme Name	Aptitude test valid	
			21 Nov 2020	20 Feb 2021
Mar 2021	E1IMO007C	CGMO Training 2021 (Phase I)	√	√
Mar 2021	E1IMO008C	Introduction to Olympiad Mathematics 2021 (Phase I)	√	√
Jul 2021	E1IMO001C	Maths Ignition - Combinatorics	√	√
Aug 2021	E1IMO002C	Maths Ignition - Geometry	√	√
Aug 2021	E3MAT001C	Polynomials	√	√
Sep 2021	E1IMO003C	Maths Ignition - Number Theory	√	√
Nov 2021	E1IMO004C	Maths Ignition - Algebra	√	√
Feb 2022	E1IMO005C	Maths Ignition - Coordinate Geometry		√

### Remarks:

1. All aptitude tests will only be arranged on the designated dates. No make-up test will be arranged.
2. No Calculator is allowed.

3. Please bring along with your Identification Card, e.g. HKID, student ID.
4. Please arrive at the venue 15 minutes prior to the Aptitude Test begins.

If students who have selected to join the aptitude test are absent without any reasons and prior notification provided, it will result in a lower priority in joining the aptitude test next time when they apply.

Application  
Deadline

1 Feb 2021  
12:00 n.n.

Application Result  
Release Date

26 Feb 2021

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

Schedule

Session	Date	Time	Venue (HKAGE)
<b>Aptitude Test</b>	<b>20 Feb 2021</b>	<b>2:00 p.m. – 4:00 p.m.</b>	<b>Computer Room 1/F HKPC</b>
1	6 Mar	2:00 p.m. – 5:30 p.m.	Room 203
2	13 Mar		Room 204
3	20 Mar		
4	27 Mar		
5	10 Apr		
6	17 Apr		
7	24 Apr		
8	8 May		
9	15 May		

Remarks:

1. For any assessment to be held in the programme, no make-up will be arranged.
2. **HKPC**: Hong Kong Productivity Council, 78 Tat Chee Avenue, Kowloon, Hong Kong ([MAP](#))

Sample Examples  
for the  
Programme

1. Do there exist 2017 consecutive positive integers, each of which has at least two prime factors?
2. Let ABC be an acute triangle and D, E, F be the feet of its altitudes. If P and Q denote the perimeters of  $\triangle ABC$  and  $\triangle DEF$  respectively, what are the possible values of  $\frac{P}{Q}$ ?

Enquiries

For enquiries, please contact Academic Programme Development Division on 3940 0101 after language selection, press "1".