

MATHS IGNITION – COMBINATORICS

(MATS1111)

<p>Introduction</p>	<p>Maths Ignition is an introductory programme. It is designed as a series of courses of different topics and is developed as a bridging programme to the 'IMO Training' programme.</p> <p>Maths Ignition – Combinatorics is the first course of the series. It aims to broaden students' knowledge in combinatorics on the basis of junior secondary mathematics curriculum through exploration and investigation approach. Students who have completed 2 out of 5 courses in the Maths Ignition series might be considered for direct admission to the "Introduction to Olympiad Mathematics 2020 (Phase I)" (MATS1151), an intermediate-level programme offered by IMOHKC.</p> <p>This programme is co-organized with International Mathematical Olympiad Hong Kong Committee (IMOHKC)</p>
<p>Programme Type / Level</p>	<p>Introductory Course in Mathematical Olympiad (Token-required)</p>
<p>Instructor(s)</p>	<p>Miss Kwok Man Yi, Mandy</p>
<p>Target Participants</p> 	<ul style="list-style-type: none"> ➤ S1 – S3 HKAGE student members ➤ Class size: 30 <p>All applicants MUST attend the Aptitude Test held on 18 May 2019 except for those who have attended the Aptitude Test held on 25 Aug 2018 ,17 Nov 2018 or 11 Feb 2019.</p> <p>* Not for students who have enrolled in</p> <ol style="list-style-type: none"> 1. CGMO Training (Phase I) MATS1121 or 2. Introduction to Olympiad Mathematics (Phase I) MATS1151 or 3. Any phase of International Mathematics Olympiad (IMO) Training before
<p>Medium of Instruction</p> 	<p>Cantonese with English handouts</p>
<p>Certificate</p> 	<p>E-Certificate will be awarded to participants who have:</p> <ul style="list-style-type: none"> ❖ Attended at least 3 sessions AND ❖ Satisfactory performance in the end-of-course test
<p>Intended Learning Outcomes</p> 	<p>Upon completion of the programme, participants should be able to:</p> <ol style="list-style-type: none"> 1. Broaden their mathematical knowledge in the topic of Combinatorics on the basis of junior secondary mathematics curriculum; 2. Strengthen their 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 **18 May 2019 (1:30 p.m. – 3:30 p.m. or 4:00 p.m. to 6:00 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 scheduled on **10 Aug 2019**. 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			
			25 Aug 2018	17 Nov 2018	11 Feb 2019	18 May 2019
Jul 2019	MATS1111	Maths Ignition - Combinatorics	√	√	√	√
Aug 2019	MATS1112	Maths Ignition - Geometry	√	√	√	√
Sep 2019	MATS1113	Maths Ignition - Number Theory		√	√	√
Nov 2019	MATS1114	Maths Ignition - Algebra		√	√	√
Nov 2019	MATS2940	Introduction to Financial Mathematics		√	√	√
Feb 2020	MATS1115	Maths Ignition - Coordinate Geometry			√	√
Mar2020	MATS1121	CGMO Training 2019 (Phase I)				√
Mar 2020	MATS1151	Introduction to Olympiad Mathematics 2019 (Phase I)				√

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.

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

Application
Deadline

6 May 2019 12:00 n.n.

Application Result
Release Date

31 May 2019

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

Schedule



Session	Date	Time	Venue(HKAGE)
Aptitude Test	18 May 2019	1:30 p.m. – 3:30 p.m. or 4:00 p.m. – 6:00 p.m.	Computer Room, 1/F, Hong Kong Productivity Council
1	26 Jul	2:00 p.m. – 5:00 p.m.	Room 105
2	29 Jul		
3	31 Jul		
4	1 Aug		
Make-up	7 Aug		Room 303

Hong Kong Productivity Council: 78 Tat Chee Avenue, Kowloon, Hong Kong ([MAP](#))

Sample Examples for the Programme

1. How many five-digit numbers have 'decreasing digits' (e.g. 43210, 95321)?
2. Ann has 3 pieces of orange candies, 4 pieces of strawberry candies and 5 pieces of pineapple candies. She plans to eat 1 piece of candy every day. In how many different ways can she eat the 12 pieces of candies?

Enquiries

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