



MATHS IGNITION – COORDINATE GEOMETRY (MATS1115)

Introduction

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' programmes.

Maths Ignition – Coordinate Geometry is the fifth course in the series. It aims to broaden students' knowledge in coordinate geometry 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 an intermediate-level programme "Introduction to Olympiad Mathematics 2020 (Phase I)" (MATS1151) offered by the IMOHKC.

This programme is co-organized with International Mathematical Olympiad Hong Kong Committee (IMOHKC)

Programme Type / Level

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

Instructor(s)

Dr Law Ka Ho

Pre-requisites

Students should know:

1. Cartesian coordinate systems
2. Distance and slope between two points
3. Basic ideas on equations of straight lines

Target Participants



- S1 to S3 HKAGE student members
- Class size: 30

All applicants **MUST** attend the **Aptitude Test** held in HKAGE on **23 Nov 2019** except for those who have attended the Aptitude Test held on 11 Feb 2019, 18 May 2019 or 10 Aug 2019.

Remarks: Due to the limited seats in computer rooms, students who have taken the Aptitude Test on 10 Aug 2019 would not be allowed to take the test on 23 Nov 2019. Their results on 10 Aug 2019 will be used for this programme.

- * Not for students who have enrolled in**
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

Medium of Instruction



Cantonese with English handouts

Certificate



E-Certificate will be awarded to participants who have:

- ❖ Attended **AT LEAST 3 sessions** AND
- ❖ Satisfactory performance in the end-of-course test

Intended Learning Outcomes



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

1. Broaden their mathematical knowledge in the topic of Coordinate Geometry 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 **23 Nov 2019 (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 scheduled on **22 Feb 2020**. 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			
			11 Feb 2019	18 May 2019	10 Aug 2019	23 Nov 2019
Feb 2020	MATS1115	Maths Ignition - Coordinate Geometry	√	√	√	√
Mar 2020	MATS1121	CGMO Training 2020 (Phase I)		√	√	√
Mar 2020	MATS1151	Introduction to Olympiad Mathematics 2020 (Phase I)		√	√	√
Jul 2020	MATS1111	Maths Ignition – Combinatorics			√	√
Aug 2020	MATS1112	Maths Ignition - Geometry			√	√
Aug 2020	MATS2330	Trigonometry			√	√
Sep 2020	MATS1113	Maths Ignition – Number Theory				√
Nov 2020	MATS1114	Maths Ignition - Algebra				√

Remarks:

- All aptitude tests will only be arranged on the designated dates. No make-up test will be arranged.**
- No Calculator is allowed.**
- Please bring along with your Identification Card, e.g. HKID, student ID.**
- 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 11 Nov 2019
12:00 n.n.

Application Result Release Date 29 Nov 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	23 Nov 2019	2:00 p.m. – 4:00 p.m.	C0411, C0412 4/F, Block C Main Campus, OUHK
1	22 Feb 2020 [Cancelled]	2:00 p.m. – 5:00 p.m.	Room 403
2	29 Feb [Cancelled]		
3	7 Mar [Cancelled]		
4	14 Mar [Cancelled]		

Remarks:

1. For any assessment to be held in the programme, no make-up will be arranged.
2. OUHK: 30 Good Shepherd Street, Ho Man Tin, Kowloon ([MAP](#))

Sample Examples for the Programme

1. What is the distance between the straight lines $3x+4y=5$ and $3x+4y=6$?
2. What is the radius of the circle $x^2+y^2-4x+6y-8=0$?

Enquiries



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