

# MATHS IGNITION – GEOMETRY (MATS1112)

## 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' programme.

Maths Ignition – Geometry is the second course of the series. It aims to broaden students' knowledge in 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 the "Introduction to Olympiad Mathematics 2020 (Phase I)" (MATS1151), an intermediate-level programme offered by IMO HKC.

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 Ching Tak Wing

## Pre-requisites

Students should have the basic knowledge in

1. Congruence and Similarity
2. Properties of triangles and different types of quadrilaterals
3. Pythagoras' Theorem

## Target Participants



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

All applicants **MUST** submit the "Screening Form" **no later than 25 May 2020 (Mon) at 12 noon**

- \* 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 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.

## Application Deadline

**18 May 2020**  
**12:00 n.n.**

Application Result  
Release Date

**29 May 2020**

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

## Schedule



| Session                                                    | Date          | Time                                                          | Venue                                      |
|------------------------------------------------------------|---------------|---------------------------------------------------------------|--------------------------------------------|
| <b>Aptitude-<br/>Test<br/>[Cancelled]</b>                  | <b>16 May</b> | <b>1:30 p.m. – 3:30 p.m.<br/>or<br/>4:00 p.m. – 6:00 p.m.</b> | <b>Computer Room<br/>1/F, HKPG</b>         |
| <b>Submission<br/>Deadline of<br/>“Screening<br/>Form”</b> | <b>25 May</b> | <b>12:00 n.n.</b>                                             | <b>---</b>                                 |
| 1                                                          | 10 Aug        | 2:00 p.m. – 5:00 p.m.                                         | Room 303<br>HKAGE                          |
| 2                                                          | 12 Aug        |                                                               | <b>Online Lecture and<br/>Zoom Meeting</b> |
| 3                                                          | 14 Aug        |                                                               |                                            |
| 4                                                          | 17 Aug        |                                                               |                                            |

Remarks:

1. **“Screening Form” will be sent to students concerned on 22 May (Fri) through email. Please submit the completed Form no later than 25 May (Mon) at 12 noon. Late submission will not be considered.**
2. For any assessment to be held in the programme, no make-up will be arranged.

## Sample Examples for the Programme

1. Explain why SSA cannot be used to prove congruent triangles. Are there special cases in which SSA can guarantee congruence?
2. Work out different proofs to Pythagoras' Theorem and its converse. Is it logically correct to prove the converse of Pythagoras' Theorem using Pythagoras' Theorem?

## Enquiries



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