



# Excursions in Geometry and Algebra with GeoGebra (MATP2332)

## Introduction

GeoGebra is a dynamic mathematics freeware that combines geometry, algebra and calculus into one single easy-to-use package that works for all levels of education. GeoGebra makes a link between geometry and algebra in a visual and dynamic way. Students can finally see, touch, experience and explore mathematics.

In this programme, students will use GeoGebra to construct 2D and 3D geometric figures and explore their properties critically. They will use the tools and algebraic commands to perform transformations and tessellations, and apply their creativity to construct their own patterns and loci. Finally, they will use advanced functionality of GeoGebra to inquire some challenging problems.

## Programme Type / Level

Across Domains and Interdisciplinary Course (Level 1) ([Token-required](#))

## Instructor(s)

Mr OR, Chi Ming Anthony, GeoGebra Institute of Hong Kong.

## Pre-requisite

Students should complete the 'Across Domains and Interdisciplinary Course (Level 1) : Creative Geometry with GeoGebra' (MATP1331) or understand the basic operations of GeoGebra.

## Target Participants



- P4 to S3 HKAGE student members
- Class size: 30

**Students who have been awarded Certificates of Distinction / Merit / Completion in the 'Across Domains and Interdisciplinary Course (Level 1) : Creative Geometry with GeoGebra' (MATP1331) will be given priority.**

## Medium of Instruction



Cantonese with Chinese / English Handouts

## Certificate



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

- ❖ Attended **AT LEAST 3** sessions AND
- ❖ Completed all the assignments with satisfactory performance

## Intended Learning Outcomes



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

- Investigate the concepts of geometry and algebra through the use of GeoGebra;
- Explore and solve advanced geometry and algebra problems;
- Develop creativity in solving problems in the dynamic mathematics environment GeoGebra.

## Screening



Please answer the screening question in the online application form.

\*The screening question is designed to help the applicant understand the course level and the course content. The question must be answered by the student applicant and it can only be attempted once. The answer cannot be changed once the application is submitted. Selection is based on students' performance in answering the question. Only students who can demonstrate the basic operations of GeoGebra and learning motivation in the screening question can be enrolled in the programme.

## Application Deadline

**4 May, 2020**

**12:00n.n**

## Application Result Release Date

**15 May, 2020**

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

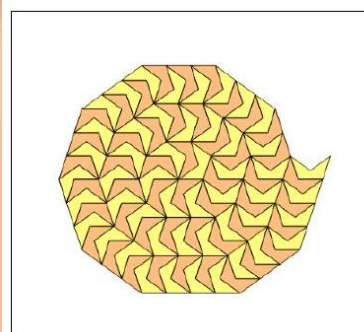
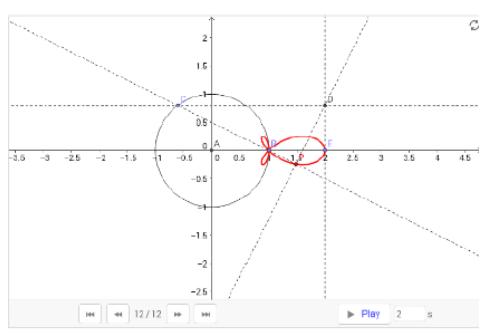
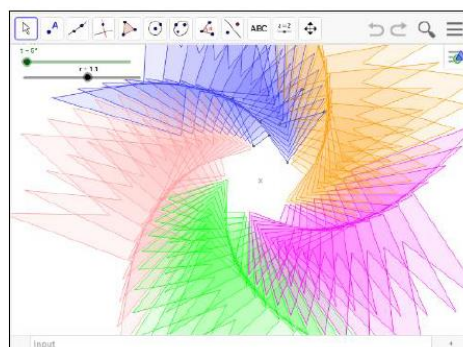
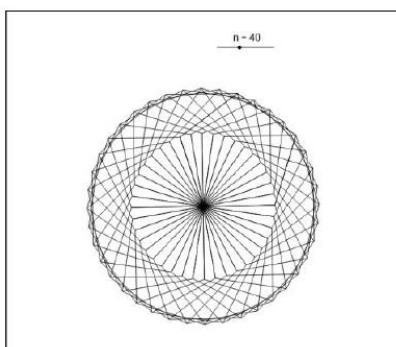
## Schedule



| Session | Date        | Time                | Venue                                  |
|---------|-------------|---------------------|--|
| 1       | 13 Jun 2020 | 2:00p.m. – 5:00p.m. | *Hong Kong Productivity Council (HKPC) |
| 2       | 20 Jun      |                     |  |
| 3       | 27 Jun      |                     |  |
| 4       | 4 Jul       |                     |  |

[\\*78 Tat Chee Ave, Yau Yat Chuen, Kowloon Tong](#)

## Sample Examples for the Programme



## Reference List

1. GeoGebra Tube

<https://www.geogebra.org/materials>

2. GeoGebra Institute of Hong Kong (GIHK)

<http://www.geogebra.org.hk/>

## Enquiries



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