### Introduction
Geometry and coordinate system, which solve many mathematical problems from different perspectives with different approaches, are major mathematical topics and relate closely to each other. Using innovative and interactive teaching materials, this online learning programme lets students learn about the properties of Cartesian coordinate system, polygons and polyhedrons so as to sharpen their geometrical problem solving skills, improve their spatial thinking ability and enhance their self-directed learning skills.

<table>
<thead>
<tr>
<th>Module 1: Coordinate Geometry</th>
<th>Module 2: Areas and Volumes</th>
</tr>
</thead>
<tbody>
<tr>
<td>✦ Study the concept of coordinate system</td>
<td>✦ Learn to draw the cross-sections of simple solids</td>
</tr>
<tr>
<td>✦ Learn to calculate the distance between two points on a horizontal line or a vertical line</td>
<td>✦ Explore the method of making models of polyhedrons</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Module 3: Applications of Areas and Volumes</th>
<th>Module 4: Applications of Coordinate Geometry</th>
</tr>
</thead>
<tbody>
<tr>
<td>✦ Recognize different types of prisms, including cubes and cuboids</td>
<td>✦ Explore the slopes of horizontal line and vertical line</td>
</tr>
<tr>
<td>✦ Understand and apply the formula for the total surface areas and volumes of prisms and pyramids</td>
<td>✦ Apply Mid-point Formula and Section Formula</td>
</tr>
</tbody>
</table>

### Programme Type / Level
Geometry and Topology Online Learning Programme (Level 1) (Non Token-required)

### Writer
Mr. Chan Ka Wing

### Target Participants
- P4 to P6

* Students who fail the online programme can enrol in it again in the next quarter. (Quarter ONE: 2 April – 30 June; Quarter TWO: 2 July – 30 Sep; Quarter THREE: 2 Oct – 31 Dec; Quarter FOUR: 2 Jan – 31 Mar).

### Intended Learning Outcomes
Upon completion of the programme, participants should be able to:
1. Interpret the position and slope in Cartesian coordinate system.
2. Derive perimeter, area and volume equations of different polygons and polyhedrons.
3. Apply the properties of different polygons and polyhedrons to solve geometry problems.
4. Use Cartesian coordinate system to solve 2D shape geometry problems

### Duration
12 hours

### System Requirement
- Browser: IE 8 OR above; Firefox 6 OR above; Safari
- Add-on: JAVA
- Screen resolution: 1024x768

### Application Procedure
1. Click “HERE” to go to online application platform
2. Complete and submit the online application form
3. You and your parent will receive the Online Application Confirmation email from our system
4. Click “HERE” to access to the moodle platform
5. Use the USERNAME and PASSWORD indicated in the email to login
6. You may start now!

### Remarks
You have to pass the online test in order to complete the course by attempting ONCE only.

### Enquiries
For enquiries, please contact us at 3940 0178 or 3940 0102.