

## Mathematics: analysis and approaches September 2021

16 -18

### About this workshop

This workshop is provided by IBICUS Ltd, a licensed and fully authorised organiser of professional development programmes for the IB community.

### This a **Category 1**.

Following the IB Guidelines for Category 1 workshops, we will focus on:

- Developing an understanding of the IB mission and philosophy through the DP programme model as a context for a holistic learning experience
- The Mathematics: analysis and approaches guide and associated internal and assessment requirements with practice marking activities of sample student work
- Structuring a course that integrates authentic assessment and encourages students to make links across the DP that will enhance their understanding
- Using the programme resource centre to access IB publications and resources
- Empowering teachers to create strategies for engaging students in structured inquiry and greater critical thinking through approaches to teaching and learning skills
- Teaching mathematical topics through a conceptual lens which creates opportunities for students to apply their mathematical knowledge in different contexts

### Pre-workshop information and preparation

It is essential that participants come ready to actively participate during the workshop, sharing ideas and any resources.

Before the workshop you will need to ensure that you have access to the Programme Resource Centre on MyIB. (Your coordinator should be able to give you access).

The Mathematics: analysis and approaches guide will be used during the workshop and you could have a copy downloaded on your laptop, or a printed hard copy if you prefer to work with a hard copy.

### APPS and materials

Please ensure that you have access to and understand how to use ZOOM

There are three main features of ZOOM that we will be using:

- Share screen: I will share my screen with you and walk you through a presentation with embedded activity descriptions. (You will also receive a copy of the presentation slides)
- Break-out rooms: this facility allows us to work in small group discussions virtually
- Chat: this is where you can post questions and comments during the synchronous sessions

You will also be sent a link to a folder in google drive. All resources necessary for the activities will be shared in this folder. When the link is sent the folder might still be empty but please make sure that you can access the shared folder in google drive. A copy of the presentation slides will also be shared here.

*Three hours are dedicated to Asynchronous work. This will take the form of individual work (homework) set on days 1 and 2.*

## DAY 1

UK Time	Session	Objective	Session Content
08:30 – 08:55	WORKSHOP SET UP	Meet and greet and ensure all participants have connectivity and access to materials and apps	Welcome, navigation, app usage, general housekeeping
08:55 – 09:00	BREAK		
09:00 – 10:00	1.1	What makes the IB unique?	Introduction to the IB mission statement, learner profile and international mindedness.
10:00 – 10:15	BREAK		
10:15 – 11:45	1.2	I teach but do they learn?	Approaches to teaching and learning: creating strategies for engaging students in structured inquiry and better critical thinking
11:45 – 12:00	BREAK		
12:00 – 13:30	1.3	Did you say concepts?	Curriculum structure: teaching mathematical topics through a conceptual lens.

## DAY 2

UK Time	Session	Objective	Session Content
09:00 – 10:30	2.1	Why Internal Assessment?	The role of the teacher.
10:30 – 10:45	BREAK		
10:45 – 11:45	2.2	Why use holistic marking?	Internal Assessment – Understanding and applying the assessment criteria.
11:45 – 12:00	BREAK		
12:00 – 13:30	2.3	What about Examinations?	External Assessment – P1 and P2 Understanding the structure and nature of External Assessment

## DAY 3

UK Time	Session	Objective	Session Content
09:00 – 10:30	3.1	And P3?	Understanding the structure & nature of P3
10:30 – 10:45	BREAK		
10:45 – 11:45	3.2	What about the core?	TOK, CAS and Extended Essay
11:45 – 12:00	BREAK		
12:00 – 13:30	3.3	What now?	Designing the course and wrapping up.