

IBICUS IB PD WORKSHOPS

in association with Innoventures Education Training Centre

DUBAI INTERNATIONAL ACADEMY AL BARSHA

20-22 September 2024

SUBJECT: Physics

CATEGORY: 1

WITH: Oscar Eid

DAY 1 – FRIDAY 20 SEPTEMBER 2024

Time	Session	Essential understanding	Session Title & Objectives
08:30 – 08:55	ARRIVE	Arrive at Dubai International Academy Al Barsha and register for your workshop	
09:00 – 09:15		WELCOME	
09:15 – 10:35	1	The IB educational philosophy is reflected in the daily classroom practice of DP physics teachers.	Introductions and navigating the IB philosophy: <ul style="list-style-type: none"> • Become acquainted with all participants and develop a professional learning community. • Introduce the learner profile as a list of characteristics that embody the IB philosophy and mission statement. • Discuss and share teaching strategies that participants already use that support and reflect the IB learner profile.
10:35 – 11:00	BREAK		
11:00 – 12:20	2	DP teachers incorporate their educational values and beliefs with the programme standards and practices 2020 (PSP) and the core of the Diploma Programme to create a challenging programme of international education.	Navigating the DP core: <ul style="list-style-type: none"> • To use the DP programme model to unpack the core and nature of the DP curriculum. • To experience a TOK activity that makes connections between physics and other areas of the curriculum. • To introduce the PSP and consider their purpose in the context of teaching DP physics. • To introduce the course outline as a document that summarizes and incorporates all aspects of the taught curriculum.
12:20 – 13:15	LUNCH		
13:15 – 14:55	3	The format of the <i>Physics guide</i> provides more than	Navigating the structure of the curriculum:

		a list of topics to learn. Appreciating the syllabus as a teaching and learning document reveals the depth and breadth of the DP physics course.	<ul style="list-style-type: none"> To explore the structure of the guide, including SL and HL differences. To appreciate the conceptual nature of the syllabus content and the role of the guiding questions. To engage with the linking questions, highlighting conceptual links between different areas of physics and different possible pathways through the content.
14:55 – 15:20	BREAK		
15:20 – 17:00	4	The experimental programme and the collaborative sciences project allow students to develop and apply scientific skills and knowledge, consolidate conceptual understanding and gain a better appreciation of the nature of science.	<p>Navigating the practical scheme of work:</p> <ul style="list-style-type: none"> To become acquainted with the requirements of the practical and experimental aspects of the course. To consider the required skills embedded within the course and identify opportunities for their development. To consider how the collaborative sciences project is an opportunity to develop practical skills and use of the scientific method in an interdisciplinary environment.

DAY 2 – SATURDAY 21 SEPTEMBER 2024

Time	Session	Objective	Session Content
08:30 – 09:00	ARRIVE		
09:00 – 10:40	5	The internal assessment (IA) is an opportunity for students to demonstrate the application of their skills and knowledge and to pursue their personal interests through the collection and interpretation of data.	<p>Navigating the internal assessment:</p> <ul style="list-style-type: none"> To become acquainted with the structure and requirements of the internal assessment. To unpack the assessment criteria and the nature of a best-fit assessment of student work. To experience applying the best-fit model with a sample IA. To discuss potential opportunities, challenges and possible solutions for implementing the IA in participants' own contexts.
10:40 – 11:05	BREAK		
11:05 – 12:45	6	With an understanding of the DP core and the depth and breadth of the physics curriculum, participants are prepared to consider the delivery of their own two-year pathway.	<p>Creating a course outline:</p> <ul style="list-style-type: none"> To reinforce that there are multiple pathways through the curriculum, as suggested by the linking questions. To begin a first draft of a course outline that reflects the programme standards and practices and that suits the participants' own school context.

			<ul style="list-style-type: none"> To consider appropriate approaches to teaching and learning throughout the course. To use peer review to give meaningful feedback on the effectiveness of a course outline.
12:45 – 13:40	LUNCH		
13:40 – 15:00	7	Understanding the nature of the assessment informs the daily teaching and learning strategies, enabling teachers to design effective course outlines.	<p>Navigating the external assessment:</p> <ul style="list-style-type: none"> To become acquainted with command terms. To become familiar with the structures of exam papers and the types of questions involved. To consider ways to integrate experimental work and skills with the curriculum to prepare students for the different types of questions in the exams. To consider how the linking and guiding questions in the subject guide and related to nature of science can support and enhance the assessment of conceptual understanding.
15:00 – 15:25	BREAK		
15:25– 16:45	8	Professional learning communities support and encourage best practice. There are many resources available to DP teachers, covering all aspects of teaching, learning and assessment.	<p>Learning, environment and culture: Professional learning communities.</p> <ul style="list-style-type: none"> To engage with the available supporting materials, including the TSM, subject reports and the IB Community Blog. To share and exchange favourite resources, materials or approaches to teaching and approaches to learning. To end the second day knowing where to access resources and support.

DAY 3 – SUNDAY 22 SEPTEMBER 2024

Time	Session	Objective	Session Content
08:30 – 09:00	ARRIVE		
09:00 – 10:20	9	An extended essay (EE) in physics is a learning experience that adds another layer of understanding and appreciation for the subject.	<p>The extended essay and seeing the bigger picture:</p> <ul style="list-style-type: none"> To become acquainted with the format of the extended essay and the process involved To explore the role of the supervisor in supporting the student through the process, including academic integrity and the nature of the three reflective statements To appreciate that the EE encompasses all elements of the IB pedagogy, and that the DP physics curriculum

			develops and prepares students for this self-directed piece of research
10:20 – 10:40	BREAK		
10:40 – 12:20	10	<p>Consolidating the themes of the workshop enables participants to frame their own practice within the IB educational philosophy. Participants leave the workshop feeling prepared and equipped to deliver the DP physics curriculum.</p>	<p>Reviewing the big ideas and revisiting the course outline:</p> <ul style="list-style-type: none"> • To reflect on the different areas of the IB philosophy and how they are integrated within the DP physics curriculum. • To consider the practical implications of delivering the DP physics course in the participants' own school contexts, including needs for inclusion and the different approaches to teaching and approaches to learning. • To reflect on participants' own course outlines from session 6 and take time to adapt or develop further.