FAQs on Mathematics

Q1	**Is it the case that, according to the current optimising measures, the curriculum content of Mathematics remains unchanged, but the overall lesson time has to be reduced by 50 hours? Will it thus lower the level of Hong Kong students' attainment in Mathematics?**
	The optimising measures for senior secondary Mathematics does not suggest reducing the overall lesson time or trimming the curriculum content across the board. Instead, it suggests enhancing the utilisation of current demarcation between "Foundation Topics" (FT) and "Non-foundation Topics" (NFT) in the Compulsory Part of the existing Mathematics curriculum, and making better use of the lesson time to cater for learner diversity more effectively. For students who have difficulties and a weak foundation in learning Mathematics, they may get frustrated and be unable to cope with the problems encountered when learning some NFT. Schools should consider not teaching those NFT to them, and use the lesson time thus saved to focus on other more foundational topics, so that the students could have more learning space to consolidate what they have learnt, deepen their understanding, and enable them to obtain better results in learning Mathematics. For these students, no lesson time in Mathematics is suggested to be reduced. For the students who have interests or aspirations not related to Mathematics, schools may allow these students not to study some NFT after considering the views of these students and their parents, so that the students may have more space to study their interested subjects that they want to further develop, or engage in Other Learning Experiences. But the lesson time thus released should not exceed 50 hours within three years. In this situation the lesson time in Mathematics may be released. For other students, in general, they are still recommended to study the entire Compulsory Part. For students who have a keen interest in Mathematics or need more advanced mathematical knowledge in their future studies and careers, they are encouraged to take Module 1 or Module 2 (M1/M2) of the Extended Part. The Education Bureau anticipates that, when the optimising measures for the four senior secondary core subjects are implemented, schools could arrange the lessons of M1/M2 in the regular school timetable to optimise students' learning. All in all, the Education Bureau anticipates that the optimising measures will enable students to engage in the study of Mathematics that could cater for their interests, aspirations and abilities. The students who have a keen interest in and are capable of learning mathematics are encouraged to study M1/M2 of the Extended Part. As a result, it is expected that the optimising measures will not lower the level of Hong Kong students' attainment in Mathematics, but rather help students learn Mathematics, and learn it well.
Q2	**Some students can reach level 5 or above in the Compulsory Part of Mathematics according to the current lesson time allocation. Should the lesson time of these students be reduced by 50 hours? Is it unfair to them?**

	The optimising arrangements for Mathematics aim at better catering for learner diversity, and do not suggest reducing the overall lesson time or trimming the curriculum content across the board. Generally speaking, when the demarcation between "Foundation Topics" (FT) and "Non-foundation Topics" (NFT) in the Compulsory Part of current Mathematics is adopted for curriculum differentiation (including curriculum tailoring), no lesson time in Mathematics is suggested to be released. However, for the students who have interests or aspirations not related to Mathematics, schools may allow these students not to study some NFT after considering the views of these students and their parents. The lesson time thus released (up to 50 hours for 3 years) could provide the students with more space for the study of subjects that are in line with their pathways, or on Other Learning Experiences. As the release of lesson time is based on the views and needs of the students, no problem of unfairness to the students will thus be induced.
Q3	**Is the decision as to whether students should study only "Foundation Topics" (FT) in the Compulsory Part of Mathematics made by schools? If parents regard it as "a deprivation of students' rights of learning" and insist that schools should teach all topics, how should school deal with this?**
	Since the school contexts and learning needs of students vary in different schools, schools have to flexibly adopt their own school-based arrangements for catering for learner diversity. The optimisation does not suggest that schools must have some students who only study FT in the Compulsory Part of Mathematics. Instead, schools are encouraged to strengthen the use of the demarcation between FT and "Non-foundation Topics" (NFT) in the Compulsory Part of the current Mathematics curriculum so that students could try their best to study, on top of FT, the NFT that are in line with their abilities. If students have the ability and interest to study the entire Compulsory Part, they should not be arranged to study only part of NFT. Hence, the optimising arrangement does not deprive students of their learning rights, but rather maximise their outcomes in learning Mathematics by allowing them to study the contents that are in line with their needs. Schools may have more communication with parents so that they can understand the arrangements of Mathematics on catering for learner diversity. It is expected that if schools already have the grouping arrangements in other subjects to cater for learner diversity, parents shall have a better understanding of the purposes of the grouping arrangements in Mathematics. The Education Bureau will explain more clearly to secondary school teachers, students and their parents that according to the current framework of the Mathematics curriculum and the design of public assessment, a good mastery of FT of the Compulsory Part is sufficient for candidates who perform well in the HKDSE Examination Mathematics Compulsory Part to attain up to Level 4 in the Examination. This aims at explaining the proportion of FT to NFT in both the curriculum content and public assessment to teachers, students and their parents

	so that they can have the reference for planning students' learning time, rather than aiming at encouraging students to study only FT.
Q4	**Does the Education Bureau encourage schools to teach less content of Compulsory Part of Mathematics? How does the Education Bureau respond to the claim that this may produce a labelling effect on students/schools?**
	The optimising arrangement in Mathematics does not suggest that schools must trim the curriculum content of the Compulsory Part of Mathematics across the board, or teach "Foundation Topics" (FT) only. Instead, schools are encouraged to strengthen the use of the demarcation between FT and "Non-foundation Topics" (NFT) in the Compulsory Part of the current curriculum. Students could thus try their best to study, on top of FT, the NFT that are in line with their abilities, and avoid wasting lesson time on the topics that are not, so that their outcomes in learning Mathematics can be maximised. If students have the ability and interest to study the entire Compulsory Part, they should not be arranged to study only part of NFT. For the students who have the interests or aspirations not related to Mathematics, schools may make a school-based decision on whether or not these students are arranged in individual classes/groups in which less NFT will be taught after considering the views of these students and their parents, their number, their performances in internal assessments, and their learning needs in other subjects, etc. Schools may in general adopt the mechanisms similar to schools' existing ones for handling selection of senior secondary subjects and streaming of students within subjects when handling grouping arrangements of senior secondary Mathematics after proper consideration of the views of students and their parents, and their internal assessment results. Under the grouping arrangements of Mathematics, schools can teach students in accordance with their abilities, and enhance the flexibility of learning and teaching so that students can have the most fruitful and the best results in learning Mathematics. There are already grouping arrangements for different subjects in schools. It is anticipated that the grouping arrangements of Mathematics will not specially produce a labelling effect on students or schools.
Q5	**While students are arranged to study different combinations of the Compulsory part and the Extended Part, may schools have the flexibility to allow students to transfer to other groups halfway in the school term?**
	If schools adopt block-timetabling to arrange students into different groups for studying Mathematics, different groups will have Mathematics lessons in the same common block. By considering students' individual learning progress, students at S4 or S5 may be allowed to transfer to other appropriate groups if they fulfil the school - based criteria. Schools may adopt the mechanisms similar to schools' existing ones for handling selection of senior secondary subjects and streaming of students within subjects when handling grouping arrangements of senior secondary Mathematics after proper consideration of the wills of students and their parents, and their internal assessment results.

Q6	**Since the Education Bureau encourages students to take Module 1 (M1) or Module 2 (M2) of the Extended Part of Mathematics, why don't we formally convert M1/M2 into an elective subject?**
	The curriculum content of M1 or M2 on its own does not suffice for becoming an elective subject, and about half of the content of the two modules overlaps. Converting M1/M2 into an elective subject is thus not a task that can be accomplished at once. Besides, whether the elective subject is better than the existing M1/M2 needs careful considerations in many aspects, including the fact that for the general entrance requirements of the bachelor's degree programmes offered by local universities, the results of M1/M2 are currently considered equivalent to that of an elective subject.
Q7	**The Education Bureau encourages students to take Module 1 or Module 2 of the Extended Part of Mathematics, how are they now being recognised in the entrance requirements of universities? Are they being regarded as an elective subject or only as half of an elective subject?**
	Starting from the 2024/25 school year, for the general entrance requirements of the bachelor's degree programmes offered by the eight UGC-funded universities, the results of the Extended Part of Mathematics (Module 1 or Module 2) are considered equivalent to that of an elective subject. For Associate Degree and Higher Diploma programmes, Level 2 in the Extended Part of Mathematics (Module 1 or Module 2) is also accepted as one of the five subjects in the minimum entrance requirements.
Q8	**If schools put Module 1 or Module 2 of the Extended Part of Mathematics in the options of the third elective subjects, students taking Module 1 or Module 2 will be unable to take three elective subjects. Does this conflict with the original intention of the Education Bureau?**
	As some schools are unable to arrange the lessons of Module 1 (M1) or Module 2 (M2) in the regular timetable, the optimising measures for senior secondary core subjects may allow lesson time to be released and enable schools to offer a third elective subject, which could be used to accommodate M1/M2, so that the lessons of M1/M2 could be arranged in the regular timetable for motivating students to study M1/M2. The situation that students being allowed to study only two elective subjects is optimised as to studying two elective subjects plus M1/M2. Moreover, it is not necessary to put M1/M2 in the options of elective subjects. If students have already taken three elective subjects in the school, the optimising measures for core subjects will release lesson time and create space for students so that the lesson time of Mathematics outside the common blocks for elective subjects could be arranged for offering the Compulsory Part together with the Extended Part (M1/M2) to students.

Q9	**What are the impacts of the optimising measures for Mathematics on the difficulty, format and length of the papers of the Compulsory Part of the HKDSE Mathematics examination? Will the optimising measures affect the international recognition of the Compulsory Part of the HKDSE Mathematics examination?**
	As the curriculum framework and content of the Compulsory Part of Mathematics, as well as the HKDSE assessment design will remain unchanged according to the optimsing measures, the difficulty, format and length of the papers of HKDSE Mathematics Compulsory Part Examination will also remain unchanged. As a result, the optimising measures will not affect the International recognition of HKDSE Mathematics Compulsory Part Examination.