

# Mathematics (S4-S6)

## Optimising Arrangements

### **Current Curriculum**

The framework of the current senior secondary Mathematics curriculum has already provided flexibility to cater for learner diversity. The curriculum is composed of the Compulsory Part and the Extended Part:

### **Senior Secondary Mathematics**

<u>The Compulsory Part</u>		<u>The Extended Part</u>
Foundation Topics (FT)	Non-foundation Topics (NFT)	(M1) Calculus and Statistics (M2) Algebra and Calculus

### **The Compulsory Part**

It provides essential mathematical knowledge and skills, with content categorised into Foundation Topics and Non-foundation Topics.

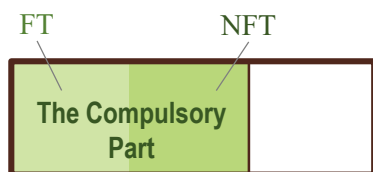
- Foundation Topics constitute a set of more fundamental concepts and knowledge, which all students should strive to learn
- Non-foundation Topics cover a wider range of content in terms of depth and breadth

### **The Extended Part**

It is designed for students who need more mathematical knowledge and skills for their future studies and careers. Students can take **Module 1 (Calculus and Statistics)** or **Module 2 (Algebra and Calculus)**

## Optimising Measures

1. While keeping the current curriculum and the HKDSE assessment framework of Mathematics **unchanged**, in order to cater for learner diversity and create space for students, it is proposed to enhance the utilisation of the current demarcation between Foundation Topics (FT) and Non-foundation Topics (NFT) of the Compulsory Part for arranging students with different mathematical abilities, interests and aspirations to study different combinations of the Compulsory Part and Extended Part.



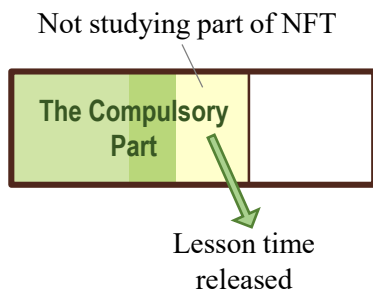
### General Students

Studying the whole Compulsory Part



### Students who have keen interest in Mathematics or need more mathematical knowledge and skills

Studying M1 or M2 together with the Compulsory Part



### a) Students having the inclination to focus their learning on subjects not related to Mathematics

Studying FT and part of NFT [Use the lesson time thus released (**up to 50 hours**) on the enhanced study of other subjects or OLE]

### b) Less able students

Studying FT and part of NFT [Use the time thus saved to focus on the learning of FT]

2. Teachers, parents and students should be clearly informed that a good mastery of Foundation Topics is sufficient for candidates who perform well in the HKDSE Examination of the Compulsory Part to attain up to Level 4.

## Optimising Measures

3. Schools are suggested to adopt **block-timetabling** and **grouping** to arrange students into different classes/groups for offering different combinations of the Compulsory Part and the Extended Part (i.e. Foundation Topics with part of Non-foundation Topics, the whole Compulsory Part, and the Compulsory Part plus M1/M2) **within the regular school timetable.**

### Remarks

- Schools could flexibly adopt school-based arrangements on whether or not and at which year level to offer classes/groups for non-mathematics-inclined students, in accordance with the school contexts (such as the number of students showing preference, their internal assessment results, their learning needs in other subjects)
  - As the grouping arrangement in Mathematics is subject-based, school may plan with flexibility (for example, school may offer different groups starting from the second term of S4 or from S5 so that non-mathematics-included students' decision of not taking all Non-foundation Topics could be made in S4 or when promoted to S5)
  - When adopting block-timetabling and grouping in Mathematics, schools may consider to allow students to move to other groups in S4 or S5, if they fulfil the school-based criteria
  - Mechanisms similar to schools' existing ones for handling selection of senior secondary subjects and streaming of students within subjects could be adopted to cater for learner diversity in senior secondary Mathematics
- \* To equip more teachers for the teaching of M1/M2, the EDB organised two cohorts of the "Certificate in Professional Development Programme for Secondary Mathematics Teachers (Learning and Teaching of the Extended Part)" in the 2021/22 and 2022/23 school years. The third cohort is anticipated to be held in 2023/24 school year.