# **Wider Subject Choice**

Curro values each learner's unique interests and life goals, empowering them to pursue their passions. With our innovative approach to education through our wider subject choice offering, Curro Choice, we offer a range of diverse subjects to all Curro high school learners in order for them to customise and personalise their educational journey.

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### FURTHER STUDIES IN MATHEMATICS

#### Available to:

Grades 10 to 12 learners (only available as an extra subject after school)

#### **O AN OVERVIEW**

Further Studies in Mathematics (FSM) is an additional subject examined by the Independent Examinations Board (IEB) in southern Africa. It is a subject offering within their International Secondary Certificate (ISC) programme. This threeyear programme replaces the Advanced Programme Mathematics previously offered by the IEB.

The primary aim of the subject offering is to involve our learners in creative problem-solving that promotes critical thinking. Furthermore, the subject offering allows our learners to engage with advanced mathematical concepts at school level, and in so doing they will be better prepared for their tertiary studies.

The subject is benchmarked against the UK A level in Mathematics by UK NARIC. The subject is certified separately to the normal school subjects and the successful completion of the subject can be used in applications at several tertiary institutions both nationally and internationally<sup>\*</sup>.

The commitment, rigour, self-discipline and higher-order thinking skills involved in the three-year programme is an advantage to all future tertiary study directions, not only the sciences and mathematics. This programme is highly recommended to all learners who wish to start their academic career with an advantage in both content and learning skills.

During the Grade 12 year, learners will have the option to complete the extended course in terms 2 and 3 in addition to the standard course offered throughout the academic year. The extended course includes topics such as financial Mathematics and mathematical modelling.



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#### **O WHAT YOU CAN EXPECT FROM THIS PROGRAMME**

The subject demands are high, and a high degree of self-regulated learning is expected. Part of the programme's advantages is the self-discipline and commitment that is required to succeed. A Grade 10 learner wishing to enter the programme will need a solid understanding of Grade 9 Mathematics and at least a 70% average to enrol for the subject.

#### BRIEF OVERVIEW OF THE CONTENT IN THE THREE-YEAR PROGRAMME

- Advanced algebra and complex numbers
- Financial Mathematics
- Population modelling
- Calculus, including differentiation and integration
- Optimisation problems

#### ••• CAREER PATHS

Assessments will be conducted virtually as detailed by the assessment planner. This will be distributed and confirmed on a termly basis. Details on the assessment procedures will be communicated during the term. Both virtual quizzes and paper-based assessments will be conducted.

Final Grade 12 examination will be conducted at an IEB-approved examination centre. Registration for this examination takes place in the Grade 12 year.

#### •O HOW LESSONS WILL BE CONDUCTED

The programme will be conducted virtually with one live lesson (90 minutes) per week scheduled during term time. These lessons will be recorded and made available on our learner management system (LMS). Learners will have ongoing access to this resource. MS Teams will be used as a management and virtual classroom space for the learners to collaborate and meet for live lessons with their teacher.

Learners will have access to the Mindbourne online APM resource. This platform gives additional support with detailed video explanations of concepts and problems to the learner and the teacher. This resource links directly to the course's textbook.

#### • REQUIRED LEARNING MATERIAL

These materials are at an additional cost to the programme fee as charged by Curro.

Mindbourne Advanced Programme Mathematics – Paper 1: Algebra and Calculus (ISBN: 9781928462415)

*Mindbourne* Advanced Programme Mathematics – Paper 2: Finance and Modelling (ISBN: 9781928462279)

**CURRO** 

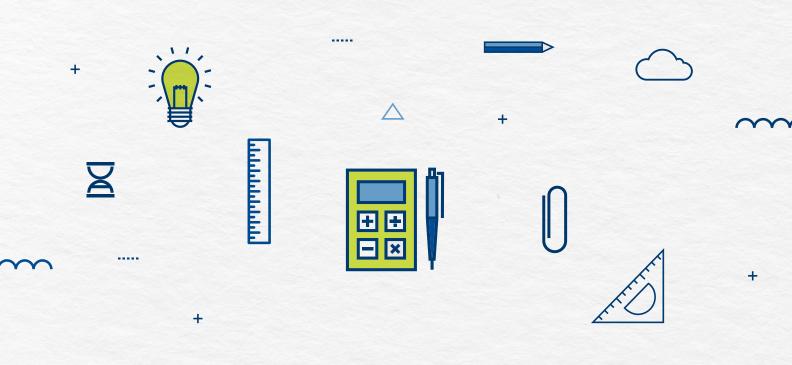
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Casio FX-9¬¬91ZA scientific calculator (the PLUS I and II versions are also acceptable)

Either the paper-based copy or e-book version of the textbooks can be purchased. The two textbooks are used over the three-year programme.

#### **O PLEASE NOTE:**

- Parents can expect an additional registration and examination fee to be paid to the IEB in the Grade 12 year, in order for the learner to complete the final examination.
- Kindly contact the IEB for a list of institutions that accept FSM as a subject qualification and award credit for completing the course.



### **Interested?**

Speak to your head of high school or contact us at **subjects@curro.co.za**.



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