

Takapuna Grammar School

Level 1 Mathematics Extension

Course Outline 2023



Recommended Achievement Levels.

Success in the Year 10 Mathematics or Mathematics Extension course, ideally achieving with merit or above in 1.2 Algebra and 1.3 Tables, Equations and Graphs.

Description / Aims of the Course / Course Content

The aim of the course is to introduce and develop advanced mathematical skills, concepts and understandings of the Level 7 Mathematics Curriculum in the areas of Patterns and Relationships and Equations, together with those of Levels 6 and 7 of the Statistics curriculum.

This course will cover three of the NCEA Level 2 Mathematics Achievement standards and two Level 1 External standards. It is possible to obtain a maximum of 17 credits. It contains five subject areas and uses a variety of Walker Maths Level 1 and 2 Mathematics workbooks for extra practice and homework. By the end of this course, students will have developed sufficient knowledge and skills to solve problems by applying coordinate geometry, geometry, graphical and trigonometric methods. As well as this, students will also be able to use statistical methods to draw valid conclusions and to show an understanding of chance and data.

Methods of Assessment

Standard		Title	Type	Credits
AS 91031	1.6	Apply geometric reasoning in solving problems	External	4
AS 91037	1.12	Demonstrate understanding of chance and data	External	4
AS 91256	2.1	Apply co-ordinate geometry methods in solving problems	Internal	2
AS 91257	2.2	Apply graphical methods in solving problems	Internal	4
AS 91259	2.4	Apply trigonometric relationships in solving problems	Internal	3

All internally assessed achievement standards will follow the school and NCEA policies and procedures on lateness, misconduct, extensions, missed / delayed assessments and appeals. Exact assessment dates will be given to students at the beginning of the teaching of each topic. An assessment will not automatically be open for reassessment if a student is absent. If an internal assessment is missed, there must be valid medical evidence to say why that student was absent. Students should be reminded that they will have signed an Authenticity Statement to the effect that all material presented for assessment is their own unaided work.

There will also be a series of common tests throughout the year. Students will be informed prior to the test date. There will be a common practice external for both the 1.6 Geometric Reasoning and the 1.12 Chance and Data topic. These results are recorded for both school and NCEA purposes. There will also be a 3-hour mock examination in September, during week 9 of Term 3. These assessments are important as practice for the November examination and provide evidence for the award of school subject prizes as well as derived grades when needed.

For students who did not sit the 1.5 Measurement internal and 1.2 Algebra MCAT last year, there will be time allocated in term 2 for some catch-up to occur.

Student Work

Every student must use TWO 1J5 or 1J8 Quad Exercise Books. It is expected that the student will bring all appropriate mathematical equipment for each lesson, each day. Teachers will instruct students that all necessary working must be shown. All students are asked to buy a 40-page clear file to ensure safe storage of worksheets, test revisions and assessments during the year.

If a student is absent from class on any given day, it is the student's responsibility to catch up on missed work. This means that all students must ensure that they copy out all missed theory notes, collect missed hand-outs and catch up on any work set during their absence.

All students must bring a graphic calculator to every lesson. The Casio model fx-9750GII is recommended, as teachers will be able to demonstrate and instruct students in the use of this model. These calculators can be purchased through the TGS Stationery Shop. Students must provide their own calculators for all assessments

Homework

Every teacher will set homework for at least 30 minutes per lesson. The student should record this with clear reference to exercise and page numbers in their diary. Parents are encouraged to support their son or daughter to ensure that everything has been completed on time. The homework can be a project, investigation activity, preparation for an assessment, pages from a homework book or the completion of an exercise from class. It is the responsibility of each student to ensure that all work set is completed and marked.

We encourage students who are struggling with their homework or maths tasks to seek additional support at Maths Coaching. This takes place after school on Tuesdays in RN46. A teacher and some senior students will be available to help.

Every L1MAX student is expected to buy the four Walker Maths workbooks and the TGS 2.2 Graphs Workbook. All five workbooks can be purchased through the TGS Stationery Shop.

General

If you have any concerns regarding your student's progress in Mathematics, please contact the classroom teacher.