



# Otumoetai College

## Mathematics Department

### Year 10 Mathematics Advanced Learners' MAALA Programme 2011

#### What is Mathematics?

Mathematics is the study of numbers, shapes and patterns. You will learn to think logically. You will also come to understand some properties of numbers even when you do not know what the number is. You will learn to calculate, estimate and communicate your answers effectively.

Mathematics is a skill that is essential for working in the technological age. You must have an understanding of mathematics to be allowed to train for most interesting and challenging jobs.

At Otumoetai College all students in years 9 – 11 are required to study mathematics and nearly all students in year 12 also study mathematics.

#### Topics

The main headings under which you will study mathematics are:

Algebra	Number
Measurement	Probability
Graphs	Statistics
Trigonometry	Geometry

The units of work are spread over the whole year. They are based on the strands of the Mathematics in New Zealand Curriculum document.

The course is taught to at least the level of NCEA level 1 and is based on the Achievement Standards offered at Level 1 in Mathematics.

#### Resources

You will be requested to purchase a copy of **Gamma Mathematics Homework Book** from your classroom teacher if you have not purchased one from a store, which is a Write-On homework book.

In the classroom your teacher will use a variety of other resources:  
New Zealand Mathematics 11; by Hawkins, Meadowcroft, Ramsay & Soper, as well as other textbooks and work sheets.

#### Assessment

##### Internal assessment

Throughout the year you will complete the following NCEA Level One internally assessed Standards. These standards carry credits that can be gained and used towards Level 1 NCEA. Due to a change in the standards used by NZQA in 2011, these grades will be logged with NZQA this year and if students want these credits to

be added to their record of learning they can apply any time from 2011 for this. More information will be given on this later in the year.

**Note** that there will be no further assessment opportunities for internally assessed Achievement Standards.

<b>Standard</b>	<b>Topic</b>	<b>Credit Value</b>	<b>Type of Assessment</b>
AS 91026	Apply numeric reasoning in solving problems	4	Internal
AS 91027	Apply algebraic procedures in solving problems	4	Formative (CAT)
AS 91028	Investigate relationships between tables, equations and graphs	4	Formative
AS 91030	Apply measurement in solving problems	3	Internal
AS 91032	Apply right-angled triangles in solving measurement problems	3	Internal
AS 91035	Investigate a given multivariate data set using the statistical enquiry cycle	4	Internal
AS 91038	Investigate a situation involving elements of chance	3	Internal

### **Other assessment**

Tests will be completed at the end of each unit. Project work and investigations will also be undertaken to assess mathematical processes. Your assessment grade will be given using the following descriptors.

N	=	Not Achieved
A	=	Achievement
M	=	Achievement with Merit
E	=	Achievement with Excellence.

Year 10 students sit an internal examination in late November of two hours duration that covers all work for the year. This examination is compulsory and is reported as general achievement grades, for each topic, as listed above. This grade system is the same as that used in the senior part of the College. This examination result, along with your performance throughout the year, will be used to place you in a class next year.

### **Moderation Between Classes**

All class assessments and examinations are common to all classes and have a common marking schedule. Inter-class moderation is achieved by check marking across the classes.

### **Authenticity of Student Work**

All work must be the student's own. If a staff member is in doubt, the student will be asked to provide further evidence, orally or in writing, by explaining or solving a similar problem etc.

An inadequate explanation will result in no achievement grade being awarded. NZQA Policy will be followed.

## **Appeals**

If a student is not satisfied with a particular assessment result, the student must discuss it with the class teacher within 24 hours of the assessment being handed back. The assessment does not leave the classroom.

Students not satisfied with the discussion should approach the Head of the Mathematics Department (Mr Dixon) as soon as possible, provided the assessment does not leave the room and is handed onto the Head of the Mathematics Department, by the classroom teacher.

## **Storage of Student Work**

The College will keep all student work for internally assessed standards until such time as it is no longer required for moderation purposes.

**Your teacher and the Mathematics Department** have the responsibility to help you achieve to your full potential.

**You** have the responsibility to complete all set work to the best of your ability, to be in class on time, to meet all deadlines and to act and behave in a responsible manner so that you can achieve to your potential. Your behaviour in the class should not impact on the other people in the classroom.

## **Reporting**

The first report will be an interim report in Term 1, Week 9, followed by a Report Evening in Term 2, Week 1. The second report is issued during Term 2, Week 11, and a third one at the end of the year.

## **In the year 2012**

The majority of students from this class will be looking at attaining the National Certificate of Educational Achievement level 2 in Mathematics by being invited to complete the Year 11MAALA course, which is all Achievement Standards based. Some students may opt to instead complete the Year 11MAALB course, which offers 24 credits in level 1 Achievement Standards.

## **Good Luck for 2011**

**J. Ellwood**  
**Assistant HOD Mathematics**  
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