

## **V.C.E. GENERAL MATHS UNITS 1 & 2**

There is a choice between General Maths A (**GMA**) or General Maths B (**GMB**)  
GMA (Advanced) is geared for students who wish to do Specialist Maths in Y12.  
GMB is geared for students who wish to do Further Maths in Y12.

Both GMA and GMB courses are taken out of the following areas of study, although the *topics* are different:

### **COURSE DESCRIPTION**

There are six (6) areas of study which cover the whole academic year (units 1 & 2):

#### **A. ARITHMETIC**

Covers Matrices (GMB), Sequences and Series (GMB) and Number systems GMA (integer-rational-real-complex).

#### **B. DATA ANALYSIS and SIMULATION**

Covers Univariate & Bivariate data and Simulation.(GMB)

#### **C. ALGEBRA**

Covers Linear (GMB) and Non-Linear Relations & Equations, Algebra (both GMA & GMB) and Logic.(GMA)

#### **D. GRAPHS of LINEAR and NON-LINEAR RELATIONS**

Covers Linear graphs and Modeling, (GMB) Sketching & interpreting graphs,(GMB) Variation and Kinematics, (GMA) and Relations & Functions (GMA)

#### **E. DECISION and BUSINESS MATHS**

Covers Networks, Linear Programming and Financial Arithmetic.(GMB)

#### **F. GEOMETRY and TRIGONOMETRY**

Covers Shape & Measurement, Geometry in 2 & 3 dimensions, (GMB) Coordinate Geometry, Vectors (GMA) and Trigonometric ratios & applications. (both GMA & GMB)

### **OUTCOMES**

For each unit students are required to demonstrate achievement of three (3) outcomes. These outcomes encompass *key knowledge* and *key skills* for each area of study, as specified in the 'Maths Study Design':

- Key Concepts/Definitions
- Applications and processes
- Use of Technology (Graphics calculator **TI-NSpire** or Computer spreadsheets)

## **ASSESSMENT**

The award of satisfactory completion for the unit is based on a decision that the student has demonstrated achievement of the set of outcomes specified for the unit. This decision will be based on the teacher's assessment of the student's overall performance on assessment tasks. These include:

- ◆ Assignments;
- ◆ Tests;
- ◆ Summary or review notes;
- ◆ Problem-solving tasks; and
- ◆ Investigative projects

Schools report with an overall **S** or **N** to the Board of Studies.

## **SHOULD I CHOOSE GENERAL MATHS?**

You may choose to undertake General Maths units 1 & 2 if you wish to continue with Further Maths units 3 & 4 at year 12.

You may also undertake Mathematical Methods units 1 & 2 as well as General Maths units 1 & 2, in order to have a sound preparation for Mathematical Methods units 3 & 4 (and Specialist Maths 3 & 4).

Further Maths is useful for courses that require statistics, e.g. Psychology, some Computer courses, e.t.c.

## **TEXTBOOK**

We are currently using the 'MATHS QUEST' (Jacaranda) textbook, which includes a CD-ROM with a 'Test Yourself' section. The CD-ROM is borrowed separately.

Please note there are separate textbooks for each of GMA and GMB.

## **IMPORTANCE of TECHNOLOGY**

The use of graphics calculators (TI-Nspire) is now 'assumed' (according to VCAA). All written exams have a component where the use of graphics calculator is essential. During V.C.E. you will need to familiarize yourself with the technicalities and complexities of your graphics calculator.