VCE GENERAL MATHEMATICS
INFORMATION GUIDE

Kilbreda College

VCE GENERAL MATHEMATICS

RATIONALE

This study is designed to provide access to worthwhile and challenging mathematical learning. It is designed to promote students' awareness of the importance of mathematics in everyday life in a technological society and globalised world, and to develop confidence and the disposition to make effective use of mathematical concepts, processes and skills in practical and theoretical contexts. General Mathematics Units provides for the study of non-calculus and discrete mathematics topics. They are designed to be widely accessible and provide preparation for general employment, business or further study, in particular where data analysis, recursion and financial modelling, networks and matrices are important.

UNIT 1

Area of Study 1
Data analysis, probability and statistics

In this area of study students cover types of data, display and description of the distribution of data, summary statistics for centre and spread, and the comparison of sets of data.

Area of Study 2
Algebra, number and structure

In this area of study students cover the concept of a sequence and its representation by rule, table and graph, arithmetic or geometric sequences as examples of sequences generated by first-order linear recurrence relations, and simple financial and other applications of these sequences.

Area of Study 3
Functions, relations and graphs

In this area of study students cover linear function and relations, their graphs, modelling with linear functions, solving linear equations and simultaneous linear equations, line segment and step graphs and their applications.

Area of Study 4
Discrete mathematics

In this area of study students cover the concept of matrices and matrix operations to model and solve a range of practical problems, including population growth and decay.

UNIT 2

Area of Study 1
Data analysis, probability and statistics

In this area of study students cover association between two numerical variables, scatterplots, and lines of good fit by eye and their interpretation.

Area of Study 2
Discrete mathematics

In this area of study students cover the use of graphs and networks to model and solve a range of practical problems, including connectedness, shortest path and minimum spanning trees.

Area of Study 3
Functions, relations and graphs

In this area of study students cover direct and inverse variation, transformations to linearity and modelling of some non-linear data.

Area of Study 4
Space and measurement

In this area of study students cover units of measurement, accuracy, computations with formulas for different measures, similarity and scale in two and three dimensions, and their practical applications involving simple and composite shapes and objects, trigonometry, problems involving navigation and Pythagoras' theorem and their applications in the plane.

CAREER OPTIONS

- Airconditioning Mechanic
- Insurance Agent
- Retail Buyer
- Science Technician
- Security Consultant
- Stock Broker
- Surveyor
- Teaching
- Telecommunications
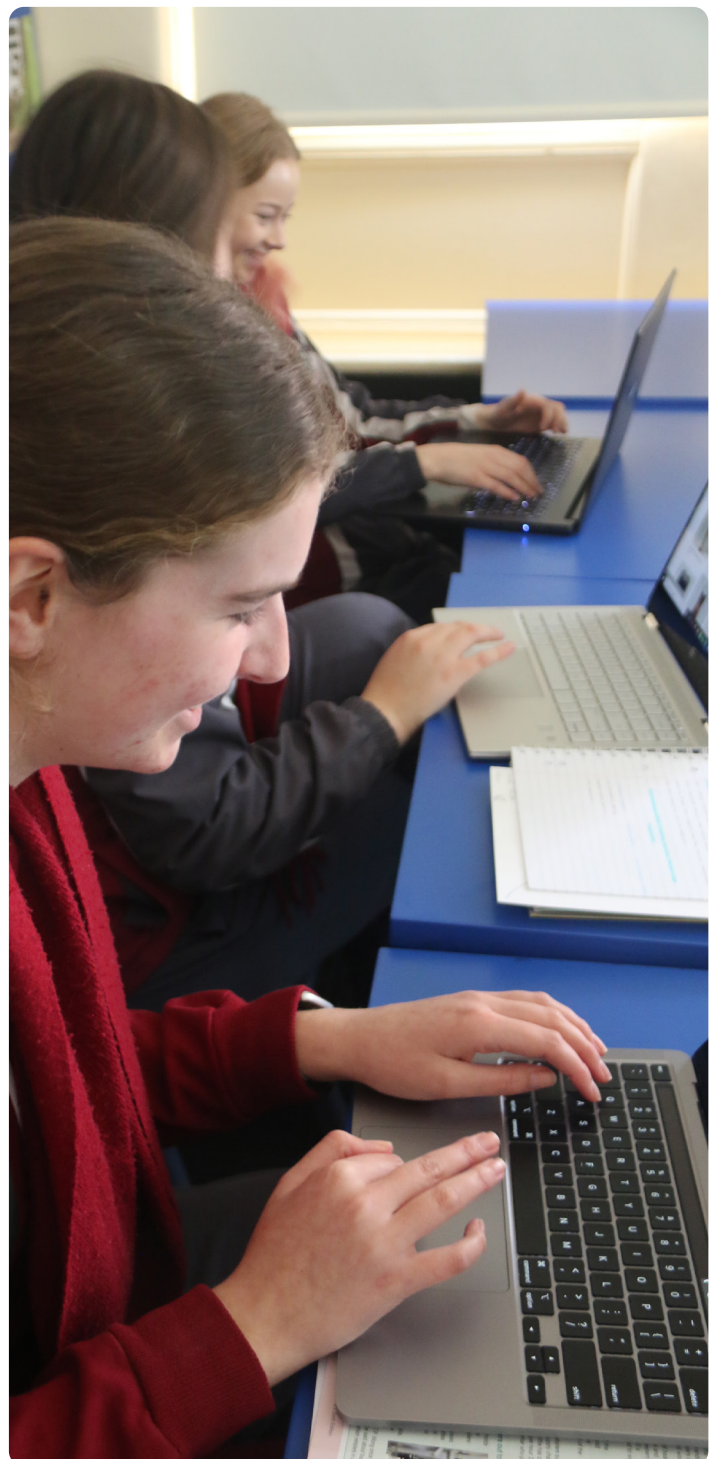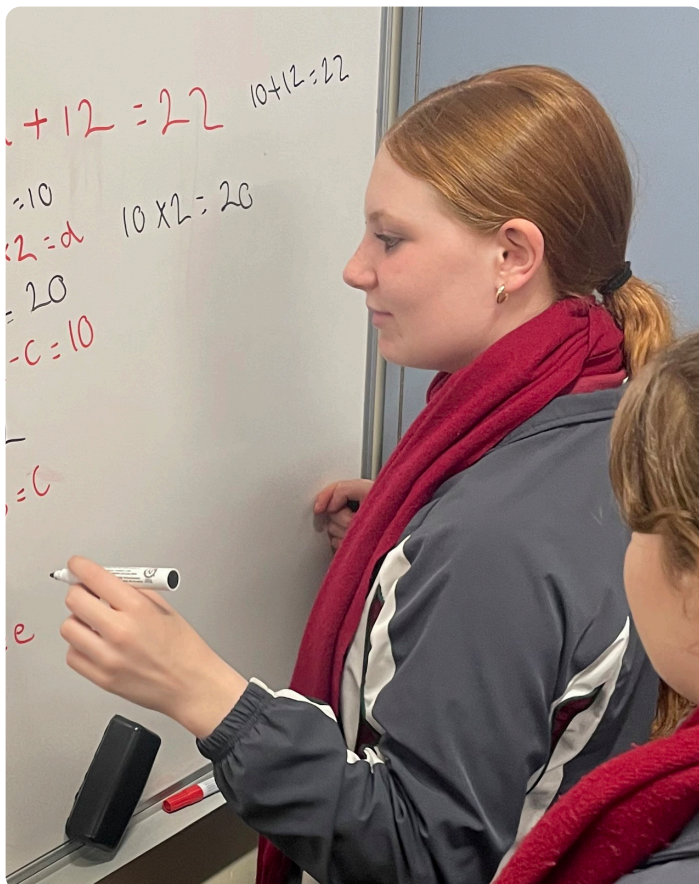
UNITS 3 & 4

Area of Study 1
Data analysis, probability and statistics

Students cover data types, representation and distribution of data, location, spread, association, correlation and causation, response and explanatory variables, linear regression, data transformation and goodness of fit, times series, seasonality, smoothing and prediction.

Area of Study 2
Discrete mathematics

Students cover the use of first-order linear recurrence relations and the time value of money (TVM) to model and analyse a range of financial situations, and using technology to solve related problems involving interest, appreciation and depreciation, loans, annuities and perpetuities.

To find out more information
about VCE General Mathematics
at Kilbreda College, please contact:

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