

MATHEMATICS, SCIENCE AND IT ACADEMY

SEMESTER 1 2019

Course Title	Essential Mathematics <i>Integrating the Australian Curriculum</i>	Course Code	1405
Unit Title	Unit 3: Essential Mathematics	Unit Code	14622
Semester Unit	Unit 3: Essential Mathematics	Unit Value	1.0
Term 1 Unit	Unit 3a: Essential Mathematics	Unit Value	0.5
Term 2 Unit	Unit 3b: Essential Mathematics	Unit Value	0.5

GOALS

The specific goals of this unit are for students to:

- understand the concepts and techniques used in measurement, scales, plans and models, graphs and data collection
- apply reasoning skills and solve practical problems in measurement, scales, plans and models, graphs and data collection
- communicate their arguments and strategies when solving mathematical and statistical problems using appropriate mathematical language
- interpret mathematical information and ascertain the reasonableness of their solutions to problems.

CONTENT SUMMARY

Further elaboration on the content of this unit is available at:

<http://www.australiancurriculum.edu.au/seniorsecondary/mathematics/essential-mathematics/curriculum/seniorsecondary#page=1>

Topic 1: Measurement

Topic 2: Scales, plans and models

Topic 3: Graphs

Topic 4: Data collection

COST OF MATERIALS

There are no costs associated with this unit of study.

ASSESSMENT

TASK	DUE DATE	WEIGHTING
Assignment 1	Week 6	25%
Exam 1	Week 8-9	25%
Assignment 2	Week 15	25%
Exam 2	Week 18	25%

Specific Entry & Exit Requirements for Term Units

It is possible to enter this course at Term 2. Entry into this course for Term 2 is by negotiation with the Executive teacher.

To exit at Term 1 you must complete Exam 1 and Assignment 1.

ASSESSMENT CRITERIA FOR ASSESSMENT AND REPORTING OF STUDENT ACHIEVEMENT

Technology, its selection and appropriate use, is an integral part of all the following criteria. Students will be assessed on the degree to which they demonstrate:

- Knowledge – knowledge of mathematical facts, techniques and formulae presented in the unit
- Application – appropriate selection and application of mathematical skills in mathematical modelling and problem solving
- Communication – interpretation and communication of mathematical ideas in a form appropriate for a given use or audience.

Unit Grades for A Courses

Technology, its selection and appropriate use, is an integral part of all the following descriptors.

	<i>A student who achieves the A grade typically,</i>	<i>A student who achieves the B grade typically,</i>	<i>A student who achieves the C grade typically,</i>	<i>A student who achieves the D grade typically,</i>	<i>A student who achieves the E grade typically,</i>
Knowledge	<ul style="list-style-type: none"> • Demonstrates a very high level of proficiency in the use of mathematical facts, techniques and formulae. 	<ul style="list-style-type: none"> • Demonstrates a high level of proficiency in the use of mathematical facts, techniques and formulae. 	<ul style="list-style-type: none"> • Demonstrates some proficiency in the use of mathematical facts, techniques and formulae. 	<ul style="list-style-type: none"> • Demonstrates limited use of mathematical facts, techniques and formulae. 	<ul style="list-style-type: none"> • Demonstrates very limited use of mathematical facts, techniques and formulae
Application	<ul style="list-style-type: none"> • Selects and applies appropriate mathematical techniques to solve practical problems. 	<ul style="list-style-type: none"> • Selects and generally applies appropriate mathematical techniques to solve practical problems. 	<ul style="list-style-type: none"> • With direction, selects and applies mathematical techniques to solve practical problems. 	<ul style="list-style-type: none"> • Solves some practical mathematical problems. 	<ul style="list-style-type: none"> • With guidance, solves some mathematical practical problems.
Communication	<ul style="list-style-type: none"> • Is consistently accurate and appropriate in presentation of mathematical ideas. 	<ul style="list-style-type: none"> • Is generally accurate and appropriate in presentation of mathematical ideas. 	<ul style="list-style-type: none"> • Presents some mathematical ideas. 	<ul style="list-style-type: none"> • Presents some mathematical ideas with guidance. 	<ul style="list-style-type: none"> • Presents some mathematical ideas with guidance

Teachers will consider, when allocating grades, the degree to which students demonstrate their ability to complete and submit tasks within a specified time frame.

ATTENDANCE AND PARTICIPATION

Students are expected to submit all assessment items and attend all classes, participate in a positive manner and seek support whenever it is required. Excursions, simulations and presentations by visitors (including lunchtime) may form part of classwork. It is your responsibility to catch up on missed work when absent from class.

Any student whose attendance falls below the 90% of the scheduled classes/contact time and has not provided substantial documentary evidence to cover the absence will be awarded a V grade. This means that 4 unexplained absences in a term or 8 unexplained absences in a semester could mean that a V grade may be awarded. However, the Principal has the right to exercise discretion in special circumstances if satisfactory documentation is supplied.

LATE SUBMISSION OF WORK

Students are encouraged to submit work on time, as it is a valuable organisational skill. Students are also encouraged to complete work even if it is late, as there are educational benefits in doing so.

Submission of work on a weekend or public holiday is not acceptable. If you do not submit your work to your class teacher, make sure that it is signed and dated by either another member of staff in the faculty staffroom, or a member of the front office staff.

Achievement in Accredited Courses is reported to the Board of Senior Secondary Studies and students with a Grade A-E. Late work submitted without approval will have an impact on the grade awarded to a student.

No work will be accepted after marked work has been returned or accepted after the unit has completed. Computer and/or printer failure will not be accepted as a valid reason for late work. Make sure you backup, keep hard copies and rough notes.

Unless prior approval is granted, any student who fails to submit assessment tasks worth in total 70% or more of the assessment for the unit, will be unassessable and will receive a V grade. The Principal has the right to exercise discretion in the application of the late penalty in special circumstances where satisfactory documentation is supplied.

CHEATING AND DISHONEST PRACTICE

The integrity of the College's assessment system relies upon all involved acting in accordance with the highest standards of honesty and fairness. Any departure from such standards will be viewed very seriously."

Accordingly:

- Plagiarism - claiming authorship of someone else's work (intentionally or otherwise) - is a serious misdemeanour and attracts severe penalties.
- Students are required to acknowledge the source of all material that is incorporated into their own work.
- Students may not submit the same item for assessment in more than one unit, unless specific agreement has been reached with the class teacher.

MODERATION

Throughout the semester, moderation in the form of common marking schemes, cross marking and joint marking occurs across all units in the Moderation Group to ensure comparability of standards. Moderation is a process whereby student's work is compared so that student performance can be graded fairly and consistently. Moderation takes some time, and so students may not receive their work back until ACT wide moderation of grades across all colleges has occurred. Small Group Moderation is carried out in courses with small class sizes.

RIGHT TO APPEAL

You can appeal against your assessment if you feel that the result you obtained is not fair. You should first talk to your class teacher, and if you are not satisfied with the explanation you must discuss the situation with the Executive Teacher of the faculty concerned. If you still do not feel that your result is fair you should talk to the Deputy Principal Programs for further advice on the 'appeal process'.

Executive Teacher: Jodie Beaumont

Signature: _____

Class Teachers: Tony George, Emily Munyard, Helen Souflias-Mantinaos

Date: February 2019