

**UNIT OUTLINE**

Year: 11

Accreditation: A

Timetable Period: 2020 S2, Q3, Q4

<b>Course Title</b>	<b>Essential Mathematics</b> <i>Integrating the Australian Curriculum</i>	<b>Course Code</b>	<b>1405</b>
<b>Unit Title</b>	Unit 2: Essential Mathematics	<b>Unit Code</b>	14620
<b>Semester Unit</b>	Unit 2: Essential Mathematics	<b>Unit Value</b>	1.0
<b>Term 3 Unit</b>	Unit 2a: Essential Mathematics	<b>Unit Value</b>	0.5
<b>Term 4 Unit</b>	Unit 2b: Essential Mathematics	<b>Unit Value</b>	0.5

**GOALS**

The specific goals of this unit are for students to:

- understand the concepts and techniques used in representing and comparing data, percentages, rates and ratios, and time and motion
- apply reasoning skills and solve practical problems in representing and comparing data, percentages, rates and ratios, and time and motion
- communicate their arguments and strategies when solving mathematical and statistical problems using appropriate mathematical or statistical language
- interpret mathematical and statistical 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>

Topic 1: Representing and comparing data

Topic 2: Rates and ratios

Topic 3: Time and motion

Topic 4: Percentages

**MATERIALS REQUIRED:** Topic booklet provided for use in class. Work book, pens, pencils, eraser, ruler and calculator are **compulsory requirements** of this course.

**ASSESSMENT**

<b>TASK</b>	<b>DUE DATE</b>	<b>WEIGHTING</b>
Assignment 1	Week 6	25%
Exam 1	Mid-Semester Exam Week	25%
Assignment 2	Week 14	25%
Exam 2	End of Semester Exam Week	25%

**Specific Entry & Exit Requirements for Term Units**

It is possible to enter this course at Term 4. Entry into this course for Term 4 is by negotiation with the Executive teacher. To exit at Term 3 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 <b>A</b> grade typically,</i>	<i>A student who achieves the <b>B</b> grade typically,</i>	<i>A student who achieves the <b>C</b> grade typically,</i>	<i>A student who achieves the <b>D</b> grade typically,</i>	<i>A student who achieves the <b>E</b> grade typically,</i>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Demonstrates a very high level of proficiency in the use of mathematical facts, techniques and formulae.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates a high level of proficiency in the use of mathematical facts, techniques and formulae.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates some proficiency in the use of mathematical facts, techniques and formulae.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates limited use of mathematical facts, techniques and formulae.</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstrates very limited use of mathematical facts, techniques and formulae</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>• Selects and applies appropriate mathematical techniques to solve practical problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Selects and generally applies appropriate mathematical techniques to solve practical problems.</li> </ul>	<ul style="list-style-type: none"> <li>• With direction, selects and applies mathematical techniques to solve practical problems.</li> </ul>	<ul style="list-style-type: none"> <li>• Solves some practical mathematical problems.</li> </ul>	<ul style="list-style-type: none"> <li>• With guidance, solves some mathematical practical problems.</li> </ul>
<b>Communication</b>	<ul style="list-style-type: none"> <li>• Is consistently accurate and appropriate in presentation of mathematical ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Is generally accurate and appropriate in presentation of mathematical ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Presents some mathematical ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Presents some mathematical ideas with guidance.</li> </ul>	<ul style="list-style-type: none"> <li>• Presents some mathematical ideas with guidance</li> </ul>

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.

Late work will receive a penalty of 5% (of possible marks) per calendar day late, unless an extension is granted by the class teacher prior to the deadline. This means that 5% is taken off the possible marks that could have been achieved eg. If a student achieved a score of 75/100, and the item is one day late, then five marks (5% of 100) would be taken from 75, which leaves the score as 70/100. 'Per calendar day late' means each day late whether it be a weekend or public holiday. Items due on any date must be submitted to the class teacher, faculty staff room, or front office at the college by 3.30pm on that day. After 3.30pm, the item will attract the late penalty. 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 receive 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 considered to 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 for further advice on the 'appeal process'.

More information about BSSS policy can be found

[http://www.bsss.act.edu.au/\\_data/assets/pdf\\_file/0010/313777/P\\_and\\_P\\_Manual\\_2020\\_V3.pdf](http://www.bsss.act.edu.au/_data/assets/pdf_file/0010/313777/P_and_P_Manual_2020_V3.pdf)

**Teachers:** Aruna Williams, Terry Brady, Helen Souflias, Michelle Skerry, Ingrid Bean, Evelyn Ashcroft, James Hall  
**Executive Teacher:** Debbie O'Brien  
**Date:** September, 2020