



Lae International School

Unit & Assessment Outline for Students and Parents

Year	2018	Semester	2	Grade	12	Unit Value	0.5
Curriculum	ACT Mathematics						
Subject Title/s	Mathematical Applications 4 (4b)						
Course Name	Mathematical Applications T						
Code/Unit	1452 /15076						

Assessment Tasks:

Week Due	Topic(s)	Type of Task	Weighting
3	Past Exam Paper	Take home Assignment	50%
6	Graphs & Equations	Written Test	50%

ACT. Learning outcomes against which the students will be reported:

<p>By the end of this unit students will be able to:</p> <ul style="list-style-type: none"> <input type="radio"/> understand the concepts and techniques in time series analysis; loans, investments and annuities; and networks and decision mathematics <input type="radio"/> apply reasoning skills and solve practical problems in time series analysis; loans, investments and annuities; and networks and decision mathematics <input type="radio"/> choose and use technology appropriately and efficiently.
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Assessment Criteria:

<p>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:</p> <ul style="list-style-type: none"> ✓ 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 ✓ Reasoning – ability to use reasoning to support solutions and conclusions (in T courses only) ✓ Communication – interpretation and communication of mathematical ideas in a form ✓ appropriate for a given use or audience.

Summary of Content:

Weeks	Content Outline	Curriculum Links
1-3	Topic 2: Loan, Investment Annuities - Compound interest loans and investments:	PNG/ACT
4 - 6	- Reducing balance loans (compound interest loans with periodic repayments)	PNG/ACT

7 - 10	- Annuities and perpetuities (compound interest investments with periodic payments made from the investment)	PNG/ACT
11-13	Revision and Exam Preparation	
14	PNG National Gr.12 Examination	

[PNG Only]

Weeks	Content Outline	Curriculum Links
1-3	Straight lines/Graphs/Circles	PNG
4-5	Vectors	PNG
6 - 7	Calculus & Differentiation	PNG
9-10	Integration	PNG
11-13	Log Laws/ and Circular function in radians	PNG/ACT
14	Grade 12 National Examination	