

PRACTICAL MATHEMATICS

900115

2020



UNIT OUTLINE

Last amended:	January 2020
---------------	--------------

© Western Sydney University Enterprises Pty Limited 2020

Except as provided by the Copyright Act 1968, no part of this publication may be produced, stored in a retrieval system or transmitted in any form or by any means without the prior written permission of Western Sydney University Enterprises Pty Limited.

This unit outline is to be used for educational purposes only.

Students should not make this publication available commercially, or redistribute it by any technological means.

Students must not record lectures or tutorials via any technology unless they obtain the express consent of the lecturer prior to the lecture being given.

Western Sydney University The College Nirimba Education Precinct Eastern Road Quakers Hill NSW 2763

Postal address: PO BOX 224 Quakers Hill NSW 2763

Phone: (02) 9852 4488 Fax: (02) 9852 4480

Disclaimer

If you buy or use this publication you should understand clearly that it has been produced solely for learning purposes. While the author and Western Sydney University Enterprises Pty Limited have made every effort to ensure that the material in this publication is accurate and of high quality, you are expressly advised that you should not rely on the contents of this publication in order to make decisions having legal, accounting, property, financial, investment or similar consequences or for any purpose other than learning. For any purposes other than learning you should first obtain the advice of an appropriately qualified professional. The author and Western Sydney University Enterprises Pty Limited disclaim any liability to any person, whether a student or otherwise, in respect of anything, and the consequences of anything, done or omitted to be done by any such person in reliance, whether wholly or partially, on the whole, or any part of, or omission from, the contents of this publication.

Western Sydney University ABN 53 014 069 881 is a registered provider under the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS). Provider Number 00917K.

Western Sydney University Enterprises Pty Limited ABN 44 003 474 468 trading as Western Sydney University The College (CRICOS Provider Number 02851G) is a wholly owned entity of Western Sydney University. Academic Pathway Programs are delivered by Western Sydney University The College under arrangement with Western Sydney University.

Unit name	Practical Mathematics		
Unit number	900115		
Coordinator	Michael Casey		
Session	2020.1		
Handbook summary	This unit has been designed to develop the students' mathematical literacy and mathematical thinking necessary for further education, work and everyday life. The unit aims to build on existing skills, develop skills in new areas and encourage students' confidence in their own ability by presenting mathematical concepts within a series of real-life problems.		
Credit point value	10		
Prerequisite/s	N/A		
Corequisite/s	N/A		
Unit incompatible with and not to be counted for credit with	N/A		
Assumed knowledge	Year 9 Mathematics or equivalent		
Unit level	Level Z — Non-award Foundation unit		
Attendance requirements	Students are expected to attend at least 80% of classes. Educational research consistently demonstrates that this attendance level is associated with a high likelihood of achieving a passing grade.		
Enrolment restrictions	Students must be enrolled in University Foundation Studies Extended three- term course.		
Learning outcomes	On successful completion of this unit, students should be able to: demonstrate an understanding and proficiency in using the mathematical language and terminology presented in the unit translate real-life problems into mathematical language select and apply a variety of problem-solving strategies and techniques to solve familiar and unfamiliar real-life problems, and use appropriate techniques to assess validity of solutions and interpret results.		
Unit content	 In this unit students will learn about: problem solving the real number system 		

	basic arithmetic			
	basic algebra			
	tables and graphsmeasurements and geometry			
	trigonometry, and			
	basic probability.			
Mode of delivery	This unit consists of six hours of face-to-face teaching each week. In addition, students will be required to access vUWS regularly in order to download additional learning material and to check for any announcements about the unit that may be posted there.			
Online learning requirements				
Essential requirements	Essential texts			
	There is no essential text for this unit.			
	Further resources			
	Akst, G, Bragg S 2004, <i>Basic mathematics through applications</i> , 3rd edn, Pearson/Addison-Wesley, Boston, MA.			
	Bittinger, ML 2007, <i>Basic mathematics</i> , 10th edn, Pearson/Addison- Wesley, New York.			
	Bootma,K, Badger,D, Skene,C & Yen, R 2005, <i>New century maths: 10 — Stages 5.1/5.2</i> , Cengage Learning, Southbank, Vic.			
	Lawler, G 2011, <i>Understanding maths: Basic mathematics explained</i> , 4th edn, Aber Publishing, Abergele.			
	Lawrence, G & Moule J 1990, <i>Mathematics in practice: accommodation</i> , Harcourt Brace Jovanovic, Marrickville, NSW.			
	McKeague, CP, 2005, <i>Basic mathematics</i> , 6th edn, Thompson- Brooks/Cole, Belmont, CA.			
	McSeveny, A, Conway, R & Wilkes, S 2014, <i>Australian signpost mathematics: 10 (stage 5.1–5.3</i>), Pearson Education Australia, Melbourne.			
	Rowland, R 2011, Maths quest, John Wiley & Sons, Milton, Qld.			
	Essential equipment			
	 Non-programmable scientific calculator (see learning guide for a list of approved calculators) 			

ASSESSMENT ITEMS AND WEIGHTING

Assessment for this unit will be based on the following components:

Task	Weighting	Learning outcomes assessed	Mandatory task
Class test 1 (1 hour)	10%	1, 2, 3, 4	Yes
Class test 2 (1 hour)	25%	1, 2, 3, 4	Yes
Class test 3 (1 hour)	25%	1, 2, 3, 4	Yes
Final exam (2 hours)	40%	1, 2, 3, 4	Yes
Total	100%		

For details of assessment due dates, please refer to the learning guide for this unit.

All marks will be determined in accordance with The College <u>Assessment Policy</u>.

All assessment tasks are mandatory unless otherwise specified. Should a student fail to attempt/submit the first formal assessment task in a unit, they will be deemed to be at risk and will need to follow an intervention plan in order not to receive a Fail Non-Submission (FNS) grade. However, failure to attempt/submit all other mandatory assessment tasks will result in an immediate FNS grade for the unit.

An overall mark of at least 50% is required to pass the unit.