MAST10014 Foundation Mathematics 1

Credit Points:	12.5
Level:	1 (Undergraduate)
Dates & Locations:	2016, Parkville This subject commences in the following study period/s: Semester 1, Parkville - Taught on campus.
Time Commitment:	Contact Hours: Two 1-hour lectures (24 lectures) and 2 x 1-hour tutorial per week (24 tutorials). Total Time Commitment: 170 hours across the semester, including class time.
Prerequisites:	Admission into the Bachelor of Science (Extended) or the Bachelor of Arts (Extended).
Corequisites:	None
Recommended Background Knowledge:	High school mathematics up to a year 10 standard or equivalent.
Non Allowed Subjects:	None
Core Participation Requirements:	For the purposes of considering request for Reasonable Adjustments under the Disability Standards for Education (Cwth 2005), and Student Support and Engagement Policy, academic requirements for this subject are articulated in the Subject Overview, Learning Outcomes, Assessment and Generic Skills sections of this entry. It is University policy to take all reasonable steps to minimise the impact of disability upon academic study, and reasonable adjustments will be made to enhance a student's participation in the University's programs. Students who feel their disability may impact on meeting the requirements of this subject are encouraged to discuss this matter with a Faculty Student Adviser and Student Equity and Disability Support: http://services.unimelb.edu.au/disability
Coordinator:	Mr David Collis
Contact:	**collisd@unimelb.edu.au (mailto:collisd@unimelb.edu.au)**
Subject Overview:	This is the first of a sequence of two subjects (Foundation Mathematics 1 and Foundation Mathematics 2) providing BA(Ext) and BSc(Ext) students with a foundation in mathematics that prepares students for the Bachelor of Science and a pathway into the Bachelor of Commerce. The content consists of traditional VCE mathematical topics, with a particular emphasis on those topics needed for subsequent studies in the Bachelor of Commerce degrees. Applications, examples and problems will be taken from these disciplines.
Learning Outcomes:	On completion of the subject students should have: # a basic understanding of algebra and be able to expand, factorise and collect like terms; # the ability to solve linear equations, and simultaneous equations; # the ability to sketch and interpret straight line graphs, and solving real world problems using linear models; # the ability to solve quadratic equations, sketch and interpret quadratic functions, and solving problems using quadratic functions; # an understanding of and be able to use exponential and logarithmic functions in problem solving; # an understanding of the general concept of a function, including such notions as range, domain, function type and hybrid functions; # an understanding of the core Trigonometric functions - sine, cosine and tangent - and the ability to solve trigonometric equations; # an understanding of the derivative of a function in terms of limits, the differentiation of polynomial, exponential and logarithmic functions, and maximal and minimal problem solving using stationary points; # the ability to use differential calculus; by expanding on the concept of a derivative; by exploring continuity, differentiability, the product, quotient and chain rules for

	differentiation, and the use of differentiation to solve rates of exchange problems and linear approximations; # well-developed communication group work skills.
Assessment:	Six assignments (5% each, total of 30%) due fortnightly throughout semester. One in class test (25%) held mid-semester. A 2 hour examination (45%) at the end of semester. This subject has a minimum hurdle requirement of 75% attendance and regular participation.
Prescribed Texts:	None
Breadth Options:	This subject is not available as a breadth subject.
Fees Information:	Subject EFTSL, Level, Discipline & Census Date, http://enrolment.unimelb.edu.au/fees
Notes:	This subject is only available to students enrolled in a Bachelor of Science (Extended) or a Bachelor of Art (Extended).
Related Course(s):	Bachelor of Arts (Extended) Bachelor of Science (Extended)