Applied Mathematics

Year and Campus:	2016
Coordinator:	Dr Lawrence Reeves
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Overview:	The Graduate Diploma allows students who have completed an undergraduate degree to refocus or expand their body of knowledge by completing the requirement of one of the undergraduate majors (or equivalent) in the Bachelor of Science not already completed. The Graduate Diploma provides a pathway to the Master of Science Streams.
Learning Outcomes:	Students who complete the Graduate Diploma should: # Demonstrate an independent approach to knowledge that uses rigorous methods of inquiry and appropriate theories and methodologies that are applied with intellectual honesty and a respect for ethical values; # Apply critical and analytical skills and methods to the identification and resolution of problems; # Act as informed and critically discriminating participants within the community of scholars, as citizens and in the work force; # Communicate effectively; # Commit to continuous learning; # Be proficient in the use of appropriate modern technologies, such as the computer and other information.
Structure & Available Subjects:	Completion of 100 points: # 50 points of study at Level 3; # 50 points of study at Level 2 or above.
Subject Options:	***Subject Prerequisites:*** *both of MAST10006 Calculus 2 and MAST10007 Linear Algebra, or equivalents or both of MAST10008 Accelerated Mathematics 1 and MAST10009 Acceleraed Mathematics 2, or equivalents.*

Level 2

Students should select 50 points of level 2 options to meet the pre-requisites for their level 3 choices.

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All of:

Subject	Study Period Commencement:	Credit Points:
MAST20009 Vector Calculus	Semester 1, Semester 2	12.50
MAST20026 Real Analysis	Semester 1, Semester 2	12.50
MAST20030 Differential Equations	Semester 2	12.50

Plus one of:

Subject	Study Period Commencement:	Credit Points:
MAST20004 Probability	Semester 1	12.50
MAST20006 Probability for Statistics	Semester 1	12.50

Level 3

Both of:

Subject	Study Period Commencement:	Credit Points:
MAST30021 Complex Analysis	Semester 1, Semester 2	12.50
MAST30028 Numerical and Symbolic Mathematics	Semester 2	12.50

Plus at least one of:

Subject	Study Period Commencement:	Credit Points:
MAST30001 Stochastic Modelling	Semester 2	12.50
MAST30030 Applied Mathematical Modelling	Semester 1	12.50
MAST30031 Methods of Mathematical Physics	Semester 2	12.50

*Students who select MAST30001 Stochastic Modelling will need to have completed prerequisites MAST20004 Probability or MAST20006 Probability for Statistics in their second year.

Plus (if required as a fourth subject) any other third year level subject offered by the Department of Mathematics and Statistics

Links to further information:	http://graduate.science.unimelb.edu.au
Related Course(s):	Graduate Diploma in Science