

Mathematics with Finance (3 Years) [BSc]

Year 3 Programme Structure

The 3rd year of this programme consists of 50 credits of MATH and BMAN (Accounting and Finance) compulsory (a mandatory requirement) course units and 60 credits of MATH and a 10 credit BMAN optional course units from the list below. Up to 20 credits of level 2 MATH optional course units may be taken with at least 100 credits of level 3 (or level 4 with permission) totalling 120 credits.

Note that students cannot take BMAN20081 without having achieved at least 40% in BMAN10621 and BMAN10522. It is strongly recommended that students taking BMAN30242 in semester 2 take BMAN30091 in semester 1. Suitable BMAN (Accounting and Finance) options are listed below.

Students on this programme can substitute one 10 credit MATH optional course unit with a University College (UCIL) course unit with permission. Students will need to complete the course unit permission form to require permission. Please check the timetables before selecting course units.

Accounting and Finance module

information: <https://ughandbook.portals.mbs.ac.uk/Myprogramme/Teachingtimetables.aspx>; BMap

information: <https://ughandbook.portals.mbs.ac.uk/Non-AllianceMBSstudents/Timetables.aspx>

Course descriptions on each course unit includes information on assessment criteria's, lecturer, syllabus, learning outcomes, etc., and they are available from the 'My Course' tab in 'My Manchester' by searching the subject code or you can browse them from the Schools 'Study' website.

Level 3 course units

Description	Semester	Requirement	Credit Rating	Level
BMAN30091 - Financial Derivatives	1	Mandatory	10	3
BMAN30111 - Advanced Corporate Finance	1	Mandatory	20	3
MATH37001 - Martingales with Applications to Finance	1	Mandatory	10	3
MATH39032 - Mathematical Modelling in Finance	2	Mandatory	10	3
BMAN20081 - Financial Statement Analysis	1	Optional	10	2
BMAN30071 - Share Prices and Accounting	1	Optional	10	2

Description	Semester	Requirement	Credit Rating	Level
Information				
MATH30011 - Project (Semester One)	1	Optional	10	3
MATH31001 - Linear Analysis	1	Optional	10	3
MATH32001 - Group Theory	1	Optional	10	3
MATH32011 - Commutative Algebra	1	Optional	10	3
MATH32071 - Number Theory	1	Optional	10	3
MATH32091 - Combinatorics and Graph Theory	1	Optional	10	3
MATH33011 - Mathematical Logic	1	Optional	10	3
MATH34001 - Applied Complex Analysis	1	Optional	10	3
MATH34011 - Asymptotic Expansions & Perturbation Methods	1	Optional	10	3
MATH35001 - Viscous Fluid Flow	1	Optional	10	3
MATH35021 - Elasticity	1	Optional	10	3
MATH36001 - Matrix Analysis	1	Optional	10	3
MATH36041 - Essential Partial Differential Equations	1	Optional	10	3
MATH36061 - Convex Optimization	1	Optional	10	3
MATH38001 - Statistical Inference	1	Optional	10	3
MATH38141 - Regression Analysis	1	Optional	10	3
MATH38161 - Multivariate Statistics and Machine Learning	1	Optional	10	3

Description	Semester	Requirement	Credit Rating	Level
MATH38181 - Extreme Values and Financial Risk	1	Optional	10	3
MCEL30011 - Advanced Technology Enterprise	Variable	Optional	10	3
UCIL20021 - Leadership in Action Unit	1	Optional	10	2
UCIL20031 - Manchester Leadership Programme: Leadership in Action Online Unit	1	Optional	10	2
BMAN30242 - Financial Engineering	2	Optional	10	3
BMAN30702 - Corporate Contracting and Managerial Behaviour	2	Optional	10	3
BMAN31802 - Applied Investment Management	2	Optional	10	3
MATH30002 - Mathematics Education	2	Optional	10	3
MATH30022 - Project (Semester 2)	2	Optional	10	3
MATH31042 - Fractal Geometry	2	Optional	10	3
MATH31052 - Topology	2	Optional	10	3
MATH31082 - Riemannian Geometry	2	Optional	10	3
MATH32032 - Coding Theory	2	Optional	10	3
MATH32052 - Hyperbolic Geometry	2	Optional	10	3
MATH32062 - Algebraic Geometry	2	Optional	10	3
MATH34032 - Green's Functions, Integral Equations and Applications	2	Optional	10	3
MATH35012 - Wave Motion	2	Optional	10	3

Description	Semester	Requirement	Credit Rating	Level
MATH35032 - Mathematical Biology	2	Optional	10	3
MATH35082 - Symmetry in Geometry and Nature	2	Optional	10	3
MATH36022 - Numerical Analysis II	2	Optional	10	3
MATH36032 - Problem Solving by Computer	2	Optional	10	3
MATH37012 - Markov Processes	2	Optional	10	3
MATH38032 - Time Series Analysis	2	Optional	10	3
MATH38052 - Generalised Linear Models	2	Optional	10	3
MATH38072 - Medical Statistics	2	Optional	10	3
MCEL30012 - Advanced Technology Enterprise	2	Optional	10	3
MCEL30022 - Interdisciplinary Sustainable Development	2	Optional	10	3
UCIL20022 - Leadership in Action Unit	2	Optional	10	2
MATH30000 - Double Project	1 and 2	Optional	20	3