

Mathematics with Business and Management (3 Years) [BSc]

Year 3 Programme Structure

The 3rd year of this programme consists of 60 credits of MATH optional course units and 60 credits of BMAN optional course units listed below, totalling 120 credits, with at least 100 credits of level 3 (or level 4 with permission) course unit options. Up to 20 credits of level 2 MATH optional course units may be taken.

Students on this programme can substitute a 10 credit MATH optional course unit with a University College (UCIL), of which Leadership in Action, or MCEL course unit option Interdisciplinary Sustainable Development.

Students on this programme wishing to take BMAN30242 are strongly recommended to take BMAN30091.

Further details on the BMAN courses unit modules is available from the course unit search engine in the student portal or by clicking on the link below:

BMap module information:

<https://ughandbook.portals.mbs.ac.uk/Non-AllianceMBSstudents/BMaPcoursesandapplicationprocess.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
BMAN30021 - Marketing	1	Optional	10	3
BMAN30071 - Share Prices and Accounting Information	1	Optional	10	3
BMAN30091 - Financial Derivatives	1	Optional	10	3
MATH30011 - Project (Semester One)	1	Optional	10	3

Description	Semester	Requirement	Credit Rating	Level
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
MATH37001 - Martingales with Applications to Finance	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
BMAN30022 - Strategy	2	Optional	10	3
BMAN30042 - Human Resource Management	2	Optional	10	3
BMAN30242 - Financial Engineering	2	Optional	10	3
BMAN30702 - Corporate Contracting and Managerial Behaviour	2	Optional	10	3
BMAN31152 - Decision Analysis for Business & Management	2	Optional	10	3
BMAN31212 - Investment Economics and Innovation	2	Optional	10	3
BMAN31842 - People Management and Change	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

Description	Semester	Requirement	Credit Rating	Level
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
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
MATH39032 - Mathematical Modelling in Finance	2	Optional	10	3
MCEL30012 - Advanced Technology Enterprise	2	Optional	10	3

Description	Semester	Requirement	Credit Rating	Level
MCEL30022 - Interdisciplinary Sustainable Development	2	Optional	10	3
UCIL20022 - Leadership in Action Unit	2	Optional	10	2
BMAN30010 - Management of Knowledge and Innovation	1 and 2	Optional	20	3
MATH30000 - Double Project	1 and 2	Optional	20	3