Actuarial Science and Mathematics (3 years) [BSc]

Year 2 Programme Structure

The second year of this degree programme consists of 80 credits of compulsory (= mandatory) MATH course units, plus 40 credits of optional course units. (If you take these optional courses as 10 credits in semester 1 and 30 credits in semester 2, then you will study 60 credits in each semester.) You can access all course descriptions* via your 'My Manchester' student portal, and you are advised to check the timetables for all course units before selection.

The course units MATH20201, MATH20812 and MATH20912 are considered to be particularly appropriate options for students on this programme. On the other hand, students may want to consider substituting up to 20 credits of MATH options with outside (non-MATH) course units; suitable outside courses are, for example, BMAN10621(B), BMAN10552 and BMAN10632 listed on the recommended outside course unit list, BMAN20242 (for exemption purposes), and UCIL20021/31 Leadership in Action. (The University College for Interdisciplinary Learning (UCIL) has an extensive list of course units available to students; for further details please see http://www.college.manchester.ac.uk/courses/. Students who wish to take outside courses will need the permission of the Year Tutor and must complete the 'Outside Course Unit Form'. Please check the timetables before selecting course units.

Note :

- BMAN10621(B) is a pre-requisite for BMAN20242, and students need to achieve at least 40% at the first attempt in BMAN10621(B) if they are to take BMAN20242. Further information is available by clicking on the course unit link below.
- BMAN10621(B) and BMAN20242 make up one of the Core Technical subjects (CT2) modules recommended for exemption. Details of the accreditation and exemption arrangements are available under the second on Accreditation.
- Students need to achieve at least 40% at the first attempt in BMAN20242 if they want to take those Finance course units in the third year for which BMAN20242 is a pre-requisite.
- Important information: The IFoA (the UK Institute and Faculty of Actuaries) is currently undertaking a review of its curriculum, looking at the study route needed to become a fully qualified actuary.

  Details of the current accreditation and exemption arrangements are available under the section on Accreditation.

*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 2 course units

Description	Semester	Requirement	Credit Rating	Level
MATH20101 - Real and Complex Analysis	1	Mandatory	20	2
MATH20411 - Partial Differential Equations and Vector Calculus B	1	Mandatory	10	2
MATH20701 - Probability 2	1	Mandatory	10	2
MATH20951 - Financial Mathematics for Actuarial Science 2	1	Mandatory	10	2
MATH20802 - Statistical Methods	2	Mandatory	10	2
MATH20962 - Contingencies 1 - Actuarial Science	2	Mandatory	10	2
MATH20972 - Actuarial Insurance	2	Mandatory	10	2
BMAN10621B - Fundamentals of Financial Reporting B	1	Optional	10	1
UCIL20021 - Leadership in Action Unit	1	Optional	10	2
UCIL20031 - Manchester Leadership Programme: Leadership in Action Online Unit	1	Optional	10	2
MATH20201 - Algebraic Structures 1	1	Optional	10	2
BMAN10552 - Fundamentals of Finance	2	Optional	10	1
BMAN10632 - Fundamentals of Management Accounting	2	Optional	10	1
BMAN20242 - Introduction to Corporate Finance and Financial Instruments	2	Optional	10	2

Description	Semester	Requirement	Credit Rating	Level
MATH20122 - Metric Spaces	2	Optional	10	2
MATH20132 - Calculus of Several Variables	2	Optional	10	2
MATH20142 - Complex Analysis	2	Optional	10	2
MATH20212 - Algebraic Structures 2	2	Optional	10	2
MATH20222 - Introduction to Geometry	2	Optional	10	2
MATH20302 - Introduction to Logic	2	Optional	10	2
MATH20502 - Fluid Mechanics	2	Optional	10	2
MATH20512 - Classical Mechanics	2	Optional	10	2
MATH20522 - Principles of Mathematical Modelling	2	Optional	10	2
MATH20602 - Numerical Analysis 1	2	Optional	10	2
MATH20622 - Programming with Python	2	Optional	10	2
MATH20712 - Random Models	2	Optional	10	2
MATH20722 - Foundations of Modern Probability	2	Optional	10	2
MATH20812 - Practical Statistics	2	Optional	10	2
MATH20902 - Discrete Mathematics	2	Optional	10	2
MATH20912 - Introduction to Financial Mathematics	2	Optional	10	2
UCIL20022 - Leadership in Action Unit	2	Optional	10	2
UCIL20020 - Leadership in Action 20 Credit Unit	1 and 2	Optional	20	2