

# Mathematics (3 Years) [BSc]

## Year 2 Programme Structure

The second year of this degree programme consists of 60 credits of compulsory (= mandatory) MATH course units in Mathematics, all in semester 1, and 60 credits of optional MATH course units in semester 2 which you must choose from the list below. 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.

You may take 10 or 20 credits of non-MATH course units ('outside' course units), in place of Mathematics course units, with permission. A list of recommended outside course units is available here, but students can choose courses which are not on this list. (Usually students in year 2 choose level 1 outside courses and/or University College course units - 2018/19 course list.) The only constraints are that the course or courses must fit into your timetable without clashing with other courses you have chosen, and you must have the necessary pre-requisites, which are usually equivalent to A-level. Students who wish to take outside courses will need the permission of the Year Tutor and must complete the 'course unit permission form'.

If you wish to take an outside course in semester 2, it simply replaces one of your optional MATH course units. If you wish to take an outside course which is in semester 1, or which runs all year, you can do so by taking a 70:50 credit split or by delaying MATH20201 or MATH20701 until the third year; however you will need to complete the 'course unit permission form' available from the section 'Undergraduate Forms'.

For all issues to do with course selection you are strongly advised to consult with your Academic Advisor.

\*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
MATH20041 - Managing My Future	1	Mandatory	0	2
MATH20101 - Real and Complex Analysis	1	Mandatory	20	2

Description	Semester	Requirement	Credit Rating	Level
MATH20201 - Algebraic Structures 1	1	Mandatory	10	2
MATH20401 - Partial Differential Equations and Vector Calculus A	1	Mandatory	20	2
MATH20701 - Probability 2	1	Mandatory	10	2
MATH20122 - Metric Spaces	2	Optional	10	2
MATH20132 - Calculus of Several Variables	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
MATH20802 - Statistical Methods	2	Optional	10	2
MATH20812 - Practical Statistics	2	Optional	10	2

Description	Semester	Requirement	Credit Rating	Level
MATH20902 - Discrete Mathematics	2	Optional	10	2
MATH20912 - Introduction to Financial Mathematics	2	Optional	10	2