

# Mathematics and Philosophy (3 Years) [BSc]

## Year 3 Programme Structure

The 3rd year of this programme consists of a 20 credit compulsory PHIL30011 (semester one) or PHIL30022 (semester two) Project course unit (listed below as a mandatory requirement) and 100 credits of optional course units. Students MUST choose and enrol on which semester they wish to take the PHIL Project.

In addition students must take optional MATH course units worth 60 credits (students may take up to 20 credits of MATH level 2 course units in replace of MATH level 3) and PHIL optional course units worth 40 credits, totalling 120 credits. Please check the timetables for these course units before selection.

Students may choose to substitute a 10 credit MATH option for a University College course unit [list of course units available from: <http://www.college.manchester.ac.uk/courses/>]. Students who choose this option must complete the online course unit permission form available from the section Undergraduate Forms. Please check the timetables before selecting course units.

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
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

Description	Semester	Requirement	Credit Rating	Level
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
PHIL30331 - Issues in Epistemology	1	Optional	20	3
PHIL30351 - Language and Analysis	1	Optional	20	3
PHIL30361 - Philosophy of Psychology	1	Optional	20	3
PHIL30551 - Philosophy of Action	2	Optional	20	3
PHIL30721 - Philosophy of Mathematics	1	Optional	20	3
MATH30002 - Mathematics Education	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

Description	Semester	Requirement	Credit Rating	Level
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
MATH39032 - Mathematical Modelling in Finance	2	Optional	10	3
PHIL30252 - Special Author:Wittgenstein	2	Optional	20	3
PHIL30442 - Special Author: Kant	1	Optional	20	3
PHIL30622 - Advanced Topics in Aesthetics: Emotions, Morality and Political Engagement in Art	2	Optional	20	3