

Mathematics Programmes of Study 2010-11

This document gives the prescribed or recommended mathematical component of the degree programmes offered by the Department. In case of a conflict between this document and college regulations, the latter regulations should be followed. A starred course or option (MT2680*, for example) indicates that this option is subject to validation. An entry such as '2 units MT' means that you choose mathematics options to that value. In the case of joint programmes full details of courses in the other subject are available from the relevant Department and an entry here such as (for example) '2 units EC' may include core, compulsory or optional courses in Economics.

Notes:

- When choosing your **second year programme** you must ensure that you include those courses prerequisite for your intended third year programme (and fourth year, for MSci students). Your second year programme should not include any first year half-units; this restriction does not apply to MT1300 taken by Mathematics and Management students, or to students taking MT1940 in their second year due to a late transfer into Maths or Maths major programmes. Any exemption from this policy will be for compelling academic reasons only, and needs to be approved both by the student's Advisor and by the Academic Coordinator for Maths.
- Students cannot take any first year options as part of their **third year programme**. We allow third year students to take at most one half-unit from the list of second year Maths courses. Any exemption from this policy will be for compelling academic reasons only, and needs to be approved both by the student's Advisor and by the Academic Coordinator for Maths. (College regulations, and in particular the list of Core/Compulsory/Core-Pass-Required courses for each programme, might restrict course choice further in some circumstances.)
- **MSci students' third and fourth year** course choices are more tightly controlled: please see the end of this document for details.
- Students whose degree programme includes the word *Mathematics* may not take courses with a mathematical content which are primarily intended for students of other disciplines, for example EC1102, GL1700, MN1025, PH1110 and PH1120. Exceptionally, students whose programme is *xxx with Mathematics* may be able to do so: the Academic Coordinator should be consulted for details.

Mathematics and Mathematics major degree programmes

Mathematics BSc (three year course)

	Year 1	Year 2**	Year 3
Term 1	MT1100, 1710, 1810, 1940	MT2800, 2940 plus 1 unit MT	2 units MT
Term 2	MT1720, 1820, and two of MT1210, 1300, 1510	MT2900 plus 1½ units MT	2 units MT

**In addition we recommend that students take MT2680* and MT2720 in Year 2.

Mathematics MSci (four year course)

	Year 1	Year 2**	Years 3 and 4
Term 1	MT1100, 1710, 1810, 1940	MT2800, 2940 plus 1 unit MT	See below
Term 2	MT1720, 1820, and two of MT1210, 1300, 1510	MT2900 plus 1½ units MT	

**In addition we recommend that students take MT2680* and MT2720 in Year 2.

Mathematics with Statistics

	Year 1	Year 2	Year 3
Term 1	MT1100, 1710, 1810, 1940	MT2300, 2800 plus 1 unit MT	MT3340 plus 1½ units MT
Term 2	MT1300, 1720, 1820, and one of MT1210, 1510	MT2320, 2900 plus 1 unit MT	MT3320, MT3350 plus 1 unit MT

Mathematics with Economics (last entry 2007)

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810, 1940 plus ½ unit EC	MT2300, 2800 plus ½ unit MT, ½ unit EC	1½ units MT, ½ unit EC
Term 2	MT1300, 1720, 1820 plus ½ unit EC	MT2900 plus 1 unit MT, ½ unit EC	1½ units MT, ½ unit EC

Mathematics with Management

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810, 1940 plus ½ unit MN	MT2300, 2800 plus ½ unit MT, ½ unit MN	1½ units MT, ½ unit MN
Term 2	MT1300, 1720, 1820 plus ½ unit MN	MT2620, 2900 plus ½ unit MT, ½ unit MN	1½ units MT, ½ unit MN

Mathematics Major (other than with Economics or Management)

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810, 1940 plus ½ unit other subject	MT2800 plus 1 unit MT, ½ unit other subject	1½ units MT, ½ unit other subject
Term 2	MT1720, 1820, and one of MT1210, 1300 or 1510 plus ½ unit other subject	MT2900 plus 1 unit MT, ½ unit other subject	1½ units MT, ½ unit other subject

Joint degree programmes including Mathematics

Computer Science and Mathematics

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810 plus 1 unit CS	MT2680*, 2800 plus 1 unit CS	1 unit MT, 1 unit CS
Term 2	MT1720, 1820 plus 1 unit CS	1 unit MT, 1 unit CS	1 unit MT, 1 unit CS

Economics and Mathematics

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810 plus 1 unit EC	MT2300 plus ½ unit MT, 1 unit EC**	1 unit MT, 1 unit EC
Term 2	MT1300, 1720, 1820 plus ½ unit EC	MT2620 plus 1½ units EC**	1 unit MT, 1 unit EC

** Economics and Mathematics students take 2½ units of Mathematics in Year 1 and 1½ units in Year 2: they may take the extra Economics half-unit in either term.

Finance and Mathematics

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810 plus 1 unit EC	MT2300 plus ½ unit MT, 1 unit EC**	MT3470 plus ½ unit MT, 1 unit EC
Term 2	MT1300, 1720, 1820 plus ½ unit EC	MT2620 plus 1½ units EC**	MT4470 plus ½ unit MT, 1 unit EC

**Finance and Mathematics students take 2½ units of Mathematics in Year 1 and 1½ units in Year 2: they may take the extra Economics half-unit in either term.

Mathematics and Management

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810 plus 1 unit MN	MT2800 plus ½ unit MT, 1 unit MN	1 unit MT, 1 unit MN
Term 2	MT1720, 1820 plus 1 unit MN	MT1300 plus ½ unit MT, 1 unit MN	1 unit MT, 1 unit MN

Mathematics and Physics

	Year 1	Year 2**	Year 3
Term 1	MT1710, 1810 plus 1 unit PH	MT2800 plus ½ unit MT and 1 unit PH	1 unit MT and 1 unit PH
Term 2	MT1720, 1820 plus 1 unit PH	MT2270* plus ½ unit MT and 1 unit PH	1 unit MT and 1 unit PH

**We recommend that the other two second year half units in mathematics are MT2220 and MT2720.

Mathematics and Physics MSci

	Year 1	Year 2**	Years 3 and 4†
Term 1	MT1710, 1810 plus 1 unit PH	MT2800 plus ½ unit MT and 1 unit PH	1 unit MT and 1 unit PH
Term 2	MT1720, 1820 plus 1 unit PH	MT2270* plus ½ unit MT and 1 unit PH	1 unit MT and 1 unit PH

**We recommend that the other two second year half units in mathematics are MT2220 and MT2720.

†You must take a one-unit project in Year 4, either as MT4000 or as PH4100.

**Mathematics and Music
Mathematics and Psychology**

	Year 1	Year 2	Year 3
Term 1	MT1710, 1810 plus 1 unit MU or PS	MT2800 plus ½ unit MT and 1 unit MU or PS	1 unit MT and 1 unit MU or PS
Term 2	MT1720, 1820 plus 1 unit MU or PS	1 unit MT and 1 unit MU or PS	1 unit MT and 1 unit MU or PS

Mathematics minor degree programmes

	Year 1	Year 2	Year 3 or Year 4
Term 1	MT1810 plus 1½ units in the other subject	½ unit MT plus 1½ units in the other subject	½ unit MT plus 1½ units in the other subject
Term 2	MT1820 plus 1½ units in the other subject	½ unit MT plus 1½ units in the other subject	½ unit MT plus 1½ units in the other subject

Mathematics MSci (four-year degree)

Students on this programme follow the same first and second year pathway as those taking the three-year Mathematics BSc degree programme, but in the third and fourth years their selection of course units is more tightly controlled. To progress in the MSci programme it is necessary to reach a weighted average mark of 50% at the end of the third year of study; otherwise students will be transferred to the BSc programme.

The structure in years 3 and 4 is as follows:

MSci Year 3:

You may choose freely from the Year 3 and Year 4 lists. However, it is important when choosing to take into account your possible Year 4 choices. In particular, remember that some half-units are given in alternate years. The current pattern is that MT3810 and MT4860, MT4120 and MT4130, MT4200 and MT4220, and MT3230 and MT4210 are alternating pairs.

MSci Year 4:

You must take the full-unit project course MT4000. Your other six half-units may include no more than two from the Year 3 list (except that MT3230 and MT3810, which are given in alternate years, count as Year 4 half-units for this purpose).

Some MT4xxx courses have an overlap with material from the equivalent third year MT3xxx course. You cannot take one of these if you have already taken the corresponding MT3xxx course, and you cannot take the MT3xxx version of these in Year 4. These courses are MT4450, MT4610, MT4620, MT4650.

Your year 3 and 4 choices together should make a coherent set of course-units which is approved by your adviser.

Transferring from the BSc to the MSci programmes: Students with LEA awards must transfer by the end of Term 1 of Year 2 at the latest (as the LEA is not obliged to fund the 4th year after this time). Transfer to the MSci must in any case be by the start of Term 1 of Year 3 and will only be permitted for students whose earlier programme fulfils the MSci structural requirements.