

MSci Mathematics

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(talk by Prof Alexander Pushnitski)



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Overview of the Programme

- ▶ **Four**-year programme
- ▶ The first two years are identical to Maths BSc
- ▶ Each year is split into **two** teaching terms and an examination term
- ▶ Each teaching term has **11** weeks of classes
- ▶ In each year, you will take 120 credits, normally **eight** modules, 15 credits each. Normally four modules each term.
- ▶ Each module nominally takes 150 hours of your time, including attendance at lectures and tutorials, homework, revision, class tests and final exams
- ▶ Recorded lectures: Complement lectures, don't replace them.
- ▶ You can take extra modules (e.g. language), for "additional credit", or modules from outside the Department of Mathematics, **with permission** from the Programme Director.

Academic Year Calendar

- ▶ Term 1:
 - ▶ Classes start on Monday 29 September (timetable week 7)
 - ▶ Reading Week: Monday 3 November - Friday 7 November; no classes, but expect lots of work to do
 - ▶ Classes end on Friday 19 December
 - ▶ Exams are from 9-15 January (Calculus I only this year, **more next year**)
- ▶ Term 2:
 - ▶ Classes start on Friday 16 January (timetable week 22)
 - ▶ **No** Reading Week in Term 2
 - ▶ Classes end on Thursday 2 April
- ▶ Term 3 (exam term):
 - ▶ Revision Week: 27 April - 1 May
 - ▶ Exams: 5 May - 5 June
 - ▶ Resit/replacement exams: 10-21 August

Level 4: First Year Modules

- ▶ All the modules in the first year are compulsory
- ▶ Each module is worth 15 credits

Term 1	Term 2
Calculus I	Calculus II
Linear Algebra & Geometry I	Linear Algebra & Geometry II
Sequences & Series	Intro to Dynamical Systems
Intro to Algebra	Probability & Statistics I

- ▶ *Exceptionally:* language module for extra credit, with permission.

Level 5: Second Year Modules

- ▶ Five compulsory Mathematics modules:

Term 1	Term 2
Real Analysis	Complex Analysis
Classical Dynamics	Applied Differential Equations
Groups and Symmetries	<i>Option</i>
<i>Option</i>	<i>Option</i>

- ▶ Three optional modules, normally from the list of optional modules in the Handbook.
- ▶ *Exceptionally*: extra module or a module outside the list, with permission; or a language module for extra credit.
- ▶ It is your responsibility to balance workload over two terms.
- ▶ The option you choose will influence which modules you can study in third year — there are pre-requisites.

Level 6: Third Year Modules

- ▶ No compulsory modules.
- ▶ At least four modules from **List A** (“hardcore maths”), the rest *normally* from **List B**, see Handbook.
- ▶ *Exceptionally*, you may choose a language module or a module outside Maths Dept or outside King’s, with permission.
- ▶ There are other constraints – see Handbook for full details.
- ▶ Must select sufficient pre-requisites for the fourth year.

Level 7: Fourth Year Modules

- ▶ MSci project is core (must be taken and passed), worth 30 credits, runs over 2 terms.
- ▶ The rest of the modules are optional (90 credits).
- ▶ Can optionally select a specialisation, one of:
 - ▶ Complex Systems
 - ▶ Pure Mathematics
 - ▶ Statistics
 - ▶ Theoretical Physics

Study Abroad Option

- ▶ You can spend an extra year, between your second and third years or between your third and fourth years, at an overseas university.
- ▶ This year will not count towards the final degree classification, but will change your degree title to “MSci Mathematics with a Year Abroad”
- ▶ You need acceptance from: Study Abroad office, Department of Mathematics, the overseas university.
- ▶ There are constraints: average marks, no. of credits passed etc.
- ▶ If you are interested, check the handbook for details, discuss with the Study Abroad Tutor and apply through the Study Abroad Office.

Year in Industry Option

- ▶ You can spend an extra year, between your second and third years, working in an industrial placement.
- ▶ This year will not count towards the final degree classification.
- ▶ You need to meet the progression requirement and have a confirmation of placement from a company
- ▶ If you are interested, check the handbook for details and discuss with the Year in Industry Programme Director.
- ▶ You cannot have both Year in Industry and Study Abroad.

Assessment and progression

Different modules have different mixtures of the following types of assessment (see Handbook for details):

- ▶ Written examination, usually two hours; by far the most common
- ▶ Class test, during the term
- ▶ Assessed coursework
- ▶ Essay / report
- ▶ Oral presentation

There are progression requirements for every year (see Handbook). For example, year 1 \rightarrow year 2: 90 credits passed and a mark in the range 1-39 in remaining mathematics modules.

In particular, if you don't meet requirements at the end of year 3, you may be transferred to Maths BSc.

Registration and Module Selection

- ▶ Any changes to registration (e.g. transfer to a different programme, interruption of studies, withdrawal) is done online via Student Records, after discussing with Personal Tutor and Programme Director.
- ▶ Module selection is done online. You will get an email with instructions at the appropriate time.
- ▶ No choices in First Year – relax!
- ▶ Discuss module selections and changes with your Personal Tutor and/or Programme Director.

Further points of contact

- ▶ **Use the UG Handbook!**
- ▶ For administrative matters contact the Maths General Office S5.17, email mathematics-ug@kcl.ac.uk or tel. 020 7848 2828
- ▶ Programme Director: can advise on choices of modules which are allowed and which are sensible; can give basic advice on further study and career opportunities.
- ▶ Personal Tutor: can help you generally navigate the academic system (particularly in case of difficulties), can advise you on choices of modules tailored to your interests and abilities.
- ▶ For help with individual modules, please see the course Lecturer (office hours or arrange an appointment by e-mail) and Teaching Assistant(s)

What's Next?

You should meet your Personal Tutor in the next two weeks — check your email for the name of your tutor and the time that you should go.

- ▶ Familiarise yourself with Teams, timetabling app, library resources etc.

Most Mathematics Academic Staff have their offices on the 4th and 5th floors of the Strand Building.

You should see your Personal Tutor regularly, especially in first year.

GOOD LUCK!