Department of Mathematics and Statistics: Undergraduate Courses

Dr Louise Kelly

Our Department and Courses

- Applied Department
  - Links with industry and government organisations
  - Staff with joint appointments
    - NHS, Animal and Plant Health Agency, Marine Scotland
- BSc, BSc (Hons), MMath
- Joint degrees
  - Education
  - Science
  - Business
- Real maths for real life

Our Department and Courses

Course		Year 1	Year 2	Year 3	Year 4	Year 5
Mathematics (M)	BSc	100 credits M&S (fixed), 20 credits elective	120 credits M&S (fixed)	60 credits M (fixed), 60 credits M&S (choice)	20 credits project, 100 credits M&S (choice)	N/A
	MMath	As above	As above	As above	As above	40 credits project , 80 credits M&S (choice)
Mathematics & Statistics (M&S) – *exit award*	BSc	As above	As above	100 credits M&S (fixed), 20 credits M (choice)	As above	N/A
	MMath	As above	As above	As above	As above	40 credits project , 80 credits M&S (choice)
Mathematics with Teaching (T)	BSc	As above	As above	60 credits M (fixed), 40 credits T, (fixed), 20 credits M (choice)	80 credits T (fixed), 40 credits M (choice)	N/A

Our Department and Courses

Course		Year 1	Year 2	Year 3	Year 4
Data Analytics (Note: Statistics (S), Mathematics and Statistics (M&S))	BSc	60 credits M&S (fixed), 60 credits CS (fixed)	60 credits M&S (fixed), 60 credits CS (fixed)	40 credits S (fixed), 20 credits CS (fixed), 40 credits CS (choice), 20 credits elective	20 credits S project or 40 credits CS project, 100 or 80 credits S, CS (choice)
Mathematics (M) and Computer Science (CS)	BSc	60 credits M&S (fixed), 60 credits CS (fixed), 10 credits elective	60 credits M (fixed), 60 credits CS (fixed), 10 credits elective	40 credits M (fixed), 20 credits CS (fixed), 60 credits M, CS (choice)	20 credits M project or 40 credits CS project, 100 or 80 credits M, CS (choice)
Mathematics and Physics (P)	BSc	60 credits M&S (fixed), 60 credits P (fixed), 10 credits elective	60 credits M (fixed), 60 credits P (fixed), 10 credits elective	40 credits M (fixed), 40 credits P (fixed), 40 credits M, P (choice)	20 credits M project or 40 credits P project, 100 or 80 credits M, P (choice)

Our Department and Courses

Course		Year 1	Year 2	Year 3	Year 4
Mathematics Statistics (M&S) and Accounting (A)	BSc	80 credits M&S (fixed), 40 credits A (fixed), 20 credits elective	60 credits M&S (fixed), 60 credits A (fixed)	40 credits M&S (fixed), 60 credits A (fixed), 20 credits M&S (choice)	20 credits project, 100 credits M&S, A (choice)
Mathematics, Statistics and Business Analysis (BA)	BSc	80 credits M&S (fixed), 20 credits BA (fixed), 20 credits elective	80 credits M&S (fixed), 40 credits BA (fixed)	40 credits M&S (fixed), 20 credits BA (fixed), 60 credits M&S, BA (choice)	20 credits project, 100 credits M&S, BA (choice)
Mathematics, Statistics and Economics (E)	BSc	80 credits M&S (fixed), 20 credits E (fixed), 20 credits elective	80 credits M&S (fixed), 40 credits E (fixed)	40 credits M&S (fixed), 20 credits BA (fixed), 60 credits M&S, E (choice)	20 credits project, 100 credits M&S, E (choice)
Mathematics, Statistics and Finance (F)	BSc	80 credits M&S (fixed), 20 credits F (fixed), 20 credits elective	80 credits M&S (fixed), 40 credits F (fixed)	40 credits M&S (fixed), 40 credits F (fixed), 40 credits M&S (choice)	20 credits project, 100 credits M&S, F (choice)

Career Opportunities

- Accountant/actuary
- Air traffic controller
- Banking
- Biometrician/Biostatistician
- Budget analyst
- Business analyst
- Cartographer
- Commodity manager
- Computer programmer
- Cryptanalyst
- Data manager
- Economist
- Engineer
- Financial auditor
- Insurance broker
- Investment banker
- Meteorologist
- Numerical analyst
- Risk analyst
- Software engineer
- Teacher

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Career Opportunities

- Statistics and data mining:

  "two key areas in which a 'skills gap' is threatening the UK's biopharmaceutical industry" - British Pharmaceutical Industry

  "*millions of statisticians and data analysts will be needed globally to manage Big Data–related projects*" – Head of Research at Gartner IT

- http://www.mathscareers.org.uk/

21 SERIOUSLY COOL CAREERS THAT NEED MATHS

Entrance requirements

Course	Highers (Year 1 entry)	Advanced Highers (Year 2 entry)
G100: Mathematics BSc (also Mathematics and Statistics)	AABB or ABBBC (Maths at A)	AB (Maths at A)
G101 Mathematics MMath (also Mathematics and Statistics)	AAAB or AABBB (Maths at A)	AA (Maths at A)
Mathematics with Teaching	AABB or ABBBC (Maths at A, English at C)	AA (Maths at A, Higher English at C)
Data Analytics	AABB or ABBBC (Maths at A)	AB (Maths at A, Computing Science at B)
Mathematics and Computer Science	AABB or ABBBC (Maths at A)	AB (Maths at A, Computing Science at B)
Mathematics and Physics	AABB or ABBBC (Maths at A, Physics at B)	AB (Maths at A, Physics at B)
Mathematics, Statistics and Accounting	AAAA or AAABB (Maths at A, English at C)	Not offered
Mathematics, Statistics and Business Analysis	AABB or ABBBC (Maths at A, English at C)	AAB (Maths at A, Accounting or Economics at A)
Mathematics, Statistics and Economics	AABB or ABBBC (Maths at A, English at C)	AAB (Maths at A, Accounting or Economics at A)
Mathematics, Statistics and Finance	AABB or ABBBC (Maths at A, English at C)	AAB (Maths at A, Accounting or Economics at A)

Admissions

- Around 150 places per year

- Around 800 applications per year

- Places NOT allocated to different courses

- Unconditional offers made first

- Conditional offers made after Jan 15 deadline

Admissions

- Don't apply for multiple courses with same entrance requirements e.g.
  - Mathematics and Data Analytics
- Transfer between courses possible at registration (if entrance requirements met)
- If entrance requirements not possible, alternative offer may be given, e.g.
  - Mathematics with Teaching → Mathematics
  - Mathematics, Statistics and Finance → Mathematics
    - Can transfer in year 2
  - Mathematics, Statistics and Accounting → Mathematics, Statistics and Finance

Personal Statement

- Interest in Mathematics and other subject (if appropriate)
- Career aspirations
- Demonstration of generic skills
  - Problem solving
  - Independence
- Demonstration of specific skills e.g.
  - Tutoring, helper younger pupils for teaching
- Participation in e.g. Focus West, Leaps

Reference

- Academic ability
- Attendance
- Enthusiasm, motivation
- Suitability for selected courses
- Potential for success at University
- Awards and achievments
- Generic skills
- Specific skills related to the course
- Personal circumstances (with permission)

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