



THE UNIVERSITY  
of EDINBURGH

# School of Mathematics: An introduction

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# About the School

- Based in the James Clerk Maxwell Building at King's Buildings Campus
- Also have a presence in the Bayes Centre at Central Campus
  
- 135 academic staff
- 1001 undergraduates
- 208 MSc students
- 157 PhD students



# About the School

- Ranked 18<sup>th</sup> in the world (3<sup>rd</sup> in the UK) for Mathematics (*Shanghai Global Ranking of Academic Subjects, 2023*)
- Research areas:
  - Analysis, Probability and Stochastic Analysis
  - Applied and Computational Mathematics
  - Optimization and Operational Research, Statistics
  - Algebra, Category Theory, Geometry and Topology, Mathematical Physics
  - Technology Enhanced Mathematical Sciences Education
  - Energy in Maths





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# School of Mathematics: UG programmes

# UG degrees – flexibility and choice

## BSc (Hons)

- Mathematics\*
- Applied Mathematics\*
- Mathematics & Statistics\*
- Mathematics & Business
- Mathematics & Music
- Mathematics & Physics\*

## MA (Hons)

- Mathematics
  - Mathematics\*
  - Applied Mathematics\*
- ## MMath (Hons) [Five years]
- Mathematics\*
  - Applied Mathematics\*

## BSc (Hons)

- Computer Science & Mathematics

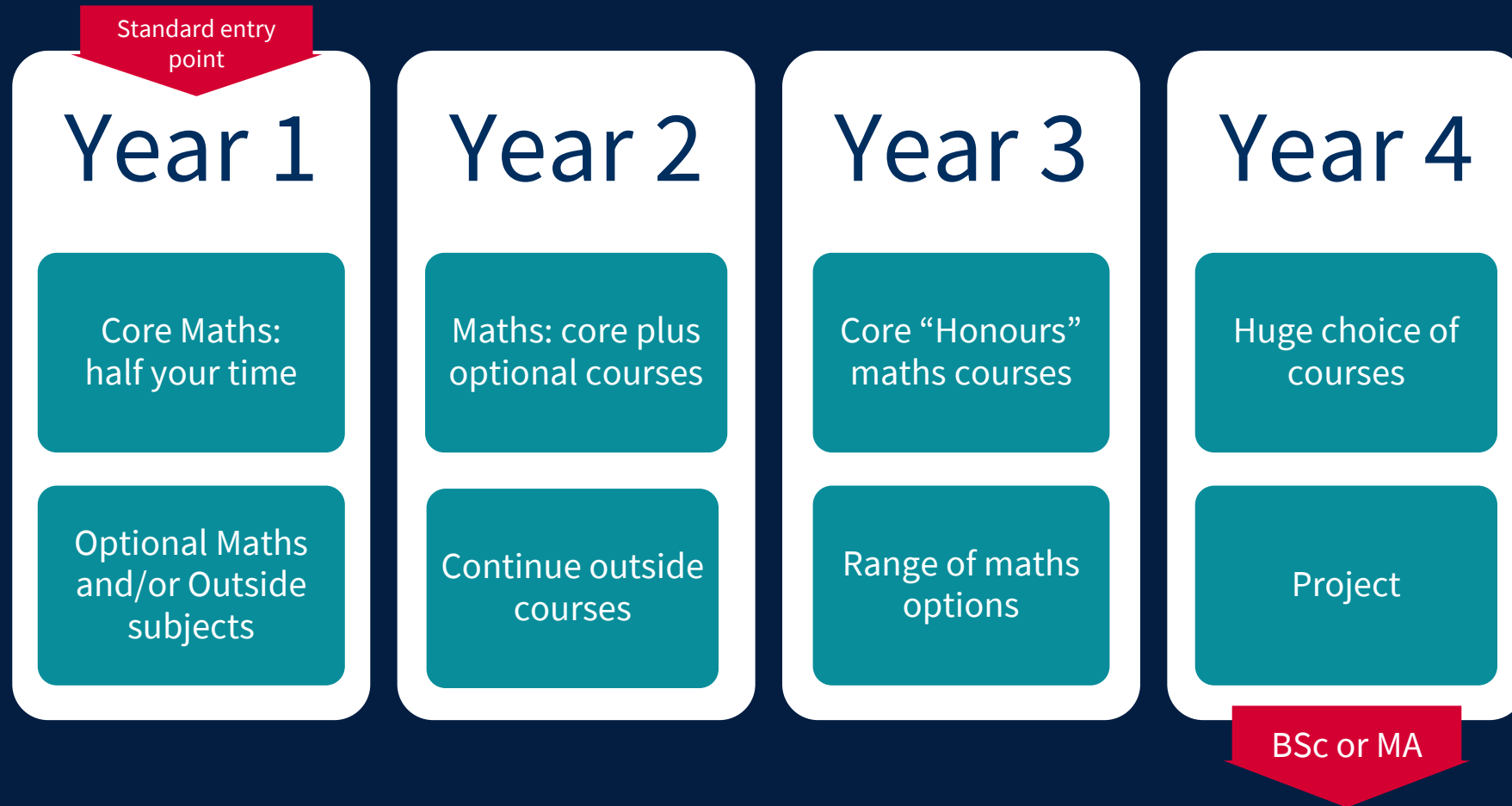
## MA (Hons)

- Economics & Mathematics
- Economics & Statistics
- Philosophy & Mathematics

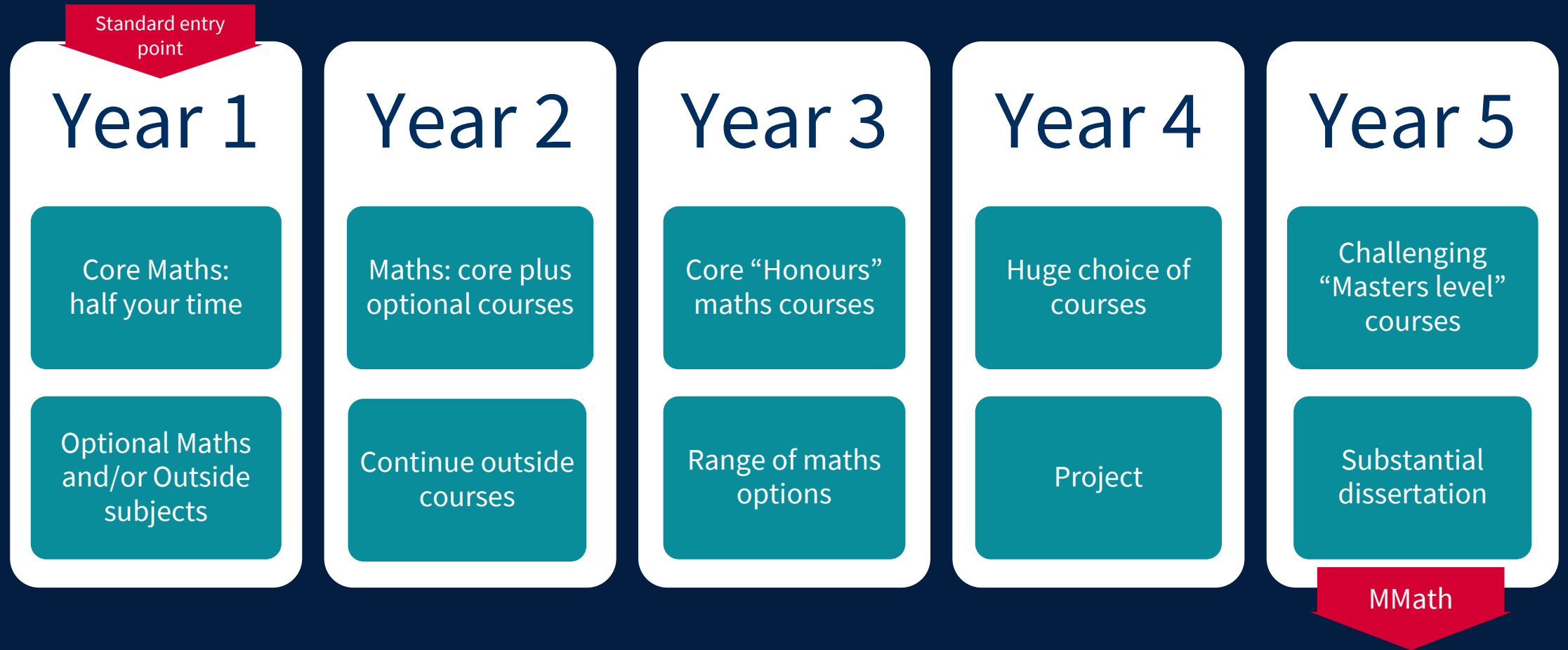
\*Second year entry available



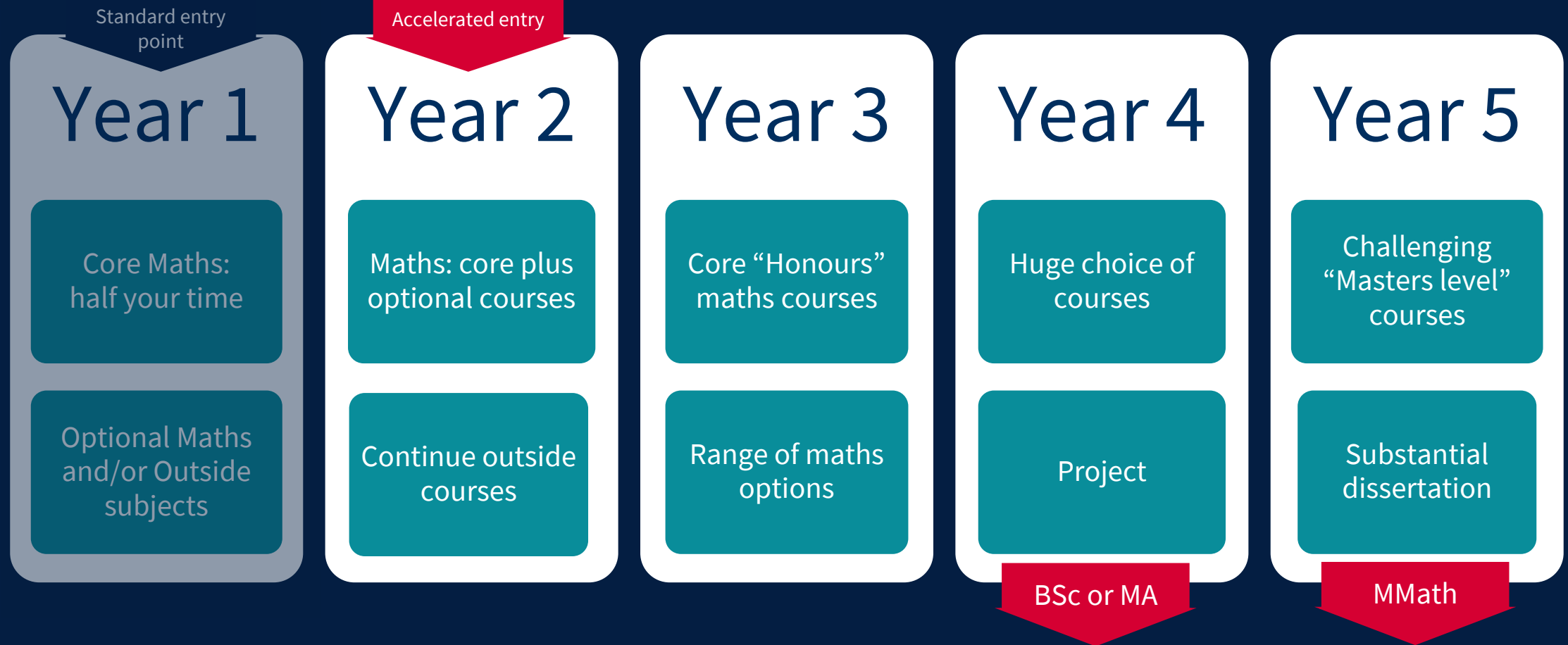
# UG degree structure



# UG degree structure



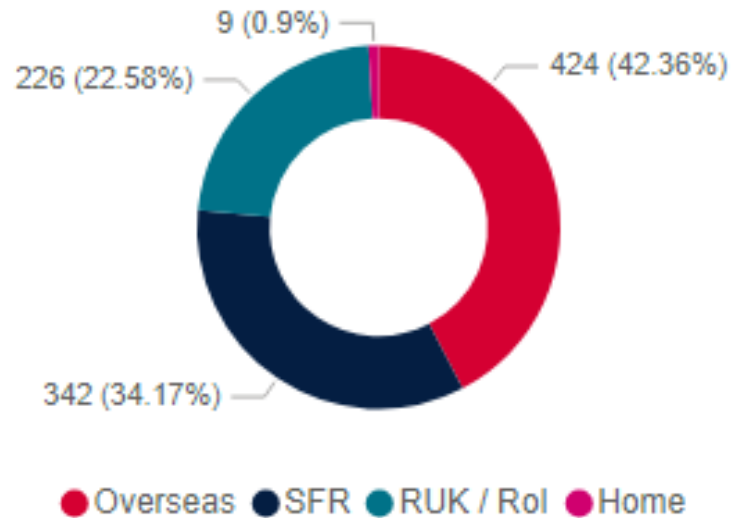
# UG degree structure





# UG population – 56 nationalities

UGT

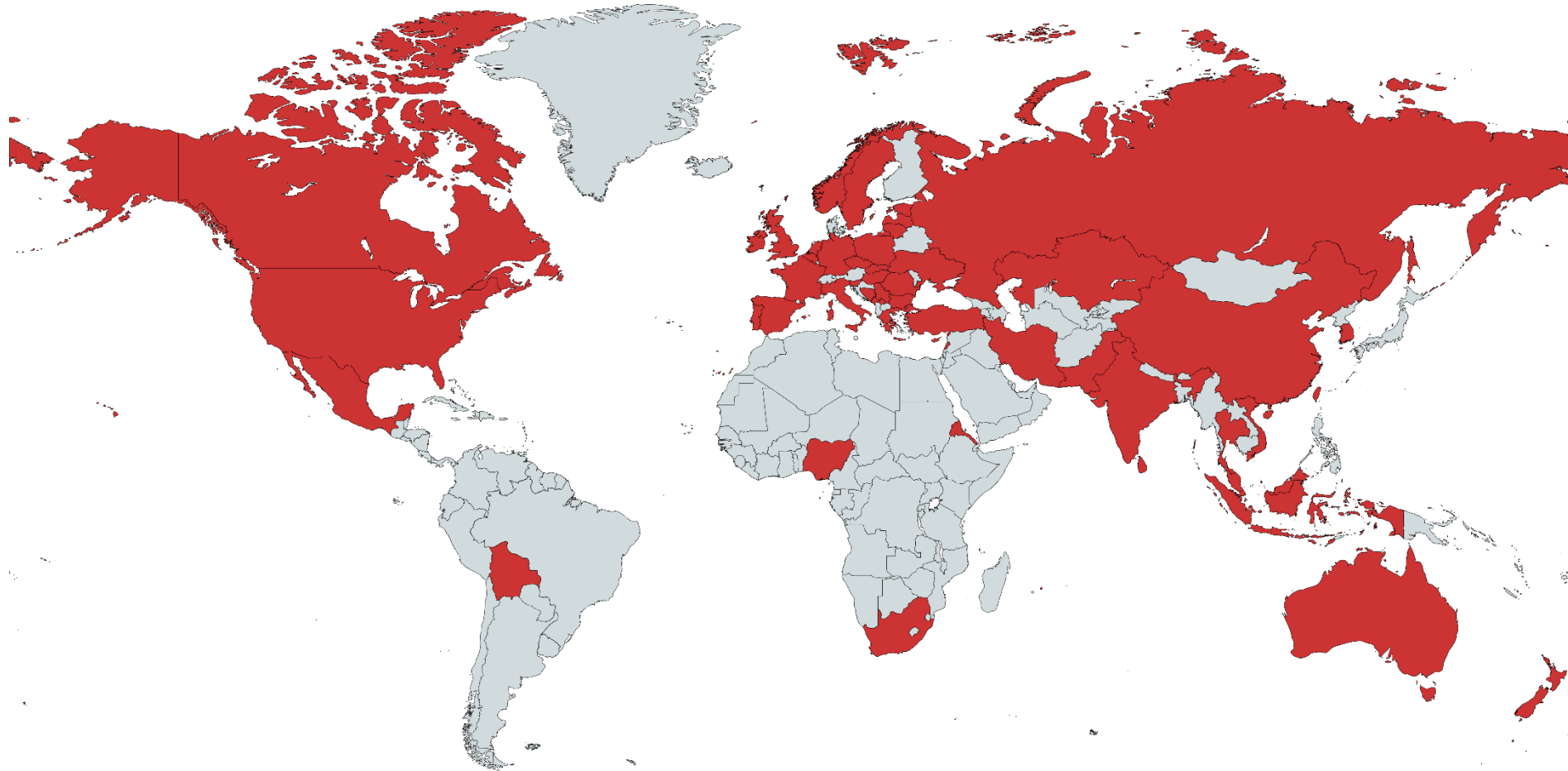


Top non-UK nationalities:

- China (305)
- United States (17)
- Spain (16)
- Cyprus (15)
- Malaysia (14)
- India (7)
- Poland (6)
- Italy (5)
- South Africa (5)



# UG population – 56 nationalities



Created with mapchart.net



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# Edinburgh Global Undergraduate Mathematics Scholarship

- Only for students on programmes owned by the School of Mathematics
- Open to all UG Mathematics applicants with International fee status who are non-UK nationals
- Worth £5,000 per year of study for duration of degree
- Paid directly to students in instalments as contribution to living costs
- Awards are highly competitive and are made based on academic merit
- Applications open in January and close at the end of March
- [More information available on the Scholarships webpage](#)



# Backing Invisible Geniuses (BIG) Programme

- Pilot scholarship programme run by Global Talent Lab in partnership with UK Department for Science, Technology and Innovation
- Targets high-school students who have excelled in International Science Olympiads
- Edinburgh's School of Mathematics are participating for the first time in 2024, alongside Imperial, Bristol, and Cambridge
- Full scholarships covering tuition fees, assistance with living costs, a stipend for academic pursuits outside the classroom, and other benefits such as social events, networking, internships, and research placements
- [global-talent.org/the-big-program](https://global-talent.org/the-big-program)





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# School of Mathematics: PGT programmes

# Our MSc programmes

## Applied Mathematics

- MSc Computational Applied Mathematics

## Operational Research

- MSc Operational Research
- MSc Operational Research with Computational Optimization
- MSc Operational Research with Data Science
- MSc Operational Research with Risk

## Financial Mathematics

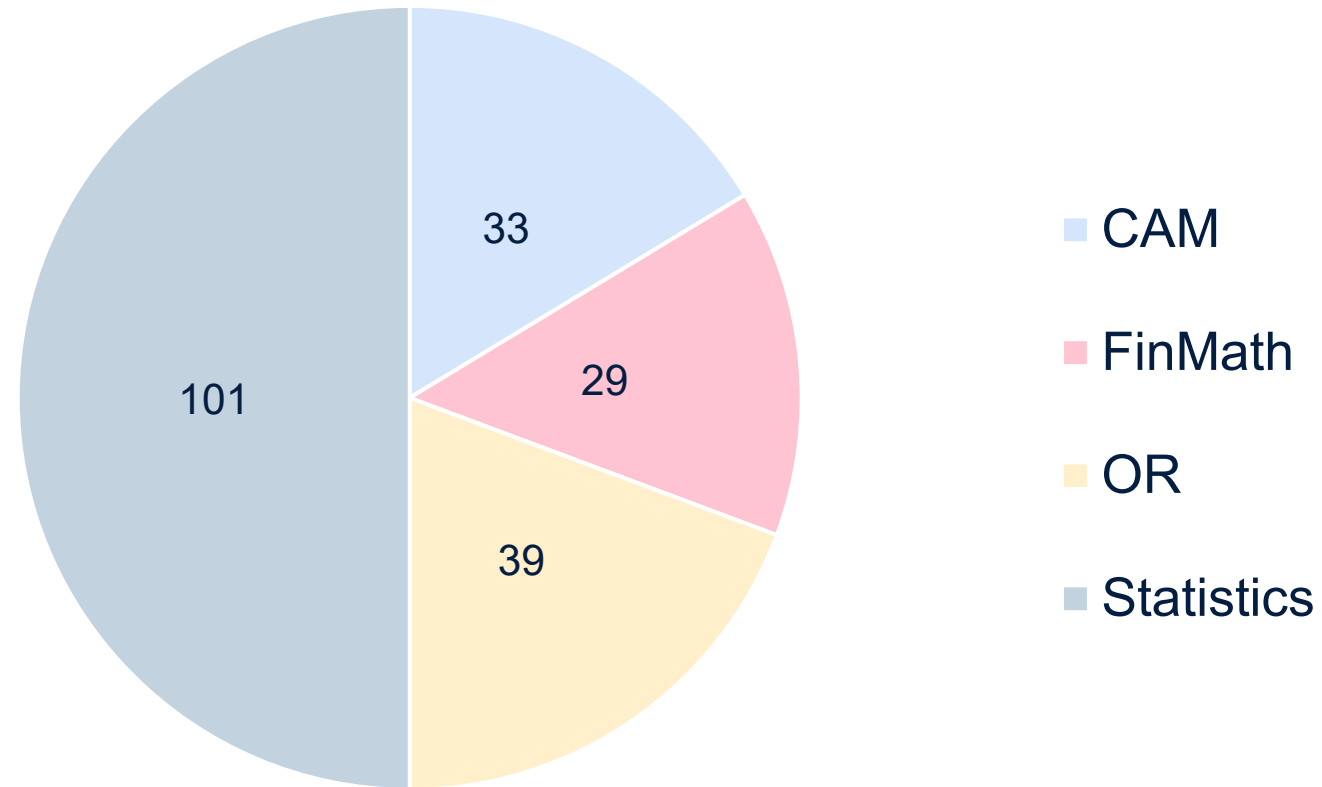
- MSc Computational Mathematical Finance
- MSc Financial Modelling and Optimization

## Statistics

- MSc Statistics and Operational Research
- MSc Statistics with Data Science

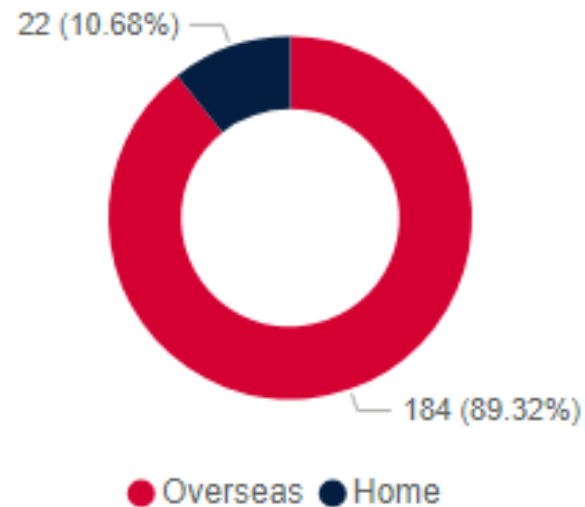


# Our MSc programmes



# PGT population – 34 nationalities

PGT



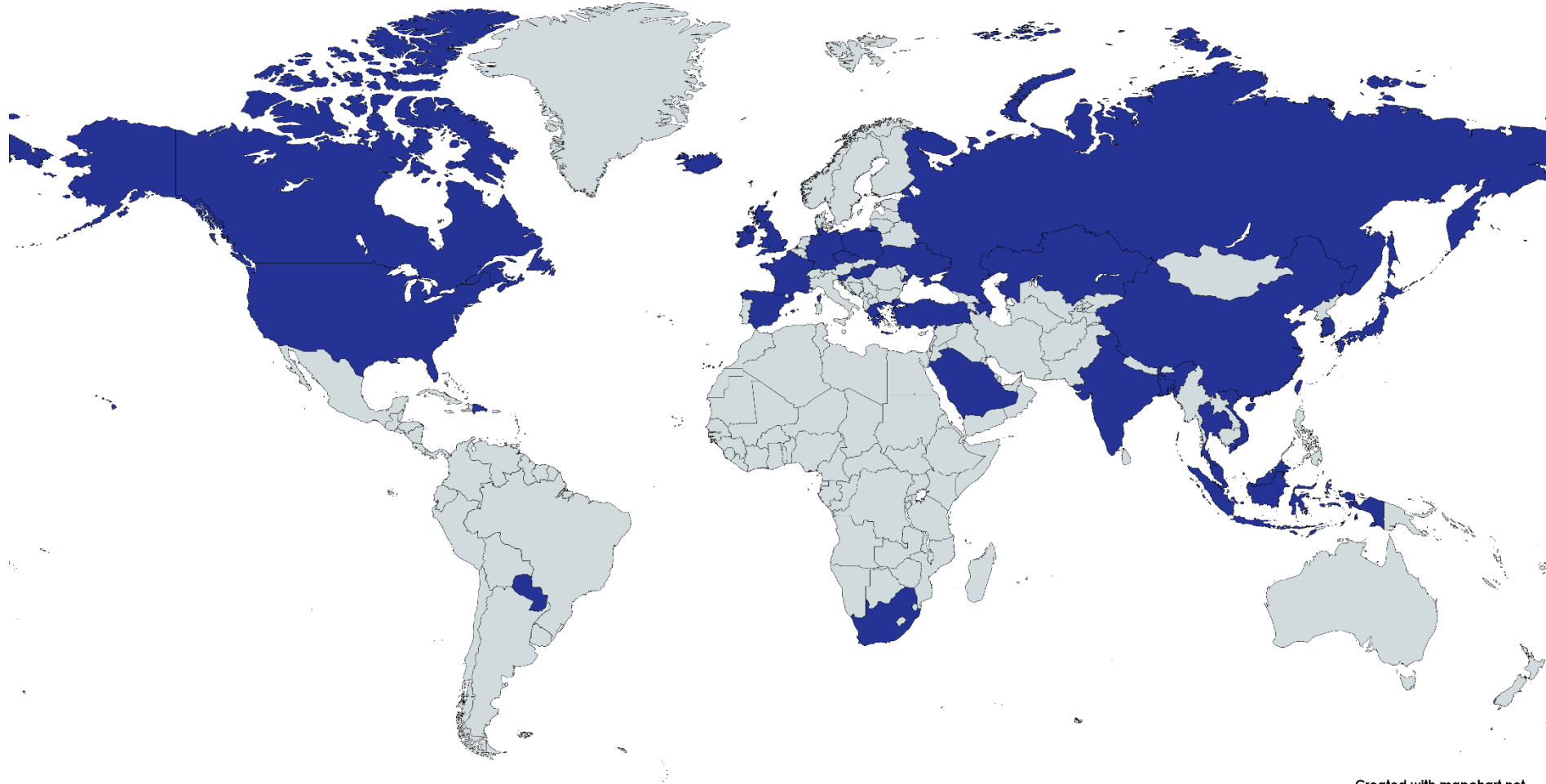
Top non-UK nationalities:

- China (124)
- India (14)
- United States (5)
- Indonesia (4)
- Ireland (3)
- Malaysia (3)
- Saudi Arabia (3)





# PGT population – 34 nationalities



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# MSc structure

- Full 12 months of study (Sept-Aug)
- Two semesters of taught courses (120 credits)
- Typically study six courses each semester, worth 10 credits each
- Average 10-15 hours/week contact time across lectures/workshops/computer labs
- Students learn Python and/or R programming languages
- Followed by a substantial summer dissertation (60 credits)
- Dissertation can take the form of a research project or a project with industry
- Students typically come straight from a UG degree in a quantitative discipline



# What is unique about our MScs?

- Dissertation projects with industry offered in all programmes
- Lower cost than competitor programmes in London
- School scholarships available for outstanding candidates from key markets
- Edinburgh is one of the main financial centres in Europe, only second to London in the UK
- Courses led by industry through partnering with the Scottish Financial Risk Academy
- Links with industry maintained by Business Development Executives
- Two programmes include data science – growing in importance as technology advances and set to be in high demand in the future recruitment landscape
- Statistics MScs are pending re-accreditation by the Royal Statistical Society



# School of Mathematics Masters Scholarships

- Only for students on programmes owned by the School of Mathematics
- Open to students domiciled in the UK, EU, Canada, India, Iran, Malaysia, Mexico, Thailand, Turkey or USA
- Worth 50% tuition fee discount
- Awards are competitive and are made based on academic merit
- Two selection rounds: close at start of April and start of June
- [More information available on the Scholarships webpage](#)



# Support

## Student Support Team

- Every student assigned a Student Adviser
- First point of contact for support

## Academic Cohort Leads

- Support relating to Mathematics and your studies
- Academic advice about your further academic journey and your career aspirations

## Peer-assisted learning

- MathPALs (UG) and MScBase (MSc)

## Dedicated study spaces

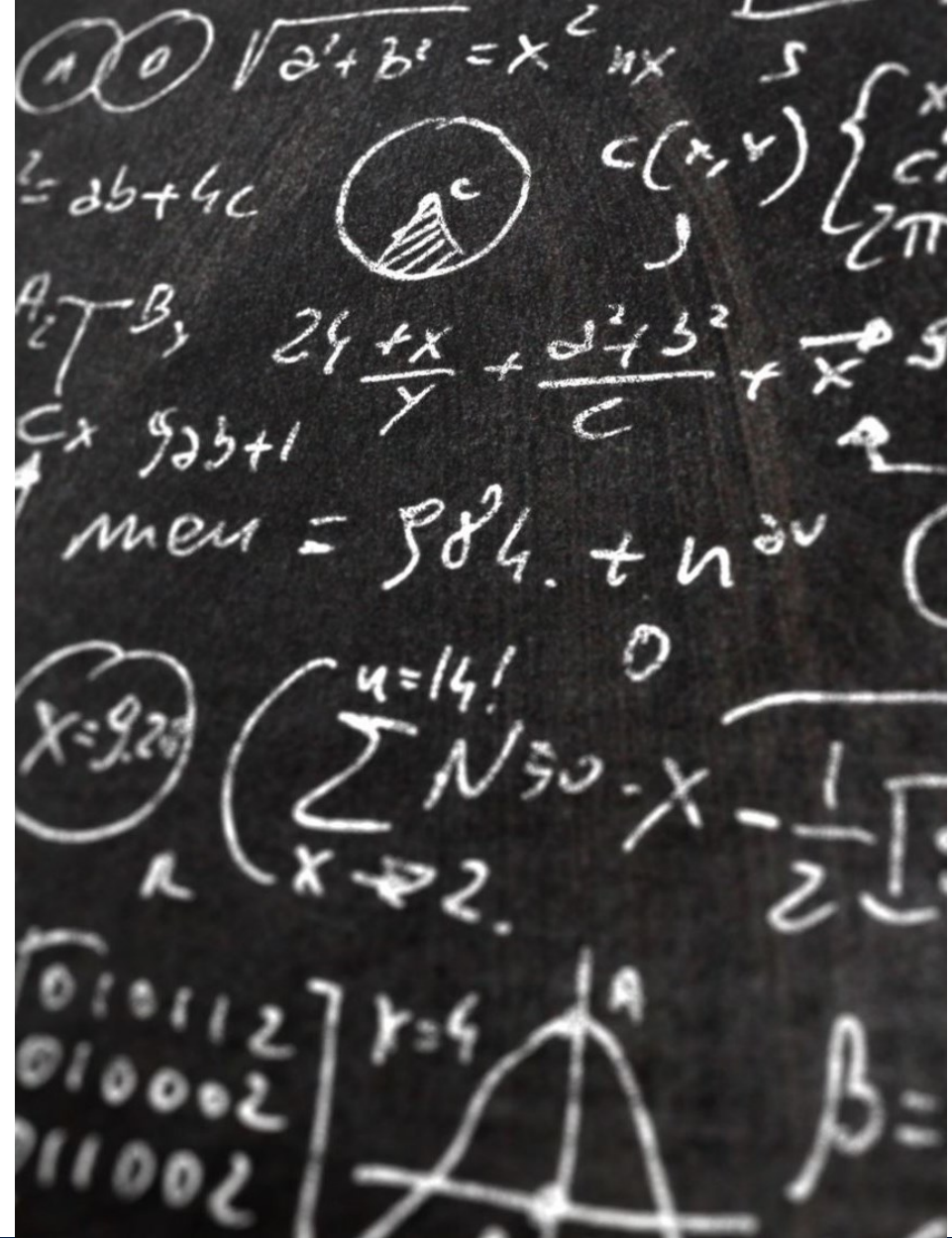
- MathsHub and MathsBase (UG) and MScHub (MSc)



# Student Development Team

Helping students:

- Develop their academic and transferable skills
- Reflect on their development to ensure continuous progress
- Succeed by using their skills to confidently enter the professional world, further study or another path entirely

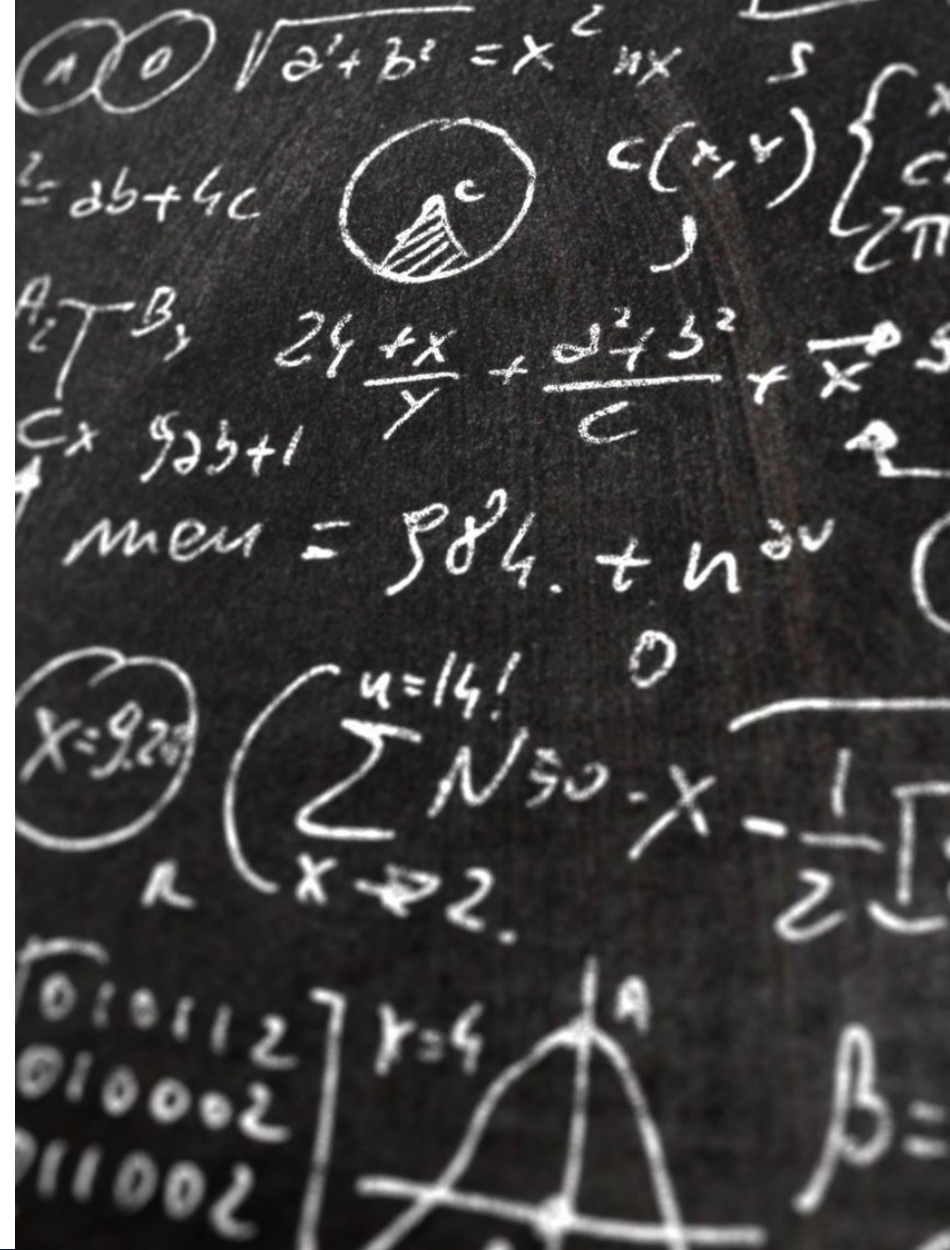


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# How do we do this?

- Run events that help you develop transferable skills and learn about opportunities
  - Alumni Showcase, Edinburgh Award, Dissertation and Project writing workshops, Effective revision workshops, MSc and UG Flexible Learning Week Challenges, Careers events and many more!
- Weekly student drop-ins
- Employability Tuesday
- Student Development Newsletter
- Support learning and development throughout the School



# Employability skills

- General careers advice events:
  - Selling yourself: Talking to employers
  - Applying to internships
  - Preparing for Interviews
- Career and organization specific events:
  - Actuarial careers
  - PhD study
  - Lloyds, IBM, Capgemini...
- Careers Service with dedicated Maths support





# Graduate Skills

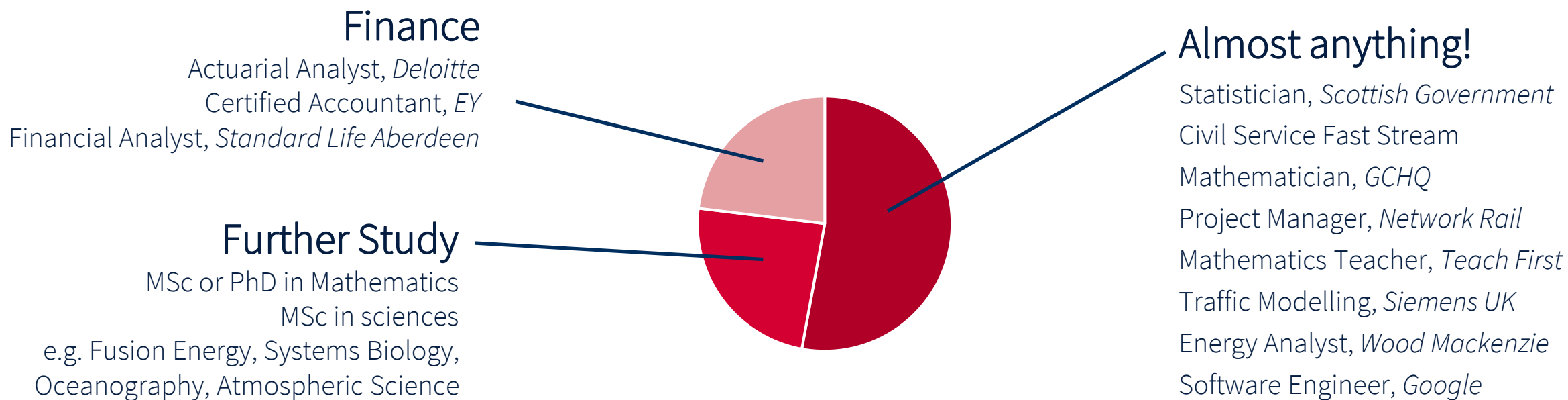
These careers are possible due to transferable skills gained throughout your studies – including:

- Advanced numeracy skills
- Coding skills
- Data handling
- Problem solving
- Analytical skills
- Independent working
- Presentation skills
- Attention to detail
- Follow complex reasoning
- Written communication
- Construct logical arguments
- Team work
- Investigative skills
- Self-management



# Graduate Destinations

Edinburgh Mathematics graduates go on to a wide range of careers:





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# School of Mathematics: Graduate School

# Graduate School

- Maxwell Institute for Mathematical Sciences = UoE + HWU joint research centre
- All first year PhD students are based at the new Bayes Centre
- Projects designed to unite mathematicians with scientists and engineers, visit international collaborators and interact with industrial and governmental partners
- AGQ is a new EPSRC funded doctoral training centre in algebra, geometry and quantum fields



# PhDs in the School of Maths

- Nine PhD programmes corresponding to research themes/ groups
- Apply via UoE degree finder
- Opportunities for funded places
- Typical September/ October start date
- Will start with assigned supervisor- will be specified in admission offer



# Structure and training

- Programmes are 3 years in length with year to write-up, will receive 4 years of funding if offered funded place
- Training to expand and enhance mathematical knowledge
- Personal/ career development training streams-
  - Industry
  - Teaching





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# School of Mathematics: Industry Engagement

# Maria Tovar - Business Development Executive

## Key Activities:

- Facilitate relationships between the School and external organisations
- Source and manage external MSc dissertation projects
- Represent the School at external industry events
- Connect organisations with our students
- Facilitate events and activities related to Knowledge Exchange (KE) and Impact
- [What you can do with us | School of Mathematics \(ed.ac.uk\)](https://www.ed.ac.uk/school-of-mathematics)





# Student Industry Engagement

- Student Challenges
  - MSc Challenge
  - OR Challenge
- Employability Tuesday
- Curriculum industry involvement
  - Taught Courses
  - MSc Dissertations





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Thank you

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