



THE UNIVERSITY of EDINBURGH
Careers Service

School of Mathematics

Thinking of Postgraduate Research?

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&

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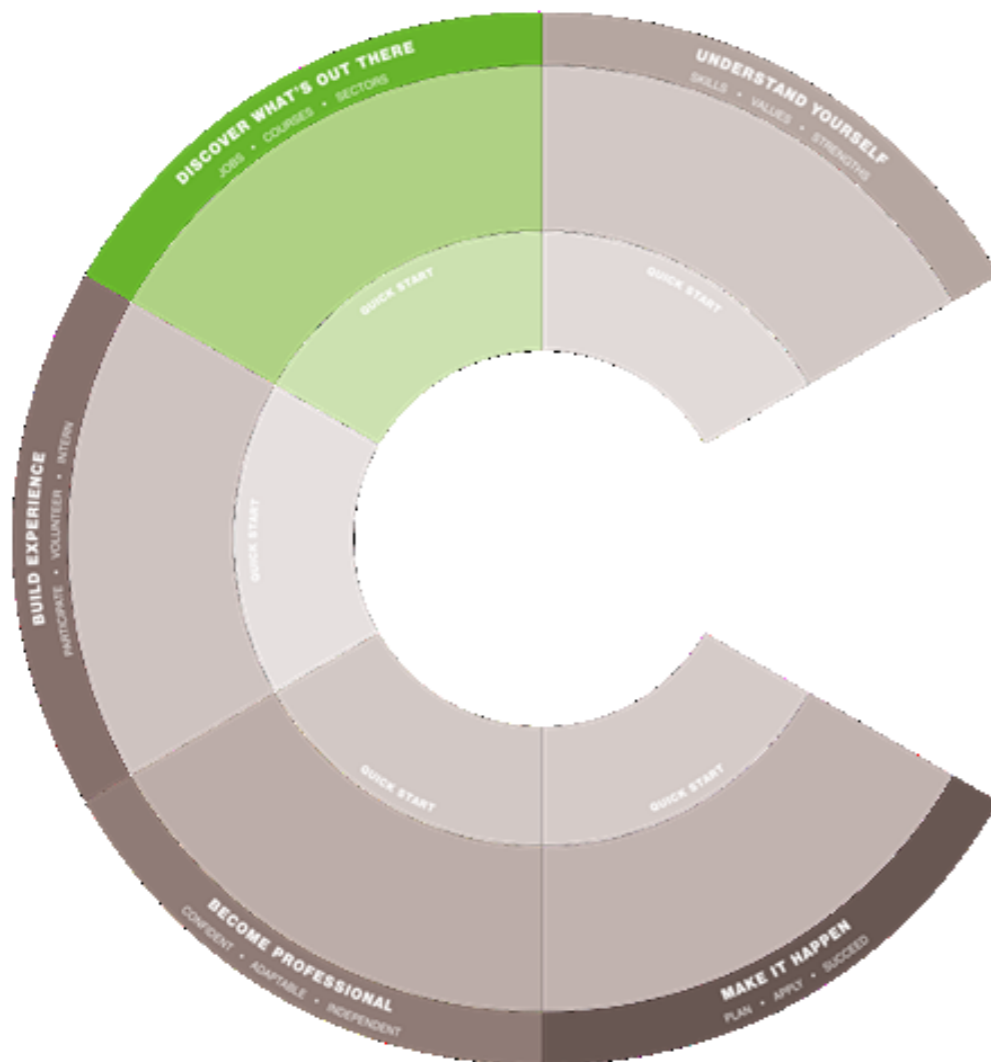


Agenda

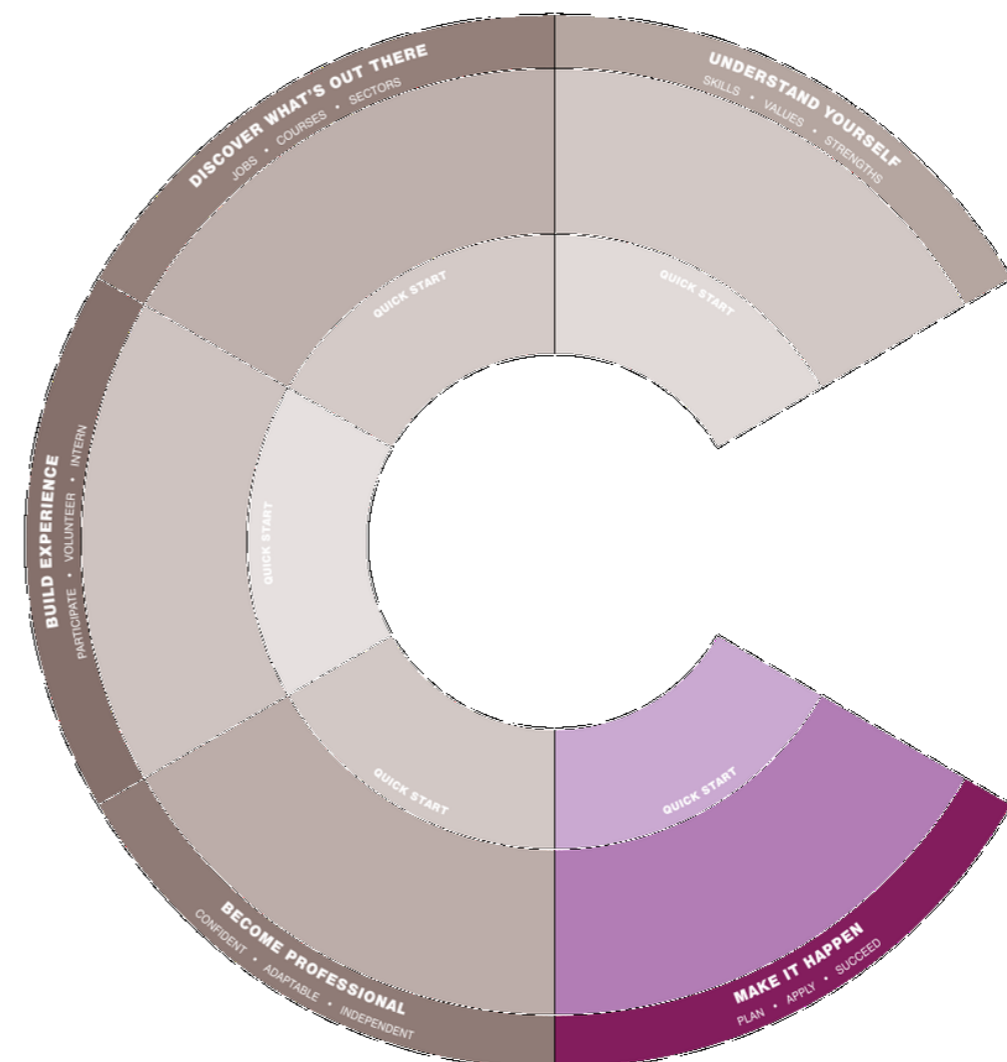
- Why study for a PhD?
- Is it possible?
- Types of research degree
- Issues to consider
- Finance/funding
- Where to study
- Finding courses
- Applying



Career Compass: how today fits



Discover what's out there



Make it happen

Inspiring futures

<https://www.ed.ac.uk/careers/students/undergraduates/careers-compass>



Why study for a doctorate/MPhil/MRes?

Good reasons

- requirement (e.g. teaching, research in HE)
- love of subject / personal challenge
- to change focus
- enhanced employment prospects



Not so good reasons...

- enhanced employment prospects
- putting off career decision
- disappointed with degree class



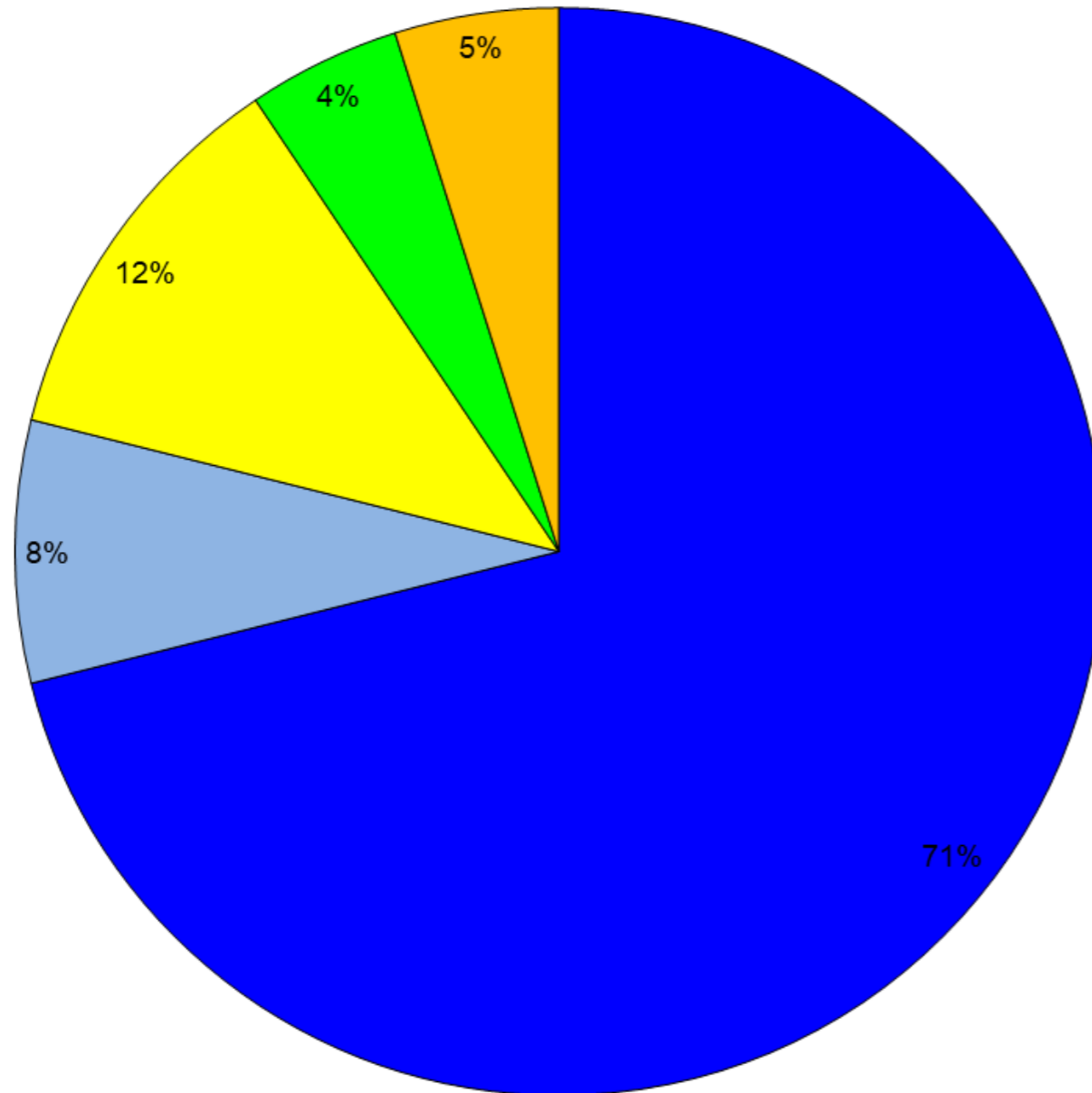
[See also...](#)





What Do Edinburgh Graduates Do? Postgraduate (Taught) Mathematics

DLHE: 2011/12 - 2016/17



Destination of known graduates six months on:

- Employment (incl. volunteering/unpaid)
- Due to start a job in the next month
- Further study / Training
- Time out / Something else / Not available
- Seeking Employment / Study / Training

Data = 300 graduates
(32.1% response rate)

- Financial Modelling & Optimization
- Financial Mathematics
- Mathematics
- Operational Research
- Statistics

Further study by Edinburgh MSc graduates

2011/12 to 2016/17

PhD	Aerodynamics	Loughborough University	England	
PhD	Banking & Financial Management	University of Piraeus	Greece	
PhD	Biomechanics	Ecole Polytechnique	France	
PhD	Financial Mathematics	Tampere University of Technology	Finland	
PhD	Learning Analytics	Corvinno Technology Transfer Center (Eduworks ITN)	Slovakia	
PhD	Management	University of Edinburgh	Scotland	
PhD	Management	University of Warwick	England	
PhD	Management Science	Loughborough University	England	
PhD	Mathematics	Lancaster University	England	
PhD	Mathematics	University of Bristol	England	
PhD	Mathematics	University of Copenhagen	Denmark	
PhD	Mathematics	University of Edinburgh	Scotland	
PhD	Mathematics	University of Kent	England	
Unspecifie	Mathematics	<i>Unspecified institution</i>	Unspecified	
PhD	Ocean Science	University of Manchester	England	
PhD	Operational Research	Universite Catholique de Louvain	Belgium	
PhD	Optimization and Operational Research	University of Edinburgh	Scotland	(x7)
PhD	Probability and Stochastic Analysis	University of Edinburgh	Scotland	(x2)
PhD	Statistics	University of Edinburgh	Scotland	
MRes	Statistics and Operations Research	Lancaster University	England	
PhD	System Engineering and Engineering Management	City University	Hong Kong	
PhD	System Security	University of Bristol	England	
PhD	<i>Unspecified subject</i>	University of Nottingham	England	

That we
know
of!

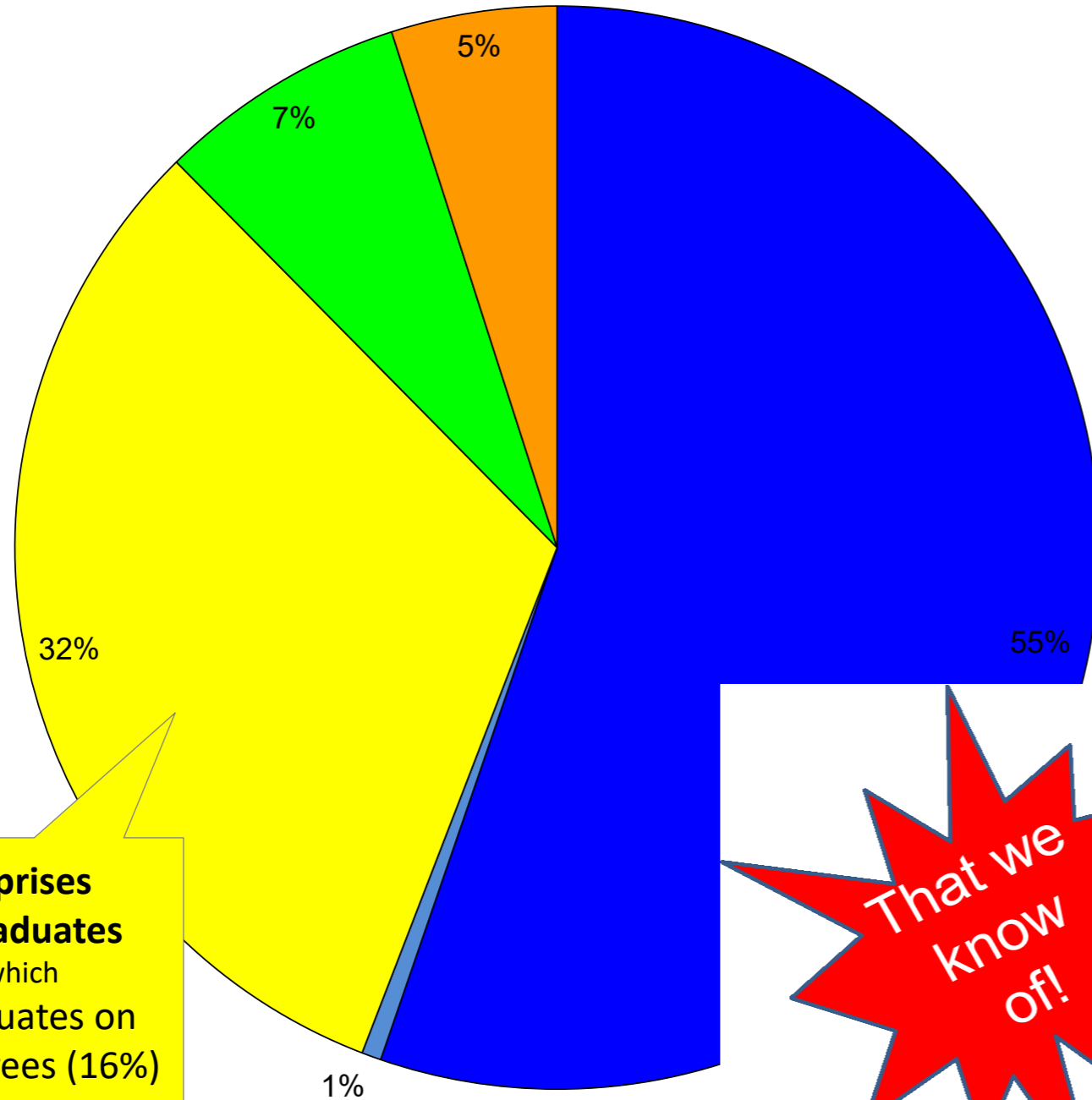


What Do Edinburgh Graduates Do?

Mathematics: Single + Joint Honours, MMath

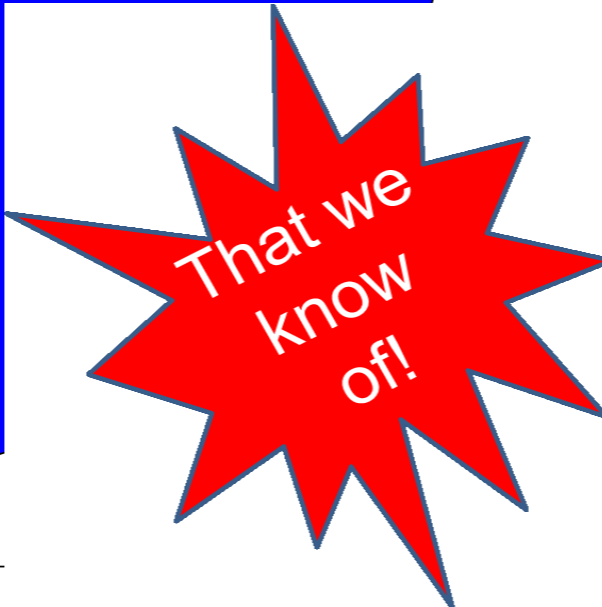
DLHE: 2002/03 - 2016/17

Destination of known graduates six months on:



- Employment (incl. volunteering/unpaid)
- Due to start a job in the next month
- Further study / Training
- Time out / Something else / Not available
- Unemployed

Comprises 328 graduates
of which
53 graduates on
PGR degrees (16%)



Data = 1,033 known graduates
(Response rate = 79.3%)

Notes

1) Only UK- and EU-domiciled graduates were surveyed until 2010/11; from 2011/12 onwards international non-EU graduates were included, though their response rate is far lower.

2) The category "Due to start a job..." was not included before 2011/12.

Further study by Edinburgh first degree graduates

2011/12 to 2016/17

Institution	Total
University of Aberdeen	2
University of Bath	2
University of Bristol	3
University of Cambridge	1
University of Edinburgh	20
University of Glasgow	5
Imperial College London	1
Lancaster University	4
University of Leeds	1
University of Manchester	1
University of Nottingham	1
Oxford University	3
University of Strathclyde	1
University College London (UCL)	1
University of Warwick	1
University of Bonn (Germany)	1
University of Maryland (USA)	1
University of Michigan (USA)	1
Stony Brook University (USA)	1
Other Overseas Institutions	2
Grand Total	53

Qualification	Total
MRes	4
MSc(R)/PhD	3
PhD	42
Grand Total	49

Subject of Study	Total
Biological Science	1
Engineering	4
IT	3
Maths	33
OR	3
Physics	2
Psychology	1
Statistics & Data	6
Grand Total	53



And more recent examples... (2017/18, 2018/19, 2019/20)

MSc Graduates

Went on to study at...

Edinburgh (11)

Oxford (2)

Durham (1)

Heriot-Watt (1)

Lancaster (1)

Liverpool (1)

St Andrew's (1)

First degree Mathematics

Went on to study* at:

Edinburgh (7)

Imperial (7)

Oxford (5)

Cambridge (3)

Glasgow (2)

UCL (2)

* Includes MSc study



Types of research-based postgraduate study:

1 year	2 years	3-4 years
Masters by Research <ul style="list-style-type: none">• MSc(R)• MRes	MPhil	Doctorate by Research <ul style="list-style-type: none">• PhD• DPhil



Note:

- Cambridge taught masters are all MPhil
- Most are university-based
- EPSRC Industrial doctorates may offer 1+3 model



Issues to consider...

- Academic ability
- MRes→PhD?
- Motivation
- Timing
- Financial...



Financial Considerations



Fees – vary e.g. [Edinburgh \(2020/21\)](#)

- PhD/MPhil (F-T) £20,100 p.a. (+£1,000 additional costs)
- PhD/MPhil (P-T) £10,500 p.a.
- MSc(R) (F-T) £8,750 p.a. Home/EU; £22,850 p.a. Int'l
- MSc(R) (P-T) £4,370 p.a. Home/EU; £11,425 p.a. Int'l

+ Maintenance (to live on) - £10-15k (depending on location)

Typical Studentship:

UKRI stipend for 2021-22: **£15,609** (excl. LW) + RC pays academic fees



Funding: universities

- May offer **scholarships** to attract smart students (**N.B. early closing!**)
- **Academics** may win project funding, including provision for PhDs and postdocs > advertise
- **UK Government** (Research Council e.g. *UKRI* and *EPSRC*) funding may have nationality rules UK (yes) / International (more limited) – typically apply through university, not direct.
- **Industry** funding usually doesn't! (Just want the best students to do the research)

[See also...](#)



SCHOLARSHIPS AND STUDENT FUNDING

Scholarships and Student Funding home

Postgraduates

- Funding for UK/EU students
- Funding for international students
- Online Learning Scholarships
- Tuition Fees
- Cost of living in Edinburgh

Home > Scholarships & Student Funding > Postgraduates

Contact us

Prospective postgraduates

Information on funding opportunities and tuition fees for prospective postgraduate students.

Scholarship search

[Search for Bursaries, Scholarships and other Financial Aid available to prospective students](#)

Funding for UK/EU students

In addition to financial assistance provided by Research Councils and charitable trusts, the University offers a number of general and subject-specific funding schemes.

Funding for international students

In addition to financial assistance provided by UK Government agencies and external funding sources, the University offers a number of general and subject-specific funding schemes.

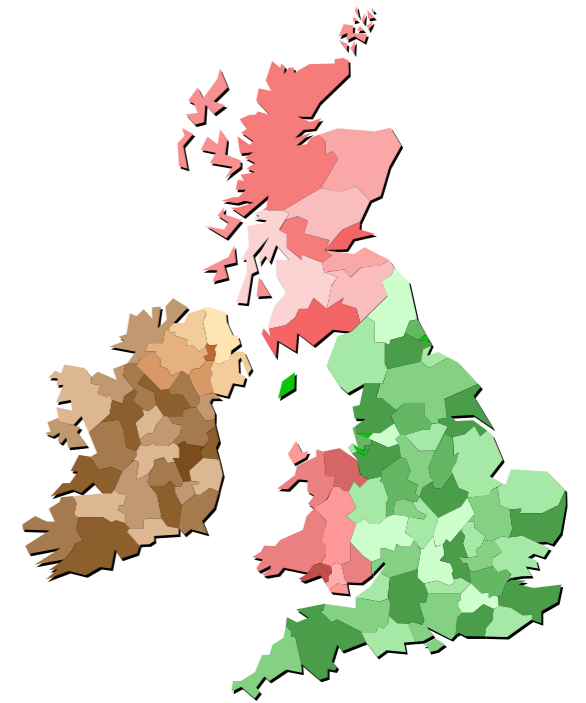
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Information about Research Funding (websites)

- www.ed.ac.uk/careers Explore Options > Further Study
- www.ed.ac.uk/schools-departments/student-funding
- www.prospects.ac.uk/funding
- <https://targetpostgrad.com/search/postgraduate-funding>
- www.educationuk.org – British Council website –good for international students wanting to study in UK
- www.postgraduatestudentships.co.uk – all nationalities, worldwide study



Choosing where to study: UK



- What do you hope to get from your research?
- University vs subject reputation?
- Research reputation?
 - [Research Excellence Framework \(REF\)](#)
 - International Rankings: [QS](#), [Times Higher](#)
 - Advice from academics
 - Papers you have read
 - Graduate destinations: where have research students gone afterwards?
- Academic supervisor? Where are they? Current/past PhDs?
- Open days/[visits](#)? ('Fit')
- Other personal considerations (cost, climate, family...)



Finding research programmes



Advertised

- www.FindAPhD.com
- <http://targetpostgrad.com/>
- www.prospects.ac.uk/postgraduate-courses
- www.jobs.ac.uk
- www.timeshighereducation.com/unijobs/
- Individual department/research group websites

Hidden?

- Academic contacts / other professionals
- Recent research publications

=> follow-up! Apply speculatively

Inspiring futures

- PG Open Days in specific universities (e.g. [Edinburgh](#))



Applying: how and when



- From Autumn semester, to commence following summer
- Apply to each institution/research group individually
- Some have closing dates, some are all year round
- Fixed closing dates for some funding organisations
- Most use applications forms/personal statements but for speculative approaches, CV and covering letter

[See also...](#)



Applying: personal statement

- Explain why you are interested in this PhD/why this institution.
- How it fits in with your career plans
- Why you would be a good X (if vocational) and demo your knowledge of the profession
- Describe the relevant skills, abilities and qualities that demonstrate you will be a good student. Provide evidence to support your claims, including examples of academic courses, research project, dissertation, work experience, positions of responsibility, outside interests
- If vocational, provide particularly detailed evidence of any previous relevant work experience
- Finish with strong closing statement



Example of intro to personal statement

“I am really interested in doing a PhD in molecular biology as I hope to make my career as a scientific researcher in this field. I think this PhD offers me the opportunity to learn a great deal about the field of stem cells and to develop a wide range of useful lab techniques.....”



Or....

“I am intrigued by the role of epigenetic modifications in adult stem cell fate choices, and in particular, the key signalling pathways that control them. My Honours project has given me an good grounding in stem cell biology as it centred around satellite cells and their capacity for regeneration. It enabled me to use a wide range of techniques, such as stem cell culture and ChIP-seq which are instrumental to the PhD offered at the Babraham Institute.....”



Watch our quick guide to personal statements!

The screenshot shows a web browser window displaying the University of Edinburgh Careers Service website. The URL in the address bar is [ed.ac.uk/careers/your-future/options/further-study/postgraduate/quick-guide-to-personal-statements-for-pg-courses](https://www.ed.ac.uk/careers/your-future/options/further-study/postgraduate/quick-guide-to-personal-statements-for-pg-courses). The page features a purple header with the text "CAREERS SERVICE". A left-hand navigation menu lists various categories, with "Quick Guide to personal statements for PG courses" highlighted in purple. The main content area includes a breadcrumb trail: "Home > Careers > Your future > What are your options? > Further study > Postgraduate > Quick Guide to personal statements for PG courses". A "Contact us" button is located in the top right corner. The main heading is "Quick Guide to personal statements for PG courses", followed by a sub-heading: "Watch our quick guide to writing personal statements for postgraduate courses to give you the basics on how to write a personal statement, what to include, some brief examples, and further resources." Below this is a video player with the title "Avoid... clichés and unnecessary preambles" and a subtitle "Personal statements for PG study". The video player shows a play button and a source attribution to www.mastersportal.eu. At the bottom of the page, there is a "What next?" section with the text: "You'll find more information, including our concise guides and examples, in our Applications and CVs for further study section: [Applications and CVs for further study](#)". A "Change cookie settings" button is visible in the bottom left corner.

Summary

- Choose PhD study for the right reasons. Know what your options are.
- Plan well in advance, using all the available resources, especially if funding is an issue.
- Start thinking *NOW* about what you will do *AFTER* study.....
- Remember help is available at Careers Service



What does a real PhD student say?!!

Welcome to **Barbara Rodrigues**
What questions would you like to ask her?

