DEPARTMENT OF MATHEMATICS

APPENDIX TO THE MPHIL/PHD DEGREE STUDENT HANDBOOK 2023/24

This appendix should be read in conjunction with the core MPhil/PhD student handbook

The Department of Mathematics sits within the School of Engineering, Physical and Mathematical Sciences (EPMS) which covers the following disciplines: Computer Science, Electronic Engineering, Mathematics, Information Security and Physics.

Welcome to your School

Congratulations on getting a place to join our School of Engineering, Physical and Mathematical Sciences. We are delighted to welcome you and hope you will have a very successful, productive and enjoyable time with us.

You will find support in your studies not only from your immediate supervisory team but also from the PGR Lead in your home department – Dr Shyqyri Haxha (Electronic Engineering), Dr Andrew Ho (Physics), Professor Pat O'Mahony (Mathematics), Dr Liz Quaglia/Dr Andrew Dwyer (ISG) and Professor Chris Watkins (Computer Science) – and from the Doctoral School.

Dr Rikke Bjerg Jensen, Director of PGR Education for the School of EPMS

Welcome to your department

The Departments of Mathematics at Royal Holloway is a lively and friendly place with an international reputation for the quality of its teaching and research. Academic staff are active in pioneering research which is making an impressive impact on the world stage. This strong research culture influences our curriculum, helping students to keep in touch with the latest developments in the field.

In this appendix you will find some practical information and some guidelines as to what is expected of you as a research student in the department. Further information is available on the departmental website.

You can also obtain information from the PGR lead for Maths, Professor Pat O'Mahony, who has overall responsibility for the PhD programmes, and you should contact him if you have any queries.

Key contacts

Role	Name	Email	Phone	Room
Executive Dean	Professor Gavin Shaddick	Gavin.Shaddick@rhul.ac.uk	01784 414161	LB1-22 - Bedford
Head of Department	Professor Iain Moffatt	Iain.Moffat@rhul.ac.uk	01784 443081	McCrea 0-11
School Director of PGR Education	Dr Rikke Jensen	Rikke.Jensen@rhul.ac.uk	01784 276549	Bedford 2-04
Department PGR Lead	Professor Pat O'Mahony	P.OMahony@rhul.ac.uk	01784 443088	McCrea 0-19
School helpdesk*		EPMS-school@rhul.ac.uk	01784 276881	Bedford 0-37

* For the majority of your non-academic related issues, please contact the Doctoral School. However, for queries about teaching contracts, expenses and study space within the school, please contact the School of EPMS helpdesk.

Staff

List of staff within the Department of Mathematics

IT Support Team

Narinderpal Sehra	01784 443111	Narinderpal.Sehra@rhul.ac.uk
Mr Adrian Thomas	01784 443428	a.thomas@rhul.ac.uk
Mr Francesco Fildani	01784 443315	francesco.fildani@rhul.ac.uk

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Research areas

The Mathematics Department at Royal Holloway pursues research in a wide range of topics in pure, applied and applicable mathematics, including algebra, discrete mathematics, number theory, quantum dynamics, information security and statistics.

We have weekly research seminars and reading groups on specific topics are arranged on an ad hoc basis.

Find out more about the research areas in the Department of Mathematics

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Staff-Student Action Meeting and feedback opportunities

It is vital that the department should know of any concerns you have about the progress of your work or of any suggestions for improving the research environment. You have several ways of making your views known:

- by talking to your supervisor(s), and perhaps by following up your discussion with a letter or e-mail, so that your comments can be forwarded if appropriate.
- by contacting the PGR Lead for Mathematics or the School Director of PGR Education or the Head of Department, either to arrange a meeting or again by putting your ideas in writing.
- through the School PGR Staff-Student Action Meeting
- in the on-line survey that you will be asked to complete as part of the Annual Review process
- through the Students' Union if your concerns or ideas relate to the University rather than to the department

Staff-Student Action Meeting
The purpose of the PGR Staff-Student Action Meeting is to maintain and foster communication within the School. The meeting is a platform to receive and to discuss matters of concern to both students and staff. As such, it provides a formal means of communication between students and the School Board.

The PGR Staff-Student Action Meeting meets at least once every term. You can use the Meeting to raise any issues by either attending one of the meetings or passing the information to the current student representatives. Course representatives are there to represent your views and ultimately, to help improve the quality of education provided by the University.

Facilities and resources

Office facilities
Research students in Maths, ISG and Computer Science are located in the open plan space at the top of the Bedford building. There is 24-hour access via your Student ID card. All students are given a personal locker to store whatever they wish. There is a kitchen area adjacent to the space.

You also have access to general office facilities, including printing, phone, fax, photocopying, post and stationery. These resources are provided for your postgraduate study.

At the end of your studies, you will be expected to vacate any desk you are occupying, normally within four weeks of submitting your thesis. Your computer account and the use of a terminal will be made available to you whenever you need it up to the time of your viva, and afterwards if you have corrections to make to your thesis.

Departmental computers
All PhD students will have access to computing facilities. You should communicate and agree your requirements with your supervisor who will notify the IT team.

The departmental computer policy
Attempts at unauthorised access to any part of the school's computer system, or the use of that system to attempt unauthorised access to University or external computer systems, will be

treated as a serious disciplinary matter. Offenders may be reported to the police under the Computer Misuse Act 1990; the maximum penalty under this Act is six months imprisonment and an unlimited fine. Disciplinary action will be taken against any student storing or transmitting offensive material on the departmental computer system, including sexist, racist or pornographic text or pictures. The Technical Support Staff may deny access to any person suspected of misusing the system in any way. Students must not reveal their password to anyone. Use of the departmental System by students from outside the Computer Science Department must be authorised by the Head of Department. The Technical Support Staff regularly monitor the use of the departmental System, and records of a student's usage may be used in assessing their academic progress.

Health and Safety

Any health and safety concerns should be brought to the attention of the Departmental Health and Safety Coordinator, Narinder Sehra or the University Health and Safety Office.

The Department of Mathematics is committed to ensuring the safety, health, and welfare of all staff, students, and visitors. It is a low risk environment, but you should still take precautions by storing the emergency number for Campus Security in your mobile phone (01784 44 3888). There are phones in all the PG working labs which can be used for this purpose. Use 444 from these phones.

Lone working policy and procedures
The principles and guidance around lone working are often highly applicable to the nature of postgraduate research and the variety of activities this might involve. As such, awareness and planning around any lone working you may be required to undertake are essential.

It is likely that most activities will take place on University premises. However, the principles also apply to students undertaking duties off campus.

Annual reviews and upgrades

Although you will meet with your supervisor regularly during the academic year, your academic progress is formally reviewed at least once every twelve months, regardless of whether you are studying full or part time.

- Core annual review details
- Annual reviews in the Department of Mathematics

(Note we encourage students to complete the annual PRES survey but it is not a requirement for a successful review or upgrade.)

All MPhil / PhD students start their programme on the MPhil and have to pass the upgrade review meeting in order to be eligible to submit for the PhD.

- Core upgrade details
- Upgrades in the Department of Mathematics

Departmental guidance on your thesis

Once a research student has achieved sufficient progress in their research then they will need to prepare a thesis reporting on this research. An important role of the supervisory team is to give advice to the research student on when this point has been reached. Of course, in many cases it will not be completely clear whether or not there is sufficient material until the writing up process is well under way. In any event, it is much better to start on the writing up process earlier rather than later. The act of writing up will itself often prompt a research student to identify and conduct the extra work necessary to fill in gaps in the existing research.

The role of the supervisory team in helping a research student prepare a well-structured thesis with appropriate content is crucial. Research students often have little idea of how to prepare such a large and complex document. Research students should discuss the provisional structure of the thesis with the supervisory team before starting to write the thesis, and should continue to discuss the structure and content of the thesis as it develops.

In terms of word length students should be aware that University regulations stipulate a maximum length for MPhil and PhD theses. If the student exceeds the word length stated in the Regulations or produce a thesis that is deemed to be too short, the examiners may refer the thesis for resubmission requiring it to be shortened to meet the word length requirement or extended to include more content, respectively.

Consulting existing theses on related topics is also a very worthwhile exercise. Many theses produced by recent research students are available as departmental technical reports, and all graduating research students are encouraged to make their thesis available to a wider readership in this way.

Choosing examiners
Two examiners must be appointed by Royal Holloway to examine every research student who submits a thesis. Normally, one examiner will be from Royal Holloway or internal to the University of London and one will be external to the University of London. Neither the internal nor the external examiner should have worked with the research student prior to the examination, or have any other significant connection with the research student.

Whilst the formal appointment of examiners is outside the control of the supervisory team, they are nevertheless required to nominate candidates for these two roles. This is not something in which the research student will be involved. Please note that the research student must not make any direct contact with either of the examiners prior to the examination.

Preparing for your viva

The University offers viva training for research students' final examination as part of the Researcher Development Programme. In addition, our Shared Computer Science, ISG and Maths Training Programme offers a viva training tailored towards the specific needs of students in our School. This training is compulsory for students.

It is often useful for the supervisory team to arrange a mock viva, prior to the real event, where two members of staff (e.g., the supervisor and advisor) spend some time acting as internal and external examiners. This will enable the research student to get a feel for what types of question might be asked.

The supervisor is responsible for arranging the viva, including negotiating the date and time with the examiners, booking a room in which to conduct the examination, etc. Typically, the viva will be held in the department at Royal Holloway.

The supervisor may be present at the viva if the research student wishes. Past practice in this area varies, but in most cases the supervisor does not attend. If the supervisor is present during the viva then they can only act as an observer.