

DEPARTMENT OF EARTH SCIENCES

APPENDIX TO THE MASTERS BY RESEARCH STUDENT HANDBOOK 2023/24

To be read in conjunction with the [core Masters by Research student handbook](#)

The Department of Earth Sciences sits within the School of Life Sciences and the Environment, which covers the following disciplines: Biological Sciences, Earth Sciences, Geography, Psychology and Health Studies.

Welcome to your School

As Director of PGR Education, I am delighted to welcome you to the School of Life Sciences and the Environment. The School, which was launched on 1 August 2019 is one of the largest and most diverse in the University; our vibrant research culture spans the arts and humanities and social and natural sciences. The School – which brings together Biological Sciences, Earth Sciences, Geography, Psychology and Health Studies – is designed to encourage world-leading research that spans disciplinary boundaries and addresses some of the most significant planetary challenges we face.

Postgraduate research students are central to the vitality of the School's research culture and I hope that you will find here a stimulating and supportive environment in which to pursue your studies. In the coming days you will meet the supervisory team who will offer you day-to-day guidance during your research project. You will also be introduced to the subject-specialist research groups and centres that exist at departmental level to support the wider community of researchers working in particular fields or disciplinary areas.

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 Laurence Bindschedler (Biological Sciences), Dr Rebecca Fisher (Earth Sciences), Dr Sasha Engelmann (Geography), and Dr Rob Lachlan / Dr Shiri Lev-Ari (Psychology) – and from the Doctoral School. We are here to help, so please do not hesitate to ask questions or to seek advice, particularly as you settle into your studies.

Dr Christina Manning, Director of PGR Education for the School of Life Sciences and the Environment.

Welcome to your department

The Department of Earth Sciences was created, originally as the Department of Geology, at Royal Holloway in 1985 by the merger of former Departments at Bedford, Chelsea and King's Colleges (all

part of London University). The department is committed to providing an educational environment in which learning and research are inseparable and we aim to foster academic excellence at all levels of study. The Department of Earth Sciences is one of the leading centres of research in the UK. In the most recent national Research Excellence Framework (REF2021), 88% of our research outputs and 100% of our research environment were classified as world leading and internationally excellent in terms of originality, significance and rigour.

The Department of Earth Sciences is located on the first floor and basement of the [Queens Building](#). The main door at the front of the building is locked from 18:00 to 08:00 and at weekends. During these times you can still access the building using your Student ID card. Dan Parsonage in room 215 will set up your cards for access to the building and labs.

The foyer on the top floor of the building serves as a common room area for staff and students and there is a kitchen area (with kettle, fridge, microwave etc) in a room off the foyer. You need to bring your own provisions (e.g. coffee, tea, milk etc.) All students are welcome to use this common room area.

The fire alarm is tested once a week on Thursday morning.

Key contacts

Role	Name	Email	Phone	Room
Executive Dean	Professor Klaus Dodds	K.Dodds@rhul.ac.uk	01784 443580	Queens 122
Deputy Executive Dean	Professor Alex Palombi	Alexandra.Palombi@rhul.ac.uk	01784 414216	SG Schilling Building
Head of Department	Dr Kevin Clemitshaw	K.Clemitshaw@rhul.ac.uk	01784 414026	QB216
School Director of PGR Education	Dr Christina Manning	C.J.Manning@rhul.ac.uk	01784 443835	QB246
Department PGR Lead	Dr Rebecca Fisher	R.E.Fisher@rhul.ac.uk	01784 443628	QB244
School helpdesk*		LSE-School@rhul.ac.uk	01784 276884	Wolfson 118

* For the majority of your non-academic related issues, please contact the [Doctoral School](#). However, for queries about teaching contracts and expenses (in most cases), please contact the School of Life Sciences and the Environment helpdesk. For space within your department, please contact your departmental staff.

Staff

[List of staff in the Department of Earth Sciences](#)

Research areas

[Staff research areas within the Department of Earth Sciences](#)

Staff-Student Action Meeting

The School of Life Sciences and the Environment is keen to hear the views of its postgraduate students through a School-level [Staff-Student Action Meeting](#). It is anticipated that meetings will be held termly, beginning in the autumn.

The Meeting is an important forum in which issues that concern postgraduate students particularly can be aired and in which solutions can be discussed and identified.

Research skills training and teaching experience

A document outlining the research skills training available in the department will be provided at induction.

Facilities and resources

Kitchen area

There is a kitchen area (with kettle, coffee maker, fridge, microwave) in a room off the foyer.

Computing

All research computing and IT in the department is managed by Frank Lehane (room 224). All questions and queries concerning IT matters should be directed to him. If there is a need to contact the central University IT department please contact Frank first. If you have special computing requirements, please also contact Frank.

Photography, poster printing and microscopy

Any photographic work essential to research can be undertaken after consultation with supervisors. Two weeks' notice is needed for work to be carried out, please contact Kevin D'Souza (room 219). The department has an optics lab for photomicroscopy – please contact Kevin D'Souza for training and booking use of the optics lab. Poster printing can be carried out in the Geography Department – please give 5 days notice and use [this link](#), (charges will apply). For questions on poster printing please contact Jen Thornton (Geography Department). For access to scanning electron microscopy, please contact Sharon Gibbons.

Photocopier and printer

A photocopier/network printer/scanner for student use is located by the notice boards outside room 201. For printing from your computer check with Frank if you have the correct driver software installed. You will be billed periodically for your usage:

- 5p per black and white, A4 copies.
- 10p per colour A4 copies.
- 10p per black and white A3 copies.
- 20p per colour A3 copies.

Laboratories

There are a number of laboratories with both routine and specialist facilities. Your supervisor will advise you about those relevant to your research. Charges will apply.

Lyell Geoscience Society

All students are invited to join this student-led society. The society organises visiting speakers in a variety of Geoscience subjects and career events as well as a range of social events throughout the year.

Applications to Research Management Committee for funding

Small amounts of funding (e.g. for laboratory or field work costs, or for conference attendance) may be requested from the RMC which has two application deadlines per year. An email inviting applications will be sent to all students in advance of each deadline.

Publications, posters and conferences

In the Department of Earth Sciences, all research students are encouraged to attend national and international conferences to ensure they are able to consider their work in a wider context and to view "cutting edge" science. MSc by Research students are encouraged to discuss possibilities with their supervisors. Announcements of conferences are also posted on the notice board near room 201.

Postgraduate students are actively encouraged to present posters at conferences and publish the results of their work. Full departmental facilities are available to permit these activities whether or not they are joint contributions with supervisors. With exceptions, it is normal practice for supervisors to be involved in, and be co-authors of, posters and publications arising from a student's supervised research. In all situations, however, the department's name and address must be quoted. Publication and participation in conferences etc. not only enhance a student's career opportunities but also the reputation of the department.

Posters that have been displayed at conferences during the year should also be displayed at the Postgraduate Research Student Conference each year. Subject to funding a prize may be awarded for the best poster. Posters may also be displayed on the boards attached to the walls of the main corridors. Contact Kevin D'Souza or Dan Parsonage if you wish to display a poster.

All materials for publication or posters should be shown to supervisors first to respect confidentiality of departmental research in progress and to ensure high standards are maintained. It is important to incorporate preprints, offprints and drafts of papers as appendices in a monograph format thesis.

Supervisor meetings

All students can expect regular meetings to discuss the project, monitor progress and explain theory or practical. Face-to-face meetings with your supervisor in person should take place on average once every two weeks. During the first term of study, students can expect an average of 1 - 2 hours per week. About 1 hour per week is usually appropriate during subsequent periods prior to

submission. It is never good practice to wait until an entire dissertation draft has been completed before seeking or obtaining feedback.

Students are expected to:

- Produce a written record of all the important meetings with their supervisor in summary bullet point form (= meetings log; free format, an example is provided at induction)
- In the meetings log use bullet points to record the key issues/topics discussed, the agreed future work plans and timetables for the work.
- Email the record to the supervisor to cross check that key points have been included.

Both the student and the supervisor should keep copies of all these documents, including emails, for the duration of your studies.

If a supervisor is absent for periods of more than 2 weeks, the supervisor and student are to agree to an interim supervisor, normally someone from their dissertation committee. Colleagues from other institutions should only be used if they are readily accessible.

Structure of the MSc in Earth Science by Research

The Masters in Earth Sciences by Research (often abbreviated to MSc by Research or MSc by Res) programme is for students who wish to pursue research in a selected field of the Earth Sciences for a period of one calendar year full time or two calendar years part time and be awarded a Masters degree.

The focus of the degree programme is an independent research project chosen by the student through discussion with their supervisor. It may be possible to arrange co-supervisors from other Universities, Research Institutes or Industry, to benefit from their specialist expertise. Students will receive training in research skills, including data collection, data handling and analytical techniques as well as transferable and presentation skills. The research is presented for examination in the form of a dissertation – for details of requirements see Appendix 1 in the [Research Degree Regulations](#).

Your progress will be discussed at meetings with your supervisor, a Royal Holloway co-supervisor or advisor, and a member of staff independent of your supervisory team. You will also present your research in an oral presentation at the start of your formal review meetings. You may also offer an oral presentation or a poster at the annual Earth Sciences Postgraduate Research Student conference in June.

During their studies students may attend taught courses if they are relevant to their training needs. There are also a wide range of other training opportunities available in the University including the [Researcher Development Programme](#).

- The MSc in Earth Sciences is assessed 100% on the dissertation.
- There are no compulsory taught components for this Masters by Research programme.
- It is very important that you consult the Research Degree Regulations appendix 1 at the start of your project for guidance regarding the requirements of the dissertation.
- The dissertation must be submitted within 12 months' full time or 24 months' part time.

Review progress meetings

To demonstrate satisfactory progress at a review progress meeting the MSc by Research student must produce work that:

- documents and shows understanding of the context and underlying justification for the project, clearly states the aims and objectives and describes and interprets results.
- demonstrates progress suitable for the stage reached and includes a clear, well-justified plan for future work with timetable.

All written research work should be presented at the standard required in a draft dissertation chapter – with logical order, appropriate headings and subheadings in ranks and with images/diagrams designed to fit in an A4 dissertation page allowing for margins as required in the regulations. The specific requirements for written work should be discussed with the supervisor.

First progress meeting held at c.4 months (8 months for part-time students)

Written work required (at least one week prior to the meeting):

- A draft 'Aims and objectives' of the dissertation
- A draft 'Background to research' to include a review of essential literature and be suitable for use in the dissertation.
- Other written work as requested by supervisor, for example, initial results and interpretation.
- Plan and timetable for future work.
- Record of supervisory meetings
- Training log.
- [MSc by Research Review Form](#) with Parts 1, 2 and 3 completed.

At the meeting: Oral Presentation and discussion

- In addition to written work the student must make a short research presentation (c. 15 minutes) to their committee at the start of the progress review meeting. Content to include – background to the project, aims, hypotheses to be tested, materials and methods to be used, results and interpretation, conclusions, future plans.
- Discussion of all work and feedback on oral presentation
- Opportunity to raise any issues.

Intermediate meeting at c. 6 months (12 months for part – time students)

No specific work or staff involvement required (discuss any requirements with supervisor) but an extended discussion of work that has been accomplished and what still needs to be done to ensure that plans are clear and sufficient progress is being made.

Second progress meeting at c.8 months (16 months for part-time students) – at the latest

Work required:

- A draft dissertation introduction including aims and objectives.
- A draft dissertation chapter, or major section of a large chapter, which must use, interpret, discuss in depth and draw conclusions from, your own data obtained during the MSc work. This work should be presented in the format and to the standard expected for a dissertation chapter.
- Other written work as requested by the supervisor.
- Complete dissertation plan with all major headings and subheadings.
- Plan and timetable for future work.
- Record of supervisory meetings

- Training log.
- [MSc by Research Review Form](#) with Parts 1, 2 and 3 completed.

At the meeting:

- Discussion of all work
- Opportunity to raise any issues.

Preparing for dissertation submission

[Find out about the requirements of the dissertation in the Research Degree regulations - appendix 1](#)

[Find out about the submission process](#)

Originality check to help avoid plagiarism

There is an opportunity to check originality, which allows students, in consultation with supervisors, to upload draft dissertation chapters for checking originality using Turnitin. The aim is to ensure that students understand and avoid plagiarism. There are help documents for supervisors on the [Moodle](#) page and all Earth Sciences staff supervisors are enrolled. Please ask your supervisor to put a Turnitin assignment onto the Moodle page. You submit your work to that assignment. The originality report is then discussed with your supervisor.

If the examiners request a viva

- The default is that Masters by Research candidates do not have a viva. Please note however that this is at the examiners' discretion.
- If you are asked to defend your dissertation at a viva, please refer to the department's advice on viva preparation in the [MPhil / PhD version of this appendix](#)

Liaison with industrial and other external sponsors

Many postgraduate students are either directly supported by sponsorship from industry, are involved in research projects supported by industry, or are working on projects where valuable data (e.g. seismic data) are supplied by industry. It is absolutely essential that you maintain the correct and proper relationships with such partners if you have any such industrial links (or other links, e.g. NHM or Rutherford Appleton Laboratories). With the supervisors advice, the postgraduate student should always seek permission or approval from the appropriate industrial company to present any results from such industry sponsored research or industry supplied data well in advance of the presentation date (i.e. at least two to three months as in most cases – e.g. seismic data from the North Sea, approval from the company's partners may also need to be obtained and this may involve as many as ten or more additional companies). In all cases approval must be obtained in writing for the presentation of the research results and particularly for the presentation of data supplied directly by the company. In some cases the company may wish to keep the data confidential – this wish should always be respected and the student is then advised to negotiate through his/her supervisor the conditions for including such data in future presentations and in the dissertation. These principles also apply to data supplied by your supervisor for your research project. Students must also seek supervisor's approval before submitting reports or data products

to sponsors to respect confidentiality of departmental research in progress and to ensure high standards are maintained.

The same principles as outlined above also apply to the publication of any industry sponsored research and permission must be obtained in advance for any industry supplied data to be included in any publication, poster or thesis/dissertation. Normally there will be no problem as long as sufficient advance notice is given – in all cases the liaison must be conducted through your supervisor.

It is common courtesy to offer to present the results of any industry associated research to the appropriate company and to provide them in advance with copies of any abstract or publication arising from such research.

Industrial partners supply a huge amount of valuable data for our research programmes as well as providing a large amount of financial assistance and sponsorship. Thoughtful and considerate liaison with our industrial sponsors is essential for both your own research project and for your future career prospects.

Departmental Health and Safety information for laboratories, field work and lone working

Health and Safety

- A first aid kit is currently located in the foyer. Some laboratories also have their own first aid kits.
- Every student prior to undertaking any laboratory work (at RHUL or elsewhere) or any field excursion MUST complete a Risk Assessment form in discussion with their supervisor and/or lab manager. This form can be found on [Moodle](#) and should be returned to Dan Parsonage at least two weeks in advance.
- Advice can be gained from the Departmental Health and Safety Coordinator, Dan Parsonage.
- Safety aspects relevant to some facilities and laboratories are, however, overseen by laboratory supervisors who should always be consulted.
- Postgraduate students bear the primary responsibility for their own safety during their work and that of people around them. Postgraduate demonstrators, when assisting with teaching and field excursions, are regarded by the Health and Safety at Work Act as employees of the University, with the same responsibilities as salaried members of staff. It is therefore essential that every postgraduate student reads and observes the department's handbook 'Code of Practice on Safety Matters for Staff and Postgraduate Students' which you should receive with your welcome app. This sets out the structure of safety responsibility in the department.

Lone working

The University has a [Lone Working Policy and Procedure](#):

- Lone working is defined as working during either normal working hours at an isolated location within the normal workplace (Monday – Friday 08:00 – 18:00) or when working outside of normal hours (Monday – Friday 18:00 – 08:00, weekends, bank holidays and when the University is closed).
- There are many areas in the Department where staff and postgraduate students work alone. In the majority of cases this will be without significant risk (e.g. persons working

alone in offices with appropriate safety precautions in place). However, working alone can introduce or accentuate hazards (e.g. lack of assistance if needed, inadequate provision of first aid, sudden illness, violence, emergencies, failure of services and supplies, etc.).

- Each laboratory/area manager or supervisor is responsible for the identification of lone working activities within his/her area of responsibility and to undertake the appropriate risk assessments which identify the risk to lone workers and the control measures necessary to minimise the risks, as far as reasonably practicable. Only personnel authorised by their supervisor and lab manager will be permitted to work alone.
- Subject to the findings of the Risk Assessment, the department requires that a person working alone or out of hours will:
 - Keep a method of communication with them at all times in case of an emergency, e.g. Telephone.
 - Inform supervisor during office hours/family member, friend (buddy system) or
 - Security after hours of his/her intention to work alone/after hours.

Requirement for insurance for travel including in your own vehicle

All students on field or conference/collaborative work overseas must take out travel insurance. The University provides a low cost policy that covers fieldwork which is organised by the [University Finance Secretary](#) (ext. 4958). You will need to complete the Student Leave of Absence form, which you can download from [Moodle](#). The form should be completed at least two weeks prior to your trip, along with departmental cost-code (check with your supervisor).

If driving your own vehicle for any activity related to your studies (e.g. field trip, visit to another laboratory) then this is a business use. You need to check your personal insurance to ensure that this is permitted and you must complete a declaration for University – see details [here](#). Queries may be sent to Finance-Secretary@rhul.ac.uk

The Departmental Code of Practice on Safety for Staff and PGR students is available on [Moodle](#) under Health and Safety.

Other items which may be consulted are:

- Undergraduate Handbook: a guide for BSc and MSci students
- Health and Safety Guidance on the [RHUL intranet](#)

Checklist of actions when you are leaving the Department of Earth Sciences

Computer and work materials

All equipment purchased on a University order is the property of Royal Holloway therefore it is essential that all equipment is returned in good order. If there is further collaborative work with the University it may be possible to use equipment on an extended loan basis. You must discuss any requests to borrow IT equipment with departmental IT staff. This also applies to University licensed software.

Ownership, use and publication

Ensure that you discuss the ownership, use and publication of data, photographs and audio-visual media with your supervisor.

Office and laboratory space

- Desk, book shelves and lockers – All these should be left empty and clean in the state you would wish to find them if you were arriving as a new student.
- Laboratory areas – it is your responsibility to clean and clear away all your material. Please discuss first with the lab manager to ensure you use the correct disposal methods for each item according to the standard procedures for that laboratory. Leave nothing in the lab unless instructed to do so by lab manager or supervisor. Please be aware that leaving items behind (e.g. those that are difficult to dispose of or are unlabelled) will jeopardise a good reference for quality of laboratory work.
- Passwords or access arrangements to shared computers, databases, group social media and software controlling instruments should be released to the lab manager or supervisor.
- Keys/swipe cards – Return keys for laboratories, locked cupboards and restricted areas to supervisor or Dan Parsonage.

Data

- Laboratory notebook – discuss with supervisor/lab manager. It is standard practice that laboratory notebooks remain in the laboratory. You may wish to make a copy for yourself.
- Experimental data (lab, computer or elsewhere) – provide well-organised, fully-labelled, electronic copies of raw and processed data with supplementary meta-data to supervisor. Consider uploading data to a data repository such as zenodo.org. Having data on an online datacenter is required for RCUK publishing.
- Computer-based data and interpretations/reconstructions using those – provide well organized, fully labelled, electronic copies to supervisor.
- Images and photographs, including interpretations of those – provide well-organised, fully labelled, electronic copies to supervisor in format and resolution suitable for use in publication (e.g. tif for photographs).

Methods, procedures, computer programmes and codes

- For computational work organize all these items to professional standard in the dedicated computer and provide a table to your supervisor showing which items are in which directory.
- For other work check if everything is fully documented in the dissertation. If not, provide well organized, detailed electronic copy to supervisor.
- This documentation should be sufficient to allow a future researcher to repeat your work exactly.

Specimens (in rock store, lab or office)

- Includes rock specimens, thin sections, polished blocks, microscope slides, SEM stubs, etc. Discuss with supervisor/lab manager/rock store manager.
- Unwanted Specimens – dispose of these, taking account of any Health and Safety or disposal regulations.
- Specimens to be retained – ensure all are labelled. Make a catalogue/database if not already in dissertation. Give catalogue to supervisor and move specimens to agreed storage area.

Dissertation and draft manuscripts for publication

- Provide an electronic copy of final corrected dissertation (including all appendices) and of all draft manuscripts to supervisor.
- Please ask your supervisor if they would like a bound hard copy of your dissertation at cost (i.e. supervisor will pay printing and binding cost). If yes, it would be ideal if you would print and bind that copy.

Books

- Borrowed books and instrument manuals – return to owner (supervisor, other staff, library, etc).
- Your own books you no longer want – offer to others in your group or to the department (or leave on foyer tables with a note that they are free to take).

Paperwork

- Printed journal articles – take with you, give to supervisor or throw away.
- Your personal notes, hard copies or electronic – check if they include data or experimental records not documented elsewhere. If yes then see above. If no, take with you or throw away.

Research Group or supervisor-specific requirements

- Check if your supervisor or research group has a leavers' checklist and act on that as well.