



MACS

September 2017

SCHOOL OF
MATHEMATICAL
& COMPUTER
SCIENCES

PHD STUDENT HANDBOOK

*Come along and meet your fellow
MACS PhD students*



Friday 20th October

from

4pm

Colin Maclaurin Building

Room F.01

Refreshments provided

Welcome to the School of Mathematical & Computer Sciences

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Responsibilities

You

It is your responsibility to prepare for your intended degree and ultimately it is up to you to produce a dissertation which meets the required standard.

Before the end of each year of study, you must submit a written report covering the work you have done during that period, and identifying the nature and direction of your proposed research. You will also be required to give a short (~20 minute) presentation to your research group.

Your supervisor

Your most important point of contact! In your first year it is a good idea to have weekly or fortnightly meetings, even if these are very short, and you should expect regular contact with your supervisor. It is the responsibility of your supervisor to advise and guide you in all aspects of your research. Your supervisor is also responsible for ensuring that you are making satisfactory progress.

2nd Supervisor

You will have a 2nd supervisor who will support you and your 1st supervisor, as well as providing additional guidance. In some cases the 2nd supervisor may be actively involved in the supervision of your research project, particularly when the research is interdisciplinary and each supervisor has specific skills and experience. You should contact your 2nd supervisor for issues which cannot/have not been resolved by your 1st supervisor.

Internal Examiner

The internal examiner will read your annual written report and conduct a viva based on the content. They will provide written feedback including recommendations as to the future conduct of the research.

The internal examiner also conducts your final viva together with external examiner.

External Examiner

An external examiner will be appointed by your supervisor once your research is complete and you are ready to submit your thesis. They will review your thesis and carry out the viva.

PGR Coordinators

They are responsible for the PhD students in the departments within the school. You can contact them if you have questions about procedures and regulations or if you have any problems you wish to discuss.

PhD student rep

The student representative is an intermediary between PhD students and staff who will attend departmental and School meetings. They are also responsible for organisation of PGR events and social activities. Full details on page 8.

PhD Mentor

PGR co-ordinators will allocate you an experienced PhD mentor to help you with settling in and your first two years at Heriot-Watt University.

Personal Tutor

Each student has a personal tutor that they meet at least twice a year to talk about academic progress and supervisory arrangements. You can approach your personal tutors in case of problems with your supervisor(s).

PGR student committee

This committee, consisting of PhD reps, the Research Administrator, PGR co-ordinators and the Director of PGR Studies, meet on a regular basis as a forum for discussion on current and upcoming issues, events etc.

PGR staff committee

This committee, consisting of PGR co-ordinators and the Director of PGR Studies, meet on a regular basis to monitor progress, resolve issues etc.

School Support

The School of Mathematical & Computer Sciences (MACS) is located in two buildings to the north of the campus, the Earl Mountbatten Building (EM) and the Colin Maclaurin Building (CM).

You will find relevant School and University information to support you (including an electronic version of this booklet) on the MACS current student information website.

<http://www.macs.hw.ac.uk/students/pgr/>

The PhD student wiki at <http://www.macs.hw.ac.uk/~cs226/wiki/> also contains helpful information.

MACS Reception EM 1.25	The School Office is open Monday to Friday between 10am and 4pm. macs-schooloffice@macs.hw.ac.uk	First point of contact for general enquiries and registration for Tier 4 visa monitoring.
Research Administrator EM 1.17	Sandra S.M.McArthur@hw.ac.uk	Non-academic issues Procedures for progression, submission, graduation etc.
Finance Office EM 1.13	Christine C.McBride@hw.ac.uk Derek Davis D.H.Davis@hw.ac.uk	Travel & conference bookings Timesheets Scholarships Stipends & fees
IT Support	Steve, Iain & Adrian help@macs.hw.ac.uk	
Head of School	Beatrice Pelloni B.Pelloni@hw.ac.uk	
Director of Research	Lynne Baillie L.Baillie@hw.ac.uk	
Director of PGR Studies	Christian Saemann C.Saemann@hw.ac.uk	
PGR Co-ordinators	Actuarial Maths & Statistics Damian Clancy D.Clancy@hw.ac.uk Maths Christian Saemann C.Saemann@hw.ac.uk Computer Science Mike Just M.Just@hw.ac.uk	

Key Dates & Social Events

September *Enrolment*

October *Induction*
Welcome drinks

November / *Christmas Conference*
December

February / *New semester night out*
March

April / May *PhD Poster Session*
PhD End of Year Talks

June / July *PhD Annual progression reporting*

August *Edinburgh Festival*

Every week all MACS staff and PhD students

are warmly invited to enjoy a

Tea Break

together in the common room (CM F.01)

tea & biscuits provided

Thursdays at 3.30pm



How to enrol

You can enrol online by visiting www.hw.ac.uk/onlineenrolment

Login

Login by entering your:

- Heriot-Watt University Person ID (found on any recent correspondence from us)
- PIN number (your date of birth)

The first time you login, you will be asked to change your PIN number. Please keep these details safe, as you'll need them the next time you login.

Upload a photograph

Please upload a photograph for your student identity card. This should be a clearly identifiable passport-style photograph taken against a white background. This will save you time when you complete your enrolment

If you can't upload a photograph when you enrol online, you can attach a printed photograph to the photograph form and post it to us.

ID Check and Student Card Collection

When you arrive on campus we will need to check your identity (ID) and your passport and visa if you are subject to immigration control. We will then issue you with your student identity card. You will therefore need to bring the following:-

- Your HW Person ID
- Photographic ID (e.g. passport or driving licence)
- For students subject to immigration control; your passport & Visa

New Home (Scottish domiciled), RUK (domiciled in the Rest of the UK) and EU students must complete their enrolment during Welcome Week between 10.00 and 16.00 at one of the following venues:

- The Learning Commons located at Ground Floor Hugh Nisbet Building (beside Elements Café)
- James Nasmyth Room 1.15

New and Continuing International students (non-EU and subject to immigration control) must complete their enrolment during Welcome Week between 10.00 and 16.00 at the Student Service Centre located in the Hugh Nisbet Building (ground floor).

Any student arriving after Welcome Week please go to the Student Service Centre as soon as possible to complete the above.

Forms

You are required to complete the following forms:

Ethical approval form

<http://www.macs.hw.ac.uk/students/pgr/forms/>

Please discuss this with your Supervisor, complete the form and return it to the Research Administrator Room EM 1.17.

Student-Supervisor Agreement Form

Please read the Research Student Code of Practice which you will find here: <http://www1.hw.ac.uk/registry/resources/cop-pgr.pdf>

Then sign the form and return it to the Research Administrator in Room EM 1.17.

Computing regulations and authorisation form

If for any reason you have not been given access to the School computing facilities please complete the Computer Regulations and Authorisation form which you'll find here:

<http://www.macs.hw.ac.uk/students/wp-content/uploads/Computer-Regulations.pdf>

Then take it to the IT support office in EM 1.33

Progression (annually)

You will find all the forms required for progression here

<http://www.macs.hw.ac.uk/students/pgr/annual-progress-reporting/>

Thesis template (final year)

You will find an example thesis template here

<http://www.hw.ac.uk/students/studies/examinations/thesis.htm>

If you have any questions regarding these forms please email Sandra S.M.McArthur@hw.ac.uk

PGR Representatives

A PhD representative should be elected every academic year; one for Computer Science and one for Maths & AMS jointly.

Election

- Elections will be held annually (normally in the first semester)
- Candidates will be invited from across all the PGR students by the current representative of each department
- Statements from each candidate will be made available to all PGR Students and normally a meeting will be held
- All students will be invited by the Research Administrator to vote electronically
- The Research Administrator will communicate the final result

Role of REP

- Represent PhD students at departmental and school meetings as required (normally bi-annually)
- Act as an intermediary between PhD students and staff
- Consult widely among the PhD students on the PhD student experience (normally once per semester)
- Organise an annual MACS Conference with assistance from members of the PGR student committee (normally 1st week of December)
- Organise an annual MACS Poster Session with assistance from members of the PGR student committee (normally around May)
- Appoint an organiser for the Friday afternoon PhD seminar series
- Appoint a social activities organiser

Progression and Examination

The progression process is a mandatory requirement for your continuation to the next year of study. For students starting between August and December the process will take place in June and July each year. Students starting from January onwards should confirm a suitable progression date with their supervisor.

Presentation

Before the end of each year of study you will be required to give a short (circa 20 minute) presentation on your research to your research group.

Report

You are also required to submit a written report covering the work you have done during that period, and identifying the nature and direction of your proposed research. The written report will be read by your supervisor and internal examiner who will conduct a viva based on the content of the report. Subsequently, the examiner will provide written feedback, which will be filed in the Department's records. The feedback will include recommendations as to the future conduct of your research.

The reports should emerge naturally as a product of study, summarising what has been done and looking forward to the work that lies ahead.

The precise nature of the report is likely to depend on the chosen area of study; for example, a student working on a theoretical topic may produce rather a different style of document from one whose work is heavily oriented towards the practical. Nonetheless, the submitted report should normally contain the following:

- (i) a survey of the field in which you are working, showing that you have made a thorough study of the relevant literature, and have been able to identify the significance of particular pieces of work, and to see each contribution in the wider context of the subject area;
- (ii) a report on a significant piece of implementation work done during the year that bears on the chosen area of research; this work may be in the nature of a *warm-up* exercise prescribed by the supervisor, or may be a contribution you have identified as relevant
- (iii) a clear and explicit statement of the proposed research topic, with a discussion of the significance of that topic and how it fits into the broader context of the subject area.
- (iv) an outline research plan, indicating goals that have been identified as necessary for the completion of the research, and where possible, some assessment of how these goals can be achieved, of the likely time-scale involved, and of any resources that may be needed in the course of pursuing this programme.

The quality of presentation should be that normally expected of a thesis; significant parts of the report may eventually find their way into the final thesis. In particular, the report should be prepared using an appropriate document preparation system and should contain a properly organised and referenced bibliography. There is no prescribed minimum or maximum "size" for a report. Quality is more important than quantity. Nonetheless, it is unlikely that an adequate literature survey can be reported in less than, say, 2,500 words, and this is likely to occupy no more than half of the document.

The viva is intended to allow the examiner who has read your report to explore aspects of it with you, to consider whether you have an adequate grasp of your subject, and whether the research proposal is achievable, appropriate PhD material. You will be expected to make a short presentation of 20-30 minutes, based on your report, with the aid of suitable prepared slides etc., after which you should expect to answer questions and generally engage in discussion with the examiner.

The deadline for the submission of the reports will be made known well in advance by the Research Administrator. For EPSRC-supported students it will certainly be in advance of the first year report submitted to EPSRC, on which continuation of the grant is based. A copy of the report should be emailed to each supervisor, the internal examiner (appointed by your supervisors) the Research Administrator. The viva/oral will normally follow within two weeks.

Forms

Along with your annual report you should complete the Research Student Progress form <http://www.macs.hw.ac.uk/students/pgr/research-student-progress-form/> . The form is automatically sent to the Research Administrator, your supervisors and your internal examiner. If you have any concerns about this you should contact the Research Administrator S.M.McArthur@hw.ac.uk.

Your supervisor and internal examiner will also complete progress forms and you will receive a copy of these once the deadline has passed. All reports will be reviewed by the departmental PGR co-ordinator.

Final Submission, Examination & Graduation

You will find full details of current university processes and procedures regarding your final thesis submission and graduation here:

<http://www.hw.ac.uk/students/studies/examinations/thesis.htm>

This includes information on deadlines, format, and forms required to submit, including a thesis template.

Training & Development

You should discuss any training and development needs and interests with your supervisor(s) to ensure suitability.

The Centre for Academic Leadership & Development (ALD) supports and facilitates research and teaching excellence by the academic community. Specific to PhD students they run:

Research Futures student workshops

Skills development programme for postgraduate research students

<https://www.hw.ac.uk/research/ald/develop/research-futures-student-workshops.htm>

LEADS

HEA accredited programme for new tutors, teaching assistants or lab demonstrators

<https://www.hw.ac.uk/research/ald/develop/leads.htm>

Postgraduate research conference

An annual showcase of postgraduate research across the University

<https://www.hw.ac.uk/research/ald/develop/annual-postgraduate-research-conference.htm>

The Scottish Mathematical Sciences Training Centre (SMSTC)'s prime aim is to provide high-quality broad training in fundamental areas of mathematics and statistics for beginning PhD students at a level comparable to that of first-year PhD courses in North America or mainland Europe. Teaching is by video-conference lectures in two semesters, running from October to March. You will find their timetable and further information on their website

<http://www.smstc.ac.uk/>

VITAE is the international programme dedicated to world-class professional and career development of researchers. Heriot-Watt University is a member and you can register for free using your HWU email address.

<https://www.hw.ac.uk/research/ald/develop/vitae-membership.htm>

Webpages

Each PGR student is required to maintain a personal webpage containing, at least, the information listed below. Training will be provided within the School if necessary.

- Contact details (including office room number, phone number and email address)
- Supervisor details
- Research Area
- Publications
- Presentations

Seminars

Research Group Seminars

Your research group organises regular seminars at which invited speakers give talks on a variety of subjects, talks that are intended for a general research audience but which usually impinge on some research work of the speaker. Regular attendance at these seminars is an important part of the education of its research students, providing a broader outlook on research. Notifications are usually by email at various dates and times throughout the year.

PhD Seminars

This seminar series takes place on Friday afternoons in CM T.01 and is organised by the PhD students.

Other Seminars

There are several other organisations within Edinburgh who also hold regular meetings of interest. These include the University of Edinburgh, the International Centre for Mathematical Sciences (ICMS), the Royal Society of Edinburgh and the Edinburgh Mathematical Society. You should keep an eye on relevant mail shots and e-mail for these events.

Other Activities

Lab / Tutorial Assistance

Assisting academics in labs and tutorials is a valuable opportunity which is a flexible and paid activity although it is optional. You will be required to carry out duties such as answering student questions, helping with computer labs and marking mid-term tests. You will find full details of what will be involved on the MACS current student information website here <http://www.macs.hw.ac.uk/students/pgr/training-development/>

External Publications

You are encouraged to submit papers to learned journals and conferences, with the full consent of your supervisor. It is not possible to lay down hard and fast rules about authorship, but normally these submissions will bear the names of both you and your supervisor reflecting the contribution each has made in a practical, theoretical and critical sense. You may submit papers on an individual basis, but ***in no event should a student submit a paper from the department without the supervisor's approval.***

Conferences

There are diverse sources of support for travel and presentation of papers or posters at conferences. These include support from EPSRC to present one piece of work during the period of tenure of an award, and earmarked funds available on application from the British Council for foreign students. If you wish to attend a course/conference, please consult your supervisor well in advance. The EPSRC also run various workshops and summer schools specifically aimed at postgraduate students.

Holiday, Sickness & Absence

You are entitled to 6 weeks holiday per year and you should always check this in advance with your supervisor.

In addition to this the University has “Buildings Closed Days” each year at Christmas and Easter. You will find this year’s dates on the website here <http://www.hw.ac.uk/student-life/how-to-apply/academic-calendar.htm>

You should also advise your supervisor if you are unable to come in due to sickness or other personal reasons.

Planning

To aid research planning, you will find below an example postgraduate study timetable which shows the principal milestones for a standard 3 year PhD. Please note this is only for guidance and you should discuss your individual plan with your supervisor.

		Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Year 1	Enrolment												
	Discuss with Supervisor & attend appropriate courses												
	Submission of annual report												
	Presentation to research group												
	Viva												
Year 2	Enrolment												
	Submission of annual report												
	Presentation to research group												
	Viva												
Year 3	Enrolment												
	Discuss preparation of thesis with your supervisor												
	Presentation to research group												
	Submit thesis												
	Preparations for final exam												

...don't forget to...

Complete your Student-Supervisor Agreement form

Complete your Ethical Approval form

Familiarise yourself with University health and safety guidelines