Research Student Guide

Overview

Research students within the School of Computing Science at the University of Glasgow can study for a PhD or MSc by research. This document is intended to act as a manual, for both students and supervisors, on the process and regulations relating to those degrees. It starts by giving an overview and introduction to being a research student (including information on what to do on arrival and background information on the library and other facilities). The bulk of the document is then dedicated to the process of doing a degree by research, including the various deadlines throughout the degree and, finally, graduation.

Key Websites

The following web pages are key sources of information

Research Student Committee web pages:
https://www.gla.ac.uk/schools/computing/postgraduateresearch/informationforresearchstudents

Graduate School web pages:
https://www.gla.ac.uk/colleges/scienceengineering/graduateschool/postgraduateresearchstudy/

PGR Code of Practice

This document should be read in conjunction with the Postgraduate Research (PGR) Code of Practice, available from https://www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcodeofpractice/. The PGR Code of Practice, developed by the University’s Graduate Schools, sets out guidelines for students and staff concerning the most effective practice at each stage in the postgraduate student lifecycle. These are the expected standards that all staff and students should maintain. The School of Computing Science adheres to these guidelines. See also College of Science and Engineering Graduate School’s Code of Practice, available from https://www.gla.ac.uk/colleges/scienceengineering/graduateschool/postgraduateresearchstudy/policiesandprocedures/.
Introduction to being a research student

This section gives an overview of being a research student. It starts with a general introduction to the nature of research then discusses the supervision set-up, the time scales for research degrees, School research activities, and resources available to students.

Doing research

Research is the basis for advancement in science. It involves getting to know an area in great detail and carrying out some work of your own to advance the state of knowledge in that area. An MSc may be typified as taking existing research and applying it in a new area, while a PhD will tend to modify and expand the work of others to nudge the research field forward. Both are based on a thesis or question for which the written dissertation acts as a structured, detailed argument.

Degrees conducted by research are very different from taught degrees: students are not taught material and expected to learn it for exams, but are expected to find and understand material on which their work builds and to which their work is related. An MSc can be considered as deepening the student’s knowledge in a small area of Computing. A PhD will make him/her one of the world experts within a particular area of Computing.

Of course, when starting students may have little idea of how to conduct the independent research and work that is required to attain a degree by research. Therefore, each student will work closely with a supervisor. It is the supervisor’s responsibility to guide their students through the process and skills training required to be a successful researcher. Both the School and University (via the College of Science and Engineering Graduate School) give support through training schemes, monitoring procedures and facility provision. We believe that Computing Science at Glasgow provides an excellent environment for supporting work towards research degrees. But ultimately it’s up to the individual student.

Students have to be motivated and put in the work. Research is, in essence, exciting: one gets to study what one wants, explore fascinating ideas, and work with interesting people, who share the same enthusiasm. But it can also involve a lot of hard work, and even moments of self-doubt; by its very nature, research entails exploration of uncharted territory. Our friendly and supportive environment will help maintain students’ self-confidence; our research strength and depth will help to guide their exploration. Unfortunately however, there will be some who fall by the wayside. Success in research is difficult to achieve, requiring motivation, insight, tenacity, sheer hard work, and sometimes good fortune, as well as innate ability. Early identification of problems may help redirect some students; hence the School’s monitoring processes.

This document will give an overview of many of the issues which will affect students throughout their degrees. Students planning a PhD, and their supervisors, should also read Phillips and Pugh’s excellent How to get a PhD which covers the process and provides a comprehensive discussion of how to manage different aspects of a PhD as well as how to avoid some of the common pit-falls.

MSc vs PhD

Research students are normally admitted to the School to study for a postgraduate degree by research. Normally there is no a priori distinction between prospective PhD students and prospective MSc students, although most will be aiming for one degree or the other from the outset. The degree for which a dissertation is ultimately prepared and submitted will depend on the progress of the individual student, particularly during the first year of his/her enrolment.
Supervision set-up

Each student will be allocated a supervisory team from amongst the academic staff. This will include a first supervisor with primary responsibility for the student and a second supervisor. The role of the second supervisor can vary. In some cases they have a large academic input, while in others they act more as an adviser. It is important that a research student has at least two academic staff in his/her supervisory team.

The relationship between student and first supervisor is critical. It is the responsibility of the supervisor to advise and guide the student in all aspects of his/her research. In order to obtain appropriate continuity of supervision and adequate attention from his/her supervisor, a student should expect, at the very least, one hour per week of his/her supervisor’s dedicated time.

The role of the second supervisor is to provide a different perspective on the work and as such should meet the student at least twice a semester and twice over the summer. **It is the responsibility of the research student to arrange these meetings.**

Formally the Head of School is responsible for the appointment of supervisors; in practice, this task is delegated to by the Research Student Committee (see below for an explanation of where RSC fits into the School committee structure). The second supervisor is allocated at time of arrival, the first having been allocated when the student is offered a place.

If you have any problems then first discuss them with your supervisor or second supervisor. If there are things you would prefer to discuss confidentially then come and talk to RSC.

First year mini-project

During the first year each student should be encouraged perform a “warm-up” mini-project. The exact nature of this will depend on the research topic and will be discussed by the student and supervisor. The aim is to develop a range of skills that you will require for the rest of your research, test out some initial ideas and to assess the student’s aptitude for research (a report on the mini-project is included in the first year report – see below). This fits well alongside the reading that you will do as a first year student to learn about your chosen area of research and makes the first year a good mixture of practice and theory.

For a very practical topic of the mini-project might be a piece of implementation work (perhaps after learning a new language) necessary to be able to test out ideas in the future. For an experimental area it might be designing and running an experimental study to learn the basic techniques required, for a theoretical topic it might be a comparison of different approaches, etc.

If the mini-project work is done well it might provide a publication at a conference or workshop. It will also confirm whether your initial ideas are likely to be successful and therefore continued, or a new approach be taken. This is important, as the first year report requires a plan for research in the second year, so you must have a good idea of what you are going to do and the mini-project helps provide this.

Standard time scales

For full time students to be awarded an MSc by research they must normally have studied for at least 12 months and for a PhD the minimum full time period is three years (part-time students see the section below on part-time status).
Ideally these minima would also be the norm. However, in practice many students do not finish within this period. Although common in the past to overrun, there are now serious restrictions on how long a PhD can last, these are mainly owing to financial costs either on the student or the School. Students must pay a minimum of three years supervised-student University fees and also pay supervised-student fees for every subsequent year of study – they must submit within 12 months of the end the last period covered by supervised-student fees. Most funding bodies will pay for only the first three years’ fees. In practice this implies a maximum PhD duration of four years for a full-time student. Furthermore, the main funding body, the EPSRC, counts all students who have not submitted within four years as failures when calculating our success rate. These failures then affect the number of Doctoral Training Accounts that we are allocated in future years – a further reason for us to target four years as the absolute maximum period for a full-time PhD

With the inevitable risk of slippage it is essential that students target completion for three years from the start of their PhD. The content of these years is discussed further below.

EPSRC-funded students who suffer from ill-health to the extent that this affects, or is anticipated to affect, their completion timetable should apply to EPSRC for a medical extension as soon as this is realised. EPSRC will (quite readily) permit an extension of up to six months in studentships for people with documentary evidence of illness (EPSRC also gives maternity leave). Students funded from other sources should enquire what their funding body will permit under such circumstances. All students should inform the convenor of RSC of serious illness as soon as possible.

**Part-time study**

For simplicity, the rest of this document is primarily written with full time PhD students in mind. The main differences for part-time students are, of course, to do with time and are:

1. The minimum period for part-time study is 5 years (or 1 year full-time and 3 years part time).

2. Progress Report Results (see below) are normally due to the convenor of RSC at roughly 18 month intervals – the first report being due at the end of 15 months of study, the second at the end of 34 months and the final one due at 52 months. Of course the timetables are more flexible for part-time students and are more likely to be adjusted to fit individual circumstances. These deadlines should be used as norms as they balance overloading part-time students with reports and leaving long periods without check.

The School can be flexible on working practices, but we recommend that part-time students spend at least 2 consecutive days per week in the School working on their PhD. The College requires part-time students to dedicate at least 2.5 days total per week to their PhD.

**Research sections and groups**

The school is organised into five research sections. Within these, research groups are organised around the main research themes. Groups normally meet weekly in semester time, sections less often. During each meeting, one member of the group takes the responsibility of presenting a talk on something of current interest to him or her (and hopefully others), or of leading a discussion on some general issue relating to the interests of the group.

It is a requirement that every research student be an active member of at least one, and preferably two, of these discussion groups; in the case of first year students, this will be formally laid down in the written statement at the beginning of the year.
The School also organises occasional seminars at which invited speakers give talks on a variety of aspects of our subject, talks that are intended for a general audience but which usually impinge on some research work of the speaker. The School regards regular attendance at these seminars as an important part of the education of its research students.

**Presenting your Research**

An important skill that all researchers require is that of presenting their work to others. All research students have to learn this skill and, in time, will be expected to give talks to specialist discussion groups within the School. There are many other opportunities for students to present their work in a variety of different formats. These include national and international research conferences and workshops, conferences specific to PhD students, presentation competitions and general-interest science events (e.g., 3 Minute Thesis, Science Slam, Pint of Science).

**Graduate School research training courses**

The College of Science and Engineering (CoSE) Graduate School runs a series of training courses for new research students. These include presentation skills, library skills and general research skills that will be required throughout a research degree. Some courses are mandatory, and all courses provide students with training credits. All research students must obtain a certain number of training credits per year. Details can be found at [http://www.gla.ac.uk/colleges/scienceengineering/graduateschool/postgraduateresearchstudy/docotralresearchtraining](http://www.gla.ac.uk/colleges/scienceengineering/graduateschool/postgraduateresearchstudy/docotralresearchtraining). Please note that all students must undertake a number of compulsory courses. See the Graduate School webpage for more details.

**Senior taught courses**

The various lecture courses presented by the School to senior taught students contain much advanced material ranging over a wide spectrum of computing science. Few research students will be familiar with all of this material, so attendance at some of these courses provides a good opportunity for broadening knowledge of the subject. All research students are encouraged to widen their horizons in this way. In the case of first year students, attending appropriate courses may be one of the formal requirements laid down at the initial planning meeting. Of course, attendance at all courses should be approved in advance with the lecturer of the course.

Students are typically encouraged to attend the Research Methods and Techniques course.

These courses can also provide a mechanism, for those doing a PhD to gain some lecturing experience. Final year PhD students are strongly encouraged to discuss this option with their supervisor and the appropriate course coordinator for their research area.

**Library**

Research students are required to join the library. You will be given increased lending privileges compared to those of undergraduate students and will have full access to the University Library’s research support services including the current awareness and inter library loan services. For more information, see [https://www.gla.ac.uk/library](https://www.gla.ac.uk/library).
Tutoring and demonstrating

Each year a number of paid positions as tutors and demonstrators are available to research students. Demonstrators are involved with laboratory work for more elementary undergraduate classes, teaching assistants are typically involved with assisting senior classes and tutors have responsibility for a tutorial group of level 1 or 2 students. As well as providing a source of income, these duties can give valuable experience for those considering lecturing as part of their future careers. Interested students should discuss options with their supervisor and the appropriate members of staff as early as possible (preferably over the summer and certainly before the start of the undergraduate semester). You must complete the College training course on tutoring and demonstrating before you can be a tutor or demonstrator. Funding bodies typically impose restrictions on the number of hours work a student can do. The School restricts non-PhD work to 6 hours per week for all full-time students (this is in-line with the EPSRC and should be averaged over the 25 teaching weeks). If a student faces particular financial hardship within these limits, special arrangements may be possible and should be discussed between the student, the supervisor and RSC.

The committees

The School is run by a hierarchy of committees. The main ones relating to research students are the Research Student Committee and the Research, Impact and Knowledge Exchange Committee. In addition the College Graduate School is responsible for the administration of research students in the College of Science and Engineering.

Research Student Committee (RSC)

The RSC is the committee responsible for the day-to-day handling of research student matters from applications through to submission and viva arrangements. The RSC is comprised of several members of academic staff and one (or more) student representatives. The role of the research student representatives is to bridge between RSC and students. Representatives are expected to communicate and supply feedback from others in their research group / section.

During the scheduled meetings both student representatives and staff have the opportunity to raise matters of current interest and concern. In addition, students experiencing problems or difficulties should feel free to approach RSC members at any time.

Currently, RSC consists of: Prof David Manlove (Convenor), Prof Alice Miller (Deputy Convenor), Dr. Bjørn Jensen, Dr. Mohamed Khamis, Dr Angelos Marnerides, Dr Kitty Meeks, Dr Colin Perkins, Mr Ed Harris (PGR Administrator) and Ms Ohud Alasmari (Student Representative; email o.alas-mari.1@research.gla.ac.uk).

Research, Impact and Knowledge Exchange Committee

Research, Impact and Knowledge Exchange Committee is responsible for overseeing and steering the School’s research as a whole. As such it discusses matters which, although not directly affecting research students, are related.

College Graduate School

The Graduate School is responsible to the University for Research Students in the College of Science and Engineering. The Graduate School liaises with the Schools in the College to ensure that each student receives professional assistance of the highest quality, from initial enquiry to day of
graduation. The University of Glasgow is an ancient University of exceptional standing and reputation, both in teaching and research. The Graduate School's administration ensures the standards underpinning this high standing are maintained, complementing the expert scientific research supervision provided by the College's Schools.

Amongst other duties, the Graduate School checks and manages the registration process for new students, overview their progress annually and manages the submission and graduation process. Normally all dealings with the Graduate School should be through members of RSC.

Common room and coffee club

All research students are welcome in the School common room (room F171) and are encouraged to come to coffee to chat with staff and other students not in their area of research. Coffee times tend to be at 10:30-11:00 and 3:30-4:00 daily. In the common room you will find an urn, kettle and microwave for general use and a coffee machine. 11am on Fridays has also recently been designated a specific research student coffee slot. It's an excellent time to come to the common room and chat with other research students.

Students are also encouraged to use the University's Gilchrist Postgraduate Club. The club is open to all research students (as well as taught postgraduate students and staff) and is situated in the main University building. More details are available at http://www.gla.ac.uk/studentlife/studentunionsandorganisations/gilchristpostgraduateclub/.

On arrival

UPDATE: In light of the ongoing Covid-19 pandemic. Our first priority remains the health and safety of our students and staff. Access to research student offices in the Sir Alwyn Williams Building and Lilybank Gardens is currently restricted, to enable appropriate social distancing. For updates, please visit https://www.gla.ac.uk/myglasgow/news/coronavirus.

On first arriving in the School, you should see Ed Harris (room F162, tel. x8626, email: socs-rsc@glasgow.ac.uk; personal email Edmond.Harris@glasgow.ac.uk) as soon as possible. During this meeting you will be:

1. given a welcome pack of information on the School;
2. allocated a room (your fellow room members will be informed of your arrival);
3. given a key to your room;

In addition, new arrivals must email support@dcs.gla.ac.uk in order to obtain an account on the School network.

Resources

Student offices and equipment

Each research student will be assigned to an office, which he/she will share with a number of others. Assignments are not normally changed during an academic year. However, if necessary requests to change room can be made to RSC. The best time to request a room change is in early July as these requests can be taken account with the allocation of new arrivals in October.
Each research student will be allocated a computer, a desk, a chair, a share of a filing cabinet and access to shelf space. Research students are given 24-hour access to the building.

All members of the School share responsibility for security. In particular, windows, including those in public rooms, should be locked at night.

Research students have access to a wide range of computing facilities within the School. The School has shared printing facilities (usually located in off-corridor cupboards), high speed Internet connections, and machines based on several platforms (most commonly Solaris, Linux, and Windows). Each student is allocated a laptop or desktop computer on arrival.

**Pull Printing**

Printing, scanning and photocopying is done via a pull printing system. Using your University ID card you can scan, photocopy or print from any printer across the University. You will be provided with details when you obtain your GUID.

**Phones and postal address**

Work related mail should be placed in the basket in the mail room (behind the janitor's booth in the main foyer) and is collected three times a day (at roughly 1030, 1330 and 1500). Mail should be stamped with the University mail costing code (“75”); a stamp is beside the basket.

The official address of the School is:

School of Computing Science, Sir Alwyn Williams Building, University of Glasgow, Glasgow G12 8QQ, UK

Incoming mail is delivered to the appropriate pigeonhole. Research student pigeonholes are in the hallway of house 16.

The phone number of the School's reception (staffed by the janitor) is 0141 330 4256.

Electronic mail is the main form of internal communication within the School and should be used whenever possible.

**Internships**

The School and Graduate School recognise that a suspension of the course of study may be desirable to allow a PhD student to take up exceptionally valuable opportunity for an internship at a well-established company. However, a strong case for the suspension should be made well in advance by the PhD student together with his/her supervisor. The application should be directed in the first instance to the Research Student Committee (RSC). If the application is accepted, RSC will make a case to the College Graduate School who will take the final decision. Matters that need to be handled by the Graduate School should be brought forward in plenty of time to be considered properly (normally at least 2 months). It should be noted that approval is by no means automatic, and an application should therefore be made well in advance of the proposed period of suspension. The School reserves the right to suspend the student’s funding if being paid by other during the internship period.

The expectation is that the student’s work at the company will not simply be work done on the PhD at a different location as, if this is the case, then the relevant procedures are laid down in the College’s regulations on study “Furth of Glasgow”. In that case, the period and nature of the research
work are unchanged, and the student is still expected to finish his or her PhD studies within the maximum period of study.

In addition, it is assumed that such internships will be the exception rather than the rule. For example, the School and College Graduate School would not normally expect students to suspend their studies more than once during the PhD period. Moreover, internship applications coinciding with the expected end date of the PhD will be rejected. Indeed, in general, we wish PhD students to finish their research within the maximum period of study mandated by the regulations, and suspension of studies is not intended as a means whereby students may artificially extend their programme of research.

Applicants should not leave the School before receiving a written approval of their internship request.

Funding support for attending conferences and training events

In person or virtual attendance at conferences, workshops or summer schools is a vital part of a PhD programme as researchers must be aware of others’ work, be able to present their own work to a large audience and be able to discuss their work on an individual level with other researchers. Unfortunately, finding the funding can be tricky. However, there are various sources of funding for travel to conferences: funding bodies, external bodies, grant holders and RSC budget. In addition to these it is often possible to work at a conference as a student volunteer to reduce the cost.

Some funding bodies provide travel funds. Details of these vary greatly from body to body but RSC will have some information and your funding body will be able to give you full details. Students funded as part of a project may also have an allocation of travel money provided with the grant – your supervisor or the grant holder will know the details of any allocation.

Many conferences and workshops organise some form of sponsorship – this is especially true of student-oriented workshops and summer schools. The conference organisers will give guidance on applying for travel support. It is the responsibility of the research student to investigate these options. Deadlines are often soon after notification of paper acceptance so explore these options early.

The RSC budget has funding to support research student attendance and presentation at high quality events. When other funding sources have failed, students can apply to the appropriate member of RSC for funding to attend a conference/workshop. The application should be made via the form on the RSC Web page (http://www.gla.ac.uk/schools/computing/studentstaff/informationforstudents/researchstudents/).

For in person participation at a conference the maximum normal level of support for travel, subsistence and registration is determined by the quality of the conference. As a guideline we use the Australian CORE rankings (http://portal.core.edu.au/conf-ranks/). Typically, we will allocate funds as follows for in person attendance and presentation of a paper: A*: £1500; A: £1000; B: £800; C: £600. The RSC budget is unlikely to provide significant support for in person attendance and travel if you are not presenting a paper.

For participations in virtual events the available support likewise depends on the quality of the event and whether you are presenting or attending. The maximum normal level of support for a high-quality event is £400 if presenting a paper and £50 if you are not presenting.
There is also limited support available for participation in training events such as high-quality quality summer schools. The amount available depends on the type of event (virtual or physical) and relevance to your research. Normally we will only be able support one training event per student during their studies.

The above figures are guidelines, and we will also take into account other factors when making decisions such as location, duration of the event and how much previous support has been allocated to each student. For example, the CORE rankings themselves are also only taken as a set of guidelines. The best meetings in some fields are sometimes not given the highest CORE ranking. Supervisors are best placed to know the area and if a strong case can be made, RSC will do their best to find support.

As the budget is finite, funding cannot be guaranteed. To avoid disappointment, please contact RSC before submitting to a conference to discuss whether funding will be available.

Absence and Holidays

Any research student who is going to be away from the office for a week or more should fill in an absence form available online (https://www.gla.ac.uk/schools/computing/postgraduateresearch/informationforresearchstudents/localinformation/#/formsandlinks). Absences include conference trips, illness, holidays, etc. You should naturally inform your supervisor and get his/her approval for long absences. Moreover, if you are going to be working from home for an extended period of time you should also inform your supervisor and RSC. If you are ill and unable to come in to the School the form can be filled out on your return, however, you should notify your supervisor of your absence. The absence form should be filled out and returned to Ed Harris (socsc-rsc@glasgow.ac.uk).

Dignity at Work and Study policy

The University of Glasgow is committed to fostering a working, learning and research environment where mutual respect and dignity is experienced by and between employees and students. The University aims to promote a culture where we embrace diversity and difference; harassment and bullying are known to be unacceptable; allegations are dealt with in fair and timely fashion, without fear of victimisation. Naturally we hope that your time at the University will be an enriching one, and that you will have only positive and fulfilling interactions with staff and students. However should you have any concerns relating to possible instances of bullying and harassment, please refer to the University’s Dignity at Work and Study policy which can be found at https://www.gla.ac.uk/myglasgow/humanresources/equalitydiversity/policy/dignityatwork/.

Equality and Diversity: Information for Students

Additional sources of information for students relating to Equality and Diversity can be found at https://www.gla.ac.uk/myglasgow/humanresources/equalitydiversity/students/. This includes information about:

- Black, Asian and Minority Ethnic Students
- Disabled Students
- LGBT+ Students
- Mental Health
- Faith and Belief on Campus
- Student Parents and Carers
- Care Experienced or Estranged Students
- International Students
- Student Support Policies
Reports and milestones

Research in any situation is subject to time, financial and other constraints. Doing a degree by research is no different (in some respects the constraints are much tighter; in other respects they are very loose). Learning to work within these constraints is as much a part of the training process as learning the basic skills of research. To monitor progress, annual reports are required for every student in addition to an initial Plan of Work. This section highlights what is required in each of these submissions in addition to the final dissertation submission.

The annual review procedures include three documents: the Annual Report which is written by the student, the Annual Progress Review Form which is completed by supervisors and students in all cases (irrespective of part-time/full-time status and starting date), and the Outcome of Review form which is completed by the progression review panel after each annual report is examined. Normally, for full-time students starting in October, the Outcome of Review form will follow shortly after the Annual Progress Review Form. Together the two forms will be used to monitor student performance and complete our progress reports to the Graduate School and funding bodies.

Three month plan of work

This initial report is to ensure that everything has started smoothly and that the student knows that he/she will be doing in the first year.

Content

The plan of work should contain statements on the following:

1. details of the supervisory team

2. the topic of research to be investigated in the first year and details of the mini-project to be undertaken;

3. a timetable for the research;

4. research section / groups to participate in;

5. any courses to attend.

The length of the report will vary depending on the topic. As a general rule, most reports consist of fewer than 10 pages.

It is strongly recommended that a Plan of Work be submitted within 3 months of a student arriving in the School (the end of December if you started in October). This should be submitted to the RSC administrator (email socs-rsc@glasgow.ac.uk) for inclusion in the student’s file.

Annual Reports and Progression Review Meetings (first, second and third year)

Written by each supervised student, the Annual Report forms the main basis of ensuring progression is satisfactory and also gives students practice in writing documents in the style expected of a
dissertation. In the progression review meeting, students present their work and answer questions from members of the academic staff. This provides practice of presenting and defending work orally.

The first annual report and review meeting

The aim of this report is to assess how the student is progressing and to enable any problems to be corrected while they are still relatively minor. Three main aspects of the students’ work will be examined:

1. Do they have an understanding of the other major work taking place in the area?
2. Do they have the ability and potential to make an appropriate contribution to the area of research?
3. Can they present their work well and communicate with others?

The annual reports, though not ends in themselves, are important, for they provide one of the main means whereby the student's progress and research potential can be judged. However, preparation of the reports should not divert the student for long periods of time from his/her longer-term programme of work. Rather, they should emerge naturally as a product of each year's study, summarising what has been done and looking forward to the work ahead.

The precise nature of the annual 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 first annual report should normally contain the following:

- A survey of the field in which the student is working, showing that a thorough study of the relevant literature has been made, and that the significance of particular pieces of work has been understood in the wider context of the subject area;
- A report on the mini-project work done during the year;
- A clear thesis statement, with a discussion of the significance of that topic and how it fits into the broader context of the subject area; this may include a description of any preliminary results obtained. Students often struggle to produce a thesis statement. It can help to read previous dissertations from the School to get an idea of what is expected in this statement.
- 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 review meeting will take place after the report has been submitted. It typically lasts for at least an hour with the student giving a short presentation on his/her work, followed by a discussion of the work (see below). The review meeting will be chaired by a member of RSC and will normally involve the student’s second supervisor (assuming that they have not been involved in day-to-day supervision) and an independent academic assessor from the student’s research section in addition to the student.
The second annual report and review meeting

This should contain:

- A review of the research proposal made one year earlier, and details of progress made and problems encountered during the period. Of course, by this stage a fairly detailed picture of the final dissertation should be emerging; indeed it might be expected that around half of the material of the eventual dissertation will appear in the second year report in some form. Many students will be in a position to submit one or more completed papers, in the form of technical reports and/or submitted articles, as the major part of this component of the report.

- A concise thesis statement. This will have developed since the first year report was written.

- A detailed plan of the remaining work that is to be undertaken in order to complete the research. Where possible, targets should be set for identifiable tasks within the framework of an overall schedule. It is recognised, of course, that it may be more or less difficult to engage in this kind of planning exercise depending on the nature of the research. Whereas it may be feasible to set aside one month to, say, carry out a particular experiment, one can hardly allocate a fixed period of time to prove a theoretical result. In addition a second year report should normally include a draft plan for the dissertation content.

The third annual report and review meeting

This is only necessary if the student has not completed the thesis. If all has gone to plan then the third annual report should be the thesis! If the report is required it should include a major amount of the work to appear in the final thesis. This report should contain:

- A review of the plan laid out in year two, and details of progress made and problems encountered during the period. Any papers or other publications produced should be included with the report. Any chapter of the thesis already written should be included as appendices.

- A detailed plan of the work remaining and a detailed timetable to achieve this.

- A proposed table of contents for the thesis.

Format

The quality of presentation should be that normally expected of a dissertation or academic paper; indeed, significant parts of the report may eventually find their way into the final dissertation or separate publications. In particular, the report should be prepared using an appropriate document preparation system (e.g. LaTeX, Microsoft Word, etc.), and should contain a properly organised and referenced bibliography.

Report length

Report length will vary according to the topic and the amount of progress that has been made. The College Graduate School code of practice gives a limit of 4000 words (~15 pages). If you find that you need more pages than that, you are probably providing too much unnecessary detail. One of
the skills that you will develop throughout your PhD is that of concise scientific writing (most conference papers are ~8 pages long). Your yearly reports are an excellent opportunity to practise this skill.

**Submission**

Initially the student should submit an electronic copy of the report to the progression review panel and Ed Harris. A review meeting, will then be arranged in which the student will defend his/her report (see below). The student should also complete the Data Management Plan and the Training Needs Assessment Form. Finally the supervisory team and the student will complete the Annual Progress Review form and submit these documents to the review meeting convenor and Ed Harris, prior to the meeting. A deadline will be provided by the convenor when the meeting is scheduled.

For full time students:

- The first-year review meeting will be held after 9 months – for students starting in October this will normally be held in June of the first year.

- The second-year review meeting will be held after 21 months – for students starting in October this will normally be in June of the second year.

- The third-year review meeting will be held after 33 months – for students starting in October this will normally be in June of the third year.

For part-time students the timetable is more flexible but we would normally expect the following deadlines:

- First review meeting no later than 15 months into the programme.

- Second review meeting no later than 34 months into the programme.

- Third review meeting no later than 52 months into the programme.

**Annual Progress Review form**

Before the progressing review meeting, students should fill in the self-assessment in Section B of the online Annual Progress Review form on MyCampus. Once this is submitted, the form will then be passed to the supervisor, who will complete the supervisor assessment in Section C. Once the supervisor submits their assessment, the student must then confirm acceptance of the supervisor assessment. After this has been done, the form will be available to the progression review panel who will complete the Outcome of Review in Section D after the progression review meeting. After this is submitted, once again the student will be required to confirm that they have read the Outcome text. The PGR Administrator will then set the status of the form to be complete. See [https://www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcodeofpractice/annualprogressreview](https://www.gla.ac.uk/research/ourresearchenvironment/prs/pgrcodeofpractice/annualprogressreview) for further information about the online APR system.

**Progression review meeting**

The student’s Annual Report will be read by their progression review panel which consists of two or three academics. In the case of first-year progression meetings, one academic will be a member of RSC who will be chair the meeting. The other two will be academics from related research areas. This can include the second supervisor where they do not have regular supervisory contact with the
student. First supervisors are not present at progression meetings. At the meeting, the student is required to give a short presentation, which will be followed by a longer questioning session. After discussion, the student will be asked to withdraw while the committee discuss the student's work and complete the necessary paperwork (which the student can see and discuss with his/her first supervisor at a later date). The Outcome of Review form should be submitted by a member of the review panel to Ed Harris to be included in the student's file and should be copied to the student.

**Possible outcomes**

It is possible that the student may be asked to rewrite the report and undergo a second examination within 3 months of the first review meeting. In some cases a recommendation may be made to switch to an MSc rather than a PhD, or even terminate the programme of study. In all cases Outcome of Review forms should still be submitted to RSC immediately after each review meeting.

For third year students, if all is well, the student’s plan for submission and the process of completion should be agreed and no further action will be required at this stage. If the timetable does not show that the student will have started to write his/her dissertation by the end of the normal funded three year period the committee should make itself sure that the student will be able to complete in time. One option the committee has (as previously) is to recommend that the student submit for an MSc forthwith, although this would be regarded as an exceptional and undesirable outcome at such a late stage.
Completion

The details below are for guidance only – the official regulations concerning dissertation submission are contained in the University’s degree regulations for the College of Science and Engineering, which are part of the University Regulations. These degree regulations can be obtained from http://www.gla.ac.uk/services/senateoffice/policies/calendar/. The remainder of this section covers: intention to submit, writing up status for those requiring some additional time, the dissertation content, the thesis examination or viva and finally graduation.

Notification of Intention to submit

On the build up to completion every student must submit a “Notification of Intention to Submit a Thesis for a Higher Degree” form to the College Graduate School. This form starts the official process of convening an examination panel, including appointing an external examiner. The final examination, or viva, cannot take place until an examination panel has been ratified. Given that this process can take time, students should submit the form no later than three months prior to the expected date of submission. The form is available on the RSC web page or from the Graduate School.

Thesis pending status

College requires that we make a report on each registered research student about whether progress has been satisfactory and whether re-admission is recommended, and in what capacity. Students who wish to continue working on their dissertation in the School after the end of their third year will need to obtain thesis pending status to do so. Officially thesis pending status equates to “Registration for use of the library only”. This status can be used for no more than 12 months.

When the supervisory committee meets to consider the completion timetable it will be asked to make a recommendation as to what statement is to be made to College and what status is appropriate for the student. Thesis pending status is only appropriate if the student has, or is just about to, initiate the process of writing up the dissertation. It is not considered acceptable to grant thesis pending status to a student who is not in a position to start writing a dissertation, and still needs to progress the main body of work using School resources. In this circumstance the student will be required either to pay a further supervised-student fee to the University (full-time or part-time), or to write up for an MSc without progressing the work further.

It should be pointed out that thesis pending status does not actually confer any right to remain in the School, but only permits the use of central resources (e.g. the University Library). However, as recommended by EPSRC, the School does not adopt an abrupt cut-off policy as it recognises that continued access to its writing-up facilities (and computational resources to run down loose ends) will aid the student in achieving a result. Thesis pending students are accommodated as nearly as possible to the same standard as fully funded students but no guarantee of this is offered – should there be a resource famine this will become significant. At the same time EPSRC requires that the students they fund should normally complete within four years and will seek a report from the student through the supervisor if no result is forthcoming after four years. EPSRC also monitors completion rates and penalises Schools that fail to meet pass criteria by reducing their studentship quota.
Leaving your PhD

Sometimes things do not work out and people feel the need to stop and leave their PhDs. It is important that you talk to your supervisor about this. Feel free to speak to RSC too. For example, it may be possible for you to write up what you have done for an MSc and we can advise on that. It is important that you do not just leave and not tell anyone because we have to inform funding bodies and the Graduate School. If you are going to leave then you need to write a short email to RSC giving details of:

• your reasons for leaving
• where you are going (job, other research, etc.)
• new contact details

Make sure you also hand your keys back to Ed Harris and close your library account.
The Dissertation

Content

The content of the dissertation should be agreed between student and his/her supervisor. The content will, of course, vary considerably from student to student. The main body of the dissertation normally contains introductory material, including a significant review of related work, followed by chapters giving in-depth coverage of different aspects of the work and finally a discussion of conclusions to be drawn from the work.

The format is specified in the College notes. Within these regulations we recommend that all dissertations be printed on high quality laser printers, that margins of 15mm (40mm at binding margin) should be used, 1.5 line spacing and a serif font (e.g. Times) of point size 10 or 11 should be used for normal text. We strongly recommend that initial submission be in “temporary binding” and a fresh printout made for final submission (post-viva).

Submission

Students must submit their dissertation within 12 months of the end of their period as a “supervised student” and cannot submit before the end of the minimum study periods (see Standard Timetables). Submission involves handing three soft-bound copies of the dissertation to the College offices. The submission must take place within four months of submitting the notification of intention to submit form. Completion occurs after the viva and after corrections have been made, when the final version is submitted to the Graduate School. At the completion stage one hardbound and one electronic copy (in PDF format) will be required. You will have to register with the library to enable the final version to be uploaded, and sign a Thesis Declaration form giving permission to make your thesis available to others. Students have the right to ask for the Library to embargo their thesis. Such requests are made in the Thesis Declaration form.

Viva

After submission, the dissertation is distributed to members of the examining committee who are then convened for a formal viva with the student. The examining committee / viva panel is usually composed of:

- an internal examiner who has not been involved in a supervisory role with the student;
- an external examiner (i.e. an academic from outside the University);
- a panel convenor, an academic from within the School who chairs the examining committee;

In exceptional circumstances, the student’s first supervisor may also be present. Students who feel that this is necessary, should speak to RSC.

Vivas typically last from 2 to 4 hours and are conducted within the School. Students are often expected to give a short presentation of their work. This is at the discretion of the viva chair but will normally be around 15 minutes in duration. This will be followed by a longer discussion period.
Possible outcomes

It is possible, but rare, for a student to fail the viva outright. Likewise, it is also rare for a student to be passed immediately. In most circumstances the examining committee will request that some changes are made to the dissertation before the student is recommended for their degree. These changes can be categorised as minor and major. Minor changes are typically to small sections of the dissertation and do not alter the argument, the internal examiner is required to agree that the changes have been made before the student can be awarded the degree. Major revisions can entail additional work or a major revision of the content of the dissertation. In the case of major revisions, the external is required to approve the changes before the student can proceed, formal resubmission and a second viva may be required.

Graduation

All students of the University of Glasgow are required to graduate in order to receive their degrees (either in person or in absentia). You must register for graduation in advance – for deadlines and details of the process students should consult the Registry website. Graduations normally take place in the summer (usually July) and before Christmas (early December). A student may provisionally enrol for graduation before a viva takes place and confirm that enrolment once the dissertation is corrected to the examiners' satisfaction. Graduation normally takes place in the Bute Hall and PhD Graduates are given a high profile in the ceremony. If, for whatever reason, a student cannot attend the graduation ceremony he/she can enrol to graduate in absentia – but must still graduate in order to be officially awarded the qualification.
Main deadlines for PhD students. Required unless otherwise indicated

- Plan of work submitted to RSC: start + 3 months (at supervisor’s discretion)
- First review meeting: start + 9 months (full-time), start + 15 months (part-time)
- Second review meeting: start + 21 months (full-time), start + 34 months (part-time)
- Third review meeting: start + 33 months (full-time), start + 52 months (part-time)
- Intention to submit form: 3 months before dissertation submission
- Dissertation: within four years of start

All forms are available from https://www.gla.ac.uk/schools/computing/postgraduateresearch/informationforresearchstudents/localinformation.

Contact point in case of any queries

Ed Harris
PGR Administrator
Email: socs-rsc@glasgow.ac.uk
Telephone: 0141 330 8626
Office: Room F162, Sir Alwyn Williams Building