



UNIVERSITY OF  
**STIRLING**

# Research Student Guide

(Updated, March 2017)



**COMPUTING SCIENCE AND MATHEMATICS**

*Parts of this Document are based on a Guide produced by the  
Department of Computing Science, University of Glasgow,  
and have been reproduced with their kind permission*

*Revised March 2017*

# Welcome

Congratulations on being accepted onto a research degree in Computing Science and Mathematics at the University of Stirling! We hope that your time in the Division is both productive and enjoyable. This guide is designed to be a point of reference for you during your time here. It outlines the major milestones and deadlines you must pass to complete your research degree, information about the Division in general and the support available to you as a research student, as well as some advice from current and former research students.

Beginning research can be a daunting task to undertake. At the start of your degree it is likely that you have little idea of how to conduct the independent research and work that is required to attain a degree by research. Therefore, it is essential that you will work closely with a supervisor. It is the supervisor's responsibility to guide you through the process and skills training required to be a successful researcher.

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. Success in research requires 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 Division's monitoring processes.

Both the Division and University give support through induction and training schemes, monitoring procedures and facility provision. We believe that Computing Science & Mathematics at Stirling provides an excellent environment for supporting work towards research degrees.

# Contents

<b>On Arrival.....</b>	<b>6</b>
<b>Important People.....</b>	<b>7</b>
Secretarial Staff - 4B80 .....	7
Computing Support Group (CSG) - 4B81.....	7
<b>Divisional Information.....</b>	<b>8</b>
Stationary.....	8
Photocopying and Printing .....	8
Contact.....	8
<b>Student Information .....</b>	<b>9</b>
Supervisor.....	9
Research Groups and Divisional Seminars .....	9
MPhil versus PhD .....	10
Student Mini-conference .....	11
Graduate School Research Training Courses .....	11
Taught Modules.....	12
Library .....	12
Careers and Employability .....	12
Tutoring and demonstrating.....	13
Website .....	13
Internships.....	14
Travel.....	14
<b>Social Life.....</b>	<b>15</b>
Divisional.....	15
University .....	16
<b>Structure of a Research Degree .....</b>	<b>17</b>

<b>Year 1 .....</b>	<b>19</b>
Three month plan of work .....	20
First Year Mini-Project.....	20
End of Year Report .....	21
Viva.....	22
Possible outcomes.....	22
 <b>Year 2 .....</b>	 <b>23</b>
End of Year Report .....	23
Possible outcomes.....	24
 <b>Year 3 .....</b>	 <b>25</b>
Registration Only Status .....	25
3 <sup>rd</sup> Year Report and Viva .....	25
Thesis .....	25
Submission Process .....	26
Viva.....	28
Possible outcomes.....	29
Graduation .....	29
 <b>Check List .....</b>	 <b>30</b>

# On Arrival



You will be given an arrival date by your supervisor before joining the Division. New students usually start in October or February, although there is some flexibility with this.

On arrival in the Division you should:

- Meet with your supervisor
- Meet with the office staff (4B80)
- Meet with the computer support group (4B81)
- Meet the *PG Tips* Chair and Divisional Research Post Graduate (RPG)/PhD Director (contact details from office staff in 4B80)

The Division will normally supply computer equipment, although the precise requirements will vary from student to student, and should be discussed with your supervisor. Each research student is assigned to an office shared 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 your supervisor.

You will have access to a computer, a desk, a chair, a share of a filing cabinet and access to shelf space. Registration on the University network and logon details will be supplied to you by the Computing Officers. Any problems or questions about the computing equipment supplied should be directed to the computing officers.

## Induction

New research students are required to attend Stirling Graduate School induction, and also an induction programme organized by the Division, through *PG Tips* – contact the *PG Tips* Chair or RPG/PhD Director for more information.

# Important People

As well as the obvious academic support from your supervisory team, the secretarial staff and computing officers are an essential part of the Division and will be on hand to help and advise you throughout your PhD.

## Secretarial Staff - 4B80



Grace McArthur

*Divisional  
Administrator*

01786 467421



Linda Bradley

*Divisional  
Secretary*

01786 467436



Gemma Gardiner

*Admin Assistant*

01786 467420



Lynn Reilly

*Project  
Administrator*

01786 467429

Grace, Linda, Gemma and Lynn are the first point of call for most administrative problems for PhD students. They are responsible for room allocation, funding and financial issues including submission of expense forms, outgoing mail and much more. The office 4B80 is also home to the keys to the stationary cupboard and internal mail trays which should be checked regularly. Each PhD student is provided with a mail tray.

## Computing Support Group - 4B81



Sam Nelson

*Senior Computer  
Officer*

01786 467443



Graham  
Cochrane

*Computer  
Officer*

01786 467442

Sam and Graham are responsible for any technical issues involving the CS&M computer network and are the first point of call for any technical hardware/software problems.

# Divisional Information

## Stationery





The keys to the stationery cupboard are located in 4B80. The stationery cupboard itself is in the 4B88 and is for the use of all staff and research students. Any issues or particular orders should be made to Gemma in 4B80.

## Photocopying and Printing

The printers and photocopier are in the dedicated office 4B88. For the latest printer connection instructions contact Sam or Graham in 4B81. Room codes are available from Gemma in 4B80.

## Contact

Work related mail should be placed in the basket in the Divisional Office (4B80). This is taken to the Mail Room twice daily. Stamped private mail may also be placed in this basket.

	The official address of the Division is: Computing Science and Mathematics University of Stirling STIRLING FK9 4LA, Scotland, UK
	Incoming mail is delivered to your allocated tray in 4B80.
	Divisional Office Number: +44 (0)1786 467421 (Grace McArthur).
	Fax Number: +44(0)1786 464551



# Student Information

## Supervisor

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 who may be experienced in the student's general area of research.

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 their research, and for the student to ensure progress is regularly reported and feedback actively sought in a timely manner. We strongly recommend meeting about once a week (no less than monthly for full-time, and two monthly for part-time students) for approximately one hour (preferably face to face, or via video conferencing/Skype etc.) to discuss progress and any problems encountered. The role of the second supervisor is to provide another perspective on the work and as such should normally meet the student at least once a semester and once over the summer. It is the responsibility of the research student and the supervisor to arrange these meetings.

The Head of Division and the Divisional RPG/PhD Director are responsible for the appointment of supervisors, specifically for cases where research proposals have not been pre-agreed (as part of the University on-line application process) between applicants and their proposed supervisor(s). For a variety of reasons, a student or one of the supervisory team may feel that a change in the team is appropriate. All requests and proposals of this kind should be made to the RPG/PhD Director in the first instance.

If you have any problems, first discuss them with your supervisor or second supervisor. If there are things you would prefer to discuss confidentially then talk to the RPG/PhD Director (Professor Amir Hussain, Room 4X3 e-mail: [ahu@cs.stir.ac.uk](mailto:ahu@cs.stir.ac.uk)) or Head of Division (Professor Evan Magill, Room: 4B84, e-mail: [ehm@cs.stir.ac.uk](mailto:ehm@cs.stir.ac.uk) )

## Research Groups and Divisional Seminars

Research Groups in the Division are organised around key research themes, currently: Cognitive Computation (CogComp), Modelling and Analysis of Complex Systems (MACS) and Computational-Heuristics, Operational Research and Decision-Support (CHORDS). It is a requirement that every

research student is an active member of at least one of these three discussion groups, but of course they are welcome to attend others. More details on Divisional Research Groups can be found at: <http://www.cs.stir.ac.uk/research/groups/>

The Division also organises regular seminars (co-ordinated by Dr John Woodward) at which invited speakers give talks on a variety of aspects of our subject, talks that are intended for a general audience but which relate to some research work of the speaker. The Division regards regular attendance at these seminars as an essential part of the education of its research students.

It is also recommended that students attend COSMoS – a departmental skills sharing talk series.

<http://www.cs.stir.ac.uk/research/>

<http://www.cs.stir.ac.uk/research/groups/>

[www.cs.stir.ac.uk/seminars/](http://www.cs.stir.ac.uk/seminars/) (for CS Seminar)

[www.maths.stir.ac.uk/seminars.html](http://www.maths.stir.ac.uk/seminars.html) (for Maths Seminars)

## **MPhil / MRes versus PhD / Professional Doctorate**

Research is the basis for advancement in science. It involves getting to know an area in great depth and carrying out some work of your own to advance the state of knowledge in that area. An MPhil 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 research question for which the written thesis acts as a structured, detailed argument answering the question.

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 MPhil can be considered as deepening the student's knowledge in a small area of Computing or Mathematics, while a PhD will make him/her expert in a very small domain of Computing or Mathematics.

Research students are normally admitted to the Division to study for a postgraduate degree by research. Normally there is no distinction between prospective PhD students and prospective MPhil students. The degree for which a thesis is ultimately prepared and submitted will depend on the progress of the individual student, particularly during the first year of enrolment.

MRes and Professional Doctorates (PD) in Big Data Science are new industry-led inter-disciplinary research programmes (being introduced from

2017/18), which operate differently to MRes/PhD programmes, in that the MRes forms part of an advanced one-year taught/training component, which a research student is required to complete successfully, before embarking on an industrial research/PD project. The latter requires submission of a PhD-like thesis (but of a shorter length, ~ 60,000 words instead of 80,000) and an oral exam - more details are available from the RPG/PhD/PD programme Director (Professor Amir Hussain).

## PhD Students Day



Each year a day of research student talks is held, organized by *PG Tips* in collaboration with the RPG/PhD Director. Usually this is in Spring. Each student presents a short talk and/or a poster. All academic and research staff, including their industrial collaborators, are invited to the talks and this provides students with a friendly environment to present their work and to gain experience in answering questions, often from non-specialists.

## Stirling Graduate School

The Stirling Graduate School (SGS) is the University wide postgraduate research community. On joining the University as a postgraduate, you will automatically be a member of the SGS, and will be expected to attend an induction session in either October or February. The induction will introduce new students to many of the facilities the University has to offer. This meeting is also a great way to meet students from other Faculties or Divisions.

Throughout the academic year the SGS 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. Programme details are sent to all new students prior to arrival and attendance at these courses is highly recommended.

<http://www.stir.ac.uk/postgraduate/stirling-graduate-research-school/>

## Engagement and Feedback

Your views matter to us. Improving and enhancing your student experience is at the heart of the ambitions of the University. The SGS works in partnership with the Students' Union to understand and address the needs of our students. For taught and research postgraduates, Graduate School Officers play an important role in supporting the postgraduate community within faculties and beyond, and take part in a range of committees, projects and events across the

University. More information on Graduate School Officers is available from the Students Union. If you have any specific questions regarding Graduate School Officers, or would like to know who the Graduate Officer for your faculty is, please email the Stirling Graduate School ([stirlinggradschool.stir.ac.uk](mailto:stirlinggradschool.stir.ac.uk)). For 2016/17, the University has recruited 6 research postgraduate students to represent students across each faculty, working closely with the Students' Union and SGS.

The Division/Faculty also organize RPG/PhD Student Surveys to solicit students' views on their experiences, which serve to complement SGS Surveys, and the national Postgraduate Research Experience Survey (PRES) conducted biennially. Contact the RPG/PhD Director for more details.

## Taught Modules

The various lecture courses given by the Division contain much advanced material ranging over a wide spectrum of computing science and mathematics. 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 and attendance at suitable courses, particularly the new postgraduate Research Methods module, should be discussed with your supervisor and approved in advance with the lecturer of the course. MRes/PD students are required to attend and pass appropriate modules as part of their research programme's formal taught/training component.

Undergraduate 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 module co-ordinator for their research area.



## Library & Information Services

As a research student you will have access to Stirling University 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, Web of Science and electronic MathSciNet.

It is possible for students to request books to be ordered through the Division for the library, or to request subscription to particular journals.



*Andy Hoyle (Division library coordinator) [ash@cs.stir.ac.uk](mailto:ash@cs.stir.ac.uk)*

## Careers and Employability

The Faculty provides specialist expertise on career paths. Specific career management sessions for research students can also be organized.

Details of how the Careers and Employability Service can help you plan for your future, and useful careers resources for your subject area, can be found at: <http://www.stir.ac.uk/careers/students/faculties/natural-sciences/>



## 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 undergraduate classes. *Tutors* have responsibility for a tutorial group of undergraduate 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. There may also be lecturing slots available, which are recommended for final year PhD students, at module coordinators' discretion.

Funding bodies typically impose restrictions on the number of hours work a student can do. The Division recommends 6 hours per week for full time students during semester (with an annual maximum of 180 hours - typically at the supervisor's discretion). In particular, if a student faces financial hardship within these limits, special arrangements may be possible and should be discussed between the student and the supervisor.

*John Woodward (teaching assistance co-ordinator, Computing Science)*  
[sma@cs.stir.ac.uk](mailto:sma@cs.stir.ac.uk)

*Adam Kleczkowski (teaching assistance co-ordinator, Mathematics)*  
[ak@maths.stir.ac.uk](mailto:ak@maths.stir.ac.uk)

## Website / Social Media

A website exists for post graduate students within the Division:

<http://pgtips.cs.stir.ac.uk>

The website is designed to be a collaborative central place for sharing information and files between students. You should find a lot of useful information, and please feel free to make updates and additions!

*PG Tips* also has a facebook group:

<https://www.facebook.com/groups/StirlingPGTips/>

# Summer Schools and Internships

Attending a Summer School can be a very useful experience for research students. SICSA can provide funding for these. Contact your Supervisor for details.

Internships can also be an extremely valuable opportunity for students, and this is recognised by both the Division and the University. If you are interested discuss this with your supervisor(s).

The Division recognises that a suspension of the course of study, or conversion to part-time (P/T) mode, may be desirable to allow a PhD student to take up an exceptionally valuable opportunity for an internship. However, a strong case for such internships should be made well in advance by the PhD student together with the supervisor. The application should be directed in the first instance to the RPG/PhD Director, through your Principal Supervisor. If the application is accepted, the case can be made to the University who will take the *final* decision. Matters that need to be handled by the University 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. Applicants should not leave the Division before receiving a written approval of their internship request.

## Travel

Attendance at conferences, workshops and summer schools, e.g. the annual SICSA PhD Conference and DEMOFest, 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. They can also be great fun!



Unfortunately, finding the funding can be tricky. However, there are various sources of funding for travel to conferences: funding bodies such as SICSA, external bodies, grant holders and the Divisional travel budget. In addition to these, it may be possible to work at a Conference as a student volunteer to reduce the cost. Discuss with your supervisor and fellow PhD Students for more information.

The Division has worldwide travel insurance, make sure you ask for a travel insurance card from Grace **before** you leave.

# Social Life

## Divisional

### ***PG Tips* (First Thursday of the Month, 4pm, 4B96)**

*PG Tips* is a monthly meeting of research students and provides an opportunity for research students to meet and discuss issues relating to their studies; sharing advice and skills, providing personal and professional support, all within an informal context. The meetings are organised and attended by research students (with staff present only by invitation). Meetings are normally held monthly, and each research student is expected to contribute one or more talks dealing with his/her own research. In addition to providing an informal atmosphere for presentation, *PG Tips* gives students a useful opportunity to learn something of the work of their fellow students and of other research groups.

For new PhD students, *PG Tips* organize an official welcome and induction event during one of its monthly meetings. Please contact the *PG Tips* Chair or RPG/PhD Director for details.

As well as providing an arena for academic development, *PG Tips* offers research students the opportunity to get to know each other socially. Dinner is often organised after the meetings (with food choices/preferences considered!) and all research students are encouraged to come along.

*PG Tips*, in collaboration with the Divisional RPG/PhD Director, also organize the annual Divisional PhD Students Day, with industry and other external participants.

[pgtips@cs.stir.ac.uk](mailto:pgtips@cs.stir.ac.uk) (*PG Tips* Chair)

<http://pgtips.cs.stir.ac.uk>

<https://www.facebook.com/groups/StirlingPGTips/>

## Coffee Room

4B94 is the staff common room with tea and coffee facilities, a fridge and a microwave. Use of this common space is highly recommended as it gives members of the Division the chance to meet and get to know other staff members who otherwise would be nothing more than names on doors. There is a system of payment for tea and coffee which Grace and Linda oversee.



# University

## **Stirling University Student Association**

Stirling University Students Association (SUSA) is concerned with the lives of students and organises Clubs and Societies, Sport, Welfare, Rights, Bars & Catering, Entertainments, Campus Media and Campaigns on any student-relevant issues. Further to this, SUSA provides a number of additional services in terms of general information and support, shop, print room, and its bars and catering facilities. There are also many different University societies covering a huge range of social interests.

[www.stirlingstudentsunion.com](http://www.stirlingstudentsunion.com)



# Structure of a Research Degree

There are certain criteria that the University and Division require you to fulfil before progressing through your research degree. This section highlights the chronological order of these requirements. There are strict deadlines for completion of research degrees detailed in the table below. Further information about University requirements and guidelines can be found in the Postgraduate Research Student Handbook available to download at <http://www.stir.ac.uk/postgraduate/research-degrees/>

Degree	Minimum period of study from date of initial registration	Maximum period of study from date of initial registration	Period after date of initial registration thesis expected	Last date after date of initial registration for submission of thesis expected
PhD <i>Full time</i>	2 years	4 years	3 years	4 years
PhD <i>Part time</i>	3 years	8 years	6 years	8 years
MPhil <i>Full time</i>	1 year	3 years	2 years	3 years
MPhil <i>Part time</i>	2 years	6 years	4 years	6 years

Ideally column 3 above 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, mainly owing to financial costs either on the student or the Division. Most funding bodies will pay for only the first three years' fees for PhD study, although PhD studentships funded by SICSA are funded for 3 ½ years. Furthermore, our main funding body, the EPSRC, counts all students who have not submitted within four years as failures when calculating our success rate. These failures affect our standing with funders such as the EPSRC.

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.

## **Leave of absence (extenuating circumstances)**

If a student is prevented from carrying out their studies by illness or for personal reasons, they should inform their lead supervisor as soon as possible. If the absence is for less than one month then the student should notify their supervisory team.

Where a student expects to be unable to engage in their studies for more than one month, then they should request a leave of absence and upload any relevant evidence to Research Compass (under 'formal stuff'). Leave of absence may be granted to account for circumstances beyond the control of the student, for example ill health, family or financial problems. The period of leave (normally at least a month) should be as short as is necessary to deal with the circumstances and will not be backdated for more than one month.

Students approaching the end of a period of leave of absence which has been granted for health reasons may be required to produce a letter from a medical practitioner confirming that they are fit to return to studies. If towards the end of a period of leave of absence the student is not fit to return to studies, then a further leave of absence should be requested before the first one ends.

Students must not be engaged in their studies during any period of leave of absence. The student's maximum period of study (i.e. 48 months for a full time PhD student) will not change but the maximum submission date will be extended accordingly. A student returning from a leave of absence is not permitted to submit their thesis for examination within three months of their return to study.

Any funding body rules on extensions and suspensions will be additional to those of the University. The student and supervisory team must ensure that, where relevant, the approval of any funding body is obtained.

## Extension

A student may be granted an extension to their maximum period of study at the request of their supervisory team. Extensions may be granted on the grounds of exceptional circumstances causing delay to progress e.g. field work access problems, unavailability of laboratory facilities or chronic health issues.

Financial constraints are not grounds for extension as funding arrangements should be in place before you commence your studies.

The lead supervisor, with the support of the RPG/PhD Director, must make the case by email to Academic Registry and Governance Services at the time the issue arises and not less than one month (i.e. month 35 for a full time student) prior to the end of the expected period of study. The maximum extension permitted over the entire period of study for any research degree is 12 months.

Requests for extensions are considered by Academic Panel.

## Research Compass

Research Compass (<https://www.stir.ac.uk/graduateschool/current-pg-students/researchcompass/>) is the University's online system used to support research students. It is used for formal and informal progress monitoring and as an interactive skills development and skills training system. You are **expected** to fill in Research Compass regularly to record meetings with your supervisor. You are also **required** to fill in an annual report of your progress through Research Compass. You will be sent an email reminder when it is due, you then fill in your comments and submit it. It will then be sent to your supervisors so that they can add their comments. This is also the formal mechanism for reporting progress and the results of the internal Divisional processes described below.

Note that new research students are also required to undertake an analysis of their initial skill levels (through Research Compass), with the support of their supervisory team, within the first three months of their programme (within the first six months for part-time students).

<https://www.stir.ac.uk/graduateschool/current-pg-students/researchcompass/>

# Year 1

The goal of the first year is to obtain a strong knowledge in the field(s) of the research topic, conduct a mini-project to experiment with ideas, find your niche and produce a plan for what the PhD should tackle, and finally learn research skills. Reminder: you are expected to submit your first year report after 9 months rather than a whole year.

## **Three month plan of work**

This initial report is to ensure that everything has started smoothly and that the student knows what to do in the first year. The plan of work should contain details of the supervisory team, the topic of research to be investigated in the first year, a timetable for the research, research groups to participate in, and finally any courses/workshops/summer schools to attend. The report should be no longer than 4 pages and is due within 3 months of a student arriving in the Division.

## **First Year Mini-Project**

During the first year each student should normally undertake 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 some of the skills needed for the rest of the PhD, test out some initial ideas, and assess the student’s aptitude for research. A report on the mini-project must be included in the first year report.

The nature of the mini-project will vary depending on the area of research. For a very practical topic this might be a piece of implementation work (perhaps after learning a new language), necessary 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.

The idea is to make sure that you gain a range of skills that you will need to complete your research. 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. Moreover, should you decide not to continue to a PhD, the mini-project should be suitable as a basis for an MPhil thesis.

If the mini-project work is done well it might provide a publication at a conference or workshop in your second year. 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.

It is also recommended that first years in Mathematics also undertake training through the Scottish Mathematical Sciences Training Centre (SMSTC-[www.smstc.ac.uk](http://www.smstc.ac.uk)). This should be discussed with your supervisor.

## End of Year Report

The First Year Report forms the main basis of ensuring progression is satisfactory, and also gives students practice in writing documents in the style expected of a thesis and in presenting and defending their work orally.

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 student's work will be examined:

- Is there an understanding of the other major work taking place in the area?
- Does the student have the ability and potential to make an appropriate contribution to the area of research?
- Can the student present their work well and communicate with others?

The First Year Report should normally contain the following:

- *a survey or literature review of the field*, 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 clear thesis statement*, with a discussion of the significance of that topic and how it fits into the broader context of the subject area.
- *an outline research plan*, indicating goals that have been identified as necessary for the completion of the research; 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.
- *a summary of skills gained* throughout the year through participation in research groups, talks or posters presented and conferences or courses attended.

**First Year Report submission: no later than 9 months into the programme for full time students or 15 months into the programme for part time students.**

## **First Year Viva**

The first year viva will take place with the viva panel (normally the supervisors and one other member of staff) and the student, after the report has been submitted. It will last 1- 2 hours, with the student giving a short presentation, followed by a discussion of the work.

**First Year Report submission: normally 10 months into the programme for full time students, or 15 months into the programme for part time students.**

## **Possible outcomes**

In the best case, the annual report is well received by the viva panel and satisfactory progress is confirmed. If the report is not satisfactory the student may be asked to rewrite the report and undergo a second examination within a fixed time period (normally up to 3 months). In some cases a recommendation may be made to complete an MPhil rather than a PhD, or even terminate studies. Such recommendations will be clearly stated in the Viva Record and shown to the student.

# Year 2

This is the year that typically most work should be carried out. Ideally you should aim to have a couple of publications within this year too. By the end of the year a substantial piece of work should have been produced, and you should have a detailed plan for the rest of your PhD (including the writing of your thesis). Remember, writing a thesis typically takes full-time students six months so you should be aiming to round off your work within the first six months of your third year.

## End of Year Report

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 thesis should be emerging; indeed it might be expected that students will have made sufficient progress *to be in a position* to write around half of the material of the eventual thesis. 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.
- A draft plan for the thesis content.

**Second Year Report submission: no later than 21 months into the programme for full time students or no later than 33 months into the programme for part time students.**

## **Possible outcomes**

The student's plan for submission and the process of completion should be agreed. If the timetable does not show that the student will have started to write the thesis by the end of their funded period the viva panel should make itself sure that the student will be able to complete in time. One option the viva panel has (as previously) is to recommend that the student submit for an MPhil forthwith, although this would be regarded as an exceptional and undesirable outcome at such a late stage.



# Year 3

By this stage of your PhD, you should have a firm grasp of your research questions and objectives. You should be aiming to round off your work and perform any evaluations within the first six months of your third year. Be careful of starting new areas of work at this stage! Writing a thesis typically takes full-time students six months, so this should occupy your last half of your third year.

## Registration Only Status

Students who wish to continue working on their thesis in the Division after the end of their third year (full time students) or sixth year (part time students) automatically move to registration only status. There is a fee for registration only (approximately £90) which is typically paid by the student. Speak to Grace for more information.

Registration only status does not actually confer any right to remain in the Division, but only permits the use of central resources (e.g. the University Library). However, the Division does not adopt an abrupt cut-off policy as it recognises that continued access to its writing-up facilities will aid the student in achieving a result. Writing-up students are accommodated as nearly as possible to the same standard as fully funded students but no guarantee can be offered.

**Please note: the Division will be penalised if a student's thesis is not submitted (pre-viva) within their maximum allowed time (4 years for full-time, 8 years for part-time).**

## 3<sup>rd</sup> Year Report and Viva

This is typically 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.
- A detailed plan of the work remaining and a detailed timetable to achieve this.
- A proposed table of contents for the thesis.
- Completed thesis chapters as an appendix.

# Types of doctoral thesis

## Traditional

The content of a standard PhD Thesis should be agreed between student and supervisor. The content will, of course, vary considerably from student to student. The main body of the thesis normally contains an 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 drawn from the work.

## PhD by Publication

The thesis for a PhD by publication is comprised of a suite of publications (a minimum of three) around a topic that are contextualised by a substantive coherent narrative or context chapter.

- At least one of the publications must be published, the others may be in press in a peer reviewed journal;
- Publications should be based on research carried out whilst the student is registered with the University;
- Publications included in the submission for a PhD by publication must not have been used in the submission for another research degree;
- Where a candidate includes jointly-authored publications in their submission, they should describe their contribution to the published work. This statement should be bound with the other submitted materials.

[https://www.stir.ac.uk/academicpolicy/handbook/code-of-practice-research-degrees/#submission\\_final](https://www.stir.ac.uk/academicpolicy/handbook/code-of-practice-research-degrees/#submission_final)

## Submission Process

### 2-3 Months Prior to Submission

At least two months before you plan to submit your thesis to the University:

- Discuss potential internal and external examiners with your supervisor.
- Decide on your **exact** title of your thesis (typically this cannot be changed once submitted to the University).
- Submit the 'Notification of Thesis Title' form (ARO 014: <https://www.stir.ac.uk/academicpolicy/handbook/forms/> to Student Records.

When the University receives this form they will contact your supervisor to ask for details of the examiners. The University will then officially ask your external (your internal is assumed to have accepted). Note: the University can be slow with this process so it can be worth keeping on top of things (your supervisor will be cc'd in any correspondence, so can tell you when things do and do not happen).

You will also receive an email which confirms that your title has been notified. Double check that the title is correct as it cannot be changed after this. Most likely three attachments to this email will exist: confirmation of your notification of thesis title, a postgraduate experience questionnaire, and your final submission form. Make sure to keep these safe.

## **Thesis submission**

Details of University requirements can be found at [https://www.stir.ac.uk/academicpolicy/handbook/code-of-practice-research-degrees/#submission\\_final](https://www.stir.ac.uk/academicpolicy/handbook/code-of-practice-research-degrees/#submission_final)

## **Plagiarism Check**

A Succeed site is available for plagiarism check. **ALL research students are required to 'put' their thesis through Turnitin before formal submission, and submit a copy of the Similarity Report to their Supervisor, before formal thesis submission.** Research students should also use this facility, “**as they write**” their First and Second year viva reports, and research papers, prior to submission. Contact the RPG/PhD Director for more information, or Graham in 4B81 for obtaining access to the Succeed site.

## **Printing**

Currently (August 2016) your thesis must be printed single-sided and double spaced. *Note: double spaced in latex is actually line spacing: 1.6 (texblog.org/tag/doublespacing/)*. You can print your thesis in colour within the Division. If you have any questions contact CSG.

## **Binding**

You need 3 copies of your thesis softbound. Print services ([www.gps.stir.ac.uk](http://www.gps.stir.ac.uk)) within the University can do this for you within about half an hour and it costs approximately £10 (paid by the student).

## Forms

You will need a submission form (“ARO 015a Higher Degrees by Research - Thesis Submission Form”) filled in, which is available from <https://www.stir.ac.uk/academicpolicy/handbook/forms/>

## Hand In

Take to the Student Records Office:

- Two bound copies of your thesis
- ARO 015a Thesis submission form (ignore money part at end of form)
- Four separate copies of your thesis title page and abstract

At this point the two copies will be sent out to your examiners. The University can be slow and paper work can be held up, so it is highly recommended that you send a digital copy (through your Supervisor) to both your internal and external examiners at this stage, and keep an eye on the University by ensuring that your internal does eventually receive his copy.

## Viva

Your final viva will include an internal member of staff who is not a first or second supervisor, an external examiner from a different University, and (a non-examining) independent chair who will oversee the viva. If you have been employed by the University (typically as a research assistant, teaching roles do not count) you will be required to have a second internal examiner.

Vivas typically last from 2 to 4 hours and are conducted within the Division. Students are often expected to give a short presentation of their work. This is at the discretion of the examiners, but will normally be between 15 and 30 minutes duration. This will be followed by a longer discussion period. The outcome of the viva will be decided by the examiners immediately after the viva, and typically the student is invited back to the room after 15 minutes to be told the result.

Note that, in exceptional circumstances, for example where organising a timely viva is impractical due to travel restrictions or availability of examiners to attend; then a viva may be conducted using video conferencing technology (i.e. using computer networks to transmit audio and video data) including Skype. The internal examiner organising the viva is required to request permission from the Academic Panel for a viva to be conducted using video conferencing technology. The viva is usually organized no later than 3 months from the date the thesis is posted to the examiners, the earliest possible date convenient for all examining committee members.

## Possible outcomes

There are seven possible outcomes of a final viva:

- i. **Award** the degree
- ii. **Corrections** - the candidate be awarded the degree subject to specific corrections to be signed off by a nominated examiner within one month.
- iii. **Amendments**-the candidate be awarded the degree subject to specific amendments to be signed off by a nominated examiner within a maximum of six months (all candidates).
- iv. **Resubmission** - the thesis requires significant revision and/or additional research to reach the standard required for the award. The candidate must undergo a further period of study and potentially a further viva, normally by the same examining committee, within 18 months of the initial examination (all candidates).
- v. **No award** - the thesis is substantially deficient in all or any of the requirements for the degree and cannot be revised to satisfy these requirements, or the requirements of any other research degree.
- vi. **[In the case of PhD] Award MPhil** - The thesis is substantially deficient in one or more requirements for the award of Doctor of Philosophy and cannot be revised to satisfy these requirements, but the thesis satisfies the requirements of Master of Philosophy.
- vii. **[In the case of PhD] Resubmission for MPhil** - The thesis is substantially deficient in one or more requirements for the doctoral degree and cannot be revised to satisfy these requirements. However, the thesis may satisfy the requirements for the degree of Master of Philosophy subject to specific substantial revisions. The revisions should be completed within a period of 18 months from the initial examination.

## Graduation

All students of Stirling University are required to graduate in order to receive their degrees. You must register for graduation in advance – for deadlines and details of the process students should consult the Registrar’s office. Graduations normally take place in November and June in the Albert Halls or Gannochy Tennis Centre. PhD Graduates are given 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.



# Check List

What's Happening/Milestones	When	Actual Date	Student Checklist
-----------------------------	------	-------------	-------------------

Plan of work submitted to Supervisory Team; Attend SGS Induction & Complete Skills Needs Analysis	+ 3 months (all students)		
First Annual Report & Viva (Report submitted to Divisional Examining Committee comprising Principal and Second Supervisor & Independent Academic Staff member)	+ 10 months (full-time) + 15 months (part-time)		
Confirmation of PhD registration	After Viva		

Second Annual Report & Viva	+ 21 months (full-time) + 33 months (part-time)		
-----------------------------	--	--	--

Third Annual Report & Viva (not usually necessary)	+ 33 months (full-time) + 51 months (part-time)		
--	--	--	--

Intention to submit form	2 months before thesis submission		
Thesis submission	<b>Not earlier than:</b> 2 months after intention to submit <b>Not later than:</b> 12 months after supervised status ends		
Final viva			

Note: The milestones above are compulsory points of contact for students sponsored under Tier-4 and failure to engage fully with these points of contact **will result in the University withdrawing visa sponsorship.**

<https://www.stir.ac.uk/registry/studentinformation/visasandimmigration/pointsofcontactforresearchstudents/>  
<https://www.stir.ac.uk/registry/studentinformation/visasandimmigration/>