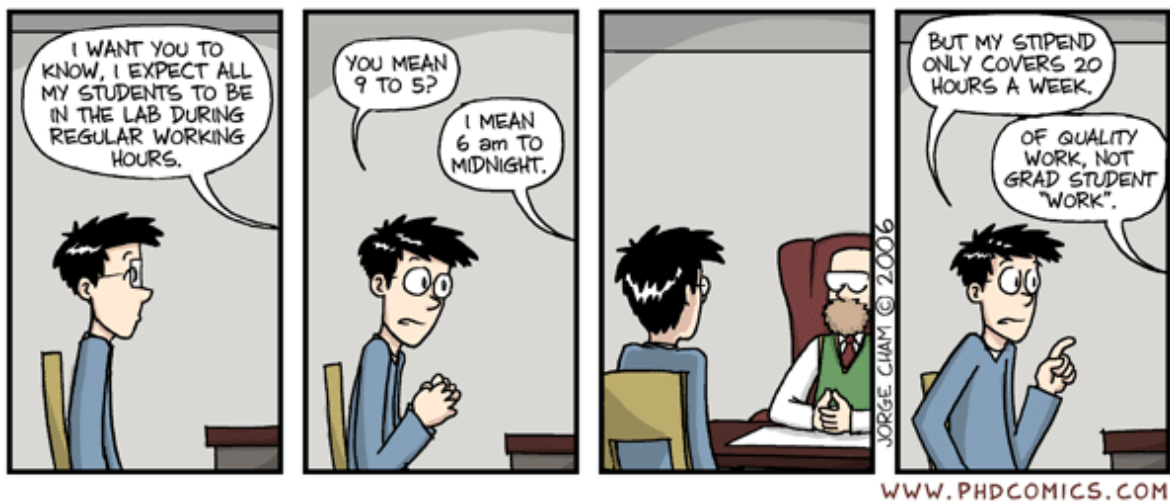School of Natural and Computing Sciences
Computing Science

Information for Postgraduate Research Students

September 2018

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1.0 Introduction

Welcome to Computing Science at the University of Aberdeen. Computing Science was founded in 1972. The Department is a thriving centre of teaching and research, particularly in areas related to Artificial Intelligence and Machine Learning. We are part of an internationally respected academic community with a long tradition for innovation and excellence. Postgraduate students are of vital importance to this research, and we aim to support and develop your skills throughout your time here - both subject specific skills and generic skills.

You should have received from the Postgraduate Registry and other sources much information concerning University-wide procedures, facilities and support services. The purpose of this booklet is to provide you with important discipline-specific information which will help you get started as a research student in Computing Science. Please take time to read the booklet and keep it safely for future reference. Information is updated throughout the year on the Postgraduate Research School web pages, https://www.abdn.ac.uk/pgrs/ (Follow the link to myPGR for information on monitoring etc.)

Postgraduate research students are an important and highly valued element in the Department of Computing Sciences. In terms of its relationship with research postgraduates, the Department's goals are:

- to promote the expertise and professional development of every postgraduate research student
- to provide a nurturing environment in research training
- to encourage their full integration into the life of the Department.

Professional research development is achieved primarily through the evolution of your research programme. Your supervisor(s) will naturally take the lead in this, but other members of the Department will often give useful input.

Integration into the life of the Department is achieved through attendance of seminars, colloquia, and advanced courses, tutoring and other teaching duties, and interaction with the other members of the department (staff and research students). You will find a list of staff and current research postgraduates at https://www.abdn.ac.uk/ncs/departments/computing-science/people-158.php

2.0   Introduction to the Discipline and College induction

When you arrive in the Discipline you should go to the Postgraduate (PGR) office to collect several forms you must complete, including a Registration form. It is important that these forms are completed as soon as you arrive in the Discipline, after you have registered with the Postgraduate Registry (Infohub, on the High St.).

Your Supervisor should introduce you to the secretarial staff and other relevant people (see section 3.0) as part of your introduction to the Discipline. It is important that these people know who you are. They will provide you with keys; arrange to have your name added to student lists, telephone lists, etc. Your Supervisor should also take you on a tour of Computing Science so that you see the scope of work that we do and the range of facilities that we have. (Take a look too at the Discipline's web site at http://www.abdn.ac.uk/ncs/computing/).

Each year the Postgraduate Research School (PGRS) organises an induction course for new postgraduate research students. The induction course covers everything from intellectual property issues to University welfare and support services. It is **essential** that you attend this course. An important element of the course is devoted to training for tutors and demonstrators.   All Computing Science postgraduate researchers (research students, research assistants and research fellows) may carry out tutoring and demonstrating work; indeed it is considered an important element of their overall training. You **MUST** attend the training course for tutors and demonstrators at the next available opportunity following your arrival in the Discipline: you will be kept informed about the dates for the next course.   The University of Aberdeen, as a public service provider, is committed to ensuring that its students pose no danger to those with whom they will interact during their studies at the University.   One of the mechanisms that the University uses to ensure this is a Disclosure check. The check is carried out for all students registered on courses which require them to have sole supervisory responsibility with people who are under the age of 18. The check itself is undertaken by Disclosure Scotland and further information can be obtained from them at www.disclosurescotland.co.uk.   Disclosure Scotland will charge an administration fee for carrying out the check, for which you will be liable. You will receive full details of the procedures for completing the check as part of the course registration process.

Access. The Meston Building is open normally between 7.30 and 18.00 on weekdays with access by all entrances. Between 18.00 and 23.00 on weekdays, and between 8.00 and 23.00 at weekends and public holidays, access is only by the side door at the North entrance and is restricted to ID card holders (staff and postgraduate students) unless there is a meeting or class scheduled.

3.0 Useful Contacts

You are bound to have lots of questions when you first arrive. Please ask them - you will find that people will be happy to help you if they can. Your Supervisor is likely to be the first person you ask about most things but other people may be able to help as well. The following names and telephone numbers might be especially useful, particularly in your early days:

Mrs. Lynn Harrison, Research Secretary, ext. 2052, l.harrison@abdn.ac.uk
Lynn is in charge of the admin relating to postgraduate research students and will help you with all sorts of practical matters. You must register with Mrs. Harrison when you arrive.

Prof George M. Coghill, ext. 3829, g.coghill@abdn.ac.uk
You may have dealt with Prof. Coghill during the application process. In addition to handling applications, he coordinates postgraduate matters in the Discipline, including lectures, seminars, and annual reports.

Prof. Wamberto Vasconcelos, Director of Research of Computing Science, ext 2283, w.v.vasconcelos@abdn.ac.uk
Prof. Vasconcelos oversees research within the Discipline, including postgraduate research students.

Contact details of Discipline staff and telephone lists can be found at http://www.abdn.ac.uk/ncs/computing/people/

4.0 MSc with a view to PhD

When you begin your postgraduate study, you are usually enrolled as an MSc student with a view to progressing on to a PhD. The object is to use the first nine months of your postgraduate study to give you the background knowledge to go on to a PhD. At the end of those nine months your progress will be reviewed and a recommendation made as to whether you should go on to a PhD or redirect your efforts towards an MSc or MPhil. A more detailed (and slightly formal) description is given below.

The aim of all postgraduate research students and supervisors is to produce a high quality thesis within the period of supervised study. The Department of Computing Sciences regards the first year of research study as vital to achieving this aim. It is important that students attain the appropriate background knowledge and ability that is necessary to begin research in earnest.

It is possible to obtain three different degrees in Computing Science: MSc, MPhil, and PhD. All are degrees by research. The requirements for each are different. MSc students have to carry out a significant piece of work and produce a thesis. MPhil students are judged more stringently, and their thesis has to demonstrate evidence of original thought. PhD students have to clearly demonstrate an original contribution to the subject, and their thesis must be of publishable quality. All of these research degrees are examined by viva, and it is the job of the examiners to determine whether the thesis meets the standard for the degree.

4.1 The First Year of Study

By the end of the 9th month (pro-rata for part-time students) every research student is expected to have submitted a first year report (around 4000 words excluding references). The report should address the following elements:

- Summary of research question and justification for significance.
- Knowledge of literature to justify novelty of research question.
- Outline of approach to addressing the research question.
- Outline of work plan (typically with a Gantt Chart).
- Summary of engagement with discipline specific and generic skills courses.

Part 1 of the First Year Research Student Assessment Form (which can be found on the myPGR area of the Graduate School site https://www.abdn.ac.uk/pgrs/) should be completed and submitted with the report by Month 9 to the Research Secretary, who will then forward the report and form to the assessors.

By the end of the 10th month each student will have had a viva. Two internal assessors will be appointed to form a panel, which will evaluate the first year report, interview the student and complete the First Year Research Student Assessment Form. The Research Training Coordinator will inform the names of the assessors to the students. Students should contact their assessors to arrange the viva in Month 10. After the viva, the assessors should document the outcome of the viva and submit the assessment form electronically to the Research Training Coordinator, who will print out and sign the assessment form, and leave the signed form to the Research Secretary, so that the lead supervisor and the PhD student can also sign the form. Once that is done, the Research Secretary will submit the signed form to the Head of School. Before the completed and signed form is sent to the Graduate School, the Research Secretary should ensure that the student, supervisor(s) and the student file held by School should get a copy of it.

4.2 The Second Year of Study

By the end of the 21st month (pro-rata for part time students) every continuing research student is expected to have submitted a second year report (around 1000 words -- no, not 10000 words) and given a presentation at a Postgraduate Research Workshop. The report should address the following elements:

- Achievement against the work plan.
- Summary of engagement with discipline specific and generic skills courses (since the first year report).
- Plan for completion.
- Evidence of external peer review of thesis research (included in the Appendix).

Part 1 of the Second Year Research Student Assessment Form should be completed and submitted with the report by Month 21 to the Research Secretary, who will then forward the report and form to the assessors.(Again, these can be found on myPGR at https://www.abdn.ac.uk/pgrs/)

Where there is no evidence of external peer review of the thesis research, the student is required to submit a technical report (around 5000 words) together with the second year report. The supervisor(s) of the student should arrange an external assessor for this technical report.

Examples of evidence of external peer review include:

- Published peer reviewed papers.

- Submitted paper to a conference/journal for which reasonable feedback has been received.
- Poster at conference.

By the end of the 22nd month each student will have had a viva. Two internal assessors will be appointed to form a panel, which will evaluate the second year report, interview the student and complete the Second Year Research Student Assessment Form. The assessors will be the same as for Year 1, and the student should contact their assessors to arrange the viva in Month 22. After the viva, the assessors should document the outcome of the viva and submit the assessment form electronically to the Research Training Coordinator, who will print out and sign the assessment form, and leave the signed form to the Research Secretary, so that the lead supervisor and the PhD student can also sign the form. Once that is done, the Research Secretary will submit the signed form to the Head of School. Before the completed and signed form is sent to the Graduate School, the Research Secretary should ensure that the student, supervisor(s) and the student file held by School should get a copy of it.

4.3 Postgraduate Research Workshop

The workshop has two sessions:

- Poster presentation session: for first and second year students.
- Oral presentation session: for some third year students.

Although first year students are not formally required to present at the workshop, we strongly encourage them to do so before they submit their first year report, as the workshop would provide opportunities for first year students through poster presentation to discuss their research ideas with colleagues.

The workshop will be run up to twice a year (though it is expected that in general it will be an annual event). The workshop is organised by the Seminars Coordinator and the Research Training Coordinator.

5.0 Supervision

Each Research Student will have at least two supervisors. The supervisors are responsible for advising the student in the selection of a research programme, and guiding the student through that programme up to the submission of a research thesis. Frequency of supervisory meetings is flexible, varying with the supervisor and student as well as the stage of research programme.

Supervisors will be allocated at the beginning of study and will normally continue to advise throughout the research programme. However, supervisory requirements may

change as a student's research interests evolve. In these circumstances, the Department will consider requests for a change of supervisor or allocation of an additional supervisor. The relationship between student and supervisors is viewed as a key ingredient for the successful completion of a doctoral thesis and it is essential that all parties put effort into the relationship and clarify expectations.

6.0 Seminars within the Department

Oral presentations are a feature of the active research, and you will be expected to present your work to your research group in the Department during each year of your studies. This is considered an important part of your overall training. Many postgraduate research students get the opportunity to present their work at UK and international conferences: the seminar presentation is a good way to prepare for the world stage!

7.0 Progress Monitoring

The progress of your studies is formally monitored by the university. In addition, supervisors will monitor progress by various mechanisms specific to them, usually in the context of regular meetings. The overall objective of monitoring is to ensure that you are making good progress towards completing your programme satisfactorily within the period of supervised study.

7.1 University Monitoring of your Progress

The Postgraduate Office of the University issues a Postgraduate Assessment Form for every research student at intervals of 6 months until the thesis has been submitted. The form is designed to allow the Supervisor(s) to summarise how well you are progressing. It is signed by the Supervisor(s), the student, the Head of School, and finally by one of the College Postgraduate Officers. There is room on the form for the student to make comments as well. The completed form is held with your file at the Postgraduate Registry.

8.0 Framework for Postgraduate Supervision

A Structured Management Framework for PhD Research Students operates across the whole of the University. The Framework exists as a formal structure to ensure that essential issues are properly addressed during the course of the PhD. It includes issues such as training and professional development as well as progress monitoring. Each Department follows its own version of the Framework based on the University model to suit the particular procedures and nature of the studies within the Department. The formal University model of the Framework for a 36 month full time PhD programme can be found at **http://www.abdn.ac.uk/registry/quality/appendix8x2.pdf** Other

versions of the Framework exist for the MPhil and MSc, and for all three degrees if taken part-time (see the other appendices at
 http://www.abdn.ac.uk/registry/quality/section8.pdf)

9.0 Codes of Practise for Supervisors and Research Students

The University has produced a code of practice which describes the responsibilities of the Quality Assurance Committee (QAC), Departments and Supervisors as regards supervising postgraduate students who are taking a degree by research, and the parallel responsibilities of the students. It does not state or replace regulations, but does attempt to summarise the University's practice. The code of practice is available at http://www.abdn.ac.uk/registry/quality/documents/appendix5x4_001.pdf.

10.0 Generic Skills Training

It is the recommendation of governmental bodies overseeing higher education in the UK that all postgraduate students be given training in generic skills. These are skills which are transferable to careers outside the specific area of academic study, such as communication and presentation skills, acquisition and assessment of information, time management, as well as many others. This training can take many forms, but it will be largely delivered (in our case) from a Computing point of view. That is, these generic skills will be largely developed within the context of writing, presenting, and communicating good computing science. You may be asked, for example, to produce written reports for your supervisor using LaTeX, a scientific word processing software program, and to give well prepared oral presentations of your work. In addition, the PGRS has a programme (Skills for Research Excellence) of courses which consider generic skills across all disciplines: http://www.abdn.ac.uk/sfre/.

11.0 Thesis Examination

This is early to start thinking about thesis examination, but it is helpful to know what the University requires so that you will be familiar to the process when the time comes. The Academic Quality Handbook also contains information on thesis examination. The clearest description is given in Appendix 8.8, found at http://www.abdn.ac.uk/registry/quality/appendix8x8.pdf. Also relevant to examination and thesis preparation are Sections 8.6 and 8.7 of the Handbook, found at http://www.abdn.ac.uk/registry/quality/section8.pdf.

12.0 Plagiarism

The university's Teaching and Learning Committee has recommended that all students be aware of the university's policy on plagiarism. This policy is based on the following definition.

> Plagiarism is the use, without adequate acknowledgement, of the intellectual work of another person in work submitted for assessment. A

student cannot be found to have committed plagiarism where it can be shown that the student has taken all reasonable care to avoid representing the work of others as his or her own.

The university takes plagiarism extremely seriously. This is not something to be over worried about, however. The nature of research in computing science – proving something new – inherently avoids plagiarism. An issue may arise if background material is not properly cited, but this is easily corrected. Any questions along these lines should be directed to your supervisor, who will be able to give the proper advice.

Staff List

http://www.abdn.ac.uk/ncs/computing/people/