This is the Handbook for the 4-year CDT Programme in Computer Science offered by the School of Computer Science in the University of Manchester. You are expected to make yourself familiar with the contents of this Handbook as it contains the regulations for your programme, assessment rules, descriptions of the facilities of the School and University, as well as guidance on undertaking your studies here.

Although the information contained in this handbook is believed to be correct at the time of going to press, the School reserves the right to make appropriate changes without prior notice; however the School will endeavour to inform students of any substantial changes made affecting the programmes. This disclaimer does not affect any statutory rights which you may have under English law.

Jonathan Shapiro, CDT Manager,
School of Computer Science. September 13, 2017

Please email any errors or suggestions to Jonathan Shapiro with “CDT Handbook corrections” in the subject.
Chapter 1

Welcome to the CDT

Welcome to Manchester and to the Centre for Doctoral Training in Computer Science. Our Centre was the first EPSRC Doctoral Training Centre in core computer science. Our EPSRC funding has run out, but we feel that the CDT model has been very successful, and we are continuing it using our own resources. You are our seventh cohort of students, so there are some other CDT students around who can help you along the way. We are very excited to have you here on this programme. We hope your time here is challenging, fulfilling and enjoyable.

Welcome, too, to the start of your research careers. You are here to learn to carry out research. During the next four years you will be learning the skills of a researcher: how to choose the problem to work on which is important yet tractable. How to evaluate and communicate research. How to carry out effective investigations using the techniques of particular research fields. During the first six months, this will be largely through classroom and group activities. During the remaining three and half years, this will be working under the direction of one or more world-class researchers. You will also have opportunities to apply your research skills to work with users to solve problems they care about, and possibly to spend time in other research or R & D labs. By the latter half of your time here, we expect you will be contributing to our research, writing papers, making presentations at scientific conferences, and helping to shape the future of computer science.

Our goal in setting up the Centre is to create a new model of PhD training which combines the deep technical training of the traditional UK PhD with explicit training in research skills: creativity and innovation, scientific evaluation, communication across research and academic boundaries, impact planning, and problem-solving in groups with users. We really believe in this programme, and we feel that you are a group of students with great potential as researchers. Together, I hope we will make this a great programme and a great experience for you.

Dr Jonathan Shapiro, CDT Manager.
Chapter 2

Getting Started

Location: School of Computer Science
The University of Manchester
Oxford Road
Manchester M13 9PL
United Kingdom
Tel: (+44) 161 275 6181
Fax: (+44) 161 275 6204

The School is located in the Kilburn Building, and the IT building behind it (accessed via the internal first floor walkway). Due to the interdisciplinary nature of computer science, several of our staff are located elsewhere, most notably at the Manchester Institute of Biotechnology (MIB). MIB is building number 16 on University interactive map. Plans of the building are included at the end of this document.

Emergency Phone Numbers: In the event of any emergency, medical or otherwise, please contact the emergency services by calling 9999 internal or 999 external line. The University Security Office must also be informed once the emergency services have been alerted by calling 69966 or 52728 internal, 0161 306 9966 or 0161 275 2728 external line. This number is on the back of your University Identity Card.

The Student Support Office (SSO): is located in Room LF21 (Lower First floor), Kilburn Building, email: sso@cs.man.ac.uk. They provide administrative support for all students, from registration to graduation.

Induction Week (Week 0): 18 – 22 September 2017
A number of induction events and social events run during this week. Do take part!! You will have opportunities to learn what is expected of you, as meet and make friends with staff and other PhD students, and familiarise yourself with the layout of the School and of the University.

Personal Tutor: Each student will be assigned a personal tutor, with whom they will have regular contact. The personal tutor will provide general advice, as well as advising on
specific aspects of the course, such as the selection of taught modules, and assisting in the choice of a PhD research project. You should meet with them during welcome week.

**Programme Handbook (this document):** This describes what is expected of you as a CDT student in the School of Computer Science, and should also serve as a useful reference. You are expected to consult it. It can also be found online on the School’s PGR internal webpages:

http://studentnet.cs.manchester.ac.uk/pgr/handbook/

All information for PGR students can be found on the School of Computer Science PGR web-site:

http://studentnet.cs.manchester.ac.uk/pgr/

**Research Student’s Charter** The aim of this document is to outline and make explicit the rights of research students in the School of Computer Science at the University of Manchester. It can be found here: http://studentnet.cs.manchester.ac.uk/pgr/charter.php

**Important Dates, 2017 – 2018:** University dates can be found at www.manchester.ac.uk/discover/key-dates/ Relevant dates are:

- **Welcome Week:** 18 September – 22 September, 2017.
- **Research Student Symposium:** 10 April – 12 April, 2018. You will participate in this all four years. Be available.
- **Christmas Break:** 15 December 2017 – 15 January 2018. University will be closed for some of this.
- **January Exams:** 15 January – 26 January 2018. Courses from Periods 1 and 2 will have exams during this period.
- **Easter Break:** 23 March – 16 April 2018. University remains open, but there is no undergraduate or MSc teaching.
- **Spring Exams:** 16 May, 2018 – 6 June, 2018. Courses from Period 3 will have its exams during this period.

**MSc/CDT taught module Periods 2017 – 2018:**

- **Deadline for Course Unit Registration:** 22 September, 2017
- **Period 1:** 25 September – 3 November 2017
- **Period 2:** 6 November – 15 December 2017
- **Period 3:** 29 January 2018 – 9 March 2018
- **Period 4:** 12 March 2018 – 11 May 2018 (excluding Easter Break).

Within Computer Science, undergraduate teaching occurs in 12-week semesters. The MSc teaching occurs in 6-week blocks, called periods, which divide the 12 week semesters in half. The 6-week block is divided into 5-coursework/lecture block followed by a one-week catch-up. During the Foundation part of the PhD, you will take courses which run on this 6 week cycle, from periods 1 – 3. The usual schedule during the foundation period is as follows:

- **Period 1:** Do two taught modules.
- **Period 2:** Do one taught module and Scientific Methods I.
- **Period 3:** Do your Taster Project and Scientific Methods II.
- **Period 4:** Do Scientific Methods III and start your research.
A detailed timetable for the Foundation part of the course is given on page 15. The supervised research part of the programme runs throughout the year after end of period 3, which is why you cannot take courses in period 4.

There is some flexibility in when you do the taught modules depending on which ones you want to take. You must do the Scientific Method modules on schedule and you must do a taster project during period 2 or 3. And you must start your research by the start of period 4.

**Teaching Assistant role:** After the taught part of your programme is finished, you will have the opportunity to get involved in many activities of the School including UG or PGT laboratory teaching by becoming a **Teaching Assistant**.

**Mentors:** The Mentors are research students in their second or further years. They can help with queries about the School or University, or other aspects of the PhD experience. They also organise social activities. Find out more about them and how they can help from their web page:

- [http://studentnet.cs.manchester.ac.uk/pgr/mentors](http://studentnet.cs.manchester.ac.uk/pgr/mentors)
- or join the Facebook group:
  - [http://www.facebook.com/groups/143416086581](http://www.facebook.com/groups/143416086581)
- or email them at cs-mentors@listserv.manchester.ac.uk.

**Identity Cards:** All students will be issued with a **photographic University identity card** (swipe card/student card). You should have this card on you at all times whilst on University premises. It is used to access various restricted areas, as well as acting as your library entry/borrowing card for the central university library. **On the back of this card is the number for campus security.**

**Out of hours passes** To be in the building outside normal working hours, you will need a School **out of hours pass**. These are issued in the Student Support Office (SSO). You will need to show both cards to get into the building out of hours. You will be issued with a **provisional** pass at registration. You will need to take and pass two on-line Health and Safety tests, a University one and a School one. Once you do this, the card become fully valid. To take the Health and Safety course, go to myManchester [https://app.manchester.ac.uk/Default.aspx](https://app.manchester.ac.uk/Default.aspx) and log in using your University credentials. Find Blackboard and log into that. Click on the “Out of Hours Induction course (PGR Students). Read the document and then take the test. You can take the test as many times as you need to, until you get all questions correct. More information is in section 3.2.3.

**Internal Telephone System:** External phone numbers for the University are usually of the form 0161-275**** or 0161-306****. From an internal phone, you just have to dial the extension number, which is the last five digits of the external phone number. Some internal phones also allow you to make external calls, you dial 9 to get an external line, followed by the usual external phone number.

**Computing Facilities:** Each CDT student will be given a desk and a computer in the dedicated CDT lab. The CDT lab is located on the Lower First floor of the Kilburn building. All machines in the CDT lab support Linux and MS Windows. For many of the taught programmes, you will need to be familiar with both systems. There is an introductory Linux lab during Welcome Week for those who need to familiarise themselves with our Unix-based system.

**IT Services:** The University has an IT services department who look after the computers, software, and infrastructure across the University; their website is
If there is a fault with your equipment or with your CS account, you should “raise a ticket” with the IT services. Follow the link on this page, [https://supportcentre.manchester.ac.uk](https://supportcentre.manchester.ac.uk) If nothing happens after a few days, go to the IT Services walk-in helpdesk, which is on the ground floor of the Kilburn building. See also [http://www.itservices.manchester.ac.uk/help](http://www.itservices.manchester.ac.uk/help) which says contact the IT Service Desk.

Other useful places to get information are:

- The [CS studentnet pages](http://studentnet.cs.manchester.ac.uk) under the “Technical support” drop down menu, and
- The School Wiki, in particular the [StudentFAQ/IT](http://www.itservices.manchester.ac.uk/help) pages.

**Computer Accounts**: You will have two computer accounts, a School account, and a University account.

**School**: Your username/log-in name will usually be your family name (truncated to the first 7 letters if necessary), followed by the first letter of your given name (or sometimes the second initial as well if there is a clash with another student or staff member). Your initial password is your date of birth in `yyyyymmdd` format. For example, Mrs Alice Smith, born on the 2nd of January 1950, would have the username `smitha`, and password `19500102`.

You should change your password as soon as you have successfully logged in for the first time. Obviously, do not give your username and password to anyone, and do not send it over email.

**University**: You will need to set up a University account. Central username and password allows you to access various university-wide systems, as well as giving you access (via the Central Authentication System (CAS)) to online journal content to which the University Library has a subscription. It also serves as your username and password for your teaching domain account.

You can sign-up for your account by visiting: [https://iam.manchester.ac.uk/initial_login/overview](https://iam.manchester.ac.uk/initial_login/overview)

You will need your personal details and University ID number (the number on your swipe card) to sign-up.

**Email**: You will have a University email account usually of the form: `<user>@postgrad.manchester.ac.uk`

Detailed instructions on how to send and receive emails, both locally and remotely, for both Linux based and windows based systems, are to be found on the Wiki at the Student-FAQ/IT pages mentioned above, as well as the University's Student email page.

It is important to note that you should read your email frequently as there may be important messages from the staff or from the School or University. If you use other (external) email accounts (e.g. gmail or hotmail), you may wish to set up a forwarding to automatically forward mail from your School mail account to your external account.

**Warning**: If your School account becomes over quota, then mail will not be received and you may miss important messages. Always ensure that you clean up your account regularly, deleting large files and junk (especially in your email box and web browser caches).

**Intranet**: There is a School Intranet which is divided in sections for students ([StudentNet](http://studentnet.cs.manchester.ac.uk)) and for staff ([StaffNet](http://staffnet.cs.manchester.ac.uk)). StudentNet has subsections on the post-graduate taught (PGT) and post-graduate research (PGR) programmes. These both contain material of interest:

PGT: [http://studentnet.cs.manchester.ac.uk/pgt/](http://studentnet.cs.manchester.ac.uk/pgt/)

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1. University Library of Manchester.
School Wiki The School has several Wikis:

- The School Wiki: https://wiki.cs.manchester.ac.uk/index.php/Main_Page,
- The Student Wiki: https://wiki.cs.manchester.ac.uk/students/index.php/Main_Page,
- The Staff Wiki: https://wiki.cs.manchester.ac.uk/staff/index.php/Main_Page.

On the School Wiki, there is a section called “Tools for Researchers” which contains links which PhD students might find useful. When you come across useful tools, or exemplary papers, feel free to add to this.

eProg: The University has developed an online system for post-graduate research students which is called eProg. This enables students to plan and track their progression, and provides online listing of various skills training courses. You will need to use eProg as part of your assessment. Full details are provided in section 8.

VLEs: The School of Computer Science makes use of two eLearning environments for teaching and assessment: Moodle and Blackboard (although we are moving away from Moodle). You will need to access Blackboard to do Health and Safety, and Plagiarism courses, and they may be used by some of the taught modules. If you become a TA, you may also need to use one of these to support teaching.

International Students & English Language Courses: If English is not your first language, you may need to further develop your skills throughout the course of the programme. As with other aspects of training and development within the CDT, students are encouraged to further develop their skills throughout the course of the programme. Further English language courses are hence available during the course of the CDT programme, to enable students to fulfil their full potential as they progress with their study and research.

Further information about these courses will be provided at registration. A full guide to the courses provided by the University Language Centre can be found at: http://www.languagecentre.manchester.ac.uk/study-english/

International students may also find it useful to participate in activities arranged by the International Society http://www.internationalsociety.org.uk which has more than 6000 members representing more than 120 nationalities.

The university’s International Advice Team offers help and advice to international students on a wide range of issues: http://www.manchester.ac.uk/international/support/advice/

Student Societies: The University of Manchester Students’ Union (UMSU):

http://manchesterstudentunion.com is an organisation, independent of the University, to which all students automatically belong. As well as the facilities within the Student Union building itself, UMSU also supports an enormous range of student societies, where you can meet students with similar interests: http://manchesterstudentunion.com/groups#club-society#all
Faculty Support: The Faculty of Engineering and Physical Sciences has a set of web pages supporting PhD students, at this address:

http://www.researchsupport.eps.manchester.ac.uk/postgraduate_home

This contains information about short courses events run by the Faculty, advice, and links to the Faculty and University policies relevant to PhD students.

Help and Advice: Starting a new course can be daunting for anyone. In many cases, students will have moved from a familiar university and course, where they were seen as an experienced and knowledgeable student, someone who others came to for advice. Compared to this, being a new student, at an unfamiliar university, in what may also be an unfamiliar city or country, can be a big change that isn’t always that easy to deal with. If you do experience difficulties, remember that even if all the other students in your cohort seem to be having a wonderful time, with no problems at all with the course or anything else, things aren’t always exactly as they may seem, and many other people may be having similar problems to yourself!

It is important that if you are experiencing any difficulties, whether they be academic, personal, or university related, that you seek advice at the earliest opportunity. Any matter whatever that affects your work and progress can and should be brought to the attention of your Programme Director or other suitable member of staff, or to the Student Support Office in room LF21. The CDT Managers, Jon Shapiro and Carole Twining, the Mentors, your tutor (during the Foundation period), your advisor and your supervisors are all here to help you succeed.

In general, if your difficulties involve carrying out your research you need to make this clear to your supervisors, who are here to help you and train you on how to be a researcher. Other members of your research group can also be very helpful. Issues concerning resources required to do your research also must be resolved with your supervisors, who are authorised to decide what resources are appropriate.

If you are having difficulties communicating with your supervisors, or are having other problems with your relationship with your supervisors, you should discuss this with your advisor, or the PGR Tutor (Alvaro Fernandes) or CDT Managers (Jon Shapiro, Carole Twining). The mentors may also be able to offer advice. Any information will be treated as strictly confidential if you request it.

If you need help with an administrative issue, such as registration, payment of funds, or form filling, the Student Support Office (LF21) should be your first port of call.

During the taught part of the course, when it comes to academic help on particular course units, you should initially consult the course lecturers on that unit. For help deciding what courses you should or could take, your personal tutor or the CDT managers should be consulted.

See also Chapter 7 on Student Support and Guidance.

Members of university staff (whether administrative or academic) have a wealth of experience in dealing with the issues that effect students, and if they can’t help you themselves, can often assist you in finding the help you need. Academic staff will always advise on management of work, and in many cases, any problems or disruptions you may have had can be taken into account when it comes to assessment of your work and progress.
Chapter 3

The CDT Training Programme

3.1 Overview of the Programme

This programme is a four-year PhD. It was designed in response to a EPSRC CDT call in core computer science with the intent to have an augmented and more rounded PhD than the traditional 3-year PhD. However, unlike the 3-year PhD there is no grace period after the 4-years is up (i.e. there is no “submission pending” for 4-year CDT students). The planning must take this into account from the outset. It is now policy (since Sept 2012 intake) that students must complete within four years! After four years, the registration will be terminated and no degree will be awarded. There is every incentive to complete this programme within the allotted three years while the funding lasts. It is an absolute requirement that you finish within four year. For this reason, the CDT schedule allocates 3.5 of the 4 years to the PhD research.

One obvious aim of any PhD programme is that students complete a substantial period of supervised research at an appropriate level, which is then written-up as a PhD thesis, examined, and then leads to the awarding of the desired degree. Such research obviously forms a major part of the CDT programme (see purple region on the diagram). An understanding of the relevant academic literature and the development of research skills is obviously required if you are to complete such a period of research.

However, as students on the CDT, you will also gain training and experience in a wide range research steps: creativity and innovation, thinking about impacts of research at the outset, and understanding through collaboration with industrial and outside users how research can have big impacts in non-academic ways. The extended nature of the CDT programme, when compared to the more-traditional 3-year programmes, means that you will also have the time to gain a broader range of experiences in research problem-solving. You will also gain a broader knowledge of the field by taking technical courses.

The CDT programme consists of an initial six-month ‘foundation period’, consisting of various taught components. CDT students have the advantage that they will be trained as a cohort, and undertake a wide range of activities together. After this, you will begin your three and a half years of supervised research. However, further skills training (ST1 & ST2), and other activities such as Public Engagement (PE), interactions with industrial partners (SG), and Research Symposia (RS2, RS3, & RS4) continue throughout the entire programme, which will maintain the cohesion of CDT students as a group.

3.2 Foundation Period

The first six months of the CDT is called the foundation period. During this period, you will a series of taught components. At the same time you should be exploring the department to

\footnote{Unless there are legitimate mitigating circumstances, see section 6.4}
discover what research is being done here, and trying to identify a research area and supervisor. The activities you will do will during the foundation period are described here.

### 3.2.1 Foundation Technical Course Units

Each student will take three modules chosen from within the School of Computer Science’s Taught MSc courses. It is expected that two will be taken in Teaching Block 1 (weeks 1-6) and one taken in Teaching Block 2 (weeks 7-12). These course units are divided into themes, and students should make sure they take the required prerequisites for the advanced module that they plan to take. The list of advanced modules that are available to CDT students during their first year are listed on the CDT webpages:

[http://cdt.cs.manchester.ac.uk/programme/modules/](http://cdt.cs.manchester.ac.uk/programme/modules/)

Normally, we expect CDT students (for timetabling reasons), to take MSc modules which are presented in the first semester, during teaching blocks 1 and 2. However, it is possible to take the advanced course unit from teaching block 3. In this case, you must do your taster project during teaching block 2 during the first semester. If you wish to use this option, you will need to get that approved when you choose your courses during Welcome Week. There are two disadvantages to doing this. First, you might have a more limited choice of taster projects. Second, you will need to take any exam for this course in May, when you will also be starting on your supervised research. However, we recognise that the courses on offer may be more appropriate in some cases.

Other MSc modules which are delivered in the second semester can be also taken in the second year if the your research requires it and your supervisor recommends this.

#### Course Unit Assessment (exams)

The January exam period takes place during weeks 13–14, 15–26 January, 2018. CDT students (along with MSc and other post-graduate students) will be assessed on the modules they have taken during Teaching Blocks 1 & 2. See Chapter 4 for further details. For any student taking a course unit in teaching block 3, the exams will probably take place between the 16 May — 6 June, 2018.

### 3.2.2 Scientific Methods Courses (COMP80131, COMP80122 and COMP80142)

All CDT students are required to take this sequence of three ‘Scientific Methods’ courses at the earliest opportunity. These start in semester one, usually the day before the Research Student Symposium. Timetables for these courses can be found here:

[http://studentnet.cs.manchester.ac.uk/pgr/timetable/](http://studentnet.cs.manchester.ac.uk/pgr/timetable/)

The titles of these three courses are as follows:

**‘Scientific Methods 1’ (COMP80131):** Full title: ‘Scientific evaluation, experimental design, and statistical methods’ Schedule: Twelve lectures, two hours per week starting the week after the Research Symposium, running across period 2.

**‘Scientific Methods 2’ (COMP80122):** Full title: ‘Fundamental aspects of research methodology’. Schedule: This takes place during period 3. This runs four hours per week across period 3, and as a part of it, every student will give a research presentation and also give feedback concerning research presentations.

**‘Scientific Methods 3’ (COMP80142):** Full title: ‘Scientific Writing and Impact Studies’ Schedule: This takes place in period 4. In addition to lectures and small assignments, each student will produce a piece of research writing, and also give feedback to their fellow students.
3.2.3 Other Courses

Introduction to Research — Essentials

This course is run by the Faculty of Engineering and Physical Sciences (EPS). You will learn more about this when you attend the EPS Faculty induction, which you will learn about during Welcome Week. You can also find a schedule for this and other University and EPS Faculty training courses by selecting the “Training Catalogue” from the menu on the left-hand side of eProg, see section 8.

University and CS Health and Safety Courses

All students are required by the University to pass a Health and Safety on-line course. If you want to be in the Kilburn build out of hours (outside the hours of 6pm to 8am), you will also need to pass the School of Computer Science Health and Safety test. These tests can be found on Blackboard, which can be found at your MyManchester page. Below are the instructions to take both tests.

1. Log into Blackboard.
2. Look for the “My Communities” block:
3. PhD/CDT students: you need to click on the “CS-PGR-Welcome” community space.
5. Complete the test called “Part 1: University of Manchester Health & Safety”: you need to score 100% to successfully complete it.
6. Complete the test called “Part 2: Health & Safety within the School of Computer Science”: you need to score 100% to successfully complete it.
7. When you have scored 100% ON BOTH TESTS the “Out of Hours Access” folder will appear.
8. Click on the “Out of Hours Access” folder.
9. Read through the guidance document, and complete the “Out-Of-Hours-Pass Test”: you need to score 100% to successfully complete it.
10. When you have scored 100% on the Out-of-Hours Pass Test, a link called “Out-of-Hours Completion Confirmation” will appear.
11. Click on this “Out-of-Hours Completion Confirmation” link, and a confirmation page will appear.
12. Take this confirmation page (either print it out, or show it on an electronic device) and your University of Manchester student ID card to SSO (room LF21) who will issue you with an Out-of-Hours Pass for the Kilburn Building.

Note: Out-of-Hours access is only available during the times shown on the back of your Out-of-Hours Pass. You must have both your University of Manchester student ID card and your Out-of-Hours Pass with you to be allowed to work in the Kilburn Building outside normal hours. If you don’t require an out of hours pass, you only need to do steps 1 – 5.
Plagiarism Course

All PGR students are required to complete a short course on plagiarism. See the Section on Plagiarism and Academic Malpractice in section 6.5. This test is also found on Blackboard.

3.3 Other Activities During Foundation Period

3.3.1 Choosing your research area/supervisor

You will need to choose your research area and supervisor as soon as possible. The taster project gives you an opportunity to try out a research area and a supervisor. There will be an event at which CDT students can meet with potential supervisors. At the time of writing this has not been scheduled yet. However, if you know what area(s) you want to work in, feel free to contact relevant supervisors yourself. You tutor can help you know who the appropriate supervisors for any research area.

3.3.2 Research Student Symposium

The School of Computer Science runs a Research Student Symposium which brings all the PhD and CDT students together to present their research and learn about what their fellow students are doing. This will take place April 10-12, 2018 in this academic year, and similar times in subsequent years. Every research student is required to participate as follows:

Year 1: First year CDT and PhD students will be given specific tasks to carry out during the Research Symposium as part of the Scientific Methods 2 Course (COMP80122). These involve attending and evaluating some of the presentations.

Year 2: Students in year 2 of the CDT will make posters describing their research and their results so far, and will participate in a poster session in which they stand in front of their poster and discuss it with interested people. Prizes are given for the best poster.

Year 3: CDT students in year 3 and year 4 will give a 20 minute talk describing their research and results.

Year 4: As above.

3.3.3 ‘Taster’ Project

This project, usually undertaken during Teaching Block 3 (weeks 15-20), gives students a chance to undertake a short supervised research project. As well as giving you an introduction to research, it also gives you the opportunity to investigate areas related to a possible choice of PhD project, or to just broaden your experience.

3.3.4 Creativity Workshop

This is a workshop that will occur around about week 26. It has not yet been scheduled for 2018. What do you do when you get stuck? How do you generate ideas? The aim of this workshop is to introduce CDT students to some tools and techniques to aid the creative approach needed to solve research problems.

3.4 Supervised Research Period

By week 21 of the first year, each CDT student should have chosen a supervisory team, and be ready to start their programme of research. Teaching Block 4 overlaps with this period,
where students will be taking the third Scientific Methods course. The research in the first year contributes to COMP80900.

After the Foundation period, CDT will enter a period of supervised research. This begins during the second half of the first year and continues throughout the remainder of the program. During this phase, the student will carry out research under the supervision of a main supervisor and possibly one or more co-supervisors. The co-supervisors may be from different schools if the work is interdisciplinary, or may even be industrial partners.

During this period, the student will move from the CDT room to a space in the relevant research group. It is very important that the student develop a good working relationship with the supervisors, and also interact with other members of the relevant research group, particularly postdocs and more senior postgraduate students. This is the best way to learn about the relevant research area and how to carry out effective research in that area.

In addition to the supervisory team, each student will also have an advisor. The role of the advisor is to help ensure that the student-supervisor relationship is working well, and that the student is making good progress. The advisor does not give technical advice; but can help with communication between student and supervisor, or if the student needs other non-technical advice.
3.5 Structure of the CDT Programme By Year

3.5.1 Year 1

Goals of Year 1
At the end of the first year, the student should have acquired a strong background in his or her research area, have defined a research topic, and should have accomplished the following:

1. Undertaken training in scientific methods, evaluation, research impact, creativity and innovation, and proposal writing and scientific literature skills.
2. Taken three technical modules.
3. Found a supervisor or supervisory team and a research topic.
4. Begun to explore the research topic and the literature around that topic.
5. Written a “Summary” report proposing the research and justifying it.
6. Given a technical presentation to their supervisor and an independent assessor and demonstrated ability to discuss the research area and its context.

Structure of year 1

Induction Week Each student will be assigned an tutor and will develop a training plan in consultation with their tutor. Research group leaders and/or other researchers will be available to help students decide appropriate pathway of courses for particular kinds of research.

Teaching block 1 (Teaching week 1-6) All students will take two technical modules and attend a series of seminars introducing students to research in the school and important research questions.

Teaching block 2 (Teaching week 7-12) All students take one technical module and Scientific Methods 1 (COMP80121) which which teaches the rudiments of scientific evaluation, experimental design, and statistical methods.

Teaching weeks 13–14 Exams for courses taken in Teaching Blocks 1 and 2 will take place.

Teaching block 3 (Teaching weeks 15–20) Each students will undertake a short “taster” research project (STRP) with the intended supervisor, or as an opportunity to try a particular research area. Students will also take Scientific Methods 2 (COMP80132) introduces students to methods of research, and how to give research presentations.

Teaching block 4 (Teaching week 21–26) This overlaps with the start supervised research. CDT students all take the lecture course Scientific Methods 3 (COMP80142). This provides training in the writing of research papers and proposals, and the planning of research impact.

Research Student Symposium Year 1 students will attend the School Research Symposium at which PhD research is presented in posters and talks. This will opportunity meet more senior researchers and to learn about possible research areas and topics. Students will given the assignment to evaluate and give feedback for ten research talks. In 2018 it takes place April 10–12, during the last week of the Easter Break.

Supervised research (Teaching week 21–end of year 1) By week 21, students will have put together a supervisory team and will start a programme of research.
**Creativity Workshop** A 2-day workshop which will take place between teaching blocks 3 and 4 or during teaching block 4. It is usual run over 2 days separated by a few weeks.

**End of year assessment** Full details of assessments for all years is in Chapter 4.

By the end of year 1, each student is expected to have defined a research topic, and have produced a short Research Progress report which contains a statement of the problem or research question, why it is important, what idea is going to be used to address it, and what progress (if any) has been made. It should also include a time plan.

By the end of month 10, each student will have a ‘Research Progress Review’, which takes place with their supervisor(s) and an independent second reader acting as reviewers. This consists of a 15-20 minute presentation on the proposed research, of a technical nature, followed by discussion and feedback. The reviewers can give helpful feedback, but they can also give remedial actions if they perceive that the student is falling short of PhD standards.

**Outcome of the assessment** Students who pass all the course units, including the Scientific Methods courses, have evidence of successful participation in the year 1 activities, submit a satisfactory year 1 summary report, and perform satisfactorily at the research progress review and, if necessary, the end of year assessment panel will be allowed to progress into year 2. Students are allowed to resit one technical module, but must have reached a pass on all three courses before entering into year 2. Students who fail two or more modules or who fail to pass all modules on resit, may be eligible to leave with a Postgraduate Diploma if they have accumulated acceptable marks for 120 credits. Students who fail to reach the standard of a Diploma may be eligible to exit with a Certificate based on 60 credits. The examiners will take into account performance on all aspects of the student’s performance in deciding whether that student continues into year 2.
Figure 3.1: Detailed timetable for the first year of the course.
3.5.2 Year 2

Goals of Year 2

At the end of the second year, each CDT student should have acquired a strong background in his/her research area, established the foundations of a research topic, and will have accomplished the following:

1. Have carried out a novel research project and produced a significant report comparable to an MPhil thesis on this research.

2. Will have produced a research proposal and project plan for the remaining research, or at least the next year.

3. May have taken an additional Advanced (technical) course unit if deemed appropriate by the supervisor(s).

4. Have participated in a Study Group.

5. Will have taken further transferable skills courses according to their personal training needs.

6. Will have become integrated into their selected local research communities (research group, research project team, etc.)

Structure of Year 2

During this year, each student will work closely with the supervisor or supervisory team to further the defined research project. They are expected to become involved with their local research community. This will be augmented with the following additional activities.

Advanced taught modules As needed, the students may take an additional Advanced Course Unit from any of the four teaching blocks.

Research Symposium As in the first year, A School Research Symposium will be held during week 6. Each 2nd year CDT student will produce a poster describing their research proposal to be presented at a poster session attended by fellow postgraduate students (including new CDT students) and staff within the School.

Skills training (years 2 – 4) At the start of year 2, the student should consider their training needs, in consultation with their main supervisor. In addition to those courses offered by the University, EPSRC funded student should attend an EPSRC GRADschool: [http://www.researchsupport.eps.manchester.ac.uk/postgraduate_home/GRADschools/](http://www.researchsupport.eps.manchester.ac.uk/postgraduate_home/GRADschools/) in year 2 or year 3.

Study Groups Students in year 2 onward will participate in Study Groups, which are activities with industrial partners. These will take place when the schedules of the partners allow.

Public Engagement Each student is expected to participate in at least one public engagement activity. This will be coordinated by the School’s public engagement officer, and could happen at any time during the programme. Students will normally participate during their second or third year of study.

End of year assessment The end of year assessment consists of two parts. First, each student must produce a short report describing the proposed research, the results of research up to this point, and the plan for the final two years. This will be assessed by the supervisor and an independent second reader. Second, each student will be given an oral viva by an examination committee, consisting of one or two independent assessors, the supervisor,
and the advisor. For this, the student will produce a short report, which is an executive summary of the long report, give a formal presentation, and respond to detailed questions from the panel. More details are in

**Outcome of the assessment** If the performance during the second year has been satisfactory, the examiners will allow the student to continue into the third year. If performance has not been satisfactory, the student will be required to withdraw. If the student is not allowed to continue, the assessment panel may be allowed the student revise the long report and submit it as an MPhil thesis.

### 3.5.3 Year 3

**Goals of year 3**

The primary goal of year three is carry out the PhD research. By now, the student should be embedded in their local research community (research group or project team), and carrying out significant research. At the same time, the student will start to interact outside communities through presentations at conferences, academic visits, and engagement with industrial partners through secondments and study groups.

**Structure of year 3**

**Research Symposium** At the research symposium in week 6, students in the third year will present the results of their research at a poster session.

**Skills training** At the start of the year, the student will consider further training needs in consultation with their main supervisor. Courses offered by the University of Manchester and, for eligible students, EPSRC GRAD schools, will be available to meet these needs.

**Secondments and exchanges** Students will be encouraged to participate in secondments with industrial partners and student visits and exchanges with academic partners. Students will be encouraged to apply for internships.

**Study groups** Students in year 3 who are not participating in one of the above activities will participate in a study group.

**Public Engagement** Each student is required to participate in one public engagement (at least) activity during the programme. If this did not take place in the 2nd year, it should be done in the third year.

**End of Year Assessment** The end-of-year assessment at the end of year 3 is similar to that at the end of year 2 except no long report is required. Each student will submit an short report summarising the research goals and achievements to date. This report should include an up-to-date statement of aims and objectives of the research and a plan for producing an PhD thesis by the end of year 4. Any changes to the aims, objectives and planning that have been made since the previous assessment should be highlighted and discussed.

**Outcome of the Assessment** If the performance of the student is considered satisfactory, the student will be allowed to continue into year 4. If the performance is deemed to be not satisfactory, the student will be required to withdraw, although the assessment panel may allowed the student to submit an MPhil thesis based on the research carried out.

### 3.5.4 Year 4

**Goals of year 4**

In year 4 the student will complete the research and complete the writing of the PhD.
Structure of year 4

Research Symposium At the School Research Symposium, all final year students will give seminars presenting the results of their research.

Skills training Students will be encouraged to consider appropriate skills training, which may include courses on managing the final year, writing the thesis, as well as courses relevant to managing the transition to their careers ahead.

Final six-months During the final six-months, the students will write up their theses.

3.5.5 Thesis Writing

Be sure to leave enough time in your planning to write the thesis. Most people require at least 6 months, depending on how quickly they write and how much of the writing already exists in papers and reports. Your supervisor can give you advice on how to write the thesis.

The University policy on the formatting and presentation of your thesis can be found here http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=7420

A \LaTeX{} style file for University of Manchester theses can be found here: http://studentnet.cs.manchester.ac.uk/resources/latex/MUThesis/

3.5.6 Submission

You must submit your thesis within four years (allowing for any interruptions or extensions that you may have been granted). When you are ready to submit your thesis you need to complete a Notice of Submission Form not less than six weeks before submission. This form is available in eProg in the Examination Summary section. You will also need to read Regulations for the Presentation of Theses and Dissertations available at http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=7420 Giving notice of submission triggers the process of appointing the examiners, who are then expecting the thesis to arrive on time.

If a thesis is not submitted before the end of the PhD programme you will not be able submit your thesis without exceptional circumstances.

You must submit and electronic copy of your thesis no less than 3 days before your final submission deadline. You must submit two hard copies to the Faculty Graduate Office by the deadline. The electronic and hard copies must be identical.

If you wish to submit a thesis more than 3 months before the end of your PhD programme (or 6 months if part time) you will require a permission of your supervisor and the University. If you are granted permission to submit early then you will still be required to pay full fees for the degree period for which you originally registered.

3.5.7 The Thesis Defence (Viva)

You will need to defend your thesis in an oral examination which is often called a 'viva' (for viva voce). You will typically have two examiners comprising either (i) an internal examiner (a member of academic staff from Manchester who has expertise in your research area) and an external examiner (a member of academic staff from another university or another suitably-qualified and research-active expert), or (ii) two external examiners and an internal independent chair. The internal examiner or independent chair will arrange the date and time of your oral examination. There may also be an independent chair when one of the examiners lacks experience in examining PhDs and in other situations.

In the oral examination you will be examined orally on the content of your thesis and its wider context. After the examination the examiners will make a recommendation to the Faculty PGR Degrees Panel on the outcome of the exam. The examiners may communicate what their
recommendation is to you, but it should be clear that this is unofficial and the final decision is made by Faculty.

The outcomes are:

A(i): recommend the award PhD and no corrections are necessary.

A(ii): recommend the award PhD subject to minor corrections being completed.

B(i): refer: the thesis is satisfactory in substance but defective in presentation; allow re-submission without the need for a further oral examination.

B(ii): refer: the thesis is satisfactory in substance but defective in presentation; allow re-submission and require a further oral examination.

B(iii): refer: the thesis requires further research to be done; allow re-submission and require a further oral examination.

C(i): award MPhil on the basis of the thesis presented.

C(ii): award MPhil on the basis of the thesis presented, subject to minor corrections being completed.

C(iii): reject, but invite the candidate to revise and resubmit the thesis for the degree of MPhil within six months. A candidate will be permitted to resubmit on only one occasion. A fresh examination of the thesis will be required and may include a further oral examination.

C(iv): no award be made to the candidate and no re-submission be permitted.

The most common outcome is A(ii). Normally minor corrections required under A(ii) must be completed within 4 weeks of the result being communicated to you by the Faculty PGR Degrees Panel. Likewise with the outcome C(ii) the minor corrections required for award of MPhil must be completed within 4 weeks.

Students with outcomes B(i)–B(ii) and C(iii) normally have up to six months to resubmit their thesis (in the latter case for MPhil). Students with outcomes B(iii) have one year to resubmit their thesis. A re-submission fee is charged. See [http://documents.manchester.ac.uk/display.aspx?DocID=7452](http://documents.manchester.ac.uk/display.aspx?DocID=7452).


3.5.8 Other training opportunities

There are a number of short courses which are available to you. The Faculty of Engineering and Physical Sciences (EPS) and the University run short courses on a number of “transferable skills”, such as “time management”, and skills directly related to your course, such as “academic writing”, “planning the final year”, “viva survivor”. One course is required for all PhD students, which is “Introduction to Research — Essentials”.

You can access a catalogue of training courses via eProg (it should appear on the menu list on the left-hand side of the page, when My eProg has been expanded. If you want to see a list of available courses, leave search term blank, but select appropriate training provider. Many of these courses are for staff, but Faculty of Engineering and Physical Sciences runs courses for its PhD students.

The Research Computing is a part of the University’s IT Services, which offers computing services to researchers. They offer courses which are sometimes appropriate to PhD students. To have a look at what is on offer, have a look at [Computational Science Community Wiki](http://documents.manchester.ac.uk/display.aspx?DocID=7445). However, this seems to list only elementary courses, but they also offer HPC courses. See also,
Some of these courses may cost the School money, so you will need to get permission before you take them. Talk to your supervisor.

The Manchester Enterprise Centre offers a course in Innovation and the Commercialisation of Research, which may be available to PhD students. This costs the School money, so, as above, talk with your supervisor.

3.5.9 Public Engagement and STEM ambassadors

The School is very involved in “public engagement”, which means promoting science and computer science to the general public. Our school is particularly involved in two areas. The first is promoting computing in schools. The second is working with the Museum of Science and Industry (MOSI) to promote science in science fairs and events. MOSI provides training to scientists and science students in public engagement by qualifying them as “STEM ambassadors” (STEM stands for Science, Technology, Engineering, and Mathematics). As a CDT student, you should get trained as a STEM ambassador, and participate in at least one public engagement event. The School’s public engagement are run by Dr. David Rydeheard.

3.5.10 Teaching Assistantships (TA)

A teaching assistant is a postgraduate student who helps with teaching in some way, usually in a lab demonstrating some aspects of what needs to be done, helping the students understand it and perform it, and marking the work. Teaching assistants are either paid to do this, or have to do it to fulfill a requirement of their funding.

The term teaching assistant is the School’s new term for what we used to call “demonstrators”. So you will still hear the phrase “demonstrator” for a while until people get used to the new term.

In order to become a teaching assistant, you will need to respond to a call for the subjects you know about. This is so we can put the right students in the right labs (there is always a need for TAs to know JAVA). You will also need to take the Graduate Teaching Assistantship course which is put on by the Faculty of Engineering and Physical Sciences. The School is starting a section for TAs on the School Wiki page.

3.5.11 Conference, Workshop, Summer School Travel:

It is not enough for researchers to do great research; we also must go out into our research communities to communicate it. The School provides a small amount of money for each student, which for a CDT PhD student is £4K, for travel and the purchase of a machine. The policy of the School for spending this money is as follows:

Guideline 1: The money follows the student to the supervisor

It is up to the supervisor to decide the best use of the money. The student should not feel that they can spend anyway they like. The money is for the supervisor to use to best enhance the research training of the PhD student. However, it would be appropriate for the student to discuss with the supervisor the use of the money, in particular a plan for travel for workshops, summer schools, conferences, etc.

Guideline 2: Every student should be provided with a new machine of the standard school spec or higher

Every student should receive a new machine when they arrive. This should have a specification which is equivalent to or exceeds the School’s standard desktop PC. There is no expectation that this be upgraded in subsequent years, unless the supervisor deems that necessary. Of course, the supervisor may judge that a particular student’s project requires
a much higher spec desktop, or other equipment, and may spend more of the budget on that student. We want to avoid students being given three year old machines which happen to be lying around the lab.

Machine purchases should be discussed with IT services.

**Guideline 3:** Every student should have the opportunity to attend at least one conference or workshop

It is an important part of research training that students get the opportunity to participate in conferences and workshops and network with other researchers in their fields. It is preferred that some of these experiences are outside the UK. Although it is reasonable to wait until the student has a poster or oral presentation accepted, this is not a requirement. The supervisor and student might together decide to send the student to a workshop or summer school in an early stage in the student’s research. The fact that a particular student has not managed to get a conference or workshop paper accepted by the end of the PhD should not preclude the opportunity to attend one.
Chapter 4

Progression and Assessment

All postgraduate research students, CDT students and ordinary PhD students, go through a progression process each year to determine whether they are making sufficient progress to transfer into the next year. This process was changed after the publication of the 2016 handbooks, and is described here: [http://studentnet.cs.manchester.ac.uk/pgr/progression-amendment.pdf](http://studentnet.cs.manchester.ac.uk/pgr/progression-amendment.pdf). This provides a good summary of the research assessment process.

During the foundation period the taught components are assessed in a conventional fashion, by coursework and examination. Other activities during the first year are judged by attendance, participation and possibly coursework. In addition, each CDT student will go through yearly examinations near the end of years 1, 2, and 3, in order to demonstrate that they are making satisfactory progress toward production of novel research results leading to a PhD. These examinations consist of one or more written reports, and one or more oral examinations as detailed in this chapter.

Toward the end of each of these years (1, 2, and 3), the student will produce a report describing the research problem and its potential impact, summarising progress, and/or proposing a plan for the subsequent years. The requirements of the reports differ from year to year.

Near the end of years 1 and 2, CDT students will go through an interview called a “Research Progress Review” with their supervisor and an independent assessor. The purpose of this interview is to provide an assessment of the student’s progress, and provide feedback, and if necessary, assigned remedial actions or achievement milestones to help get a faltering student back on track. Prior to the review, each CDT student will produce a Research Progress report which they will send to their supervisors and independent assessor and also upload to eProg.

At the end of year 2 there is also a formal End-of-Year (EoY) interview. This should be viewed as an exam, because it makes the formal decision whether the student progresses into the next year. Possible outcomes are: progress into the next year or do not progress. In the case of non-progression, the possibility of submission for a lesser degree may be offered, typically MPhil. In extreme cases, the student may be required to withdraw.

Normally, the formal End-of-Year interview is not required in year 1 for CDT students. However, the assessors of the Research Progress Review in year 1 can require the students to have a formal End-of-Year Examination interview. This remedial action is indicated when the student is not engaged or is performing much below the standard required to progress toward a PhD, or if the assessor feel that they need further independent views to assess the research performance of the student.

4.1 Assessment of the first year

To progress into the second year, students will be expected to:
• Pass 45 credits of advanced postgraduate course units. The pass mark for these courses is 50% and above.

• Pass 15 credits Scientific Methods units (SMU). Each are worth 5 credits.

• Participate in a satisfactory manner in the Creativity Workshop as judged by the conveners.

• Have evidence of successful completion of the taster project.
  
  – Demonstrate satisfactory research progress via the Research Progress Review report and the Research Progress Review, or if not
  
  – Perform to the required standard at the end of year examination.

Technical Postgraduate Course Units Students will be assessed on the Foundation and Advanced MSc units according to the assessment scheme used on that particular course. This could be by means of examinations, various assessed tasks performed during the course itself, or both. Students should consult the relevant module webpages for assessment information by selecting the course unit from this webpage: http://cdt.cs.manchester.ac.uk/programme/modules/. Each MSc module counts as 15 UK credits. The pass mark is 50%.

These courses are shared with MSc courses, so it may be useful to look at Chapter 4 of the MSc Handbook, which should be found at http://studentnet.cs.manchester.ac.uk/pgt/2017/handbook/MScHB.pdf.

General information on exams can be found at: http://studentnet.cs.manchester.ac.uk/assessment.

To get past papers for exams, go on the University studentnet website MyManchester and follow the menu items to

Crucial Guide → Academic Life → Exams.

Other Activities Students will also be assessed on their performance in the Scientific Methods courses, and the Creativity Workshop. These will not have exams; assessment is based on attendance, coursework and participation.

Assessment of research progress in the first year During the first year, each CDT student is required to produce a Research Progress report on their chosen research project and have a Research Progress Review. Research progress, as revealed by the written Summary report and performance in the Research Progress Review will be assessed by the student’s supervisors and an independent assessor.

Progression 4.1.1 Expectation and timeline for Year 1

Expectations: With respect to the supervised research phase of the year, by the end of year 1, the student should have a research topic, and be able to argue its importance and put it into context. Ideally, the student will have identified the approach they are going to take, and made some progress on it.

A main review of progress for year 1 takes place during month 10 via the “Research Progress Review”. If the assessment team deems it necessary, there might also be a formal end of year examination.
**Research Progress Review:** The main progression assessment in year 1 is the “Research Progress Review” by which your supervisory team and an independent assessor will evaluate your progress, give feedback and suggestions, and, if necessary, assign corrective measures. This must take place before the end of month 10 (July). You will need to give a presentation to your supervisor and assessor.

**Checklist for Year 1**

1. **End of month 9** — Prepare *Research Progress Review Report* and submit to eProg.

2. **Early month 10** — Discuss with supervisors the timing of Research Progress Review.

3. **Early month 10** — Prepare a technical presentation on your topic.

4. **Prior to the review** — Fill out your part of the “Research Progress Review Form” (COMP1080) on eProg.

5. **Before the end of month 10** — Have the Research Progress review with your supervisors and independent assessor.

6. **After review** — Be sure to understand the feedback. There may be two types: helpful suggestions and required (or strongly suggested) remedies. Pay particular attention to the latter. Your supervisor will tell you if you will have a panel examination and why. In addition to verbal feedback, their feedback should be on the eProg form.

7. **Before end of month 12** — If the outcome of the Research Progress review is that an End of Year interview is required, you will need to prepare a less technical presentation, and revise your Research Progress report (if necessary). Your examiners are not experts in your research field, so ensure your presentation and report will be understandable by an educated computer scientist who may not be experts in your research area.

**Description of required components**

**Research Progress report:** This should describe the statement of the problem or research question, why it is important, what idea is going to be used to address it, and what progress (if any) has been made. It should also include a time plan. It will be understood that you are in a very early stage of the research. It should be approximately 1500 words excluding references, with a section on social/technical/research impact of approximately 500 words. Acquire an ORCID number by signing up through [https://orcid.org](https://orcid.org) and include in the first page header of the report.

**Research Progress Review:** This should take place by the end of month 10. This event will last about one hour, and could take place in the main supervisor’s office or a small meeting room. It will be built around a 15-20 minute presentation given by the student, followed by questions and discussions led by the Independent Assessor. This will be organised by the supervisor, independent assessor, and the student. The outcome will be a report which states whether the student has made sufficient progress at identifying a research problem and starting to work on it. If progress is not sufficient, the supervisors and assessor will advise the student what is needed to get back on track by the end of your first year, and can assign remedial actions to which must be performed by the student. They may also give feedback concerning the Research Progress Report. The assessment will be available on eProg for the student to read. It is the responsibility of the student to make sure the Research Progress Review happens.
Outcomes of the Research Progress Review: Besides the assessment report on eProg and the verbal feedback, the assessors (supervisors and independent assessor) can assign remedial actions to the student. This will be done when the assessors judge that there is something missing or inadequate in the progress which can be addressed through specific actions. In addition, if the assessors have serious concerns about the performance and progress of the student, they may require a formal End-of-Year interview.

End of Year interview (only if required): Normally, there will be no End-of-Year interview for year 1 CDT students. There will only be an End-of-year interview if there are serious concerns about the student’s performance, either because the student has failed the taught part of the programme or has not made adequate progress on the research as determined at the Research Progress Review. The goal of the interview is to ascertain whether the student has made a good start to the research and is on track to succeed. The panel will use the presentation, the Summary report, the marks of the 3 MSc courses and Scientific Methods courses, and the evaluation of the report. Your supervisor will tell you whether you are required to do this.

There will be two examiners, randomly allocated to the student by the Student Support Office (SSO). The interview time and place will be arranged by the supervisors and the examiners, who will inform the student and SSO.

One week prior to the examination, upload the Research Progress report on eProg and also email it to Chris Calland (mailto:chris.calland@manchester.ac.uk) to distribute to the examiners.

In the End-of-Year interview, the student will give a 15 minute oral presentation describing the goals of the research, why the research is important, a summary of work complete, work underway, and future direction. This will be followed with questioning by the examiner and supervisory team and include technical question by the supervisory team. The interview is not intended to be a rubber stamp but an in depth presentation, Q&A, and discussion which both assesses the student’s progress and gauges the student’s ability to complete, while also providing the student with a learning experience of answering detailed questions in examination conditions.

Possible outcomes: The student will leave and the examiner and supervisor, informed by the supervisor and independent assessor reports, will reach a conclusion. If any remedial action was given at the Research Progress Review, the supervisor will inform the panel whether it was satisfactorily completed (and the work stored in eProg may be accessed). The goal of this examination is to ascertain whether the student has made sufficient progress and is on track to succeed at producing a PhD in time.

If the panel decides progress is satisfactory, the student progresses to the 2nd year. If not, the student may be offered the opportunity to complete a lesser degree such as a diploma or a certificate if eligible, or may be required to withdraw with no qualification.

4.1.2 Taught course failure in the first year

Students who fail any of their units will be required to repeat and pass the examination before being allowed to progress into Year Two. Similarly, students may be required to perform further work, or fulfill other special requirements, if their progress on any other of the above assessment requirements is judged to be not of the required standard.

Students may be awarded a compensated pass when they receive a mark between 40% and 49% for a failed credit. **No more than 15 credits can be compensated.**

Students who fail at their second attempt will not be allowed to progress to Year Two. They may still be eligible to leave with a Postgraduate Diploma provided that they have achieved
acceptable marks for courses totaling 120 credits. For a Postgraduate Diploma, the pass mark is 40%, and students may be awarded a compensated pass when they fail in units totaling no more than 30 credits and receive a mark of at least 30%, but less than 40% in those failed units. To get sufficient credits, this must include the taster project, Creativity workshop, and supervised research. Failing that, students may be awarded a Postgraduate Certificate. For the University Regulations, see http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=7327.

A list of the credit assignments of the foundation period courses is below.

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<th>Abbrev.</th>
<th>Description</th>
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<th>Comments</th>
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<td>Scientific Methods 1</td>
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<td>Combined to form the</td>
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<td></td>
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<tr>
<td>COMP80900</td>
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<td>Six months research, taster project, Back-ground reports, Creativity workshop</td>
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</tr>
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### 4.2 Assessment of Year 2

#### 4.2.1 Expectations for Year 2

**Expectations:** In the second year, the main focus is on the supervised research. By the end of the second year, the student should have a clear idea of the research problem, why is it important and where the potential impacts lie. They should also have an approach or approaches to address the problem which they can justify. Ideally, they have produced results and have communicated them or are getting ready to communicate them.

**Assessment of research progress:** This follows the same pattern as the first year, except the Research Progress Review is one month sooner in the year, and there is a formal End-of-Year interview for all Year 2 CDT students.

**Research Progress Report:** The research progress report is similar that that in the first year (as described in Section 4.1.1), but should reflect the fact that a further eleven months of research has taken place. The report should include as appendices (not counted in the word count):

1. A list of any publications, published or submitted;
2. A research plan for the next year, concerning how the research should be carried out;
3. A plan as to how this will lead to a thesis, (e.g. proposed structure of a thesis at the level of chapter and section headings);
4. A plan for any other activities, including any visits, internships, targeted conferences or journal publications, and public engagement activities.

**Checklist for Year 2**

1. **Month 20** — Prepare Research Progress Review Report and submit to eProg. As in year 1, report should be 1500 words not including references, list of publications, etc,
500 of which should be on potential social/technical/research impacts, and includes your ORCID identification.

2. **Month 20** — Discuss with supervisors the timing of Research Progress Review.

3. **Prior to the review** — Prepare a technical presentation on your topic of 15–20 minutes.

4. **Prior to the review** — Fill out your part of the “Research Progress Review Form” on eProg.

5. **Before the end of month 21** — Have the review with your supervisors and independent assessor.

6. **After review** — There are two possible outcomes:

   (a) Progress is as expected, student is on good path toward a PhD: no further action required.

   (b) Progress is unsatisfactory/questionable: the student will have to submit additional work (via eProg), which is assessed by the independent assessor. This work is by default a Long Report\(^1\), however, the independent assessor can assign remedial action (any reasonable additional work if it is explicitly documented), such as writing a paper, performing a critical review, etc. The remedial action being stored in the student’s eProg document store, and emailed to the supervisory team and internal assessor 1 month before the progression interview. This is reevaluated by the independent assessor for Progression. This assessment report being available one week preceding the progression interview and sent to SSO (who will pursue reports not returned) for onward distribution to the Progression Examiner.

7. **Month 23: Formal End-of-Year interview** — Upload Research Progress Report to eProg one week prior to the interview. Time and place organised by supervisors and examiner and reported in eProg. Consists of a 15 minute presentation from the student followed by 30 min Q&A, with 1 or 2 examiners, the supervisor(s), and the student.

   (a) If additional work has been requested by the Independent Assessor, then two examiners are required;

   (b) If no additional work has been requested by the Independent Assessor, then one examiner is required;

   (c) If the the examiner is new to the duty, then two examiners are required;

   (d) Examiners are randomly allocated to a student (and their supervisory team), by Student Support. In this case, it should be assumed that the examiner is not an expert in the particular research field, and the technical level should be pitched accordingly.

   (e) The Supervisor and Examiner arrange a time/date/location between themselves and at a minimum the examiner and supervisor are present (optimally the supervisory team is present) to conduct the examination (the Examiner will inform SSO of the time/date/location). SSO will issue prompts if arrangements have not been made, and the student will not progress or be able to register without this interview.

   (f) The student will give a 15 minute oral presentation describing the goals of the research, why the research is important, a summary of work complete, work underway,

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\(^1\)Long Report: The long report is in the order of 50-60 A4 pages, which presents an abstract, introduction chapter, background and related work chapter, progress so far chapter (these can be descriptions of pilots, embryonic theories etc and will vary by student/topic but must show novelty and technical depth), and a Future Directions chapter.
and future direction. This will be followed with questioning by the examiner and supervisory team and include technical question by the supervisory team. The interview is not intended to be a rubber stamp but an in depth presentation, Q&A, and discussion which both assesses the student’s progress and gauges the student’s ability to complete, while also providing the student with a learning experience of answering detailed questions in examination conditions.

(g) The student will leave and the examiner and supervisor, informed by the supervisor and independent assessor reports, will reach a conclusion. If any remedial action was given at the Research Progress Review, the supervisor will inform the panel whether it was satisfactorily completed (and the work stored in eProg may be accessed). The goal of this examination is to ascertain whether the student has made sufficient progress and is on track to succeed at producing a PhD in time.

(h) If they are satisfactory, the student progresses to the 2nd year. If not, the student may be offered the opportunity to complete an MPhil, otherwise if progress is not sufficient for an MPhil then the student is not able to progress and will be withdrawn. There is no ‘conditional progression’ subject to remedial action at this stage.

4.3 Year 3

Month 35: All students submit a detailed plan for completion and discuss this with the supervisory team (recorded via eProg).

1. The document will be uploaded to eProg but will also be emailed — by the student — to the supervisory team and the Director of PGR.

2. At the request of the Supervisor or the Director of PGR the student will also have a 1 to 1 interview with the Director of PGR (or their nominated representative), also recorded via eProg.

4.4 Year 4

Month 42: All students who have not yet completed a ‘Notice to Submit’ have a 1 to 1 interview with the Director of PGR also recorded via eProg.

No later than month 48: The student will submit their dissertation. The only exception is for an interruption period or an extension period approved by The Faculty of Engineering and Science.

You must submit within four years! Otherwise, your dissertation will not be accepted. This is University Policy. The only exception is if you have been allowed to interrupt or extend for a fixed period by the Faculty of Science and Engineering during (not at the end of) your programme.
Chapter 5

The Dissertation Format

All PhD students must produce a PhD thesis, which describes in full detail the wider context of the research field including a literature review, the motivation for the research, the research which was carried out, an evaluation of the results, and a discussion of the contribution made to the field by the research and what should be done in the future. The electronic copy needs to be submitted by three days before the end of the fourth year, and two printed copies before the end of the fourth year. For the relevant University policies, see Section ??.

There are two formats in which the thesis can be produced: traditional format and journal format (previously known as ‘alternative format’). Traditional format is probably what most people imagine a thesis is like, a very substantial report presented as a self-contained exposition. The alternative format thesis “... allows a postgraduate doctoral or MPhil student to incorporate sections that are in a format suitable for submission for publication in a peer-reviewed journal.”. See the University Presentation of Thesis Policy[1]. Journal format thesis consists of a collection of journal or conference publications, or self-contained documents in style of journal or conference publications, with a short commentary associated with each one, tying the works into a unifying “thesis”. More information on the journal format dissertation can be found at https://www.bmh.manchester.ac.uk/doctoral-academy/your-phd/thesis-submission/alternative-format/

Which you use is a decision you will need to make with your supervisor.

The advantages of the journal format thesis are that if you already have several papers, you can more easily produce a thesis out of them. Also, if you have plans to write several papers, you can write your thesis in such a way that it will be easier to facilitate these plans, because writing the thesis will be build around writing papers. The papers can be submitted after the thesis. The disadvantage of the journal format is that it is less widely used in the UK, so many supervisors and examiners may be less comfortable with it.

The advantage of the traditional-format is that it is the most widely used in the UK, so supervisors and examiners will be familiar with it. Also, an excellent traditional-format thesis can be an important contribution in and of itself, beyond the papers which came out of the work. If the author of the dissertation has deep understanding of a research area, and uses the extra space that the thesis format provides, a PhD thesis can become a key reference work. The disadvantage of the traditional format is that its production takes time away from paper-writing. The School has a LaTeXclass for production of tradition-format theses here: studentnet.cs.manchester.ac.uk/resources/latex/MUThesis/

A Q and A on the journal format thesis can be found here http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=15216

Writing Advice  Whichever format you choose, you must give yourself sufficient time to produce the thesis. You must know yourself, and how quickly you are able to write. Six months is a minimum time for most people. Some may need nine.

Do not feel that you need to write it in order; start with the easiest parts first. Usually the technical sections on the research done by you are the easiest, because you know them well. The literature review may be next easiest. The introduction is usually the hardest to write, and many advise that it be written last. Similar advice applies to the conclusions and future work sections.
Chapter 6

University Policies

The University Ordinances and Regulations: Degree of Doctor of Philosophy (PhD) can be found here:
http://documents.manchester.ac.uk/display.aspx?DocID=20673
These apply to the CDT programme.

6.1 Submission and Completion

A crucial policy for you to know is that you must submit your thesis within 4 years of starting, unless you have an approved extension or interruption (see next section). This holds for any student who started Sept 2012 or later. An electronic copy is required at least three days before the final submission date; hard-bound copies are no longer required.

As you are on a four-year programme, you cannot take longer than your degree time. Students on a three year course have the option to extend the time by requesting permission to register as “submission pending”. This is not an option for CDT students, however. You must finish within four years.

6.2 Attendance Monitoring

With respect to attendance, in general, you are required to be engaged in the programme. Of course, you need to be in attendance at the Scientific Methods courses, the technical course units, and other scheduled events that are part of the CDT, such as the Creativity Workshop, Research Student Symposium, Science in Practise seminars, etc. Outside of this, there are no specific hours you are required to be in attendance. I quote here from and advice document for new PhD students written by Dame Professor Nancy Rothwell, who is the President of the University, “Doing a PhD: What you should expect and what is expected of you”

Working hours

These are not fixed — some people start early and leave early, some the other way round, some seem to work long hours but take many breaks. The important thing is that you get things done. A PhD is a very demanding workload and you will need to manage your own working hours. You will need to work flexibly around the demands of your experiments and this may involve work in evenings or weekends.

During the Foundation Period, students are expected to attend all scheduled lectures, classes, laboratory sessions, tutorials, and so on. Students will also be expected to submit coursework
assessments on time (where these occur), and to attend all the examinations, tests, presentations etc that form part of their overall assessment.

Please note that lecturers/tutors/organisers of laboratory sessions can refuse to admit students who arrive late, and that persistent lateness may be viewed as not fulfilling the attendance requirements.

The University Policy as regards students attendance can be found under ‘Work and Attendance’ in the documents listed at:

http://documents.manchester.ac.uk/display?DocID1895

The Student Support Office should be notified of any absences due to illness. Illnesses longer than 7 days will require you to submit a medical note signed by your general practitioner or by a hospital doctor. As noted in the Assessment section, it is in your interest to keep the School fully informed of medical or other problems, so that these can be fully taken into account when assessing your progress.

After the Foundation Period, your supervisor(s), should make clear what attendance is expected of you. For example, students should not assume that the only aim of undertaking research in a research group is completing the research, and that this can be done as well by working from home as by working in the School. In most cases, a research group will expect your attendance at research group meetings, seminars etc. Working within the School also allows you to interact with other members of your research group, and discussions with other students and researchers can often be very fruitful when it comes to problems you may have with your own work, as well as giving you the opportunity to assist others and gain a better picture of the research within your group as a whole. Most supervisors will also expect good attendance when it comes to any summer schools or conferences you may later attend, and it is usually not judged as sufficient if you are there for the presentation (poster or oral) on your own work, but you don't attend any presentations by other attendees at the conference.

Your attendance will be monitored in different ways during the Foundation period and the Supervised Research period. During the Supervised Research period, when you have a supervisor, it will work as follows. Once a month, your main supervisor will be sent a form on your eProg account. This asks two questions: have you been present during the last month, and have you been engaged during the last month. The supervisor can provide free text to support his answers; usually filled in only if the answers to the preceding questions are “No”. If your supervisors know you are away, working in another lab as part of your research for example, this is not a problem. It is indicated in the free text box. However, we expect you and your main supervisor to be seeing each other on a regular basis and certainly more than once per month.

During the Foundation period when you are taking courses, your attendance or absence is noted for each session of each course. The monthly attendance monitoring will be based on your attendance in the technical modules. If you miss two or more more consecutive events without excuse, your funding or Visa (if an international student) may be in jeopardy.

6.3 Tier 4 Visa Attendance Monitoring Census

The University operates attendance monitoring Census Points within the academic year in order to confirm the attendance of students holding a Tier 4 Student Visa. This is to ensure the University meets the UKVI statutory requirements as a sponsor of Tier 4 students and its responsibilities in accordance with its Highly Trusted Sponsor status.

If you are a Tier 4 visa holder, you must attend these attendance monitoring census points, in addition to complying with the School’s own programme attendance requirements.

The attendance monitoring census points and further information are accessible at:

http://www.studentsupport.manchester.ac.uk/immigration-and-visas/during-your-studies/
6.3.1 The census dates for 2016 – 2017

<table>
<thead>
<tr>
<th>Census Point</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 2017</td>
<td>25 September – 6 October 2017</td>
</tr>
<tr>
<td>January 2018</td>
<td>15 January – 26 January 2018</td>
</tr>
<tr>
<td>May 2018</td>
<td>16 May – 6 June 2018</td>
</tr>
<tr>
<td>July 2018</td>
<td>16 July – 27 July 2018</td>
</tr>
</tbody>
</table>

Please note: registration is your first point to confirm your attendance at the University and you will not be required to attend a further census point in October, if you registered in September.

You will receive an e-mail from the School to confirm when and where you should attend to have your attendance confirmed. You must check your University e-mail account regularly. Failure to check your e-mail account is not a valid reason to be absent from a census point.

What if a Tier 4 student cannot attend a census point? If you cannot attend in person due to a valid reason which includes: illness; placement; field studies; research work; or any other reason connected to your course of study; you must email the Student Support Office ssso@cs.man.ac.uk to inform us of your absence and your inability to attend in person. In the case of illness, you must provide a copy of a medical certificate. If you are in this position you should report in person to the Student Support Office as soon as possible after you return to campus.

Students who are recorded as interrupting their studies are not expected to attend during their period of interruption.

What happens if a student does not attend a census point? The School must be able to confirm your presence to the UKVI by the end of each census point in the academic year. If you do not attend a census point when required by your School and you do not provide a valid explanation for your absence you will be deemed to be not in attendance.

Those students identified as not in attendance will be reported to the UKVI and the University will cease to sponsor the student’s Tier 4 visa. The Tier 4 visa will then be curtailed and the student must leave the UK within 60 days.

6.3.2 Keeping your ATAS clearance up to date

As a Computer Science PhD student, you must make sure that your ATAS clearance is up to date by applying for new clearance if your area of research changes at any point after you obtained your ATAS clearance. Apply for your new clearance as soon as you know that your course details have changed. ATAS applications take approximately 20 working days to be processed, but may take longer at peak times including July-September. You do not need to obtain new ATAS clearance if you obtain a new passport, get a part-time job, or if your contact details change. You can check if you need a new ATAS Certificate at the webpage:

https://www.academic-technology-approval.service.gov.uk/

Further information is at:

https://www.gov.uk/guidance/academic-technology-approval-scheme For further information, please see
If you are a CDT student on a Tier 4 student visa, this will certainly apply to you. When you were accepted, your research topic was something generic, like “Computer Science”. On completion of the taught foundation period and when you have a supervisor and research topic, please remember that you must make a new request for ATAS clearance of your project. During the course of your PhD if there are any substantive changes to your research topic or title, you must also obtain ATAS approval.

Further information For more information on Tier 4 visas:
https://www.gov.uk/tier-4-general-visa

If you have any concerns about the attendance monitoring census points, or your Tier 4 visa status, please contact sso@cs.man.ac.uk.

The University has a very comprehensive website which will answer many of your visa queries at:
http://www.studentnet.manchester.ac.uk/crucial-guide/academic-life/immigration/
The contact details for the University’s International Advice Team are:
email iat@manchester.ac.uk
telephone +44 (0)161 275 5000 (option 1)

6.4 Extensions and Interruptions

If you become unable to function as a research student for any reason, the first thing you should do is to make sure your main supervisor knows. Alternatively, you may choose to talk with your advisor, your cohort advisor, the PGR tutor, or the PGR director, someone from the counselling service, or your GP, as appropriate. If you need to interrupt your studies for a period of time, you can request an interruption. The relevant policy is also in the University Circumstances Leading to Changes to Postgraduate Research Study Policy at http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=8162

You need to apply to ES Faculty Graduate Panel and provide documentary evidence if possible. This may be due to your own ill health, illness or death of someone close to you, or similar types of issues which prevent you from carrying on with your research for a time. It cannot be for reasons associated with your research not going well and cannot be used just to extend the time to get the degree.

It is best to apply for an interruption as soon as you recognise the problem and are able. Retrospective applications are less likely to succeed, unless the nature of the mitigating circumstance made it very difficult for you to apply at the time. Once you pass through an End of Year progress point, you cannot apply for a mitigating circumstance which took place before the progression.

The forms for interruption and extensions can be found at http://studentnet.cs.manchester.ac.uk/pgr/submissionandinterrupt.php

There are also circumstance where is may be appropriate to extend the 4 years. This could happen, for example, if you have a breakdown of equipment or are unexpectedly awaiting for delayed equipment which is essential to your research. In these circumstances, an extension can be requested to ES Faculty Graduate Panel. Again, look at the policy document for more details.
6.5 Plagiarism and Academic Malpractice

Reputation is the most valuable commodity a researcher has. By extension, it is most valuable to a research-led University. Therefore, the University of Manchester takes academic malpractice including plagiarism extremely seriously. So, don’t do either of the things mentioned in the title of this section.

Examples of academic malpractice are: presenting work of others as your own, and presenting work which has not really been done as having been done (e.g. falsifying data). Remember, plagiarism can mean copying words, but also copying ideas. Also, you will need to discuss with your supervisors how to deal with their ideas in your thesis, since only your name is on the title page.


Apparently, some students want to run their theses through TurnItIn to see if there is too much overlap with their publish work or other works they have cited. The University will not allow students to use its license for this, but you can do it from the TurnItIn student site https://www.writecheck.com/static/home.html.

You have to pay for this. You should do this in such a way that your thesis does not get stored in the TurnItIn database, otherwise if you (or anyone) every runs it through again, it will return a 100% match. This information is not a recommendation for you to do this; it is simply here in case you want it.

6.6 Finding a policy document

Unfortunately, the University has a host of policy documents pertaining to Postgraduate Research Students, and it can be daunting to go through them to find what you are looking for. Here are some useful places to look.

University PGR Code of Practice The University has a code of practice which is sort of a road map of the relevant policy documents which describe what you can expect from the School and your supervisors, and what is expected of you. This is very worth reading and is located at http://www.staffnet.manchester.ac.uk/services/rbess/graduate/code/.

School Charter: The School has produced a PGR student charter, which gives the School’s view on what can be expected from us and from you. It is located at http://studentnet.cs.manchester.ac.uk/pgr/charter.php. It is short and worth reading.

eProg expectations form: During your first few weeks here, a form will appear on eProg (see Chapter 8) called the expectations form. The first part of this contains links to 9 relevant policies, which you are asked to read and discuss with your supervisor. This will help ensure you know what the policies are.

Other places to look for policies: If you need to search for a specific policy and the above places are of no help, you can try,

- Faculty Graduate Education Pages http://www.staffnet.eps.manchester.ac.uk/academicservices/graduateeducation/policies/index.html
6.7 Student Representation

There are several ways in which students can give feedback to the School and University. First, there are the mentors; and mentors act as student representatives. So, if you have an issue about how the school is run, you can bring it up to one of the mentors. Or become a mentor. You can also discuss it with the PGR tutor or PGR director. There are quarterly PGR Staff-Student Consultative Committee (PGRSSCC) meetings, at which mentors raise issues of concern to the PGR Director, PGR Tutor, IT Manager, and the Environment Manager. Minutes of previous meetings are found at [http://intranet.cs.man.ac.uk/csonly/committees/C_PGRSSCC.php](http://intranet.cs.man.ac.uk/csonly/committees/C_PGRSSCC.php).

There is a Postgraduate Research Experience Survey (PRES) conducted yearly across all Universities. We get the results broken down by school. In the past the University has changed its procedures (notably its orientation procedures) based on the outcome of this, so do fill it in when you hear about it. It usually takes place in the late spring.

6.8 Ethical Approval

All research involving human or animal subjects has to be approved by the University Ethical Approval mechanism. This includes usability studies for software and hardware systems and HCI evaluation of systems. To get approval, contact the Ethical Approval Officer in the School, [http://ethics.cs.manchester.ac.uk/](http://ethics.cs.manchester.ac.uk/).

6.9 Complaints Procedure


Most complaints are most quickly and effectively dealt with locally. Contact your supervisor, advisor, PGR tutor, or PGR Director. If it is of a general nature (e.g. resource allocation), mention it to one of the mentors, so it can be raised at a PGRSSCC meeting. If it involves the environment (e.g. heating), send an email to [environ@cs.man.ac.uk](mailto:environ@cs.man.ac.uk). If it involves an IT problem, raise a ticket on the CSIS system (see section 2). If you are dissatisfied with the response, put the complaint in writing to the Head of School, unless it involves actions taken by the Head of School, in which case put it in writing to the Dean of the Faculty of EPS. If you still dissatisfied, you should refer the matter formally and in writing to the University Registrar and Secretary. See the complaints procedure document for instructions how to do this.

If you need help using the procedure or guidance on where to refer your complaint, you can seek advice from any of the following: The Academic Advisory Service, the appropriate Faculty or School Secretary, the office of Student Support and Services, or the Students’ Union Advice Centre (Students’ Union, tel. 275 2930).

Information on these separate procedures can be obtained from the University’s policies webpage.
Chapter 7

Student Support and Guidance

School & Postgraduate Student Support Staff:

**Head of School:** Prof Robert Stevens,
Room: IT Building 114, Phone: 0161-275 6251,
Email: robert.stevens@manchester.ac.uk

**PGR Director:** Dr Simon Harper,
Room: Kilburn Building 2.60, Phone: 0161-275 0599,
Email: simon.harper@manchester.ac.uk

**PGR Tutor:** Dr Alvaro Fernandes,
Room: Kilburn Building 2.36, Phone: 0161-275 6199,
Email: alvaro@cs.man.ac.uk

**PGR Admissions Officer** Michelle Ringwood,
Room: Kilburn Building 2.10, Phone: 0161-275 0699,
Email: pgradmissions@manchester.ac.uk

**Student Support Office:** Kilburn LF21,
General email address: sso@cs.manchester.ac.uk

**SSO Manager:** Gill Lester, Phone: 0161-275 6210,
Email: Gillian.S.Lester@manchester.ac.uk

**Postgraduate Administrator:** Emma Bentley, Phone: 0161-275 7520,
Email: emma.bentley@manchester.ac.uk

**Postgraduate Administrator:** Chris Calland, Phone: 0161-275 6283,
Email: christopher.calland@manchester.ac.uk

**University Student Disability Support Office:**
Website: [www.dso.manchester.ac.uk](http://www.dso.manchester.ac.uk) Email: dso@manchester.ac.uk Phone: 0161 275 7512 Location: 2nd floor, University Place

**Disability Support Office:** The DSO provides support for disabled staff and students in the University and also offers support and advice to prospective students and employees. They provide a confidential service and enable management of the level of disclosure within the University in order to provide agreed support. They work with a wide range of students, including students with specific learning difficulties (such as dyslexia), mental health difficulties (such as anxiety), medical conditions (such as epilepsy and arthritis), deaf and hard of hearing students, blind and partially sighted students, and students with autism/Asperger syndrome.

Website: [www.dso.manchester.ac.uk](http://www.dso.manchester.ac.uk) Email: dso@manchester.ac.uk Phone: 0161 275 7512 Location: 2nd floor, University Place.
Student Guidance Service (formerly known as the Academic Advisory Service): This offers confidential advice on any matter relating to your studies or any issue affecting you and your academic progress. It is independent from Faculties and Schools, completely confidential, and is run by a small team of part-time advisors, some of whom are members of academic staff.

http://www.studentnet.manchester.ac.uk/crucial-guide/

Housing & Accommodation Issues: The Accommodation Office deals with student accommodation in the University Halls of Residence. Separate halls are available for undergraduates and postgraduates, but the University also has halls comprising a mix of both.: 

http://www.accommodation.manchester.ac.uk/

Manchester Student Homes is a service for students, owned and run by the University, along with Manchester Metropolitan University (MMU). The services are free to students. They list a large number of privately-rented accredited houses, flats and rooms and are also there to give you housing advice if you need it:

www.manchesterstudenthomes.com

Students Union: The University of Manchester Students’ Union (UMSU) is an organisation, independent of the University, to which all students automatically belong. The Student Union building houses a wide range of services for students, including welfare and legal advice:

http://manchesterstudentunion.com/adviseservice

Health & Health Care: Upon arrival in Manchester, all students should register with a local General Practitioner (GP). In order to receive National Health Service (NHS) treatment whilst you are in Manchester, you must be registered with a local doctor.

Registering with the doctor will enable international students, their spouse and children (but not visiting relatives) to receive free medical care, provided that they are in the UK for six months or longer.

A list of GPs can be obtained from the staff in University Accommodation. Alternatively, a complete list of GPs, dentists, and pharmacies in Manchester can be obtained online from the NHS Services Directory:

http://www.nhs.uk/servicedirectories/Pages/ServiceSearch.aspx

Further advice on health issues and health services for students can be found on the StudentNet website:

http://www.studentnet.manchester.ac.uk/crucial-guide/personal-life/health/ and on the University pages for international students: 

www.manchester.ac.uk/study/international/arrival/health/

Student Counselling Service: This is a team of professional counsellors and psychotherapists offering confidential help with any personal issues affecting work, self-esteem, relationships, mental health or general well-being. They are available to all University of Manchester students.

http://www.studentnet.manchester.ac.uk/counselling/

Careers Advice: The University Careers Service provides careers information, advice, and guidance to all Manchester students:

http://www.careers.manchester.ac.uk/

Immigration Advice: Advice on UK immigration legislation is offered by the International Advice Team based at the Student Services Centre:

http://www.studentnet.manchester.ac.uk/crucial-guide/academic-life/immigration/
International Students: International students at the University are especially fortunate to have the support of a dedicated International Advice Team based in the Student Services Centre:

http://www.manchester.ac.uk/ssc/internationalteam

and the International Society based on the Oxford Road:

http://www.internationalsociety.org.uk/

The Students Union provides the services of an International Students Officer:

http://manchesterstudentunion.com/adviseservice

as well as a large number of international societies:

http://manchesterstudentunion/studentactivities/

University Language Centre: The Manchester University Language Centre offers courses in some 18 languages for personal, professional and academic purposes at various levels to prospective and current students. In particular, it provides programmes for students wishing to improve their English language skills for academic or professional reasons.

http://www.langcent.manchester.ac.uk/
Chapter 8

eProg and other Learning Resources

There are 3 main eLearning resources that you will need to use during your course:

eProg: is the University-wide progression system and skills training catalogue for postgraduate research students. eProg is used to document your interactions with your supervisors and other members of your support and assessment teams, so its use will become central once you get past the Foundation period. It is located at: http://www.eprog.manchester.ac.uk

You are required to use eProg. At various points in your programme, you will record your objectives and progress in eProg. For example, quarterly reports on progress are recorded here. When you have successes, such as publishing a paper, attending a conference, participating in a training programme, etc. you can also record this on eProg. It is also used by your supervisors to record any issues which they might have, and to record the attendance. Yearly review process also takes place through eProg.

Every student on eProg is on a pathway. Your pathway will be something like

PhD Comp CDT FT Sept17

which means you are on a CDT PhD programme in computer science, studying full time, starting in September 2017. If you click on the Pathway menu item, it will show you the milestones for your pathway. If you click on the Progression menu item, it will show a table of links to the forms you need to fill out, as eProg tracks you as you progress. Most forms are filled out by you, following or leading on to discussions with your supervisor(s). However, there are also forms filled out by your assessors, and the attendance monitoring forms are filled out by your supervisor.

There is a facility to add documents and add meetings, and many supervisors will record every meeting in eProg.

As mentioned in Section 3.5.8 you can also access the training catalogue from eProg.

eProg was originally designed as a tool for self-monitoring and self-assessment and it should be used that way. It is also now used as a means of attendance monitoring, as described in Section 6.2. It also contains an expectation form, which you need to go through with your supervisor to ensure that you know the University policies and have discussed important issues with your supervisor such as IP and authorship.

Blackboard: is a university-wide eLearning environment. You may need to use it for some of your taught modules. It is used by (some) CS lecturers to make course material (e.g. lecture notes, handouts) available to students registered for a particular module, as well as allowing online assessment (e.g., multiple-choice questionnaires (MCQs)) and document submission, class-wide emailing and chat-services etc.
Blackboard can be accessed via the University Portal:
https://www.portal.manchester.ac.uk/
This enables you to login via the Central Authentication Service (CAS), for which you will need your central (university) username and password. If you have not yet activated your central account, the instructions for how to do this are on the University Portal page as well.

Instructions on using Blackboard can be found on the StudentNet page:
http://www.studentnet.manchester.ac.uk/blackboard/

Moodle: is the other virtual learning environment (VLE) used by Computer Science. You enter Moodle via:
http://moodle.cs.man.ac.uk/
A student guide is available within Moodle, and a useful introduction is also available outside Moodle at:
http://octette.cs.man.ac.uk/moodleintro/index.htm

/Dropbox/MSCHB/2015-16/newHealthAndSafety  /Dropbox/MSCHB/2015-16/newHealthAndSafety
Chapter 9

University Learning Resources

9.0.1 The University Library

The University of Manchester Library is both the University’s library and information service and supports all subject areas taught by the University. It provides its members with a large number of services and resources, including the most extensive range of electronic resources of any UK Higher Education library, including on-line subscriptions to journals and data sources. Many of these resources are only available to computers on the University network, so you should use them from on campus, or using the campus VPN.

The University Library consists of the Main Library and several site libraries. Locations, and full details of the services provided and how to access them can be found on their website: http://www.library.manchester.ac.uk/.

9.0.2 Central Authentication Service

One advantage of this central system is that when accessing online journals, rather than having to remember a whole list of different passwords and usernames, you instead just use the CAS. The journal website typically directs you to the Manchester CAS page, where you login, and are then returned to the journal, where you can then access the journal content to which we have a subscription.

The login can also be accessed directly by going to the University Portal: https://www.portal.manchester.ac.uk/uPortal/Login and then pressing the login button.
Chapter 10

Building Plans

These are not necessarily totally up to date, but they do provide somewhere to start from when faced by the maze of magnolia corridors! The location of the CDT lab has been changed recently and is not correctly identified on the plan.
Kilburn Building: Ground Floor
CDT laboratory shown in grey, rooms LF7 & LF8

Kilburn Building: Lower First Floor
Main Entrance (swipecard access)

IT Building: Level 1
IT Building: Level 2