

# The Lancaster Mathematics and Statistics PhD Programmes

## Academic year 2020/21

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## DEPARTMENT OF MATHEMATICS AND STATISTICS

### **Director of Postgraduate Studies:**

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### **Director of Postgraduate Research:**

Prof. Dmitry Korshunov (email address:  
[d.korshunov@lancaster.ac.uk](mailto:d.korshunov@lancaster.ac.uk))

### **Postgraduate Coordinator:**

Ms. Sharon Bryan (email address:  
[mathspgr@lancaster.ac.uk](mailto:mathspgr@lancaster.ac.uk)) Introduction to the PhD  
Programme

There are currently three types of PhD within the Department:

- 1) The *traditional PhD* where formal assessment is wholly by submission and oral examination of a thesis.
- 2) The *integrated PhD*, where the first 12 months consists of formally assessed taught postgraduate level courses and projects, which if successfully completed will be followed by essentially a traditional PhD (see Appendix C for full details of the scheme).
- 3) [The STOR-i programme](#)

The following notes are particularly relevant for traditional PhD students and Integrated PhD students when they enter their second year. In their first year, Integrated PhD students will find the department's booklets for the MSc programmes invaluable.

There are a number of people who will be a source of information, advice and help during your PhD. These are:

Your Supervisor:

Your supervisor(s) will be your primary source of help and advice during your

PhD. We pride ourselves in delivering high-quality, *accessible* supervision. You should expect to have a regular, weekly meeting with your supervisor and feel able to approach them informally at other times and arrange additional meetings as necessary - subject, of course, to the fact that there are only so many hours in the week and your supervisor does have other responsibilities!

Some students will have a supervisor team (i.e. more than one supervisor), usually with different supervisors having different expertise and focusing on different parts of the research plan. A joint supervisor may be in another department.

Your Peer Mentor

Each new PhD student is assigned an individual peer mentor. Your mentor will be a current senior PhD student, who you can approach for guidance regarding university-related concerns that you may encounter during the first year.

Postgraduate Coordinator:

This is Sharon Bryan (email address: [mathspgr@lancaster.ac.uk](mailto:mathspgr@lancaster.ac.uk)) (B03). Sharon is responsible for the administration side of the PhD course within the department. She is also your first point of contact for any general enquires within the department.

Director of Postgraduate Research:

This is Prof Dmitry Korshunov

(email address: [d.korshunov@lancaster.ac.uk](mailto:d.korshunov@lancaster.ac.uk)) who takes responsibility for PhD students studying for the PhD degree schemes, both for Mathematics and Statistics. The Director of Postgraduate Research oversees the progress of all PhD students, and you should contact him if you are having problems

that you feel cannot be discussed with your supervisor.

Department Assistant:

Lydia Greenwood (B05) monitors and administers financial aspects relating to postgraduate studentships and use of travel funds. She is the first point of call for general enquiries related to studentship and travel.

Postgraduate Representative:

The postgraduate representatives attend various departmental and faculty committee meetings, such as the departmental meeting, and computing committee and the staff-student committees. They should be contacted if you have any general suggestions about the department's provision for PhD students.

You should feel able to speak freely with any of the above people about any relevant issues that concern you.

## 1. 2020/21 Change Information

Due to the UK government and University responses to the current COVID-19 pandemic some information in the handbook is not relevant for students at the current time (October 2020). Whilst we all hope to be back on campus as soon as possible, the current guidelines are that all staff and PD students should work remotely if this is at all possible. This unfortunately means that departmental services cannot be accessed physically, although you will still have access to online computing facilities, journals and ebooks.

The Doctoral Training Academy has published the following guiding principles:

- The safety of our students is paramount. Whilst we would ideally like to welcome all Lancaster-based PGR students on to campus, it is important that we outline some guiding principles to determine what makes sense for you
- On the basis that in-person contact should be limited as much as possible, if you are able to work on your research from home, please do so
- There is no “one size fits all” policy as to whether you should be studying on campus, and you should discuss with your supervisors or departmental PGR directors in the first instance
- Reasons for coming onto campus include needing access to research labs, taking part in teaching activities, your own personal wellbeing, and not having an appropriate working environment at home. There will of course be other reasons, and you are encouraged to use your own judgement in communicating whether you really do need to be on campus or not

- By default please meet your supervisor(s) online. Should both you and your supervisor(s) decide that an in-person meeting is required, please ensure that you are clear as to why it is necessary, pre-arrange the location, and when meeting always maintain social distancing
- When on campus, the expectation is that you will use your own desk space. If social distancing rules mean that this is not possible, departments may need to allocate a designated space to you, and / or introduce a rota system
- Be aware of the symptoms of Covid-19, and if you are feeling unwell, follow Government advice online
- If you have been in contact with a Covid-19 infected person, follow Government advice online
- When on campus, please maintain social distancing at all times

A [Q&A page](#) on the University's COVID-19 response has also been developed specifically for PhD students on the Doctoral Academy website, and a full set of [Q&A](#) on the University response is updated regularly.

As stated above, for the moment you will need to meet your supervisor(s) remotely, using video-conferencing equipment, e.g. Microsoft Teams, Zoom, Skype or Google Hangouts. Your supervisor may also suggest setting up a shared online file storage space, e.g. in Teams, to share information and keep records of actions from meetings etc. Alternatively, you can use the Moodle PGR records facility (see Section 3) for this purpose. Communication can be harder over a video-link, so don't be afraid to ask for clarification or for your supervisor to repeat things to ensure that you get the most out of your meetings.

In addition there is currently uncertainty on provision of internal training

course programmes although the Faculty of Science and Technology is hoping to confirm their programme as soon as possible. Both travel and funding for accessing external online training courses and conferences has also been severely limited.

All of the central support services, including the [Disabilities Service](#), [Wellbeing](#) and [Mental Health and Counselling](#) continue to operate under a remote model. You can also find support from [Graduate College](#), of which all PhD students are members, regardless of whether they live on or off campus.

## **2. PGR Records**

PGR Records is a Moodle based resource for keeping track of PhD supervision. PGR Records is designed as an easy-to-use system to ensure there is an accurate summary of PhD supervision. PGR Records is a mechanism for ensuring PhD students are receiving regular supervisory meetings (at least once a month) and are attending meetings to meet progress, and where necessary, UK visa requirements. PGR Records is accessed via the Moodle dashboard: <https://modules.lancaster.ac.uk/course/>

## **3. Appraisal procedures**

The following applies to traditional PhDs. The Integrated PhD can, roughly, be thought of as 1 year of training followed by a standard 3 year PhD; as such, this section applies to Integrated PhD students entering their second year, and 1 year should be added to all the timings given. Timings also assume full-time study for a PhD.

[The university regulations](#) state that within the first six months all research students must fulfil the following, or an equivalent, process:

- (a) attend an approved induction programme
- (b) carry out an approved development needs analysis (DNA) or equivalent in consultation with their supervisors, and keep a record of agreed follow-



up to the DNA

(c) take the appropriate research training activities, informed by the DNA as guided by their supervisors

(d) complete a research proposal or plan of work which the supervisors approve as appropriate and viable

(e) agree a projected completion timetable with their supervisors

(f) any additional requirements to meet the particular needs of the individual awards.

Any research student who does not demonstrate satisfactory progress during the first six months full-time should be: carefully monitored and supported, informed about any reasons for concern, set objectives, and their progress reviewed before the 12-month deadline.

The department's usual system for appraisals is via a Higher Degree Committee (HDC) for each student: see Appendix A for further details on the composition and purpose of this committee. The relevant forms for HDC meetings can be found on the [PGR Moodle space](#). The implementation for STOR-i students has slight differences, as indicated in Appendix A.

Shortly after registration (usually within 1 month) it is recommended that a formal meeting be held with your Higher Degree Committee. The first formal assessment of your progress will take place 4 months after your official entry into the PhD program. In addition, all PhD students will undertake the equivalent of 10 days training per year; see below.

You are initially registered as a Probationary PhD student, a status which is upgraded after 10 months of study by a procedure called *confirmation*.

Confirmation is based on evidence of progress, and evidence of being able to submit a PhD thesis within 4 years of initial registration. Thus confirmation is an important step, and requires substantial written evidence of progress and potential for completing a PhD within a reasonable time-

scale. (Details of the current procedures for confirmation are given in Appendix B).

In addition to the 10 month appraisal, your progress will also be appraised in your other years of study by the HDC. The aim of these appraisals is to allow you to take time with your supervisor to discuss progress and plan for your work for the coming years. The focus will be on planning your work to be able to finish and submit your PhD within a suitable timescale. Further details may be found in Appendix A.

While a traditional PhD is in theory a three year degree, it is usual for students to take anywhere between 3 and 4 years to complete a PhD. Furthermore 4 years should be viewed as a 'deadline' for your studies; so without any unforeseen problems all students should be able to submit a thesis within 4 years. If you find you need to take longer than 4 years to submit, you will need to apply for an extension (obtaining an extension should not be seen as a formality!) and this can be granted only in exceptional circumstances.

#### **4. Training Opportunities**

The Research Councils place an increasing emphasis on the training aspects of PhDs. There is now an *expectation* that all PhD students will undertake the equivalent of 10 days training (roughly 75 hours) per year. This training should be directed through discussions with your supervisor and should be recorded in your Initial HDC form.

There are numerous possibilities for training and learning beyond the specific remit of your PhD project:

Masters Courses

Even if you are not required to take courses as a formal part of your PhD training, you can undoubtedly benefit by attending selected courses offered in the masters programs, either to give you the background you need specifically for your research topic, to broaden your general statistical or mathematical knowledge, or to develop transferable skills.

## APTS and MAGIC

The department is a founder member of UK schemes for providing training in Statistics (APTS) and Mathematics (MAGIC). These will provide opportunities for subject-relevant training for your PhD.

[APTS](#) put on week-long residential training courses. All statistics PhD students are expected to attend the APTS courses during their first year; as a rule of thumb, you could attend at least one APTS week consisting of two courses. Your supervisor can offer you some suggestions on this. The research council or department will cover the cost of attending these courses.

[MAGIC](#), to which Lancaster is contributing courses, makes available a diverse range of postgraduate courses in mathematics from other UK universities through the interactive access grid node room in our PSC building. As a rule of thumb, mathematics students should attend at least two ten-week MAGIC courses. The Director of Postgraduate Research is also the MAGIC co-ordinator and can give you further information.

As well as being of direct use for your PhD, these courses will help give you a strong background and overview of the general subject area. Such background will be of particular importance if you are interested in an academic career.

## Department Courses

Possibilities within the Department are 4th year undergraduate level courses in Pure Mathematics and the MSc courses in Statistics and Data

Science.

### University and Faculty courses

There are also university-wide and faculty-wide courses, covering topics such as oral presentations, writing skills, and various aspects of studying for a PhD and thesis preparation, and also offering advice and resources to support student well-being. You can get details of these courses from the relevant websites and also from various notice boards as well as departmental emails and should discuss the possibilities with your supervisor. Existing PhD students will also be able to give you advice on what courses are particularly useful.

Further information can be found via the [FST Graduate School website](#).

### Seminars

Seminars, in contrast to courses, are one-off lectures - usually on the speaker's current research. In statistics we run a seminar series with external speakers. In pure mathematics there is a series of seminars run weekly on a Wednesday afternoon (in both algebra and analysis). These are a mix of internal and external speakers.

There are also specialist seminar series and reading groups - your supervisor will let you have details of these if they are appropriate for you.

At busy times, you may wonder whether attending all of these is really a good use of your time; particularly as when you start your PhD you may find it difficult to understand much of each seminar. Our expectation is that *you routinely attend seminars* as they are invaluable for developing a broad knowledge of either pure mathematics or statistics; and in particular for

learning about cutting-edge research both within and outside the Department.

We also expect PhD students to contribute to the seminar programme; on average students will give two talks during their PhD, normally one each before and after the 16 month appraisal. This is invaluable experience for presenting your work, and good practice for the possibility of giving talks at conferences. You should also feel free to contact the seminar organisers with suggestions for speakers or topics which you would like to see on the programme.

PhD students in mathematics are also encouraged to participate in the Postgraduate Forum: this is a seminar series run by the postgraduate students in mathematics for each other, and can be useful as a warm-up for a seminar in the main series, as well as a good way to get to know PhD students in other years.

## **5. Conferences, Workshops, and Travel Funds**

The Department encourages you to attend and speak at suitable conferences. If you are funded through a grant for a specific project, then that grant should have sufficient funds to cover appropriate travel, and your supervisor will have details about what funds are available. Students funded through research councils such as EPSRC, ESRC or MRC usually have travel funds. The information about such funds should be available in the offer letter and should be used for this purpose.

In addition, Faculty of Science and Technology offer partial [travel grants](#) to postgraduate students (depending on availability)

It is a good idea to apply early in the academic year. For some conferences, separate travel grants can be applied for and these possibilities should be explored from the particular conference websites.

For self-funded or Faculty-funded students, some limited departmental support is available, in the form of an allowance for the duration of their PhD. The amount available depends on the level of funding that the Department receives from the University, and this may fluctuate. As a rule of thumb: at current levels we expect that the allowance should permit funding for one international conference and one national conference during the lifetime of the studentship; obviously some common sense and consultation should be used.

**Before** booking travel or accommodation, all applications for funds should be made on the appropriate form including estimated costs, and should be discussed and agreed with the supervisor beforehand. **This applies to those students funded through research councils also.** Please note that requests for funding cannot be approved if the corresponding conference takes place during the writing-up stage.

For all students, travel arrangements (i.e. rail/air travel) **MUST** be made through the [Travel Office](#).

It is recommended that where possible you also book accommodation through the Travel Office, rather than paying yourself and then claiming back the expense.

All travel before being booked should have a risk assessment considered; this is usually considered unnecessary for UK travel, and for travel that takes place within the EU/EEA/Switzerland/Canada/USA/Australia and New Zealand.

Incidental expenses (such as taxis, bus fares) should be claimed back using the expenses portal located in the student portal on the University web pages. You should attach all valid receipts to this, the Department Assistant will only approve expenses in line with the application form.

## **6. Ethical Approval of Research Project**

All research projects that involve the primary collection of data on people or animals, or the secondary analysis of administrative, commercial or survey data collected by someone else will need to gain ethical approval for their research from the Faculty Ethics committee. This meets monthly. At the first meeting of your HDC committee, you will be asked about ethical approval of your project and whether you or your supervisor(s) have considered the issue.

[The ethics approval form](#) is available on the FST ethics web pages. If you are unsure whether to apply for ethical approval, or need help filling in the form, please contact the departmental ethics officer, Dr Fang Wan, Email address: [f.wan@lancaster.ac.uk](mailto:f.wan@lancaster.ac.uk)

## **7. Teaching and Teaching Assistance**

Postgraduate students are under no obligation to help with teaching in the Department - unless they are being funded by the Faculty studentship - but you almost always have the opportunity to undertake some teaching-related work if you wish, paid on an hourly basis. The person to consult if you would like to do some teaching in the Department is Sharon Bryan, who will be able to provide information on the current rates of pay offered for this work.

Most likely, your assigned teaching duties will consist of running tutorials or example classes for undergraduates, and marking the associated homework. The experience of doing work of this kind is of obvious value if you intend a career which will include teaching responsibilities. You may also find that it helps you to gain confidence in making presentations, which is an essential part of many career paths, and in working with small groups or individuals. Students who mark for us are required to attend an introductory calibration session: Sharon Bryan can supply further details.

In the event that you wish to teach a class, we will require you to attend a departmental briefing session on UG teaching practices. There are other appropriate training courses put on by the university which you may need to attend, unless you have a recognized equivalent qualification.

## **8. Department Facilities**

### Offices and working base

You have received a key to one of the student offices - sharing with a number of other PhD students. Please feel free to make it as homely as possible - posters, plants, whatever you can to make your office pleasant. Students will normally be guaranteed desk space up until submission, or the end of four years, whichever is sooner.

You may use the internal University mail, external mail and telephone facilities for official business. Incoming mail will be placed in a pigeon hole for you in B4a, where there are also trays for outgoing mail. This room has a security lock and you have been given the security code to access this room.

The Department will supply seminar or teaching materials (available in B4a) but otherwise we ask that you provide your own stationery.

We strongly advise that you make the Department your working base, since you are then more likely to develop good working and collegial relationships with your fellow students and with staff in the Department. This makes it easier to share ideas and to seek informal help when you need it; research is often a collaborative, rather than a solitary, activity.

Of course, there will be times when you do need to work alone, and when you honestly feel that you can work more effectively at home than in the



Department. Ultimately, it is for you to decide what works best for you - but give your departmental office a fair trial and if there is anything about the working environment in the Department which you find unhelpful, please do let Director of Postgraduate Research know. Within our resources, we will do whatever we can to deal with any problems.

## Working hours and holidays

As outlined in the University's PGR Code of Practice, you are expected to treat your PhD studies as a full time job; this equates to approximately 36.5 hours per week over 48 weeks with 4 weeks holiday which would include Christmas shut down and Easter shutdown. **Any holidays must be agreed with your supervisor.**

If you are absent due to illness for a short period (such as two weeks), as such the university does not need any medical certificate. However, you should keep your supervisors informed in case you miss any meeting or appointment etc. due to illness. If your illness persists for a longer period, you need to request for an intercalation.

## Postgraduate Statistics Centre (PSC)

Apart from being the place where we hold many of our seminars, the PSC social area provides an invaluable opportunity to chat with colleagues about anything at all - including but absolutely not restricted to statistics or mathematics! It's a great way to get to know people better, unwind for a few minutes, and to be aware of the unofficial departmental gossip.

## 9. Computing

All traditional route PhD students will be given a departmental laptop to use during their study (either with Linux or Windows). This will be arranged during the first weeks of your course. Integrated PhD students will be given

a departmental laptop at the start of their second year.

Computing support is offered by Cyrus Gaviri and David Sole. Please contact them with any computer issues on the following email address: [support@helpdesk.maths.lancs.ac.uk](mailto:support@helpdesk.maths.lancs.ac.uk)

From your laptop you will be able to send things to print to the staff-mono or staff-colour. Please use the monochrome printing for all print jobs that do not need colour. You will need to use your student card to collect this from any ISS push/pull printer, they only print when you select to do so. For our department they are conveniently located on the walkway to the PSC, two near B35, and one on each floor of the PSC. Please note requests time out after 24 hours if you haven't collected your printing. Printing is not restricted, but usage is monitored.

You may also ask around if you encounter any problem on computing. Usually other graduate students or staff will be pleased to help.

We welcome your views on how computing is resourced and organised within the Department. Please feedback to the chair of the Computing Committee or to the postgraduate representative.

#### Web Pages

Your web profile on the departmental web pages is linked to the PURE system. To obtain a listing on the [departmental research students page](#) you will need to login to [PURE](#) and make your profile visible. In the PURE system you can also add a photo, add your publications, make your achievements public and add a research profile. We recommend you do all of these things, as part of starting to build your own public research profile, but we also emphasise that it is your choice as to whether you have a public profile or not.

[A guide to using PURE for research students](#)

Students may also have their own personal web space, which is stored locally on the departmental server. URLs on this server will look like [this](#).

Ask Cyrus Gaviri or David Sole to set this up for you if you want this facility through departmental computing support.

### Computing within the Department

In the department there are a number of PC labs which can be used by staff, students and registered visitors to the department. These are:

- Lab 1 and Lab 2, Postgraduate Statistics Centre
- Lab A1, Engineering

Information on other computer labs that can be used all over campus, please see [this website](#)

### Connecting Laptops to the network

There are a number of network terminals available within the social areas in the Postgraduate Statics Centre building.

If you have a personal laptop that you wish to connect to the Lancaster University network, please contact the computer support staff.

### Journals on the Web

You will undoubtedly need to search for and read relevant journal articles during your PhD. You can have online access for many journals; of what is available is on the website. If a particular journal is unavailable at the university library, papers can be obtained through the inter-library loan system.

Other useful sites for searching for relevant papers are MathSciNet and Web

of Science. If you are on campus you have free access to them through the library's database list

If you are working off campus, you will need to log in or use the VPN.

[Information about the support for FST Library.](#)

## **Appendix A: Monitoring of PhD students**

### Higher Degree Committees

In order to monitor the progress of PhD students in the Department of Mathematics and Statistics, each new student will have a Higher Degree Committee (HDC). The committee will comprise

- the supervisor(s);
- another member of the Department who knows something of the topic, who will act as the Chair and a representative of the Postgraduate Research Committee;
- sometimes, a representative of a company or institute that is associated with the project, who will be invited to join.

The system will apply to all students who are solely registered in this Department. It should be considered for students who are jointly registered in more than one Department, but should not be used if the other Department has conflicting monitoring requirements of their own.

The composition of each HDC is determined upon the arrival of the student by the Director of Postgraduate Research, in consultation with the supervisor(s). Students on 1+3 Integrated PhD schemes will have an HDC formed at the time when they begin the research component of their degree.

The Director of Postgraduate Research and the Postgraduate Coordinator will remind the student and supervisor to schedule these meetings

at appropriate time points. The HDC should meet

- soon after the student starts, to discuss the initial programme and project plans;
- at 4 months (first official appraisal);
- at 10 months (**official upgrade point**);
- at 6 month intervals thereafter (further official appraisal).

This schedule is aligned with the University's code of PGR practice. It will be extended appropriately in the case of part-time students.

### Procedures (non-STOR-I)

Before each meeting, the student will complete a short form which is intended to summarize progress made, training gained, future plans and issues that have arisen. For the 4 month meeting, the student's document needs to demonstrate that work has begun; subsequently, students should in addition produce a longer account of research progress, such as a draft chapter or paper. These reports should be made available to the Chair in reasonable time prior to the meeting. See also the section "Online Appraisal System" below.

During the HDC meetings, the student will be questioned about the report by the Chair. In case there is any concern about the student's progress, the Chair in consultation with the supervisor may set targets for the student to achieve before the next meeting.

At the end of each meeting, the student should communicate to the Chair **in confidence** if he or she has not received satisfactory supervision during the period prior to the meeting, or if there is any issue. Those comments should be made available to the Director of Postgraduate Research.

After the HDC meeting, the supervisor and Chair should sign off on the student's form, and then complete their own form which summarizes the

results of the meeting and any points for further action; this must be signed off by the student. Again, see also the section "Online Appraisal System" below.

## STOR-I implementation

This is a QA scheme based on meetings of the students with the STOR-I Director. Evidence used to inform these meetings is provided through information from students on their progress at 4, 10, 22, 30, 36 months into a continually evolving document termed the STOR-i Student's Review Form.

Additionally, at 10 months as part of the process of confirmation of PhD status, students are required to provide evidence in the form of a draft chapter and a talk to the confirmation panel. Supervisors also provide evidence to these review meetings by completing the STOR-i Supervisor's Review Form for the 10, 22 and 36 month reviews.

The processes described below the section "Online Appraisal System" should also be followed for STOR-I students.

## Timeline (overview)

The time points for monitoring and appraisal procedures are summarised below, assuming that the starting date is 1<sup>st</sup> October; for other starting dates, the time points are shifted by an appropriate constant. If progress is not adequate, the Department may initiate more frequent reviews.

### 4 months (January/February)

- Supervisor and student to complete progress sections of the appraisal

form, taking note of the ethics checklist (where applicable).

- The HDC meets and considers reports, with possible discussion with students and supervisors.

## 10 months (July/August) Confirmation to PhD program

All students are initially registered as probationary PhDs; the decision to confirm the PhD will be made at this time.

- On the short summary “student” HDC form, the student should summarize the progress made, training gained, future plans and issues, as well as a brief PhD proposal. The student should also produce a longer document that demonstrates written evidence of progress and plans for future research, which must be provided to the HDC prior to this meeting. Students and supervisors should check with the Director of Postgraduate Research for more specific guidance.
- The HDC meets to discuss progress. The student and the HDC complete the main appraisal form. During this, the Chair of the HDC acts as an independent referee, to review the progress made. His or her recommendation on upgrade (along with a short report) should be communicated to the Director of Postgraduate Research within four weeks of the deadline for submitting this HDC report.
- The supervisor, HDC chair and Director of Postgraduate Research will recommend confirmation or otherwise. The decision is communicated to the student.

Students who fail to be confirmed will have one further opportunity to submit written evidence of progress and plans for future research in order to be reconsidered for confirmation. Details of the requirements of this will be given to the student by the HDC and Postgraduate Research Committee, though the resubmission will normally be expected prior to 16 months. If this second attempt is unsuccessful, then the student will be transferred to MPhil status.

## 16 months and every 6 months thereafter

- Students are normally required to give a talk on their work, usually during the term prior to their 16 month appraisal. This will either be in the Statistics Forum series or in the Pure Maths Seminar Series, or the



Postgraduate Pure Maths Forum in the presence of some academic staff of the department.

- Supervisor and student to complete progress sections of the appraisal forms. Student to include a provisional date for the submission of the thesis.
- The HDC will review progress against the expected submission date, and agree remedial action if appropriate.
- Feedback given to students.

### Online appraisal system

At the appropriate points in the timeline (4, 10, 16, 22 months and so on), students should receive a notification from the University reminding them that an appraisal is due. Through Moodle, students are able to upload any relevant notes or documents, including the completed "student" HDC forms, which they should then submit as part of the appraisal (you need to explicitly select the option "submit" rather than merely "save". This should be done before the HDC meeting itself, to give the committee time to review the documents.

Once this is done, the supervisor will then receive an electronic notification. After the appraisal has taken place, the supervisor should record the result on Moodle, by uploading the "supervisor" HDC forms and selecting the appropriate option, usually "satisfactory" or "needs attention". **It is important to note** that if students do not upload material before the appraisal, the system will not allow supervisors to approve the result of the appraisal online.

Further details are available from the Director of Postgraduate Research, in separate briefing notes.

## Part-Time Students

Part-time students will be appraised at 4, 10, 16, 22 months and so on. The PhD confirmation takes place at 22 months. Written feedback will be given by the HDC and Director of Postgraduate Research in all cases. Students will have the opportunity to meet with the Director of Postgraduate Research in person to discuss progress. The Director of Postgraduate Research will make informal checks of PhD students' progress throughout the year and be available to discuss any problems with students as they arise. Students who are supervised by the Director of Postgraduate Research will have the opportunity to discuss progress with the relevant Head of Section.

## **Appendix B: 10 month confirmation of PhD status**

After 10 months of study a decision will be made whether to confirm your registration of PhD. Before the review you need to prepare two documents:

A: Evidence of progress to date

B: An outline for future research

Document A can be one of several formats and need not be written solely for the confirmation review. For instance: a literature review, good summary and drafts of thesis chapters, a draft paper etc would all be acceptable.

For Statistics students, Document B should describe in some detail your plans for the remainder of the thesis: the questions to be considered, why they are important and how you intend to approach the solutions. A proposed list of contents without discussion is not adequate for review. It is accepted that plans may change as the work progresses.

For Mathematics students, Document B can be somewhat looser and less detailed, but evidence should be given of concrete future plans. Please consult your supervisor or the Director of Postgraduate Research if you are unsure what is required here.

After the review, you will be informed of the decision, including comments on progress where appropriate. If you are unhappy with the decision you may request a meeting with the Review Panel, and of course there are formal University appeal procedures available to you.

Students who fail to be confirmed will have one further opportunity to submit written evidence of progress and plans for future research in order to be reconsidered for upgrade. Details of the requirements of this will be given to the student by the Review Panel and the resubmission will normally be expected prior to 16 months. If this second attempt is unsuccessful, then the student will be transferred to MPhil status.

## **Appendix C: Integrated PhD details**

The Integrated PhD is a 4 year PhD programme which involves students taking postgraduate level courses and a dissertation during their first year before progressing onto standard PhD research and all students get an MRes if they progress to the second year of PhD. It is similar to spending one year studying for a Statistics Masters followed by three years on a PhD.

Progression to year 2 of the programme is dependent on students performing well during their first year (based on the minimum level of achievement we would expect from someone capable of obtaining a PhD). Students who fail to progress are nevertheless eligible for an MRes (subject to satisfactory performance).

Years 2, 3 and 4 of the Integrated PhD is similar to the normal PhD program and the Departmental research committee oversees the progress of the students from year 2 onwards. The PhD should be examined in the usual way and satisfy the normal criteria for the award.

## **Appendix D: Writing up fees, PhD thesis and viva Rule for writing up fees**

All full-time PhD students will automatically move onto writing up fees after completing the minimum registration period (3 years), subject to them having completed 12 months of active study from the date their PhD status was confirmed. However, those students who are funded by a 3.5 year Research Council award (such as EPSRC) will remain on full fees for a further 6 months before being transferred to writing-up. Students funded on such schemes should note that the funding will cease upon submission of the thesis, rather than on the date of the defence.

The earliest that a part-time student can transfer to writing up is after 4 years of active study, subject to submission of a full first draft to the supervisor and at least a year having elapsed from the date of confirmation of PhD status.

Subject to these conditions being met part-time students start paying writing up fees after completing 4 years of study.

Also if a student submits their thesis within 3 months of incurring the writing-up fee, it will automatically be cancelled and any payment will be refunded.

### **Thesis format**

For those students studying for a PhD or Integrated PhD, your PhD thesis needs to be submitted and this will be examined during a PhD viva.

The thesis will be written in English.

A thesis shall not exceed 250 pages or 80,000 words (for some theses, particularly in mathematics, this word count may vary slightly depending on how formula-heavy the theses are). Note that these limits includes footnotes and appendices but exclude the bibliography. Exceeding these

limits should only be done in **exceptional circumstances with clear justification**; approval must be sought from the supervisor and from Registry.

The text of the thesis shall be word processed in double spacing on one side only of good quality A4 paper (210 mm. x 297 mm.), leaving a left hand margin of 38 mm., and a margin of 25 mm. on the other three sides. Diagrams and illustrations shall be reproduced or mounted on similar paper.

You will need to submit copies of the thesis (one per examiner) to The Base (A Floor, University House) in a secure adhesive binding, usually done through Brady Bookbinders on campus. The thesis can be printed double-sided provided that the paper is sufficiently thick that the text doesn't show through to the other side. For further information on the formatting, length, style and presentation, can be found on [the website](#).

During the PhD viva, there will be an internal and an external examiner, and the viva will either have a chairperson or will be recorded. For more details see the above document.

As well as the standard PhD format, it is possible to submit a thesis in what is called the "alternative thesis format" where the main part of the thesis consists of a number of completed papers. Details are available in the University's Manual of Academic Regulations.

A separate form needs to be filled in, which can be obtained from the Postgraduate Co-ordinator. The detailed rules are stated in appendix 2 (page 26-27) of MARP.

The process for submitting computer code along with a PhD thesis:

When a student submits the final version of the thesis via PURE (Research Outputs > Thesis), they add a copy of the PDF to the record. At the same time, they can add an additional file (or files) containing their code. When

adding a file, you can also select the appropriate license you want it to be flagged with. The thing to note here is that the code and the thesis are submitted as part of the same output, not separate ones.

- as usual, there are options to limit access (embargo, restrict, etc.) if necessary.
- [advice regarding licensing](#)

Other options are to use Github or other software repository systems, and include a link to these in the thesis. Depending on what type of code it is, this might be more appropriate, or worth doing as well as the more formal local archiving process above. For an example, see [here](#).

## **Appendix E: Intercalation and Extension**

An intercalation should be requested if the student is unable to undertake his/her studies during an extended period (greater than one month). This may be for personal reasons such as illness, finance, employment or family responsibilities. It may also be on account of external circumstances such as extended delays in obtaining access to study materials/resources, or changes in the environment in which the studies are to be undertaken.

During intercalation, students are not entitled to use the library, computer or other university facilities, or to receive supervision or tuition. No tuition fees are charged for this period and departments will not receive any funding for this student during the intercalation period. Periods of intercalation are subtracted from the student's period of registration. Intercalation is not normally approved for periods greater than one year at a time, and usually for no more than a total of two years. Please note that intercalation is granted to assist the student, and that across the University successful completion of studies is the usual outcome after the return to studies.

Retrospective intercalation requests are not normally approved and will NOT be approved for a period more than three months prior to the date that the request is received in the Registry. For research council funded students retrospective intercalation requests cannot be considered under any circumstances.

An extension should be requested if a student is in need of additional time in order to complete their PhD study. It is important that, where possible, extension requests are submitted to the Registry well in advance of a student reaching their maximum completion date as they will immediately lose their library access when they reach their max date.

Note that the approval of extension and intercalation by the Student Registry is not routine and one needs to put forward convincing reasons based on which these requests are approved.