

SEGS Handbook Part B

Session: 2008-9

School of Mathematical Sciences

Notes for the guidance of M.Phil. and
Ph.D. students (and their supervisors)

1. The Mathematics Research Centre and the Astronomy Unit

Welcome to the School of Mathematical Sciences at Queen Mary, University of London. This handbook provides useful information about the department and about doing research.

Researchers in the School, both staff and postgraduate students, are members of either the Mathematics Research Centre or the Astronomy Unit, depending on whether their primary research interests lie in mathematics and statistics or in astronomy and cosmology. Roughly speaking, this division corresponds to those research areas which are funded nationally by EPSRC (the Engineering and Physical Sciences Research Council) and those which are funded by STFC (the Science and Technology Facilities Council (formerly PPARC), but it is mainly for administrative purposes: there are a number of researchers in the School with interests in both areas.

Within each of these two clusters of activity, individual researchers generally belong to smaller specialist groups, and often to more than one. For details of current research groups and activities see the Mathematics Research Centre web pages at <http://www.maths.qmul.ac.uk/MRC> and the Astronomy Unit web pages at <http://www.maths.qmul.ac.uk/Astronomy>.

2. People

School

Head of School: Professor D.K.Arrowsmith

Deputy Head: Professor B.Khoruzhenko

Astronomy Unit

Director: Professor J.P.Emerson

Deputy Director: Dr D.H.Burgess

Mathematics Research Centre

Director of Research (Pure Mathematics): Professor R.A.Wilson (Prof P.J.Cameron from Jan. 2009)

Director of Research (Applied Mathematics): Professor C.Beck

Director of Research (Statistics): Professor S.G.Gilmour

Postgraduate Studies

Director of Postgraduate Studies: Professor M.Jerrum

Postgraduate Tutor for Astronomy: Professor B.J.Carr

Postgraduate Tutor for Mathematics: Professor O.M.Jenkinson

Postgraduate Tutor for Statistics: Dr H.Grossmann

Postgraduate Administrative Assistant: to be appointed

3. Useful Web Addresses

Queen Mary, University of London:

<http://www.qmul.ac.uk>

School of Mathematical Sciences:

<http://www.maths.qmul.ac.uk>

Astronomy Unit:

<http://www.maths.qmul.ac.uk/Astronomy>

Mathematics Research Centre:

<http://www.maths.qmul.ac.uk/MRC>

EPSRC

<http://www.epsrc.ac.uk>

STFC

<http://www.scitech.ac.uk>

London Mathematical Society:

<http://www.lms.ac.uk>

Royal Astronomical Society: <http://www.ras.org.uk>
Royal Statistical Society: <http://www.rss.org.uk>
Institute of Mathematics and its Applications: <http://www.ima.org.uk>

School of Mathematical Sciences
Postgraduate Web Pages: <http://www.maths.qmul.ac.uk/postgraduate>
Undergraduate Web Pages: <http://www.maths.qmul.ac.uk/undergraduate>

London Taught Course Centre: <http://www.ltcc.ac.uk>
“Grey Book” (London PG Maths courses): <http://www.ma.ic.ac.uk/greybook/gbcontents.php>
(Also see the websites of other London Colleges as the Grey Book has not been kept up to date recently.)

QMUL Library : <http://www.library.qmul.ac.uk>

The Astronomy Unit web site maintains a useful list of Internet Astronomy Resources. This is available at: <http://www.maths.qmul.ac.uk/Astronomy/links>

4. The Roles of the Director of Postgraduate Studies, the Postgraduate Tutors, and the Graduate Studies Committee

The Director of Postgraduate Studies is responsible to the Head of School for overseeing the School’s postgraduate teaching and research activities. The Postgraduate Tutors have direct responsibility for the research students, in particular for the arrangements for the appointment of supervisors and for the assessment of students’ progress. You will find details of the procedures involved later in this handbook.

The Postgraduate Research Committee meets formally twice a year. It is chaired by the Director of Postgraduate Studies. The other members are the Head of School, the School’s four Directors of Research, the three Postgraduate Tutors and an elected postgraduate research student representative from each of the Mathematics Research Centre and the Astronomy Unit. The remit of this Committee covers every aspect of the teaching and training of postgraduate research students, from office accommodation to annual assessment procedures. Decisions concerning the progression of individual students, for example on the transfer of registration from MPhil to PhD, are delegated to the Director of Postgraduate Studies, in consultation with the Postgraduate Tutors.

The MSc Staff-Student Liaison Committee (SSLC) acts as the main forum for discussion between staff and students on level 4 taught courses, and includes representatives of first year postgraduate research students and 4th year MSci students as well as MSc students. See Section 17.

5. Safety Issues

There are notices prominently displayed in the foyer of the Mathematics Building detailing procedures to be followed in the case of fire or other emergency. All postgraduate students should familiarize themselves with these instructions. They are reminded of the importance of evacuating the building quickly should the alarm sound; the lift must not be used in such a situation. A description of the QMUL Health and Safety Guidelines can be obtained from the School office. The extension number for Security is 5000; for emergencies ring 3333.

6. First Weeks as a Research Student

New research students will receive instructions from the College Student Administration on matters

of registration, obtaining a student card, etc. To be briefed on details of life in the School of Mathematical Sciences, we ask them to attend our **Research Student Induction Meeting**, on

Wednesday 17th September 2008 at 10.00 am in the Mathematics Seminar Room (103)

At this meeting, students will be given an information pack and told about how to obtain keys, computer accounts on the School of Mathematical Sciences network, etc. They will be briefed by the Postgraduate Tutors and introduced to their principal research supervisors, who after the meeting will to a large extent take over responsibility for introducing students to their working environment and to their research area. The allocation of office space for new postgraduate students is handled by the Departmental Administrator, Bill White. We allocate desks to new students as quickly as we can, but it is sometimes a few days into term before final decisions can be made.

New research students who are unable to attend the induction meeting should see the Postgraduate Secretary (Mathematics Enquiries Office, Room 101) on arrival in the Mathematics Building. The Postgraduate Secretary will brief them and introduce them to the relevant Postgraduate Tutor.

All undergraduate and postgraduate courses in the School commence this year in the week beginning 22nd September 2008. Starting dates at other London Colleges vary a little, but you should find details on each college's website. Courses at the **London Taught Course Centre for PhD students in the Mathematical Sciences (LTCC)** start on 6th October 2008. One of the first things you will need to discuss with your supervisor is the question of which courses you will be attending and which (if any) you expect to be taking for examination. Such courses should form a significant part of your **Personal Development Plan** (see later, Section 8) for your first year.

Research students are expected to take a number of courses during their first year of research:

- All first year PhD students in the MRC are required to take at least 4 modules at the LTCC.
- All first year research students in the School who have not already taken relevant courses at postgraduate level must study the equivalent of at least 4 course units (i.e. equivalent to 4 one course unit lecture courses), and must take written examinations in at least two of these (for these purposes LTCC modules each count as a half unit).

The appropriate Postgraduate Tutor should be informed early in the academic year of the courses being taken, and examination results of courses followed should be included in the end-of-first year report (see Section 14 below).

In addition to academic courses, the School of Mathematical Sciences requires research students to sign up for certain ESD (Educational and Staff Development) training courses at various stages during their time in the School. Details will be provided by the Postgraduate Tutors.

All research students are allocated two supervisors. Your principal supervisor is allocated when you commence your studies and has responsibility for your academic progress during the research studentship. Your second supervisor will be allocated within a month of your arrival. The second supervisor's role will normally be as a back-up for the principal supervisor, e.g. occasionally deputising for the principal supervisor and providing an alternative mentor to discuss general progress. However, the second supervisor's responsibility could extend to joint academic supervision, and this will indeed normally be the case for an interdisciplinary student.

Some events you are expected to attend at the start of the autumn term

(a) A lunch for new and existing graduate students, this year at 1.00pm on Wednesday 24th September in the Mathematics Common Room (Room 102).

(b) A library and information skills course for mathematics and astronomy research students, run by the subject area librarian, Kathy Abbott, which usually takes place at some time in the first few weeks of teaching - the Postgraduate Tutors will give you details at the Induction Meeting.

(c) An introductory Unix course in October, run by Femi Adewumi, one of the departmental computer system administrators. Here you will learn about how to make the most of the computing facilities in the School of Mathematical Sciences. Details will be announced at the Induction Meeting.

(d) A mathematical and scientific writing course, organised by the Educational and Staff Development Unit (ESD).

(e) An induction day organised by the Science and Engineering Graduate School, in the second half of October, at which you will learn more about the College, the Graduate School, ESD courses and personal development plans.

Checklist of practical things all new postgrads need to know about:

The checklist below has been suggested by current postgraduate students. Hopefully your supervisor, PG Tutor or fellow postgrads will tell you about these items, but if there's a hole in your knowledge, be sure to ask.

Photocopying
Stationery
Pigeonhole
C11 key
Locking doors
College Identity Card (which also functions as a library card and an electronic entry card for the building and your office)
Students Union (Student card etc)
Kitchen
Getting paid your grant (if applicable)
Where your desk is
Filing space in your office
Computers - which ones you can use, how to log in
Network password
Using email
Seminars
QuIPS (Postgrad Seminars)
Where to buy the nicer sandwiches and the best coffee
When the library induction is
When the Unix system induction is
Transport for London Discount Card
Who your postgrad rep is

Things you may need to know about later than first week:

Requesting money for travel, conferences, etc.
Claiming back expenses
Timesheets for doing marking
Accessing paid work within the University
Computer Services log in and password
Other rooms you can use in the building

7. Facilities for Research Students

We shall not attempt to be comprehensive here. Research students, like staff, are welcome to use

the Mathematics Common Room, where coffee and tea are available mid-morning and mid-afternoon. Tabletops are easy-wipe so that ideas can be sketched out on them during discussion (but please use the non-permanent marker pens!). Graduate students' mail is sorted alphabetically by surname and placed in the pigeonholes just off the Common Room. There are also photocopiers (one of which also serves as the School fax machine), and shelving containing stationary, in areas adjacent to the Common Room. We operate on a system of trust: graduate students are free to use the copiers and items of stationery but only for purposes directly associated with their studies. They are expected to be sensible and restrained in their use of these facilities or we may have to introduce controls. The same principle applies to the use of telephones.

Research students are usually allocated a desk in one of the open-plan offices on the south side of the building on the second and third floors. Computing and printing facilities are available in these offices. A photocopier and FAX machine, primarily used by astronomers, may be found in Room 409 on the fourth floor. The same principles as for photocopying apply to printing and faxing, that is to say sensible and restrained use if we are not to introduce controls.

8. Supervision of Research Students

The respective responsibilities of a research student and his or her supervisor are described in Section 2.2 of Part A of this Science and Engineering Graduate School handbook. Soon after the student's arrival in the School the supervisor and student will jointly draw up a programme for the student's first year activities, including a list of courses to be taken in the student's subject area, reading material to be studied, seminars and discussion groups to attend, and so on. The Postgraduate Tutors will complete this programme by suggesting transferable skills courses that the student should attend (see paragraph 5 of Section 11 below). The programme of activities will form part of the student's Personal Development Plan (PDP).

The student and supervisor will agree a regular time to meet, usually weekly early in the student's period in the School, but perhaps less frequently at later stages of the student's research. In accordance with QM Graduate School procedures, at least one meeting between student and supervisor in each three month period should involve a **strategic discussion**, laying out landmarks for the following three months activities. The student should write a brief record of the decisions taken at each such strategy meeting and e-mail it to the address: pgreports@maths.qmul.ac.uk with a copy to her or his first and second supervisors. Deadline dates for these reports are 1st November, 1st February, 1st May and 1st August.

Typically the first two strategic discussion reports of a first year research student might list courses being taken and papers being read; the second two might contain an outline of an initial research problem and a brief account of associated reading undertaken, and of any progress made. In later years there might be brief details of results proved or research projects to be undertaken, seminars given or to be given, papers or thesis chapters written or to be written etc. These e-mails should only be a few lines long, but they can form a useful skeleton for other reports (PDPs, annual assessments etc). They will be reviewed by the Director and the Postgraduate Tutors, who will only take further action if it becomes clear that some major problem has arisen. The main mechanisms for assessing a student's progress are the procedures described in Section 14 below.

9. Seminars and Other Activities

(a) Astronomy Unit

All graduate research students in the Astronomy Unit are expected to participate in Astronomy seminars and more specialized discussion groups as part of their training.

Astronomy Seminars

Astronomy Seminars are held weekly on Friday afternoons during term time: when you arrive at Queen Mary you will be advised by the Astronomy Postgraduate Tutor of the time, place and topic of the seminars in 2008-9. The seminars cover a wide range of topics of astronomical and astrophysical interest: a seminar not on your principal area of interest is still valuable for broadening your astronomical education. A schedule of seminar speakers and titles for the term will be posted on notice boards, and can also be found at <http://www.maths.qmul.ac.uk/Astronomy/research/seminars>.

Postgraduate seminars

There is also a postgraduate seminar series, held on Friday afternoons, given and organised by the postgraduate research students themselves. Details are posted on the web, and can also be obtained by talking with the other students.

Discussion groups

All research groups within the Astronomy Unit conduct weekly Discussion Groups. Students should attend discussion groups in the subject area of their research group, and may also attend others outside their area. You should ask your supervisor and fellow students about arrangements for discussion groups.

Astronomy and Postgraduate seminars do not take place on the second Friday of the month (October-May) because of Royal Astronomical Society meetings on those days.

(b) Mathematics Research Centre

All research students in mathematics and statistics are expected to attend the regular seminars and discussion groups run by the relevant research groups. Details of all these activities can be found on the MRC web pages at <http://www.maths.qmul.ac.uk/MRC>.

Regular Seminars

Regular seminars are held in the MRC covering the following topics:

Pure Mathematics	Functional Analysis	Quantum Groups
Combinatorics	Statistics	Dynamical Systems & Statistical Physics
Cosmology, Gravitation & Relativity		

Most seminars are preceded by tea and coffee available in the Mathematics Common Room (102) prior to the presentation, and/or by refreshments afterwards. For example, cheese and wine are provided after the Pure Mathematics seminars on Monday late afternoons.

In addition to the above regular seminars, there are numerous seminar series held jointly with other London institutions such as Imperial College, University College, Kings College and Brunel:

The London Algebra Colloquium
The London Geometry and Topology Seminar
The London Analysis and Probability Seminar
Random Matrices and Related Topics

Postgraduate Seminars

The Queen Mary Internal Postgraduate Seminars (QuIPS) are a series of talks organised and given by postgraduate students in the Mathematics Research Centre. The time and place can vary from

term to term. For further information please talk to your fellow students or visit <http://www.maths.qmul.ac.uk/~amc/quips/>

Study Groups

There are regular study group meetings in *Representation Theory*, *Statistics* and *Statistical Mechanics* which students in the relevant research groups are expected to attend.

10. Postgraduate Research Day: Ann Cook Poster Prize and 3rd Year Research Student Talks

Every year the School of Mathematical Sciences holds a “Postgraduate Research Day” in May, when all 3rd year research students give 20 minute talks on their research to a wide mathematical and astronomical audience (the other research students - from all years - and interested staff). On the same day entries from all 2nd year research students in the School for the Ann Cook Poster Competition, <http://www.maths.qmul.ac.uk/postgraduate/anncook>, are exhibited and judged. Both activities have been found to be very useful training opportunities by those who have taken part – whatever their intended careers.

11. Professional and Transferable Skills Training

Much of your activity will be centred around your own individual research work and your weekly meetings with your research supervisor. However there are a number of ways in which we try to assist your wider professional development as a research astronomer, mathematician or statistician:

1. We strongly encourage you to attend courses chosen with the aim of broadening your mathematical and/or astronomical knowledge, particularly during your first year of research, but you should also consider this in later years.
2. We expect you to regularly attend research seminars both in your specialty and in more general areas of mathematics or astronomy.
3. Research students are strongly encouraged to give seminars themselves from time to time. We make it a formal requirement that they give at least two during their period of studies, but if the word “seminar” is loosely interpreted to include informal presentations to study groups, most research students give many more than two.
4. Mathematics Research Centre Students are encouraged to attend nationally organized short courses on mathematical topics (for example those run by the London Mathematical Society for EPSRC). All students are encouraged to participate in national and international meetings in their research areas, particularly during the later stages of their research. With the approval of supervisors, students may apply to the School of Mathematical Sciences for funding support to take part in such courses and meetings (see Section 12 below).
5. The College Educational and Staff Development Programme organizes useful short courses for postgraduate students covering topics such as “Starting Your PhD”, “Writing Up Your Research for Publication”, “Making Your First Conference Presentation”, “Building and Reviewing Your CV”, and “Completing Your PhD”. You will be expected to attend certain of these courses as part of your research training - the Postgraduate Tutors will give you details. Our normal procedure is to sign students up for courses appropriate to their particular stage of research, and allow them to de-register from a particular course only if they can offer a good reason why they should not attend. All MPhil and PhD students are strongly encouraged to look through the ESD calendar of courses, and register for appropriate ones, whether or not we formally require them to. There are no fees.

6. All STFC and EPSRC sponsored students are required to attend at least one Research Councils Graduate School, or an equivalent training programme, during their 2nd or 3rd year. Further details can be found via the web page <http://www.grad.ac.uk>. These courses are free for STFC and EPSRC-funded students, and the School of Mathematical Sciences will normally pay the fees for approved courses for other research students. They are often fully booked very soon after they are announced.

12. Travel

Research students are strongly encouraged to participate in national and international research meetings. There are forms available from the School Office to apply for funding for travel, conference registration and subsistence. Decisions are taken by the Directors of Research: we support what we can, but the budget is not unlimited. Where an application is approved, students should make sure to follow School and College procedures for purchasing tickets, insurance arrangements, and claiming expenses. The School's Administrator, Bill White, can advise.

The *Eileen Eliza Colyer Prize* of £1000 is offered each autumn for a research student in the School of Mathematical Sciences to study at another institution for an extended period with an expert in his or her area. See the postgraduate web-page for further details.

13. Professional Bodies

Royal Astronomical Society

The Royal Astronomical Society (RAS) is the main professional organisation for astronomers in the UK. It is based at Burlington House, Piccadilly, and attractions of belonging to the Society include its monthly day-long meetings and use of the Society's extensive library collection. The meetings are held on the second Friday of the month (October–May): usually there are parallel sessions, one on astronomy and the other on planetary science and geophysics. We do not hold seminars on those Fridays to avoid clashing with the RAS meetings. For meeting topics and venues, see <http://www.ras.org.uk/>. If students are interested in participating in the RAS, they should consider joining the Society as a Fellow. There are various levels of membership fee, including one specifically for full-time students studying astronomy. An application form for Fellowship is available from the Astronomy Postgraduate Tutor. Details of the current annual fees, and forms for other categories of membership, can be found on the Society's web site (<http://www.ras.org.uk/>). To be elected to membership, you must be nominated by existing Fellows: many members of academic staff in the Astronomy Unit are Fellows of the RAS and would be happy to nominate you.

London Mathematical Society

The London Mathematical Society (LMS) is the main organization for academic mathematicians in the UK. It is based in De Morgan House in Russell Square and supports the mathematical research community in many different ways, from publishing academic journals to organizing conferences and short courses. Details can be found on the LMS web-page at <http://www.lms.ac.uk>. Participation in the Society's activities is not restricted to members, but postgraduate students intending to follow an academic career are encouraged to apply for membership.

Royal Statistical Society

The Royal Statistical Society (RSS) is the main professional organization for statisticians in the U.K. It supports the statistics research community through the publication of a journal, organizing meetings, and setting and maintaining professional standards. The Society offers membership to postgraduate students at a reduced rate. Further details may be found on the RSS web-page at: <http://www.rss.org.uk/>.

Institute for Mathematics and its Applications

The Institute for Mathematics and its Applications (IMA) is the professional and learned society for qualified and practicing mathematicians. Membership includes teachers, academics, and mathematicians employed in commercial and government organizations. For information about its activities see: <http://www.ima.org.uk/>.

14. Assessment and Progression

Research is unlike other activities that the new student has been involved with before, and even a brilliant history of passing examinations on taught courses is not a guarantee that one will be successful in research. The supervisor tries to ease the transition into a research mode of thinking and working, generally by giving the first-year student a more-or-less well defined problem, and gradually nurturing more independence both in choice of how to tackle a problem and indeed in choice of the problem itself as the student progresses to the second and third year. Nonetheless, some students (we hope only a few) will find that they are not cut out for research, and it is best for all concerned – not least the student – that this be identified earlier rather than later. Partly for this reason, we have annual checks on progression, and independent assessment of the student's progress at the end of each year. Furthermore, we conduct a more informal assessment six months after a student begins, to check that all is going well from the start.

Except in rare circumstances, all research students are initially registered for the degree of M.Phil. If all goes well, this is subsequently upgraded to registration for the degree of Ph.D. The upgrading only takes place when strong evidence exists that the student is capable of research work and of producing a Ph.D. thesis in the requisite time.

College guidelines for upgrading from M.Phil. to Ph.D., issued in 1996, state:

Subject to satisfying the requirements, the upgrading should normally take place between 10 and 24 months from the date of initial registration for full-time students. For part-time students this should occur at least 24 months after the date of initial registration.

Satisfaction of requirements: Departments should look for evidence of the candidate's ability to perform at doctoral level, e.g. that the work produced will be of a publishable standard.

Departments should satisfy themselves that a thesis of acceptable quality is likely to be produced within, at most, 4 years.

First 6 Months Assessment

There is an initial "light touch" assessment procedure at the end of six months, which the Postgraduate Tutor will tell you more about when the time comes.

First Year Assessment

At the end of the first year, the student will produce a short report (usually no more than six A4 pages) outlining the problem they are tackling, progress made and plans for the future. This report should also list courses they have taken and examination results (if any) on these courses. They are then interviewed by two assessors – members of staff other than their first supervisor. The end result of this process is a report by the assessors on the student's progress, and a recommendation from the assessors as to whether the student should be transferred immediately to Ph.D. status, or some other recommendation. A recommendation of immediate transfer to Ph.D. will only be made in exceptional circumstances – for example if the student already has a journal paper accepted for

publication, or has already proved a significant new theorem. A far more common recommendation will be that the student should achieve certain goals in order to be able to transfer to Ph.D. status at the end of their second year. Other recommendations are possible, e.g. if little progress has been made then the assessors might recommend a remedial course of action to try to get the student onto a more successful track.

The timetable for reporting and assessment at the end of the first year (dates are given for a full-time student starting within a month of 1st October; otherwise deadlines are shifted accordingly):

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|----|---|-------------------------------|
| 1. | Supervisor to recommend assessors to PG Tutor for each first-year student | 1 st September |
| 2. | Student's short report on research (or preparation for research) and supervisor's report presented to assessors | 1 st October |
| 3. | Interview | End of first week of October |
| 4. | Signed report on student by assessors to Postgraduate Tutor, including recommendation on transfer to PhD | End of second week of October |
| 5. | (For STFC students) completed STFC probation form to Astronomy Secretary, for Director of Astronomy's signature | End of second week of October |

Second Year Transfer from MPhil to PhD Assessment

The end of the second year is the usual time for a student to transfer from MPhil to PhD, but the process can be initiated earlier in the second year by the student's supervisor, provided the College's criteria for transfer have been met. Students should submit a report containing evidence that they meet these criteria, and a list of the training and research activities they have undertaken (courses and conferences etc). The evidence that the criteria have been met may vary between disciplines: for Astronomy students it may be a publishable (or indeed published) paper, whereas for Mathematics students it may be proofs of preliminary results, accompanied by outline plans for developing these initial results into a thesis. Your supervisor, the Postgraduate Tutor or the Director of Postgraduate Studies can advise on what is appropriate in your case. The report need not be a lengthy document - at most a dozen A4 pages will generally suffice. Your supervisor will also be required to submit a report on your progress.

You will then be interviewed by two assessors (usually the same two assessors as for your report at the end of your first year) who will make a recommendation to the Director of Postgraduate Studies and the Postgraduate Tutors. If the assessors are unable to recommend that you be transferred to PhD, then a sensible course is to consider whether you should submit for an MPhil within the next few months, assuming that you have enough work completed for this course of action. At this stage an MPhil is a reasonable outcome for two years' work, and allowing further years to pass with no strong evidence that a PhD will result is generally not in your own interest.

When transfer requests are made at the end of the second year, the deadlines for completing each stage of the process will be as follows (shifted appropriately for a student who starts at some other time of year):

- | | | |
|----|--|-------------------------------|
| 1. | Student's report and supervisor's report to Postgraduate Tutor | 1 st October |
| 2. | Assessors appointed | End of first week of October |
| 3. | Interview by assessors and their report and recommendation to Director of PG Studies | End of second week of October |

End of second year students who have already transferred from MPhil to PhD should follow the same assessment procedures as those listed below for third (and subsequent) year students.

Third (and subsequent) Year Assessments

Students who have already transferred to PhD status, and have reached the end of the third or subsequent years, will prepare a brief report (normally at most a couple of A4 pages). These reports should include an estimated submission date, and also a record of the seminars delivered by the student in the period under review. By the end of their third year all students are expected to have given at least one talk of 15 minutes or more in some local, national or international forum (other than a QM graduate students only event). Any student who has not done so by this stage should talk to the Postgraduate Tutor or Director of Postgraduate Studies, who will advise on opportunities.

The supervisor should countersign the report to confirm it is an accurate record (so the report has to be agreed between supervisor and student), and should add their own report on the student's progress and send both reports to the Postgraduate Tutor. The timetable for this process is:

- | | | |
|----|---|------------------------------|
| 1. | Student's report agreed with supervisor | 1 st October |
| 2. | Both reports (student's and supervisor's) to Postgraduate Tutor | End of first week of October |

In the event of a dispute or complaint between student and supervisor, the matter should be referred to the Postgraduate Tutor, and then if necessary to the Director of Postgraduate Studies.

Feedback

As an outcome of every year's monitoring of progress, the student will receive a written summary report from the Postgraduate Tutor, incorporating comments from the supervisor and assessors.

15. College and University Forms and Procedures

During a research student's period in the School, there are a number of occasions on which it will be necessary to fill in forms for College or University authorities. For convenience the procedures are listed here.

1. Transfer from MPhil to PhD

The form for the transfer of a student's registration from MPhil to PhD is available from the School Office. It will normally be filled in by the student's assessors following their recommendation for transfer at the first year assessment or later date (see Section 14). To be accepted by the Science and Engineering Graduate School Coordinator it must be signed by the Director of Postgraduate Studies and accompanied by a completed form recording professional and transferable skills courses undertaken and other PDP information.

2. Transfer to "writing up status"

Students who have completed the period covered by fees (normally either 3 or 3.5 years in the case

of a full-time student), and who have completed their research but not yet submitted their thesis, may apply to the College for 12 months of “writing up status”, under which they may continue to use the College facilities. Forms are available from the School Office. To be accepted by the Science and Engineering Graduate School the form must be signed by the Director of Postgraduate Studies, who will only do so if the student and supervisor can provide a plan for completion of the thesis during the writing-up period, with realistic timelines. Any renewal of “writing up status” requires the personal approval of the Director of the Science and Engineering Graduate School (who has stated that the most he is prepared to countenance is a further 12 months, except under very exceptional circumstances) and incurs a “late submission fee” of £250 from the College.

3. MPhil/PhD Examination Entry

Because of the time taken by procedures for the appointment of PhD (or MPhil) Examiners, it is important for students to initiate the examination process at least FOUR MONTHS before the anticipated date of thesis submission. When you and your supervisor are agreed that the thesis is likely to be ready about four months later you should proceed as follows:

- (i) Collect a PhD entry form from Student Administration, together with a nomination of examiners form for your supervisor to fill in. Ask Student Administration for any specific instructions about the format of the thesis (these may change from time to time).
- (ii) Fill in your entry form with your supervisor, and ask him/her to give this form, together with the nomination of examiners form, to the Director of Postgraduate Studies for signature and forwarding to Peter Smith in Student Administration. Supervisors should be aware that the rules governing their nomination of “internal” and “external” examiners may change when the College takes over degree-awarding powers from Senate House in September 2008.

16. Funding for 4th Year DTA Students

Students supported by EPSRC through a DTA (Doctoral Training Account) may apply to the School for an extension of support into their 4th year of research, as EPSRC has allocated us sufficient funding to cover an average of three and a half years of support for these students. Support is only be considered when DTA funds permit, and consists of an extension of the student’s monthly stipend and fees for a period which is normally of at most six months, to enable the student to complete and submit a thesis for which the writing-up is already substantially under way. The procedure is as follows. Applications should be made to the Director of Postgraduate Studies between three months and one month before the end of the student’s third year of research, and should be accompanied by a hard copy of draft material proposed for inclusion in the thesis, together with a description of what is anticipated to be necessary to complete the thesis. After consultation with the applicant’s supervisor and the appropriate Postgraduate Tutor, a decision on whether the application can be funded will be taken jointly by the Director of Postgraduate Studies, the relevant Director of Research and the Head of School. In exceptional circumstances an application for a further extension of six months may be made by repeating the procedures above, between three months and one month before the first extension expires.

The same procedure is expected to apply to holders of QM College Studentships who started in September 2007 or later, and to holders of STFC Studentships who started in September 2008 or later, as these Studentships are also administered through Doctoral Training Accounts under the control of the School of Mathematical Sciences. Unfortunately we have no funds available for fourth year students who started before these dates.

17. Staff-Student Liaison

The Postgraduate Research Committee (which meets at least twice a year) provides a forum for the

postgraduate research students' representatives to raise any issues of concern.

The School's MSc Staff-Student Liaison Committee (SSLC) meets at least once each semester to discuss all matters of concern raised by students taking postgraduate taught courses – or by staff teaching them. Student membership of the SSLC consists of at least two elected MSc students from the Mathematics MSc and two from the Astronomy MSc, and also representatives of the 4th year MSci students and of any research students taking MSc courses. Staff members are the MSc Course Directors, the Deputy Director of the Astronomy Unit and the Director of Postgraduate Studies.

Opportunities to raise issues are not restricted to these Committees. If you wish to discuss any particular matter there are frequent informal opportunities to talk to your Postgraduate Tutor or the Director of Postgraduate Studies, or you can arrange a more formal discussion with them at a mutually convenient time.

18. Marking and Tutoring

You are likely to be offered either tutorial or marking work. You will be paid for this work at an hourly rate, and we expect that all students will generally undertake an average of at least three hours per week. You will probably be able to do more, but we will not normally allow you to undertake more than six hours per week without the agreement of your supervisor and/or grant-awarding body. We require a high standard in both marking and tutoring, but it should form a useful part of your development. The allocation of markers/tutors is carried out in the first week of term by Bill White, the Mathematics Administrator. If you have strong preferences concerning courses, you should inform him as early as possible. Most students derive benefit from the experience of this kind of work, and of course from the income, but you should never feel obliged or pressured to take on too much of it, to the detriment of your research.

You will observe brightly coloured coursework collection boxes around the building. You will find that, given the number of undergraduates that we have in the School of Mathematical Sciences at Queen Mary, they are extremely useful for you as markers as well as for the undergraduates.

During examination periods you are also likely to be offered work by the College as an examination attendant.

19. What to do if things go wrong

Whatever the problem, the most important thing to do is to talk to someone about it. This someone could be your first or second supervisor, your Postgraduate Tutor, the Director of Postgraduate Studies, the Head of School, any other member of staff, your elected student representative or another research student. If the problem is one you prefer not to discuss with a member of the School, you can obtain help and advice directly from the College's Advice and Counselling Service (see Section 15 in Part A of this SEGS handbook for details).

20. General matters

Computer Support

Computer support within the School is provided by the computer system managers: Dr. Andrew Tworkowski, Femi Adewumi, Robert Horton, Karen Kruzycka, Jigar Ranchordas and Robert O'Neale. The normal procedure for obtaining assistance with computer related issues is to report your problem through a web-interface known as the trouble ticket system:

<http://sysman.maths.qmul.ac.uk/TTS>.

If you need to discuss a problem in person, you can talk to a member of the Computer Support Team on the helpdesk in Room 553, or by phone on extension 7048, during their helpdesk office

hours (11-12 and 3-4 Mondays, Tuesdays, Thursdays, Fridays, and 11-12 Wednesdays).

Office hours

The School office is open between the hours 09:00 – 12:15 and 13:30 – 16:45 on Monday – Friday.

The front door to the department is open between 08:30 – 17:30 on Monday to Friday.
Access to the department outside of these times may be obtained using your college I.D. card, which may also be used to gain access to your office within the School building.

Staff details

A list of all staff members, and their contact details, is available at
<http://www.maths.qmul.ac.uk/personnel/>.

SB July 2008

APPENDIX

Key dates for research students in the School

First year

Registration week: School Induction Meeting. Enrolment. Registration for courses.

1st /2nd week of teaching: Postgraduate Lunch. Library Course. Unix Course and Writing Course.

Mid-October: Science and Engineering Graduate School Induction Meeting.

1st November: first strategic supervision report due (to pgreports@maths.qmul.ac.uk).

1st February: second strategic supervision report due.

Easter: “light touch” assessment to check all is well.

1st May: third strategic supervision report due.

May/June: examinations.

1st August: fourth strategic supervision report due.

Second Year

Start of term: Re-enrolment. Postgraduate Lunch. Induction Meeting for Continuing Students.

Early October: end-of –first-year report and assessment interview.

1st November: first strategic supervision report due (to [pgreports](mailto:pgreports@maths.qmul.ac.uk)).

1st February: second strategic supervision report due.

1st May: third strategic supervision report due.

Early May: Ann Cook Poster Competition.

1st August: fourth strategic supervision report due.

Third Year

Start of term: Re-enrolment. Postgraduate Lunch. Induction Meeting for Continuing Students.

Early October: MPhil to PhD transfer report and assessment interview (if not already transferred).

1st November: first strategic supervision report due (to [pgreports](mailto:pgreports@maths.qmul.ac.uk)).

1st February: second strategic supervision report due.

1st May: third strategic supervision report due.

Early May: Third Year Research Student Talks.

1st July: applications for 4th year DTA funding due about now.

1st August: fourth strategic supervision report due.

Fourth Year

Start of term: applications due for transfer to writing-up status.

Early October: End-of –third-year report due.

3-4 months before PhD submission: submit PhD examination entry form.

1-3 months after submitting thesis: PhD viva.

During your time in the School we also expect you to:

Give several research seminars in the School.

Give a talk or present a poster at a national conference (for example a postgraduate conference).

Attend at least one international conference.

Take one or more specialist intensive courses (e.g. EPSRC-LMS or RSS short courses).

Take several ESD courses at QM.

Take at least one UKGRAD course (this is a requirement for UK Research Council students).

SB July 2008