OxfordMaterials

Graduate Course Handbook

2013 - 2014

Department of Materials

CHECKLIST FOR KEY ACTIONS BY DPHIL STUDENT (**Bold** = mandatory)

Action	Period Due	Completed
Register at College	**Annually, MT**	**(dd/mm/yy)**
Discuss with your supervisor your termly report	**Termly, until thesis submission**	
Discuss with your supervisor your transferable skills training needs	Annually, MT yr 1-3	
Year 1		
Attend Induction	**Wk 0, MT**	
Attend Safety Lecture	**Wk 1, MT**	
Complete Personal Risk Assessment and DSE Forms	**Wk 1, MT**	
Submit PG Questionnaire	**Wk 1, MT**	
Attend Workshop Induction (unless opted out)	**tbc, MT**	
Attend Information Skills Workshop	Wk 2, MT	
Attend Project Management Workshop	**Wk 4, MT**	
Attend IoM^3 Presentation	Wk 4, MT	
Attend Looking to the Future Workshop	**Wk 5, MT**	
Submit Project Management Form 1	**Wk 5, MT**	
Attend Managing Your References Workshop	Wk 7, MT	
Attend Poster Skills Workshop	Wk 8, MT	
Attend relevant parts of Presentation Skills Workshop	Wk 2, HT	
Attend Writing Skills Workshop	Wk 4, HT	
Attend and obtain satisfactory assessments on 2 taught courses	**MT, HT**	
Attend a minimum of 7 colloquia	**MT, HT**	
Submit 1st Year Report	**Wk 1, TT**	
Submit Project Management Form 2	**Wk 1, TT**	
Attend 1st Year Viva	**Wk 3, 4 or 5, TT**	
Submit Literature Review	**30 September 14**	
YEAR 2		
Apply for Transfer of Status and discuss transferable skills training with supervisor	Sept/Oct 14	
Submit Project Management Form 3A	**Wk 5, MT**	
Present research talk to Department	**Wk 7, HT**	
Submit Project Management Form 3B	**Wk 5, TT**	
Attend MPLS GRADChallenge	September 14	

Cont'd overleaf

Action	Period Due	Completed
YEAR 3		
Apply for Confirmation of Status and submit progress report	Sept/Oct 15	
Submit Project Management Form 3C	**Wk 5, MT**	
Submit Poster for Competition	**Mon, Wk 4, HT**	
Present Poster to Department	**Wk 6, HT**	
Submit Project Management Form 4 (3 y projects) OR Project Management Form 3D (3.5 y projects)	**Wk 2, TT OR Wk 5, TT**	
Apply for Appointment of Examiners (3 y projects)	July	
Submit Thesis (3 y projects)	Sept	
YEAR 4		
Submit Project Management Form 4 (3.5 y projects)	**Wk 1, MT**	
Apply for Appointment of Examiners (3.5 y projects)	January	
Submit Thesis (3.5 y projects)	March	

Additional timetabled events are listed in the DPhil diary in Section 2.

In section 2 of this handbook you will read an overview of the Department's DPhil programme (section 3 for the MSc (Res) programme). This includes an introduction to a small number of compulsory programme requirements, more details of which are given in subsequent sections, and to a wide range of optional provision. The checklist above identifies in bold typeface the compulsory requirements.

It may be helpful to understand that some of these compulsory requirements serve more than one purpose, and to be aware of the rationale behind their inclusion and their sequence. For this reason a summary of, and brief rationale for, the compulsory requirements for students following a Materials research degree programme is given in Appendix X.

Induction Course: 7th – 8th October 2013
(Hume-Rothery Lecture Theatre)

Monday, 7th October

9.00 – 9.15: **Chris Grovenor (Head of Department):**
Welcome and introduction to department

9.15 – 9.40: **Support structure:**
Director of Studies
Graduate Studies Secretary
Graduate Studies Panel
Department Administrator
Academic/Finance Deputy Administrators
Harassment Officers

9.40 – 9.55: **Keyna O'Reilly (Practical Class Organiser):**
Gaining teaching experience

9.55 – 10.15: **Paul Warren (Senior IT Officer):**
IT and audio-visual facilities

10.15 – 10.25: **Andrew London (Chair of JCCG):**
Joint Consultative Committee for Graduates - overview
Explanation of nomination procedure

10.25 – 10.40: **Neil Young (TEM Support Scientist):**
Electron microscopy facilities: access and training

10.40 – 11.25: **Registration** and coffee with members of JCCG
Individual photographs to be taken during coffee
Financial details to be collected from students (if required)

11.25 – 12.40: **Tour of central site**
Hume Rothery:
Workshop (**Laurie Walton**), Stores, Library, Admin. offices.
Holder Building:
EM area, Teaching Labs. (**Paula Topping**), Common Room
Engineering & Technology Building:
IT Support (**Paul Warren/Rob Saunders/Chris Akinola**) ETB
Meeting room, IEB LR8
21 Banbury Road:
Lecture room, Conference room
12/13 Parks Road

12.40 – 14.00 BREAK

14.00 – 17.00 **Meeting with your research group and supervisor(s)**
(students to be collected from the Hume-Rothery Building reception area)

(cont…)

Tuesday, 8th October

All activities will take place in the Hume-Rothery Lecture Theatre except for the tour of the Begbroke site and the tour of the Radcliffe Science Library

9.00 – 9.50: **Adrian Taylor (Director of Studies):**
Introduction to the Materials Research Degrees, including the key milestones

9.50 – 10.00: **Jayne Shaw (Schools Liaison Officer):**
Introduction to schools liaison and an opportunity to talk with the Schools Liaison Officer during the coffee break for those interested in assisting with schools liaison activities

10.00 – 10.15: **Andrew London (Chair of JCCG):**
Nomination of first-year members
Election of 3 first-year members

10.15 – 10.45: **Coffee** with members of JCCG
Opportunity to talk with Schools Liaison Officer

10.45 – 11.00: Bus departs for Begbroke from outside the Hume-Rothery Building

11.00 – 12.45: **Tour of Begbroke site (Coordinated by Kerstin Jurkschat):**
Begbroke Nano characterisation facilities
Sample preparation and electron microscopy
Non-analytical facilities eg canteen, clean room, spray forming lab, bus, key fobs

12.45 – 13.00: Return to the Hume-Rothery Building

13.00 – 14.00: BREAK

14.00 – 14.30: OUCS – Introduction to Services (**Dave Baker**)

14:30 – 14.40 Intellectual property and commercialisation **(Chim Chu, Isis Innovation Ltd)**

14.40 – 15.00: Introduction to Library facilities in Oxford (**Grace Sewell**)

15.10 – 15.40: Tour of Radcliffe Science Library (RSL) (**Ljilja Ristic**)

Thursday, 10 October
16:30: Newcomers Party

Tuesday, 15 October
17.30: MPLS Graduate School and GAP Launch
Briefing on GAP and Graduate School for MPLSD students with reception in Natural History Museum

The following lectures represent part of the Induction Course for new graduate students and you are strongly advised to attend. <u>Those in bold are compulsory</u>.

Tuesday, 15th October, 10.00 – 11.00 in Information Engineering Building LR8
SAFETY LECTURE
Andrew Watt

Friday, 25th October, 10.30 – 12.00 in RSL
INFORMATION SKILLS WORKSHOP
Ljilja Ristic

Monday, 4 November, 12.00 – 13.00 in Hume-Rothery Lecture Theatre
BENEFITS OF MEMBERSHIP OF THE INSTITUTE OF MATERIALS, MINERALS & MINING
Sarah Boad (IoM3)

Wednesday, 6 November, 12.00 – 16.00 in Hume-Rothery Lecture Theatre and then 21 Banbury Road Conference Room
PROJECT MANAGEMENT
Paul Warren, NSG (Pilkington Glass) & Adrian Taylor

Friday, 15th November, 14.30 – 17.00 in Hume-Rothery Lecture Theatre
LOOKING TO THE FUTURE: WHAT DO EMPLOYERS SEEK?
OU Careers Service, Katherine Noon (Rolls Royce), Dr Mohinder Saran (Royal Bank of Scotland) & Adrian Taylor.

Michaelmas Term [dates to be confirmed, names taken on tour at Induction], in Mechanical Workshop
WORKSHOP INDUCTION AND SAFETY COURSE
Laurie Walton

This workshop induction course is mandatory for anyone who wishes to use the workshop and is also useful as general skills training and safety awareness – even if you never need to use workshop equipment yourself, you may well be responsible one day for people who do.

When the equipment is not in demand for department business, you are also permitted to use the workshop for other work such as urgent bicycle repairs – but only if you have done the training course!

The default position is that we recommend all new research students to attend the course but, with the permission of your supervisor, you may opt out of this by sending an e-mail to Laurie Walton (copied to Marion Beckett and your supervisor) in advance of the time reserved for your course.

IF YOU DO OPT OUT AND SUBSEQUENTLY FIND THAT YOU NEED TO USE THE WORKSHOP, IT WILL BE NO USE AT THIS TIME PLEADING THAT YOU DESPERATELY NEED ACCESS TO THE WORKSHOP FOR YOUR RESEARCH (OR TO MEND YOUR BIKE SO THAT YOU CAN GET HOME THAT NIGHT) – YOU SHOULD BE AWARE THAT YOU MIGHT HAVE TO WAIT FOR THREE TO FOUR MONTHS BEFORE LAURIE WALTON RUNS THE NEXT TRAINING COURSE.

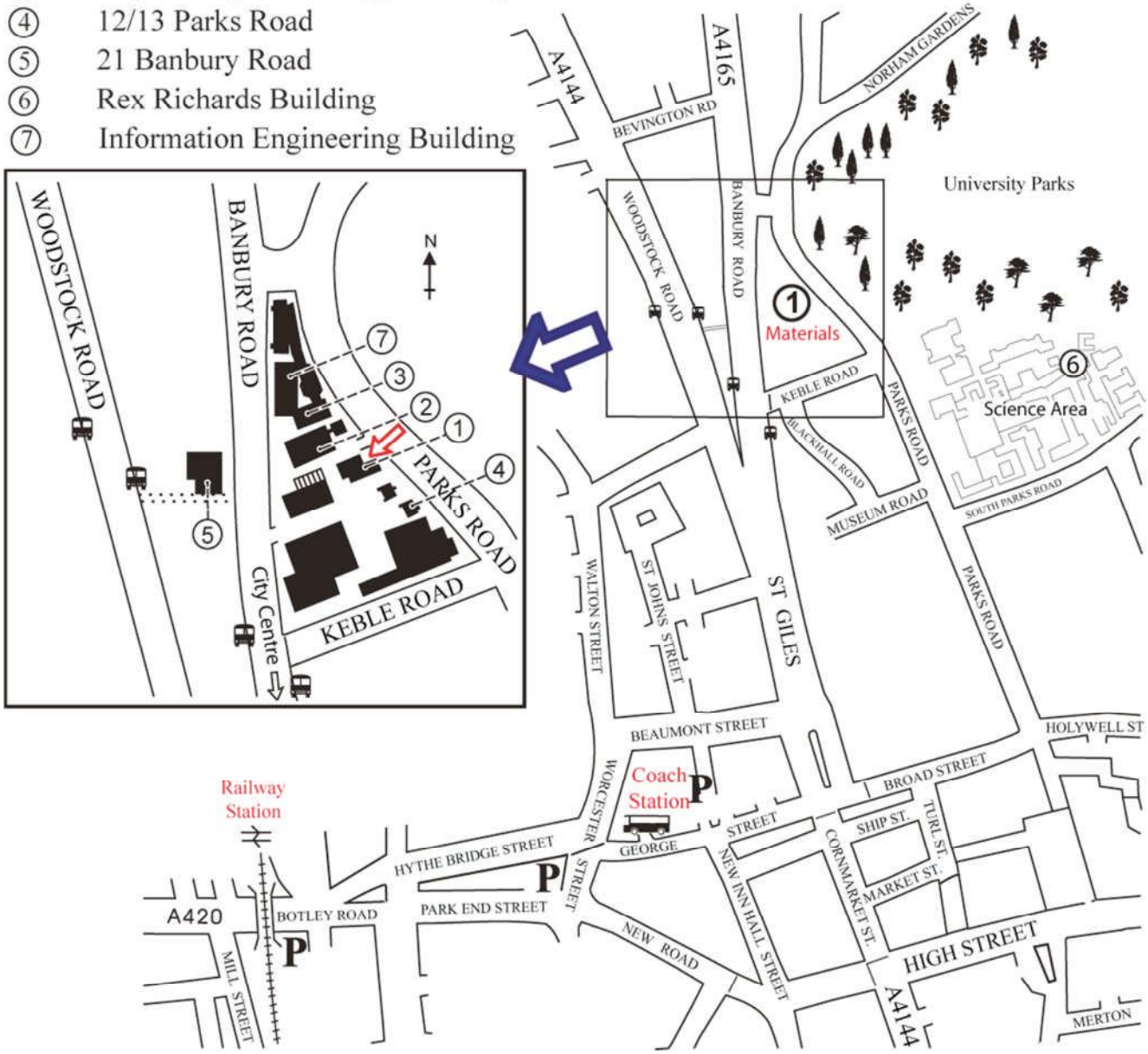
WELCOME

Welcome to the Department of Materials at Oxford University; you are joining a winning team! According to the most recent UK Research Assessment Exercise in 2008, 80% of the research outputs of the Department were internationally leading or internationally competitive. National league tables (Guardian, Times Good University Guide) regularly place us as the top Materials Departments in the United Kingdom. In the past decade, members of staff in the Department have won more than 25 major awards, including one CBE, four Fellowships of the Royal Society, two Fellowships of the Royal Academy of Engineering, two Royal Society medals and a Fellowship of the American National Academy of Engineering. We take equal pleasure in the fact that student members of the Department have also won many national and international prizes for their research work and presentations, and they contribute strongly to the >250 research outputs from the Department each year. The Department has recently undertaken a major expansion of our research facilities with the development of the Begbroke Science Park, and we have major research collaborations in the fields of advanced manufacturing, quantum information processing, 3-dimensional Atom Probe analysis, advanced electron microscopy, solar cells and materials for nuclear fusion and fission. I am sure that you will relish the vibrant and exciting research culture of the Department and Oxford University. I wish you every success, and trust that you will find your time here most enjoyable, as well as productive of some first class research.

Professor C R M Grovenor
Head of Department

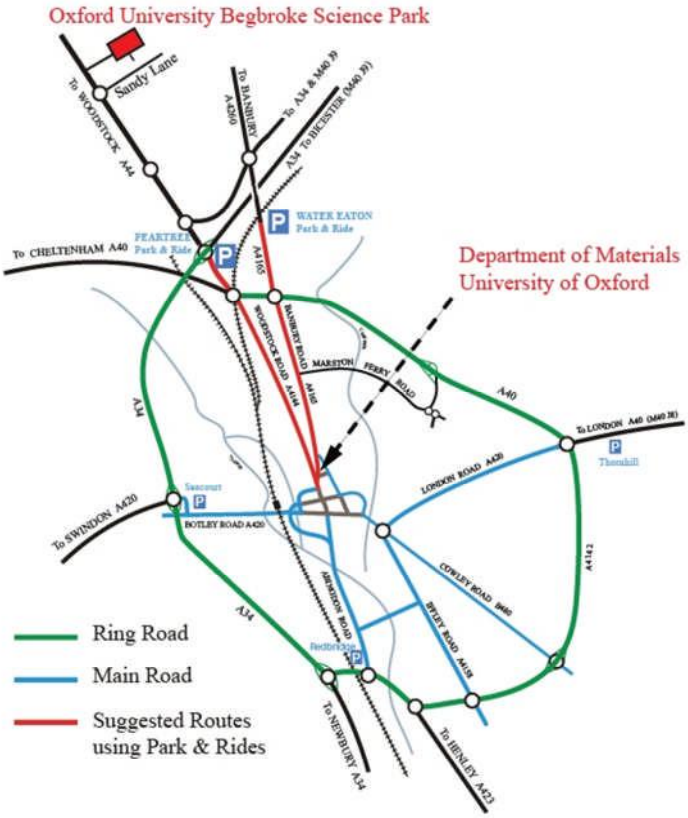
Department of Materials - Map of Central Site

⇨ Reception
① Hume-Rothery Building
② Holder Building
③ Engineering Technology Building
④ 12/13 Parks Road
⑤ 21 Banbury Road
⑥ Rex Richards Building
⑦ Information Engineering Building

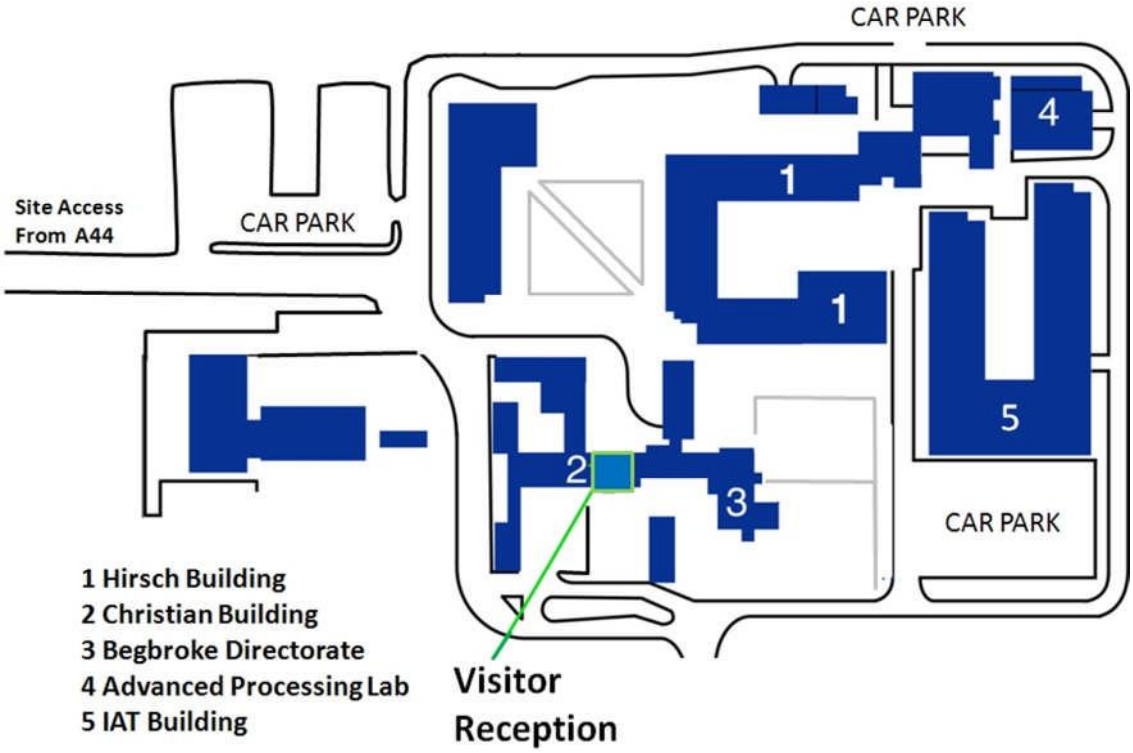


Contact us at: Marion Beckett, Graduate Studies Secretary
Department of Materials
University of Oxford
Parks Road, Oxford, OX1 3PH
Phone: (44) 1865 283226 and Fax: (44) 1865 283217
Email: graduate.studies@materials.ox.ac.uk
http://www.materials.ox.ac.uk/admissions/postgraduate/

Department of Materials - Map of Begbroke Site



Oxford University Begbroke Science Park



A minibus operates from the central site (stop outside the Hume-Rothery Building) to the Begbroke site several times a day. The journey takes approximately 15-20 minutes. Timetables are posted on the Departmental notice boards and are circulated to all members of Department via the 'notices' mail list.

TABLE OF CONTENTS

(The Oxford week-numbering system is given on the final page of this booklet)

1. INTRODUCTION

Your years as a graduate student are an exciting time when you will explore the challenges of performing creative research with the accompanying dreams, frustrations, and fulfilment. This handbook is provided to help you make the most of these few years by describing the structure of the DPhil and MSc by Research courses within the Department of Materials. **It is essential that you read this handbook; it is your initial resource in the event of any queries and it gives much helpful guidance on the Materials research degree programmes**. It complements three other handbooks which you should browse online:

(i) The 'Mathematical, Physical and Life Sciences Division's Graduate Student Handbook 2013-14'. Please see menu at http://www.mpls.ox.ac.uk/learning/graduate-school/current-students for a copy. This is produced by the Graduate School of Mathematical, Physical and Life Sciences Division (MPLSD) which comprises the Departments of Mathematics, Statistics, Computing, Engineering Science, Chemistry, Earth Sciences, Plant Sciences, Physics, Zoology and Materials. It describes in detail the structure of postgraduate training at Oxford University that is common to all the Mathematical, Physical and Life Science departments. It explains in an informal way the rules and regulations that govern the pursuit and award of research degrees. There is also a useful overview of the procedure for submission of your thesis and the examination process. This handbook is supplemented by the School's Skills Training Handbook, which is issued in hard copy at Induction. You can find out more about the MPLS Graduate School, of which you are a member, and what it offers you at http://www.mpls.ox.ac.uk/learning/graduateschool.

(ii) The 'Postgraduate Lecture Synopses and Research Colloquia 2013-14' booklet can be found on the Oxford Materials website at http://www.materials.ox.ac.uk/teaching/lecturelists.html. This details the courses available to graduate students and lists the Departmental Colloquia that will be given during Michaelmas Term. It is important that you peruse this carefully before you decide which courses you would like to attend during your first year. We will return to courses and colloquia in sections 6 and 9 below.

(iii) The 'Department Handbook 2013-14'. This describes the many facilities within the Department such as the library, workshops, computing laboratories, and electron/optical microscopes that are available to all graduates. It also describes the procedures needed, for example, in ordering consumables and equipment from the main stores or in getting logged onto the University Computing network. You should familiarise yourself with its contents.

A further handbook of relevance is the University Education Committee's "Research Degrees" at http://www.admin.ox.ac.uk/edc/qa/policies/.

In appendices VIII and IX In section 3 of the present handbook there is, (i) in accordance with the MPLSD template, a summary of the minimum provision for research students in the Department of Materials, and (ii) a copy of the MPLSD Code of Practice on the Supervision of Research Students.

Finally, in addition to reading the information in the present handbook you might find it useful to browse two additional resources on the subject of research supervision: (i) that developed by the Oxford Learning Institute at http://www.learning.ox.ac.uk/supervision/ and (ii) that developed by Vitae for the EPSRC at http://www.vitae.ac.uk/researchers/1234/Supervision-and-key-relationships.html.

Timetables for lecture courses and transferable skills training offered by the Department of Materials can be found at http://www.materials.ox.ac.uk/teaching/lecturelists.html. Information on other lecture timetables is circulated from time to time by e-mail and the timetable for MPLS Graduate School transferable skills training courses can be found at http://www.mpls.ox.ac.uk/learning/training-research-staff. There are some 400 courses available to you across the MPLS Division; you can find out about these and, subject to availability, book places on them using the searchable database at https://weblearn.ox.ac.uk/portal/site/mpls/gap/page/module_signup.

Please do not use this Graduate Academic Programme (GAP) website to book Materials courses. Instead contact the academic running the course, inform them you are a graduate wishing to undertake their course and ask them how to book on the course. Only use the GAP website if asked by the academic to do so.

2. OVERVIEW OF DPHIL COURSE STRUCTURE

(More detail is given in sections 4 onwards)

The University rules stipulate that unless dispensation has been granted you must be resident within a 25 mile radius of the city centre for at least 6 terms (2 academic years) before you can submit your DPhil thesis (unless you already hold an Oxford MSc degree when the residence requirement is reduced to 3 terms). The rules also stipulate that the maximum time normally allowed for a student to complete the research and write the thesis is 12 terms (4 academic years). However, funding for research studentships is usually only for 3 or 3½ years. Thus, the Department aims for DPhil students to submit their theses within 3-3½ years. A schedule for keeping to this timetable is illustrated below under the title ‘A DPhil Diary’. Following the diary, we will consider very briefly each of the years in turn.

A DPhil Diary

1st Year	
Michaelmas Term, October - January	
Week 0	First year Induction Course Assignment of supervisors
Week 1	Safety Lecture Deadline for completed Graduate Student Questionnaire
Week 2	Information Skills workshop
Week 4	Project Management workshop Institute of Materials, Minerals & Mining Talk
Week 5	Looking to the Future workshop Project Management Form 1
Week 7	Managing your References Workshop
Week 8	Poster Presentation Skills workshop
Weeks 1-8	Attend graduate courses (including 2 assessed) Thursday Departmental colloquia
Hilary Term, January - April	
Week 2	Presentation Skills and Powerpoint workshops
Week 4 (tbc)	LabView workshop
Week 4??	Writing Skills, Lab Notebooks, IPR and Patents workshop
Weeks 1-8	Attend graduate courses (including 2 assessed) Thursday Departmental colloquia
Trinity Term (including the Long Vacation), April - October	
Week 0	Deadline on Monday for first year report
Week 1	Project Management Form 2
Weeks 1-4	Thursday Departmental colloquia
Week 2 (tbc)	Knowledge & Technology Transfer Workshop
Weeks 3, 4, 5	Fridays, 10.00 am – 6.00 pm, First Year Vivas – KEEP ALL DATES FREE!
TBC	Patent Information
30 September	Deadline for Literature Reviews

2nd Year	
Michaelmas Term, October - January	
Early Oct	Application for transfer from Probationary Research to DPhil status (form GSO2)
Week 5	Project Management Form 3A
Week 7	Poster Presentation Skills Workshop (if not attended in year 1)
Weeks 1-8	Thursday Departmental colloquia
Hilary Term, January - April	
Week 2	Presentation Skills and Powerpoint Workshop (if not attended in year 1)
Week 4	Writing Skills, Lab Notebooks, IPR and Patents Workshop (if not attended in year 1)
Week 7	2nd Year Talks, Tuesday, Wednesday & Thursday, 10.00 am – 6.00 pm, KEEP ALL DATES FREE! Hetherington Prize
TBC	Academic Writing Course (for non-UK students)

Weeks 1-8	Thursday Departmental colloquia
Trinity Term (including the Long Vacation), April - October	
Weeks 1-4	Attend Thursday Departmental colloquia
Week 5	Project Management Form 3B
3rd Year	
Michaelmas Term, October - January	
September/ early Oct	Application for confirmation of status as DPhil student (form GSO14), including submission of progress report for assessment
Week 4	Active Job Hunting - Introduction to Oxford University Careers Service
Week 5	Project Management Form 3C; Careers and Networking Evening with Alumni
Weeks 1-8	Thursday Departmental colloquia
Hilary Term, January - April	
Week 4	Deadline for submission of poster for Competition
Week 6	3rd Year Poster Presentation Session (Rolls Royce and Ironmongers' Prizes)
Weeks 1-8	Thursday Departmental colloquia
Trinity Term (including the Long Vacation), April - October	
Week 2	Project Management Form 4 (3 year projects only) to include thesis outline
Weeks 1-4	Thursday Departmental colloquia
Week 5	Project Management Form 3D (3½ year projects only)
June/July	**Thesis preparation (3 year projects)**
August	Application for appointment of examiners (form GSO3) – 3 year projects
September	Submission of thesis
3½ Year Projects Only	
Michaelmas Term, October - January	
Week 0	Project Management Form 4 (to include thesis outline)
Week 4	Active Job Hunting - Introduction to Oxford University Careers Service
Week 5	Careers and Networking Evening with Alumni
Weeks 1-8	Thursday Departmental colloquia
November	**Thesis preparation (3½ year projects)**
Hilary Term, January - April	
January	Application for appointment of examiners (form GSO3) - 3½ year projects
March	Submission of Thesis

Note: The JCCG will meet every term at 12.30 pm on Wednesday of Week 1.

2.1. GRADUATE STUDIES OFFICE (GSO) FORMS

(See also section 13 for more guidance on the forms relating to the appointment of examiners.)

Throughout your studentship you will need to complete various graduate forms (known as GSO forms), including transfer of status, confirmation of status and an application for the DPhil examination. All the forms and associated notes can be found on the website Graduate Forms Online at http://www.ox.ac.uk/students/academic/graduates/forms/.

The forms should be completed by you, by your supervisor(s) and then taken to your College for signature. The form should only then be sent to Marion Beckett for Dr Adrian Taylor to give his final approval. The forms then will be sent by Marion to the Graduate Studies Assistant at MPLSD.

There are TWO exceptions to this procedure:

GSO25, Change of supervisor or appointment of joint supervisor
GSO3, Application for appointment of examiners (ONLY IF YOUR THESIS EXCEEDS THE WORD LIMIT)

GSO25
Once you have completed this form and your supervisor has signed it, the form should be handed in to Marion Beckett. This form does NOT go to your College.

GSO3

If your thesis exceeds the word limit the procedure with this form is modified. In this case in addition to completing the form and obtaining a signature from your supervisor, you must obtain a letter of support from your supervisor to justify the need to exceed the word limit. Then obtain approval from your College and finally bring the form and supervisor's letter to Dr Taylor.

2.2. THE FIRST YEAR

You have arrived at the start of your graduate degree as a Probationer Research Student (PRS). The University rules allow you to hold this status normally for up to 4 terms. Generally, however, our PRS students, who arrive intending to pursue a doctorate, are expected to transfer to DPhil status at the end of their first year. This transfer is subject to the approval of the supervisor, the College and the Director of Graduate Studies, following the completion of three threshold requirements:

(i) passing of two assessed courses (see section 6);
(ii) attendance at a minimum of seven Colloquia during the first two terms (see section 9);
(iii) submission of a satisfactory report and passing the associated first year viva (see section 10).

When you have met these three criteria, you should complete and submit to the Graduate Studies Office in Parks Road an 'Application Form for Transfer of a Graduate Student from One Status to Another' (form GSO2). An e-mail will be sent to you at the end of your First Year, but forms can be downloaded from the website http://www.ox.ac.uk/students/academic/graduates/forms/. In considering your application your Supervisor, College and the Director of Graduate Studies will take into account your progress over the whole of your first year.

By the end of the First Year, you are required to have completed a Literature Review (section 11). This should ensure that you are familiar with the prior work in your area of study before you progress too far with your research. Your Literature Review must be submitted by 30th September 2014.

Having attended the Writing Skills Workshop, completed your Literature Review, ensured that you understand what is the new science it is anticipated your project will reveal, engaged seriously with the Project Management requirements and held regular discussions with your supervisor, you should already have some sense of what might be the content of your thesis and what are the requirements of any thesis (see also Section 13).

2.3. THE SECOND YEAR

Your project should now be proceeding apace and if you make good progress with your research, you will have your status as a DPhil student confirmed. The Confirmation of Status depends on passing two remaining course requirements and submitting a satisfactory progress report by 30 September 2014, and is subject to approval by your supervisor, your College and the Director of Graduate Studies.

The two threshold course requirements are:

(i) the Literature Review completed at the end of your First Year must be satisfactory; it will be reviewed by an experienced member of the Department (section 11);

(ii) a short talk on your research given by you to all members of the Department during week 7 of Hilary term (see section 12). A senior member of the Department will Chair the talk and will judge whether or not your progress is satisfactory.

Once you have successfully fulfilled these two threshold requirements, you will need to complete the form GSO14 to allow you to apply for **Confirmation of Status** as a Student for the Degree of Doctor of Philosophy, which you should normally submit at the start of your Third Year. This form requires you to give a clear indication of the progress to date and the likely timetable for submission of your thesis, which your supervisor, College and Director of Graduate Studies will then consider for approval. Naturally this will involve a careful discussion between you and your supervisor of what is required in a thesis. The form can be downloaded from the website http://www.ox.ac.uk/students/academic/graduates/forms/. You must also complete form GSO14a to report to the University on your research and transferable skills training. This should be straightforward if you refer to your project management forms and to the portfolio of details of training attended that you have been advised to keep.

Your GSO14 and 14a forms must be accompanied by a short report on your research achievements to date (**maximum** 1000 words). This should outline in particular the key new science which the project has achieved and/or is on target to achieve, and should include a list of any refereed publications in journals or patents that have arisen to date from your DPhil project.

Your lead supervisor will assess this report and include in his/her comments on the GSO14 form a brief commentary (maximum 100 words) on the progress that this report demonstrates, putting your work in the context of other work in the field. You will receive a copy of these comments. The Director of Graduate Studies will review the commentary as part of his review of your application for Confirmation of Status.

Successful Confirmation of Status is an indication that, if the research continues to develop satisfactorily, consideration of submission of your thesis within 3½ years would appear to be reasonable. It does not, however, necessarily mean that you will be ultimately successful in the DPhil examination.

You may like to attend the MPLS GRAD Challenge which takes place in September each year. Details of the 2013 course can be found at http://www.mpls.ox.ac.uk/content/grad-challenge-2013.

2.4. THE THIRD YEAR

Your DPhil project should now be coming together nicely. To remain on target for completing within the allotted time you should most probably be starting to write up your thesis by Easter (3 year projects), or October (3½ year projects), allowing yourself six months to the finished final copy (see section 13). **The Project Management Form that you submit approximately 6 months before your funded period ends must include an outline plan for your thesis**. A month or so before you are ready to submit your thesis, you should apply for the 'Appointment of Examiners' (form GSO3). This form requires certification by you that the thesis is your own work except where otherwise indicated, by your supervisor that you have satisfied residency requirements, and by your college. Again, this form can be downloaded from the website http://www.ox.ac.uk/students/academic/graduates/forms/. Once two copies of your thesis and abstract have been submitted to the Graduate Studies Office, your Internal Examiner will arrange the date for your oral examination or viva (see section 13).

In the third year you are required to present a poster in the DPhil Poster Competition that is held in Hilary Term. One poster per student should be submitted, on a topic associated with your research, either in the category of 'public understanding of science' or in the category of a 'standard scientific conference'. For each category there will be a prize of £200 for the best poster, sponsored by the Ironmongers' Company and by Rolls Royce respectively. The poster competition also provides an opportunity to socialise with your peers whilst finding out more about their latest research. You may submit a poster which you have displayed at a conference if you so wish as long as it is appropriate (please check with your supervisor if you have any doubts). You will be asked to participate in peer review of two posters authored by your fellow students and in return will receive comments on your poster from two other students. The thought that you give to presenting your work as a clear scientific story in your poster should aid you when you come to write your thesis.

By Monday of 4th week HT you must submit to Marion Beckett three copies of your poster on A3 size paper. These copies will be sent to the judges to shortlist 10 finalists for the prizes in advance of the poster session itself. The winners will be decided on the day, after the judges have looked at the full-size A0 posters. (If you miss the 4th week deadline you will not be eligible for the competition, but will still be required to show a poster in 6th week.)

2.5 CAVEAT

A hard and fast timetable for the successful completion of a DPhil project is, of course, not possible, given the unpredictability of creative research. The DPhil Diary suggests that you should have applied for confirmation of DPhil status by the beginning of your third year and that you should have started writing six months before your 3 or 3½ year funded period has expired. These times should be taken as a guide illustrating what is generally required in order to submit within time. Part of the purpose of the Project Management Scheme is to enable students themselves to monitor their own progress and to flag-up to their supervisor and the Department a warning signal as soon as they feel that their DPhil schedule is slipping (see section 5). **If you are not devoting most of your effort to thesis writing at the 36 month milestone, you should arrange to meet with the Director of Graduate Studies to discuss your progress**.

2.6 DPHIL STUDENTS FUNDED BY AN EPSRC CDT (4 year DPhil programme)

Students funded by the Fusion DTN have a slightly different timetable for their progression requirements which is as follows:-

30 September 2014:	submit first year progress report
Early to mid MT 2014:	first year Viva
13 January 2015:	submission of Literature Review
End HT 2015:	normal time to apply for Transfer of Status
Late HT 2016:	research talk to Department
End HT 2016:	normal time to apply for Confirmation of Status
Mid HT 2017:	present poster to Department
Long Vacation 2017:	submit thesis and attend DPhil Viva.

Project Management Forms are still required as per the DPhil Diary, but PMF4 will not be due until week 2 of Trinity Term of your 4th year.

If you are unsure as to what your funding is, then please contact the Graduate Studies Secretary (graduate.studies@materials.ox.ac.uk) for clarification.

3. OVERVIEW OF MSC BY RESEARCH COURSE STRUCTURE

(More detail is given in sections 4 onwards)

See also Section 2.1 on Graduate Studies Forms.

The University rules stipulate that you must be resident within a 25 mile radius of the city centre for at least 3 terms (1 academic year) before you can submit your MSc thesis. The rules also stipulate that

the maximum time normally allowed for a student to complete the research and write the thesis is 9 terms (3 academic years). The Department, however, aims for MSc students to submit their thesis within 2 years. A schedule for keeping to this 2-year timetable is illustrated overleaf under the title A Two-Year MSc by Research Diary. We will now consider very briefly each of the two years in turn.

3.1. THE FIRST YEAR

You have arrived at the start of your graduate degree as a Probationer Research Student (PRS). The University rules allow you to hold this status normally for up to 4 terms. Generally, however, our PRS students, who arrive intending to pursue a masters, are expected to transfer to MSc by Research status at the end of their first year. This transfer is subject to the approval of the supervisor, the College and the Director of Graduate Studies, following the completion of three threshold requirements:

(i) passing of two assessed courses (see section 6);

(ii) attendance at a minimum of seven Colloquia (or equivalent) during the first two terms (see section 9);

(iii) passing of the first year viva (see section 10).

When you have met these three criteria, you should complete and submit to the Graduate Studies Office in Parks Road an 'Application Form for Transfer of a Graduate Student from One Status to Another' (form GSO.2). This form will be sent to you after your First Year Viva, but additional forms can be downloaded from the website http://www.ox.ac.uk/students/academic/graduates/forms/. In considering your application your Supervisor, College and the Director of Graduate Studies will take into account your progress over the whole of your first year.

By the end of the First Year, you are required to have completed a Literature Review (section 11). This should ensure that you are familiar with the prior work in your area of study before you progress too far with your research. Your Literature Review must be submitted by 30th September 2014.

3.2. THE SECOND YEAR

Your MSc project should now be coming together nicely and you will be asked to give a short talk on your research during Week 7 of Hilary Term (see section 12). Allow yourself three months to write-up and finish the final version of your thesis (see section 13). A month or so before you are ready to submit your thesis, you should apply for the 'Appointment of Examiners' (form GSO.3). Again, this

form can be downloaded from the website http://www.ox.ac.uk/students/academic/graduates/forms/. Once two copies of your thesis and abstract have been submitted to the Graduate Studies Office, your Internal Examiner will arrange the date for your oral examination or viva (see section 13).

3.3. CAVEAT

A hard and fast timetable for the successful completion of a MSc by Research project is, of course, not possible, given the unpredictability of creative research. The second year of the 'Two-Year MSc by Research Diary' shown below should be seen as a guide illustrating what is required in order to submit within two years. Part of the purpose of the Project Management structure is to enable students themselves to monitor their own progress and to flag-up to the department a warning signal as soon as they feel that their two year MSc schedule is slipping (see section 5). **If you are not devoting most of your effort to thesis writing at the 21 month milestone, you should arrange to meet with the Director of Graduate Studies to discuss your progress**.

A Two-Year MSc by Research Diary

1st Year	
Michaelmas Term, October - January	
Week 0	First year Induction Course Assignment of supervisors
Week 1	Safety Lecture Deadline for completed Graduate Student Questionnaire
Week 2	Information Skills workshop
Week 4	Project Management workshop Institute of Materials, Minerals & Mining Talk
Week 5	Looking to the Future workshop Project Management Form 1
Week 7	Managing your References Workshop
Week 8	Poster Presentation Skills workshop
Weeks 1-8	Attend graduate courses (including 2 assessed) Thursday Departmental colloquia
Hilary Term, January - April	
Week 2	Presentation Skills and Powerpoint workshops
Week 4 (TBC)	LabView workshop
Week 4	Writing Skills, Lab Notebooks, IPR and Patents workshop
Weeks 1-8	Attend graduate courses (including 2 assessed) Thursday Departmental colloquia

Trinity Term (including the Long Vacation), April - October	
Week 0	Deadline on Monday for first year report
Week 1	Project Management Form 2
Weeks 1-4	Thursday Departmental colloquia
Week 2	Knowledge & Technology Transfer Workshop
Weeks 3, 4, 5	Fridays, 10.00 am – 6.00 pm, First Year Vivas – KEEP ALL DATES FREE!
TBC	Patent Information
30 September	Deadline for Literature Reviews

2nd Year	
Michaelmas Term, October - January	
Early October	Application for transfer from Probationary Research to DPhil status (form GSO2)
Week 5	Project Management Form 3A
Week 7	Poster Presentation Skills Workshop (if not attended in year 1)
Weeks 1-8	Thursday Departmental colloquia
Hilary Term, January - April	
Week 2	Presentation Skills and Powerpoint Workshop (if not attended in year 1)
Week 4	Writing Skills, Lab Notebooks, IPR and Patents Workshop (if not attended in year 1)
Week 7	2nd Year Talks, Tuesday, Wednesday & Thursday, 10.00 am – 6.00 pm, KEEP ALL DATES FREE! Hetherington Prize
TBC	Academic Writing Course (for non-UK students)
Weeks 1-8	Thursday Departmental colloquia
Trinity Term (including the Long Vacation), April - October	
Weeks 1-4	Thursday Departmental colloquia
Week 5	Project Management Form 4 (to include thesis outline)
Weeks 1-8	Thursday Departmental colloquia
July	Application for appointment of examiners (form GSO3)
September	Submission of thesis

Note: The JCCG will meet every term at 12.30 pm on Wednesday of Week 1.

4. RESEARCH SUPERVISION

You will be supervised by a single Supervisor or two or more Joint Supervisors (for the case where projects involve expertise in more than one area). You might also have an External Supervisor, for example if your project involves collaboration with another university or an industrial company or laboratory. Your supervisor(s) will be your main source of information and advice throughout the course of your research. Their responsibilities include:

(i) planning the framework of your research programme (in the light of the course structure discussed in sections 2 and 3);

(ii) advising you about lecture courses, both specialist and broadening (see section 6.1);

(iii) advising you about transferable skills and more generally about skills-training courses, including those on research techniques (see section 6.2);

(iv) advising you about safety;

(v) advising you about literature sources;

(vi) meeting regularly with you to discuss your work;

(vii) keeping you informed of your progress (both informally and through the formal report submitted to the Graduate Studies Office at the end of each term, taking into account the project management forms submitted at regular intervals to the Department by you (see section 5);

(viii) advising you about the content of written submissions such as your first year progress report, literature review, 2nd year talk, 3 year poster and your thesis;

(ix) offering informal guidance on careers.

Continuation on the course depends on your satisfactory progress, so you should take very seriously any warnings expressed by your supervisor(s) that you are not working as well as you ought. You should also bring to their attention, in good time, any problems that are significantly affecting your progress whether academic or personal, before the situation becomes too serious. The University, Department and College carefully monitor the progress you make with your project, and copies of your supervisor(s) reports will be sent to the Director of Graduate Studies and to your College Tutor for Graduates and your College Advisor.

We encourage you to attend the workshop on “Owning a Successful DPhil” run each Michaelmas Term by members of our JCCG (the staff-graduate student liaison committee), which includes valuable advice from current students on how to work with your supervisor.

It occasionally happens during the course of a research degree that relations between the student and the supervisor(s) can become strained, perhaps due to differences in opinion as to the direction in which the research should proceed. You will, therefore, be assigned a Departmental Advisor who is familiar with the field of your research and to whom you can turn for independent advice. Remember that your Departmental Advisor should be someone other than any of your supervisors: during the first few weeks in the Department you need to agree with your supervisor(s) who should be your advisor. Of course, the Director of Graduate Studies and members of the Graduate Studies Panel (see section 15) are also always available for a confidential chat. In addition, you might like to seek advice from your College Advisor (who will be assigned by College) or your College Tutor for Graduates. Please note that your College Advisor must not be one of your supervisors. The Department and Colleges work together to ensure that your time here in Oxford is as trouble free as possible. It is a good idea to meet your advisors during your first term as a probationary research student. Informal advice is available from your JCCG representatives.

For more information on the expectations and responsibilities associated with research supervision please see the following:
The annex to the Grad Questionnaire in Appendix I of this handbook and Appendix IX of this handbook,
The Oxford Examination Regulations memorandum of Guidance for Supervisors and Research Students (section 7 of http://www.admin.ox.ac.uk/examregs/25-54_1_Regulations_governing_the_content_and_length_of_theses.shtml);
The resources provided by the Oxford Learning Institute at http://www.learning.ox.ac.uk/supervision/;
The resources provided by Vitae http://www.vitae.ac.uk/researchers/1234/Supervision-and-key-relationships.html.

The Department takes safety matters very seriously. It is compulsory, and part of the Induction Course, that you attend the **Safety Lecture** by Dr Andrew Watt at 10.00 am on Tuesday of Week 1 (15th October 2013). You will not be allowed to undertake any experimental work until you have received adequate safety training. An important policy of the University Health and Safety Committee is that a **Deputy Supervisor** must be appointed to cover for times when your sole supervisor or all your joint supervisors are absent, either in the short-term at conferences and holidays or in the long-term on sabbatical. Therefore, during your first few weeks in the Department you also need to agree with your supervisor who should deputise in event of absence. This person need not have a detailed knowledge of your research (hence, the term 'Deputy Supervisor' is somewhat misplaced!). He or she must simply know enough to approve any novel experimental work or to stop it if worried by the

safety aspects. However, there is no problem if your Departmental Advisor also acts as your Deputy Supervisor, if s/he agrees.

Once you have agreed, in consultation with your supervisor(s), on your Departmental Advisor and Deputy Supervisor, you must inform the Graduate Studies Secretary. You can do this by entering the names on the Graduate Student Questionnaire, a copy of which is included as an appendix to this handbook. Make sure you complete all the items on this form and return it to Marion Beckett by the end of Week 1 (18th October 2013).

5. PROJECT MANAGEMENT

A Project Management scheme is included in the graduate course structure. The forms can be found at http://www.materials.ox.ac.uk/teaching/pg/pgprojectmanagement.html. This allows and encourages you as the student to take responsibility for the successful outcome of your research by assessing expectations and progress throughout the duration of your programme (see the 'project management form' entries in the DPhil Diary and the Two-Year MSc by Research Diary). It will enable you to flag up any concerns you might have that your research is not keeping to schedule, so that your supervisor and, if necessary, the Graduate Studies Panel can consider whether to take remedial action. If you are expressing such concerns on a particular Project Management Form, you must also send a short e-mail to the Director of Graduate Studies to warn him of this. He will then consider your Project Management Form as a priority matter.

It is, therefore, compulsory that you attend the Project Management workshop on Wednesday of Week 4 (6 November 2013) during which initial training is provided and the workings of the scheme will be explained. In advance of this workshop you are requested to prepare a first draft of your Project Management Form 1 (excluding the Work Breakdown Structure and Gantt Chart), for which purpose you will need to discuss your project with your supervisor.

Experience of basic project management, a useful generic skill, is valued by graduate recruiters, and for those of you who remain in academia Gantt charts are often a requirement when academics apply for research funding.

6. GRADUATE COURSES

6.1. ASSESSED COURSES

The examiners of your DPhil or MSc thesis will be asked to state whether they are satisfied that 'the candidate possesses a good general knowledge of the particular field of learning within which the subject of the thesis falls'. The role of lectures is, therefore, not only to deepen your knowledge in your own specialist area of research but also to broaden your general knowledge within materials science and engineering. Accordingly, the first requirement for transfer from PRS to DPhil/MSc status is that you have passed two assessed courses, at least one of which must fall in an area **not** directly related to your own research topic. The extensive programmes of colloquia offered by the Department fulfil a similar broadening role.

To pass an assessed course you must (i) normally have attended a significant proportion of the complete course of lectures (some lecturers will define this more specifically in the synopsis for the course) and (ii) obtain a grade of at least 50% on the written work set by the lecturer (this is equivalent to a 'Pass' at MSc level and is regarded as satisfactory for the purpose of transfer of status.

The handbook on 'Postgraduate Lecture Synopses and Research Colloquia' lists the assessed courses on offer under the title 'Postgraduate Teaching'. These include the third year undergraduate options, which you may attend and offer for assessment by participating in the appropriate tutorials or classes – provided, of course, that you have not already taken the course as an undergraduate! Other courses are assessed by a series of mathematical problems or written questions that you must complete and submit to the lecturer for marking. You should agree your choice of assessed courses with your supervisors, to make sure they are acceptable for your transfer requirement.

Due to the diverse range of students' academic backgrounds and the increasingly interdisciplinary nature of modern research, your supervisor might advise you to attend courses other than those listed, either others given within the Department (eg the first year Crystallography course) or from outside. The MPLSD Graduate Academic Programme Web Learn site https://weblearn.ox.ac.uk/portal/site/mpls/gap/page/module_signup provides a searchable listing of all postgraduate courses that are being given within the Mathematical, Physical and Life Sciences Division. If you wish to offer a course from another department as one of your **two assessed courses**, then you should first discuss whether this is appropriate with your supervisor and then request approval from the Director of Graduate Studies (DGS). Once approval is given, you can book a place on the course via the GAP Weblearn interface. Provided your performance on the course can be properly assessed, the DGS will be sympathetic to your request because the Department's

policy is to make graduate provision responsive to the needs of the individual student. Please do **not** use the GAP booking system for Materials courses.

If you attend a Materials undergraduate lecture course as one of your assessed courses, please let the lecturer know so that he/she is aware of the need to provide an assessment for you. Please put your name on any work submitted plus (graduate) in brackets so the assessor knows you are a postgraduate and not an undergraduate.

Usually in Hilary term the lecturer will inform the DGS (via Marion Beckett) if your performance in the assessed work was satisfactory. The lecturer will also provide you with feedback on your performance. Normally this will be provided within four working weeks of your submission of the work for assessment, may be verbal or written, and will comprise more than just a grade or a short sentence.

Note that the handbook on 'Postgraduate Lecture Synopses and Research Colloquia' gives only the list of lectures and the term in which they are given. The lecture times and venues will be available at the start of each term and can be found on the Department web site under http://www.materials.ox.ac.uk/teaching/lecturelists.html. Information on courses and workshops offered by the MPLS Division is available at http://www.mpls.ox.ac.uk/introduction-graduate-training. Lecture courses and workshops offered by other departments can be found via a searchable listing of some 400 courses, together with a sign-up tool by clicking on the GAP link on either of the above websites.

MATERIALS MODELLING

In the first two weeks of Hilary Term a full-time course on materials modelling is run. This will count as two assessed courses towards the requirements for transfer of status from PRS to DPhil. Please note that places are very limited on this course as it is primarily an undergraduate course and capacity is restricted by workstation availability.

6.2 SKILLS-TRAINING COURSES (Research Skills and Transferable Skills, see sections 8 and 17 of this Handbook for Teaching Skills)

Graduates need to be skilled not only in the experimental and/or theoretical techniques relevant to their own research, but also in skills for communicating their results to a wider audience and for managing their own research programme and future career development. The handbook of 'Postgraduate Lecture Synopses and Research Colloquia' lists the different skills courses on offer under the title 'Postgraduate Training'. You should keep a log-book or portfolio to record the various training that you undertake, of all kinds, formal and informal, since you may be asked to summarise

this by your research sponsor or by a prospective employer and you will be required to summarise it on your applications for transfer of status and confirmation of status. There is an expectation by some sponsors and by the University that you will engage in approximately 10 days per annum of transferable skills training during years one to three of your research degree. Included in the 10 days is skills training and feedback provided by your supervisor, for example on presentation skills, report writing or writing a scientific paper.

Transferable skills are those in addition to your academic and research skills that employers both inside and outside academia are looking for. The government and funding agencies believe that these skills are essential for maintaining employability in a global economy which is increasingly requiring people to respond to and anticipate change. University College London on their website http://www.ucl.ac.uk/ppd/resources/framework has presented a table of these skills with links to further information on each topic:

Academic		
Learning Actively	Analysing Data	Thinking Critically
Using Resources	Solving Problems	Managing Projects
Self-Management		
Reflecting on learning	Managing Time	Being Creative/Innovative
Assessing Oneself	Being Independent	Managing Resources
Communicating		
Writing	Listening	Using Information Technology
Presenting	Communicating Globally	Planning and Making Decisions
Working with Others		
Working in Teams	Negotiating	Leading
Understanding Others	Assessing Self and Peers	Managing Change

Further information about these graduate skills can be found on the EPSRC website and at http://www.vitae.ac.uk. See in particular the Researcher Development Framework and Statement at http://www.vitae.ac.uk/CMS/files/upload/Researcher%20development%20statement.pdf and http://www.vitae.ac.uk/CMS/files/upload/Vitae-Researcher-Development-Framework.pdf.

Skills training available to you as graduate students includes:

(i) Project management skills (Dr A O Taylor and others, MT Week 4);
(ii) Presentation skills (Staff of OUCS & Dr A O Taylor, HT Week 2);
(iii) Writing skills, lab notebooks, IPR and patents (Dr H E Assender & others, HT Week 4);
(iv) Information skills (Staff of Bodleian, MT Week 2);
(v) Career-planning (Alumni of Dept, OU Careers Service & Dr A O Taylor, MT Week 5);

(vi) Workshop skills (Laurie Walton, throughout year);

(vii) Microscopy skills;

(viii) MPLS GRAD Challenge, second (or third) year;

(ix) Institute of Materials – Benefits of student membership (Mr D Arthur, MT Week 4);

(x) Poster presentation skills (Dr A O Taylor, MT Week 7));

(xi) Teaching skills (Lecturing, laboratory demonstrating, tutorials, classes, maths classes, advanced A/V equipment [see lecture lists]);

(xii) Managing your References - Bibliographic software (Dr L Ristic, Bodleian, MT Week 7);

(xiii) Academic Writing Skills (for non-native English speakers);

(xiv) Foreign Language Skills (register on-line with the OU Language Centre http://www.lang.ox.ac.uk/courses/index.html by Wednesday of MT Week 1);

(xv) Managing Your DPhil (see MPLS Division Skills training web pages);

(xvi) Future Focus (OU Careers Service, for final year research students, how to access the jobs market, repeated termly);

(xvii) ISIS Innovation Ltd – Knowledge and Technology Transfer (TT Week 2, tbc);

(xviii) Labview Workshop (National Instruments UK, HT usually Week 3 or 4);

(xix) Patent Literature (Dr L Ristic, Bodleian (TT)

(xx) Owning a successful DPhil (run by JCCG, MT date tbc)

Attendance at the Project Management Workshop in Week 4 of Michaelmas Term is compulsory.

It is also strongly recommended that you attend some of the workshop sessions in Hilary Term on 'Presentation skills' and on 'Writing skills', since you will need the former to give a good presentation at your first-year viva (see section 10) and second-year talk (see section 12) and you will need good writing skills for your first-year report (see section 10) and your thesis (see section 13). These courses assume you know the basics of word processing and use of Powerpoint, but introductory courses to these (and a wide range of other IT courses) are available from the University Computing Service (http://www.oucs.ox.ac.uk/itlp/).

Students whose first language is not English, should attend the courses on 'Academic Writing' and 'Advanced Communication Skills' that are offered by the Oxford University Language Centre at 12 Woodstock Road (http://www.lang.ox.ac.uk).

You should also attend the lecture in Week 2 of Michaelmas Term on 'Information Skills' as the latter is critical for accessing the research already done in your chosen field. Information on accessing and searching the materials literature can be found at http://ox.libguides.com/.

In Michaelmas Term of your first year some alumni of the Department, together with a representative from the Oxford University Careers Service, will run a compulsory and very useful workshop on Career Planning - Looking to the Future. Further information about the Careers Service can be found on their website (http://www.careers.ox.ac.uk).

Towards the end of your degree there is an opportunity to discuss career opportunities for Materials Scientists on a one-to-one basis with several Alumni of the Department. This complements the many activities available through the OU Careers Service.

Some of you may find it useful to attend the course 'Scientific Computing for DPhil Students' which is run by the Maths Institute every other year. The next course will run in MT 2014 and HT 2015 and is usually scheduled for Mondays and Fridays at 3.00 pm in weeks 1-6 of Michaelmas and Hilary term, in the Mathematical Institute (24-29 St Giles') and given by Dr Colin Macdonald (please note that at the time of going to press the details for MT2014/HT 2015 are to be confirmed, but further details can be obtained from Lotti Ekert, lotti.ekert@maths.ox.ac.uk).

Since Materials Science is strongly linked with technology and therefore wealth creation, you might like to develop your business skills by attending some or all of a set of lectures in a series called 'Building a Business' organised by The Oxford Centre for Entrepreneurship and Innovation', part of the Saïd Business School. The lectures take place at 5.30pm on Tuesdays at the Said Business School.

Lecture 1, Taking the first steps: Company basics – 29 October 2013
Lecture 2, Evaluating a business idea - 5 November 2013
Lecture 3, From business models to business plans - 11th November 2013
Lecture 4, Protecting your ideas: Intellectual property – 19 November 2013
Lecture 5, Marketing and product development – 26 November 2013
CHRISTMAS BREAK
Lecture 6, Raising capital, doing deals - 28 January 2014
Lecture 7, Negotiation skills – 4 February 2014
Lecture 8, Understanding financial control – 11 February 2014
Lecture 9, Creating an innovative, compelling and sustainable business - 18 February 2014

Further details of the course and registration information can be found at the following web address: http://www.sbs.ox.ac.uk/entrepreneurship. The lecture on 'Intellectual Property' is particularly recommended, as understanding intellectual property rights (IPR) is very important for all researchers, whether academic or in industry. You should note that the University has in place arrangements governing the ownership and exploitation of intellectual property generated by

graduate students in the course of their studies. The University claims ownership of certain forms of intellectual property that students may create, as described in the policy document included as an appendix. From time to time the MPLS Division also arranges courses on Intellectual Property and Entrepreneurship and Enterprise.

The MPLS Division runs a very useful workshop on 'Foundations for a Successful DPhil' (usually in Hilary Term) which complements the Department's Project Management Scheme, details can be found at http://www.mpls.ox.ac.uk/foundations-successful-dphil#overlay-context=user.

As mentioned already in Section 4 of this Handbook, in Michaelmas Term the JCCG run a workshop on "Owning a Successful DPhil".

If you wish to attend a transferable, academic or research skills training course that is not offered by the Department of Materials or MPLS Division and for which a fee is charged, you may apply to the Director of Graduate Studies for funding using a copy of the form in the appendix of this handbook.

If you wish to use the supervised workshop in the basement of the Hume-Rothery building, then it is mandatory that you first attend a Workshop skills course given by Laurie Walton, the Head of Workshop.

Similarly, if you wish to use the electron microscopes, then you should first complete an access and training request form (see section 7 of this Handbook).

You should also attend the lecture in Week 4 of Michaelmas Term by Sarah Boad on the benefits of student membership of the Institute of Materials. The receipt of their monthly magazine 'Materials World' and attendance at their meetings should both increase your general knowledge and improve your networking skills!

Further transferable skills training information and courses can be found via the University's 'skills hub' at https://weblearn.ox.ac.uk/portal/hierarchy/grad, and in the MPLS Division's Graduate School "Graduate Skills Training Handbook" with which you have been issued (see also http://www.mpls.ox.ac.uk/learning/training-research-staff) and on the GAP database https://weblearn.ox.ac.uk/portal/site/mpls/gap/page/module_signup.

The Skills Hub is a Web Learn resource created for all research students, postdoctoral researchers and their supervisors at Oxford. It provides quick links to a wide range of research, academic and transferable skills training offered throughout the University.

For example in addition to the transferable skills training courses offered by the Materials Department, the MPLS Division's Graduate School and other academic departments, the Oxford University Computing Centre and the Bodleian Library provide a wide range of courses (for these and other courses see http://www.skillstoolkit.ox.ac.uk), and courses in foreign languages are offered by the Oxford University Language Centre (http://www.lang.ox.ac.uk).

6.3 VITAE and GRADChallenge

Vitae was set up under the sponsorship of the UK's Engineering and Physical Sciences Research Council (EPSRC). The Vitae website contains an excellent section, originally designed by postgraduates, 'Postgraduate Researchers', and you are strongly advised to browse through this at your earliest convenience (http://www.vitae.ac.uk/researchers/1218/Postgraduate-researchers.html). It contains several interlinked sections, including:

- Managing yourself – evaluating your skills, setting personal objectives
- Managing your research project – time management, managing your supervisor, support mechanisms
- Developing your career – building a career plan, effective networking
- Completing your doctorate – tips on writing your thesis, submission and viva
- Supervision and key relationships.

In their February 2001 review of the original site, Science magazine wrote: 'The great strength of this site is that it has been put together for a very specific target group (doctoral students) and has clearly been written by people who know what they are talking about. From the 'eight problems you can beat' - such as lack of motivation, poor time management, and limited support - to the 'nine factors to tip the balance' in your favour when it comes to getting an academic job, this site is tailored to the needs of doctoral students and uses genuine examples. It talks about issues that are difficult to research elsewhere, such as building a good working relationship with your supervisor and writing up your thesis'.

You might find the UK Grad monthly bulletin for research students of interest at http://vitae.ac.uk/researchers/4069/PGR-tips-email-bulletin.html.

Vitae also organise GRADSchools but there is a substantial fee to be paid (currently the fee is £695+VAT and participants are expected to attend for the duration of the programme). Travel to the venue is additional). If you are especially keen to attend a Vitae GRADSchool and can offer good reasons for this, it may be possible to fund two or three EPSRC-funded students at most to attend

one of these external events. In the first instance you should arrange to discuss this with the Director of Graduate Studies.

The MPLS Division arranges an Oxford Graduate School known as GRADChallenge which is likely to take place in September 2014 and you may attend this at no charge even if you are not sponsored by the EPSRC. We recommend that you attend a Graduate School during the summer of your second year. The purpose of these schools is to help graduates develop their awareness of key transferable skills and enhance their career development. Further information about the GRADChallenge graduate school can be found at http://www.mpls.ox.ac.uk/content/grad-challenge-2013. In the Materials Department we encourage all students to consider attending the GRADChallenge, but you should seek permission from your supervisor and note that it is a voluntary transferable skills activity.

7. TRAINING IN ELECTRON MICROSCOPY

The Electron Microscopy (EM) Facility offers an extensive range of research instrumentation, and training courses that run throughout the year. The EM Facility allocates researchers to training courses that are suitable and timely for their research projects. A provisional plan for EM access and training is drawn up between EM research support and project supervisors prior to the arrival of new graduate students in order to get teaching and training off to an efficient start. Researchers normally master one technique or instrument before embarking on the next, and training is tailored to match instrument capability with the scientific objectives of user projects. There are three research support scientists, each specialist in one of the three main technique areas of scanning electron microscopy (SEM), transmission electron microscopy (TEM) and focused ion beam (FIB).

EM training courses are designed to teach new users how to obtain the required data for their research project and also use the instrumentation safely. Following successful completion of a training programme, "approved users" may book equipment themselves, operating within the booking rules detailed on the website and on-line booking form. These are designed to give a fair share of instrument time to all. Requests for additional instrument access outside the booking rules should be directed to the relevant support scientist. EM support scientists are here to make sure you get the most out of EM for your research project so do not be afraid to ask questions about EM or data analysis.

The Postgraduate Synopses booklet contains the EM training course synopses and details of associated post-graduate level lecture courses. More information can be found at http://www-em.materials.ox.ac.uk/. Applications for training and access will normally be made by your supervisor using the form provided in consultation with the relevant research support scientist.

For further information please contact EM Facility staff at emaccess@materials.ox.ac.uk , or Dr Neil Young directly at neil.young@materials.ox.ac.uk.

8. SCIENCE, TECHNOLOGY, ENGINEERING AND MATHEMATICS (STEM) AMBASSADORS SCHEME

What are the schemes about?

These are important schemes that aim to put "real" scientists and engineers in school classrooms with the intention of motivating school children towards further study and careers in science and engineering. This is a serious concern for the Government, since falling numbers of scientists and engineers involves not only the closure of university departments and lost research, but the eventual loss of jobs as industries move abroad to countries where sufficient able graduates can be recruited.

What does a STEM Ambassador do?

STEM Ambassadors co-operate with teachers in a variety of ways depending on the needs of the school and the skills of the Ambassador. Examples include careers advice and helping with projects or school clubs.

What do I gain?

Apart from it being good for the Department as a whole if some of our research students are involved with such schemes, it is a good thing to have on a CV for jobs in industry or education: for anyone even remotely thinking of a career in teaching it can be very helpful indeed as it provides useful contacts in teaching and a good insight into what is involved. Anyone who is already involved with schools through their children, as governors etc., may also find it useful. Finally, developing communication skills with the general public, as well as communicating with other scientists and engineers, is a valuable personal skill in itself.

Where can I find out more?

Information on http://www.scienceoxford.com/schools/stemnet/stem-ambassadors will be helpful and you can apply online directly from this website. Further information is available from Jayne Shaw, the Schools Liaison Officer in the Department. (Email: jayne.shaw@materials.ox.ac.uk, Tel: 73710).

9. DEPARTMENTAL COLLOQUIA

We have seen that the first requirement for transfer from PRS to DPhil/MSc status is that you have passed two assessed courses. The second requirement is that you have attended at least seven

colloquia during your first two terms, to include at least three of the Department's Thursday afternoon Colloquia during this period. A list will be circulated at each Departmental colloquium for you to sign, thus providing a record that you were present. **The Department regards attendance at the Thursday afternoon colloquia as very important in broadening your general knowledge about materials science and engineering**. The invited lecturers are asked to spend the first part of their talk in bringing up to speed graduate students with little or no expertise in the colloquium topic. Coffee and biscuits is served immediately before the colloquium in the foyer outside the Hume-Rothery lecture theatre. This is to encourage students and others to meet the speaker, if they so wish, and to discuss the topic of the talk amongst themselves and with the other academic staff attending.

At least three of the seven colloquia must be from the Department's Thursday afternoon series.

Subject to the above constraint:

(i) some students involved in interdisciplinary projects may feel they want to attend colloquia in other departments in order to broaden or deepen their knowledge of other subjects. This is acceptable.

(ii) some students may wish to broaden their knowledge by attending other colloquia, seminars, etc organised within the Materials Department (eg Begbroke, MML, Characterisation or QIP seminars and ad hoc colloquia). This is acceptable provided that the colloquium is NOT from the series run by your own main research grouping (normally, subject to guidance from your supervisor, you are expected to attend these anyway). For example MML students may not count the MML seminars, but may count QIP or Characterisation Seminars, etc.

In cases (i) and/or (ii) above, the Department will accept towards the 1st year course requirement attendance at up to 4 colloquia that are not part of the Thursday afternoon series. Students will need to obtain the agreement of their supervisor in advance that such substitution is appropriate. As there will be no signing-in sheet in these cases students must ask their supervisor to e-mail the Graduate Studies Secretary to confirm their attendance. If there is to be more than one colloquium attendance offered towards the requirement and not drawn from the Thursday afternoon series, it is recommended that students ask their supervisor provide the confirmation of attendance in one go at the end of term. Details of colloquia being held in the Departments of the Mathematical, Physical and Life Sciences Division can be found at the following website address: http://www.mpls.ox.ac.uk/research/events.

10. FIRST-YEAR REPORT AND VIVA

The Viva

The third requirement for transfer from PRS to DPhil/MSc status is that you submit a satisfactory first year report and pass your first year viva, which is usually held on a Friday during weeks 3, 4 or 5 of Trinity Term. (This academic year these correspond to 16 May, 23 May or 30 May 2014 respectively **– you must keep all of these dates free.**) The viva involves you giving a five-minute summary on the progress of your research during the first year. This oral presentation will be based on the written 2,500 word first-year report that you will have already submitted to the Director of Graduate Studies. At the viva you will be asked to give a short (strictly 5 minutes only) introduction to your project, including an indication of the new science it is anticipated that the project will lead to if all goes to plan (this should be summarized on a single slide), and an outline of the work that you have done so far, ending with a single slide on the visualiser to display the proposed timetable for completion of your DPhil or MSc thesis (as a Gantt chart). If you wish you may use visualiser slides for the main part of your presentation as well. **You must use a visualiser, rather than Powerpoint or an equivalent**, due to tight time constraints between the vivas. Please note this 5 minute presentation is NOT meant to be a conference style research talk, where the focus would be on results and interpretation of the new science. Your five-minute oral presentation will be followed by 5-10 minutes of questions or suggestions from members of the Department. The Director of Graduate Studies will also raise any apparent problems you might be having with your two assessed courses, attendance at the Departmental Colloquia, project management or transferable skills training. (No technical questions will be asked about courses or colloquia).

The vivas are always held in a friendly, informal atmosphere. (There is no need to don the black and white attire of Oxford University's *subfusc* academic dress.) The intention is to provide helpful and useful feedback to you (and sometimes your supervisor!) on the progress and directions of your research. Normally the Director of Graduate Studies will send you a letter sometime in July after the viva, or sooner if time permits, detailing any feedback and letting you know the outcome of the viva. Very occasionally PR students are requested to attend a new viva at some later date if serious concerns are expressed over their progress or research direction. In cases where we have serious concerns you will receive feedback as soon as possible after the vivas. You should note in your diary now that workshops on 'Presentation skills' and 'Writing skills' will be given during Week 2 and Week 4 respectively of Hilary Term. This is well in advance of your viva and should help you with the preparation of your five-minute talk and 2,500 word report. You should discuss with your supervisor the content of your 5 minute talk, the nature of the viva and the content of your written progress report.

The First Year Report

The report should be no more than 2,500 words (excluding the title page, table of contents, acknowledgements, references, figure captions, project management form and Gantt Chart). It should give an account of the background to your project (including references to the **key** literature), an outline of your research plans for the 3 (or 3.5) years (including an **explicit** indication of the new science it is anticipated that the project will lead to if all goes to plan – typically this new science section should be 300-500 words in length), and a description of the progress you have made so far. You should also include a completed Project Management Form 2 (available on the web) as an appendix to the report (bound at the end). This should incorporate your revised Gantt Chart for the whole period of your degree, which will include the dates when you expect to complete the various tasks.

The report should be bound, printed double-sided, formatted for double spacing with 3.5 cm left margin and 3 cm for top, bottom and right hand margins, using either Times New Roman 12 font or Arial 11 font (note left margin slightly bigger to allow for binding). Four copies should be handed to Marion Beckett (Room 30.21, Hume-Rothery Building) by noon on Monday of week 0 (21 April 2014).

Provided you have successfully completed your two assessed courses, attended sufficient Departmental Colloquia and your first year report and the viva are satisfactory, at the end of your first year the Director of Graduate Studies will send you form GSO2 to apply for transfer from PRS to DPhil or MSc status. It is a requirement that you complete the section which reviews your transferable and research skills training to date and future needs in this respect. This transfer of status is then subject to approval by your supervisor who will take into account your progress during the whole of your first year.

11. LITERATURE REVIEW

By the end of your First Year you must successfully complete a Literature Review, the aim of which is to ensure that early in your project you are fully conversant with the prior research in your area of study. The Literature Review and the earlier First Year Report also provide vehicles for you to practise your scientific writing skills and for your supervisor to advise on any further training that might be necessary. Your Literature Review should be completed and two copies submitted to the Graduate Studies Secretary by 30th September 2014. It should be bound, printed double-sided, formatted for double spacing with 3.5 cm left margin and 3 cm for top, bottom and right hand marks using either Times New Roman 12 font or Arial 11 font (note left margin slightly bigger to allow for binding). The Review should comprise a 7,000 to 10,000 word survey of your research field (the word count excludes the title page, table of contents, acknowledgements, references and figure

captions). Your survey should not omit any references to work that would crucially affect the nature or direction of research, but it should not simply be a catalogue. It should show critical judgement and discussion, and above all it should tell a scientific 'story', setting the scene for your own work. You should regard this as the preparation of one chapter of your eventual thesis. Its structure and content are discussed further in the 'Writing Skills' workshop. Your Literature Review will be read by a member of the Department whose comments on overall standard, breadth of coverage, critical judgement shown, and style and presentation of the review will be copied to you. A satisfactory Literature Review is a requirement for confirmation of status. The Director of Graduate Studies will usually send you feedback either at the end of December or by mid-January.

A strong incentive for writing a high-quality critical review is provided by the Institute of Materials, who offer a £350 Materials Literature Review Prize for the best review from a graduate studying in the UK. Further information can be found on http://www.maney.co.uk/index.php/materials-lrp. Winning reviews are published in the Institute's journal, Materials Science & Technology. Students from the Department have won a number of prizes in the past, so a high standard has been set.

12. SECOND-YEAR TALK

Tuesday, Wednesday and Thursday (10.00 am – 6.00 pm) of Week 7 in Hilary Term are reserved for the second-year talks, in which the students present their current research findings. **You must keep all of these days free**. You are required to include in your introduction one slide which explicitly identifies the key new science which the project has led to and/or is expected to lead to. The talk should include an appropriate introduction for a mixed audience of Materials Scientists, but focus mainly on your own results, the interpretation of these results and how they relate to other work in the field. The talks are each allocated 20 minutes which comprises 15 minutes for presentation and 5 minutes for questions. Please take care to time your talk carefully. You are requested to load your slideshow onto the desktop of the PC in the lecture theatre in advance of your session – remember to include your name in the filename! Second year students might like to brush up on their presentation skills by attending the lecture in Week 2 of Hilary Term. It is a requirement for confirmation of status that your progress as indicated by this talk be judged as satisfactory by the senior member of staff who chairs the session.

The best talk in terms of preparation and presentation is awarded the Hetherington Prize. This provides a prize of £100 and the winner's name is added to the list on the award board in the foyer to the library. The talks will be judged by the Director of Graduate Studies and by the senior members of academic staff that chair the sessions. They will be looking at the quality of the visual aids; the pace and diction; the structure of the talk; the ability to get points across to a mixed audience at peer-

group level; self-confidence and the handling of questions; effectiveness of your presentational style; and timing. The Director of Graduate Studies will give generic written feedback to the speakers within a week of the talks and will provide individual written feedback when time permits during the Long Vacation.

13. THESIS WRITE-UP, SUBMISSION AND VIVA

The 'Postgraduate Researchers' section of the Vitae website http://www.vitae.ac.uk/researchers/1240/Writing-your-thesis.html contains an excellent section on 'Writing-up', with many helpful tips. Some of these will be covered during the 'Writing skills' lecture in Week 4 of Hilary Term, which will also deal with the practicalities of producing the thesis.

The primary source of advice on the structure and scientific content of your thesis is your supervisor. Before you first discuss this with her/him you should look at a recently published thesis from your research group.

You will need to prepare at least four copies of the thesis: one for the University's Bodleian Library, one for the Department's Library, one (or more) for your supervisor(s), and one for yourself. You are also required to submit an electronic copy of your thesis to the Oxford Research Archive (unless you request otherwise this digital copy of your thesis will be under an automatic three year embargo – only after this period will it be accessible via the ORA). For this purpose you will need to provide copies of permissions granted for the use of any copyrighted material that may be within your thesis (see Section 21, under 'copyright'). It is up to you to cover the cost of producing the copies of your thesis. However, you can claim a contribution of £30 towards the cost of DPhil or MSc theses when you submit one final hardbound copy to the Department Librarian. At this time the Department would also like you to provide the Librarian with 2 pdf copies of your thesis (on CD's).

Further detailed information on the examination process may be found in:

(i) **the notes of guidance (http://www.ox.ac.uk/students/academic/graduates/forms/) from the Graduate Studies Office. You should look at these notes early on during the writing of your thesis and make sure that you are in a position to submit form GSO3 and, if needed, GSO3c, GSO6 and GSO16 four to six weeks prior to submitting your thesis.**

(ii) the 'Mathematical, Physical and Life Sciences Division's Graduate Handbook 2012-13' (http://www.mpls.ox.ac.uk/graduate-training-handbook). This contains useful sections on the preparation and submission of theses, the appointment of examiners and examination arrangements, and the notification of the results of the viva and the conferring of the degree.

(iii) the University Examination Regulations (the "Grey Book"), look at chapters on Regulations for Degree of DPhil [MSc (Research)], General Regulations of EdC governing … MSc(Res), MLitt and DPhil, and Special Regulations – MPLSD – Physical Sciences Regulation 6 for MSc or DPhil - see http://www.admin.ox.ac.uk/examregs/contents.shtml. At the time of writing these are Chapters 16, 17 and 18.

It suffices to note here that for the award of a DPhil you will need not only to have demonstrated a good general knowledge of your research discipline but also to have presented '**a significant and substantial' piece of research of a kind which might 'reasonably be expected of a capable and diligent student after three or at most four years of full-time study**' (from Oxford University's 'Examination Regulations'). External examiners will interpret this phraseology to mean that the DPhil thesis exhibits '**substantial evidence of original scholarship and contains material worthy of publication**' (from the website http://www.vitae.ac.uk). For the award of an MSc the standard required is that the candidate should have made '**a worthwhile contribution to knowledge or understanding of a kind which might reasonably be expected after two years of full-time study**'.

Note the word limits for Materials Science theses:

(i) MSc (by Research) 25,000 words;
(ii) DPhil 40,000 words.

Only in exceptional circumstances will your supervisor be able to make a case to the Director of Graduate Studies for an increased word limit. There is no limit on references, diagrams, tables, photographs, computer programmes, etc.

Materials Science theses must be A4 size and formatted with double line spacing. Further details can be found in document GSO21. You are advised to use a font size of Arial 11 or Times Roman 12.

For the purpose of the examination, you only need to submit two soft-bound copies of your thesis (though you ought to make a third copy for yourself). Normally these are submitted a few weeks after the form GSO.3 for Application for Appointment of Examiners. Once appointed the internal examiner (usually a senior member of the Department) will contact you to arrange a date for the viva. This is usually 2-3 months after submission of your thesis, but special arrangements can be made for an early examination if you have good reason to need this. In this case, you should contact the Department's Graduate Studies Secretary well in advance of submission to ensure all the paperwork is handled quickly.

If all goes well at the viva you will be granted 'leave to supplicate', a quaint Oxford term dating back to 1691. You will then submit to the Examination Schools forms GSO3a and GSO26 together with a hard-bound copy of your thesis incorporating any amendments required by the examiners for deposit in the Bodleian Library and wait for a suitable Saturday when you may have your degree conferred at the Sheldonian Theatre. Good luck!

Useful Books: W E Russey, H F Ebel and C Bliefert, How to Write a Successful Science Thesis (Wiley, 2006);
R Arshady, Science and Medical Style Guide, Volume 1 (Kentuo, 2006);
H Kirkham, R C Dumas, The Right Graph: A Manual for Technical and Scientific Authors (Wiley, 2009).

Two bound copies of the Thesis and an additional copy of the thesis abstract must be delivered to the Examination Schools, Research Degree Exams Office, High Street, Oxford, OX1 4BG. Staff at researchexams@admin.ox.ac.uk may be contacted for further information and tracking of progress. Guidance about the additional requirement to deposit a digital copy of your thesis can be found at http://ora.ox.ac.uk.

14. EXTENSIONS

Students undertaking a DPhil in Materials are expected to submit their thesis within 3 to 3.5 years of full-time study (2 years for MSc(Res)). As indicated in Section 2 and 3 of this Handbook, if you do not think you will meet this expectation you should arrange to meet with the DGS to discuss your progress. If you are unable to complete your research within the maximum period normally allowed by the University (9 terms for MSc by Research, 12 terms for the DPhil), then you may apply for an extension of time. Approval for extensions will be granted only if you and your supervisor can justify the request. The maximum total periods of extension are up to 6 terms for both DPhil candidates and MSc by Research candidates. Students are allowed to apply for a maximum of three terms at any one time. However, it is MPLS policy that where a request for an extension is approved normally this be one term only at a time, so that your progress can be kept under close review.

To make a request to extend you need to complete a GSO15, which can be found on the Graduate Progression Forms webpage at http://www.ox.ac.uk/students/academic/graduates/forms/. You must

give full reasons for your request, and these must also be supported in writing by your supervisor and College. On the form you need to indicate the present state of your thesis, ie how much has been completed and how much remains to be done, include a new Gantt Chart which should contain a timetable for completion and also when you expect to apply for confirmation of status (if this is yet to be done), and the expected submission date for your thesis. Your application must be submitted before your status lapses. See also item 21 (Continuation Bursaries).

15. SUPPORT STRUCTURE

The Department of Materials is a relatively small and cohesive unit so that you will find support as a graduate student from many quarters, not only from your own immediate research group and supervisor. In addition, of course, you have a second line of support from your College, not only for personal and academic matters, but also often for help with travel and hardship. The following is a list of people in the Department you might need to approach for personal, financial, technical or academic advice; you should have been given a corresponding list for your College.

Graduate Studies Administration:

Director of Graduate Studies: (whose responsibilities include those of a Director of Graduate Studies)	Dr Adrian Taylor (adrian.taylor@materials.ox.ac.uk) 83227)
Graduate Studies Secretary:	Mrs Marion Beckett (marion.beckett@materials.ox.ac.uk, 83226)

Graduate Studies Panel:

Chair:	Dr Adrian Taylor (adrian.taylor@materials.ox.ac.uk, 83227)
	Prof Chris Grovenor (chris.grovenor@materials.ox.ac.uk)
	Dr Simon Benjamin (simon.benjamin@materials.ox.ac.uk)

Joint Consultative Committee for Graduate Students (JCCG):

Chair:	Andrew London (andrew.london@materials.ox.ac.uk, 73767)
Secretary:	Katherine MacArthur (katherine.macarthur@materials.ox.ac.uk, 73657)
First-year representatives:	To be elected at Induction Course
Second-year representatives:	Thomas Aarholt (thomas.aarholt@materials.ox.ac.uk) Jing Hu (jing.hu@materials.ox.ac.uk) Zhengyu He (zhengyu.he@materials.ox.ac.uk)
Third-year representatives	Andrew London (andrew.london@materials.ox.ac.uk, 73767) George Martins (george.martins@materials.ox.ac.uk, 83213) Katherine MacArthur (katherine.macarthur@materials.ox.ac.uk, 73657)
Fourth-year representatives:	Amogh Gowda (amogh.gowda@materials.ox.ac.uk, 83706) Ele Grieveson (eleanor.grieveson@materials.ox.ac.uk, 83225) Hugh Taylor (hugh.taylor@materials.ox.ac.uk, 73766)
Part II representatives:	TBC
Department Representatives:	Director of Graduate Studies: Dr Adrian Taylor Head of Department: Prof Chris Grovenor Elected member of Graduate Panel: Dr Simon Benjamin Part II Organiser: Dr K A Q O'Reilly Graduate Studies Secretary: Marion Beckett

Department Safety Officer:	Dr Andrew Watt (andrew.watt@materials.ox.ac.uk, 13455)
Harassment Advisors:	Dr Alison Crossley (alison.crossley@materials.ox.ac.uk, 83726) Dr Jan Czernuska (jan.czernuska@materials.ox.ac.uk, 73771) Mrs Paula Topping (paula.topping@materials.ox.ac.uk, 73658) Mr Laurie Walton (laurie.walton@materials.ox.ac.uk, 73687/73749)
Counselling Service:	Secretary (no formal referral required) (70300)

Teaching:

Practical Class Organiser:	Dr K A Q O'Reilly (Keyna.oreilly@materials.ox.ac.uk, 73743)
Teaching Laboratory Technician:	Mrs Paula Topping (paula.topping@materials.ox.ac.uk, 73658)
Maths Classes Organiser:	Dr Marina Galano (marina.galano@materials.ox.ac.uk, 73731)

Chair, Tutors' Committee:	Professor Pete Nellist (pete.nellist@materials.ox.ac.uk, 73656)
Chair, Faculty of Materials:	Dr Adrian Taylor (adrian.taylor@materials.ox.ac.u, 83227)
Chair, Dept Academic Committee:	Dr Adrian Taylor (adrian.taylor@materials.ox.ac.uk, 83227)
Library:	
Librarian:	Mrs Grace Sewell (library@materials.ox.ac.uk, 73697)
Academic Librarian:	tbc
Schools Liaison Officer:	Mrs Jayne Shaw (jayne.shaw@materials.ox.ac.uk, 73710)
IT Support:	Dr Paul Warren (paul.warren@materials.ox.ac.uk, 73727)
	Mr Rob Saunders (rob.saunders@materials.ox.ac.uk, 73930)
	Mr Khalid Schofield (khalid.schofield@materials.ox.ac.uk, 73728)
	Mr Chris Akinola (chris.akinola@materials.ox.ac.uk, 73667)
Technical Support:	
Head of Workshop:	Mr Laurie Walton (laurie.walton@materials.ox.ac.uk, 73687)
Chemicals and Materials Laboratory Support Technician:	Dr Julie Scott and Dr Maria Thompson julie.scott@materials.ox.ac.uk, 83337
Stores Technician:	Mr Ian Sutton (ian.sutton@materials.ox.ac.uk, 73691)
Administration:	
Department Administrator:	Mrs Alana Davies (alana.davies@materials.ox.ac.uk, 73747)
Deputy Administrator (Academic):	Ms Philippa Moss (philippa.moss@materials.ox.ac.uk, 73750)
Deputy Administrator (Research & Finance):	Dr Joanna Roberts (joanna.roberts@materials.ox.ac.uk, 73712)
Deputy Administrator (Finance):	Mr Tim McAree (tim.mcaree@materials.ox.ac.uk, 73722)

Personal Assistant to Head of Department:	Ms Lorraine Laird Lorraine.laird@materials.ox.ac.uk, 73737)
Executive Assistant to Head of Department: (part-time)	Miss Carol Spruce (carol.spruce@materials.ox.ac.uk, 73709)
Administrative Secretary:	Mrs Alison Jewitt (alison.jewitt@materials.ox.ac.uk, 73666)
Finance Officer at Begbroke:	Mrs Laura Vockins (laura.vockins@materials.ox.ac.uk, 83777)
General Office:	Mrs Rebecca Bradford (rebecca.bradford@materials.ox.ac.uk, 73777)
	Ms Debbie Townsend (debbie.townsend@materials.ox.ac.uk, 73680)

16. FACILITIES

The Department and University provide a range of general facilities to which you will have access during the course of your research:

- Libraries (books, journals, literature searching, study space)
- Mechanical workshop (tools, construction of components)
- Heat treatment workshop (furnaces for a variety of needs)
- Specimen preparation (cutting, grinding, polishing)
- Electron microscopes (SEMs, TEMs, microprobes)
- Optical microscopes
- X-ray diffraction facilities
- Stores (supply of chemicals, components, stationery etc.)
- IT Support (hardware, software, modelling, advice and help)
- Digital Print Room (A4/A3 colour printing, scanning, binding, laminating)
- A wide range of analytical instruments (see http://www-omcs.materials.ox.ac.uk)

You will find full details of the facilities and how to obtain access and training in the Department Handbook http://www.materials.ox.ac.uk/local/DH.html and at http://www-omcs.materials.ox.ac.uk .

Research students may request access to the facilities in the teaching laboratory. Access should always be arranged in advance with the Practical Class Technician. Users must provide their own consumables, and supervisors should endorse the request having judged whether or not the

researcher is competent in using the necessary equipment. Pre-arranged and planned access should negate the need for out-of-hours access, and access during afternoon undergraduate practicals is actively discouraged. All usage is subject to having satisfied the Practical Class Technician that adequate training has been received. A well-equipped metallographic outfit, including resources, is available at Begbroke and when access to the teaching laboratory is not possible or convenient suitably trained researchers should use the equipment there.

The provision of appropriate COMPUTING FACILITIES for your particular research project is the responsibility of the individual research group. It is very important that you discuss this provision with your supervisor soon after induction. Research students may also use the computers in the teaching laboratory computer room, but undergraduates have priority use of this resource. Outline guidance on software (recommendations and availability) can be found on the Departmental website at http://www.materials.ox.ac.uk/it.html, and excellent support and guidance is available on hardware and software from both the Departmental IT team (http://www.materials.ox.ac.uk/it.html) and the Oxford University Computing Service (OUCS, http://www.oucs.ox.ac.uk). OUCS are conveniently located next to our 21 Banbury Road laboratories.

17. GAINING TEACHING EXPERIENCE

Some experience of teaching, whether as a demonstrator in the laboratory, as a tutor, or assisting with activities provided for school pupils, is a very useful transferable skill. Also, such teaching is paid work. As part of your skills training you are encouraged to volunteer for teaching duties. Unless your sponsor forbids it, the Department expects its graduate research students to participate in a minimum of 30 hours per annum teaching if so requested by the Department. This teaching is paid at the standard University rates.

17.1. Junior Demonstrating in the Teaching Laboratory

An essential part of the undergraduate courses is practical work which is undertaken in the Teaching Laboratories. This provides an opportunity for graduate students to gain experience of teaching by acting as junior demonstrators and at the same time earn a useful supplement to their subsistence grant. The Department promotes this by way of Teaching Assistantships (TA).

Each year the Department requires about 15 TAs to help with the Undergraduate Practical Classes. The TA appointments are for one year, with the expectation of renewal for a second and perhaps a third year subject to satisfactory performance, and provided the Department continues with the scheme. Students will be remunerated at the appropriate rate **for work done**.

Each Teaching Assistant on Practical Class duty will be in the teaching laboratory for, typically, 4-6 afternoons (2.00 - 5.00 pm) for each of two terms. Second year students should ensure that any commitments they agree to do not clash with the 2nd Year Talks in Hilary Term. There will also be some training time, including a requirement to assist with setting up equipment, and to carry out the full experiment & to produce a set of model results. Each TA will be expert in one particular undergraduate practical being done during the term. The contract is for up to 120 hours per year, but in most years for most TA's the actual requirement is much less. As ever, good verbal communication skills and a reasonable amount of practical expertise will be essential requirements. You should also have the agreement of your supervisor from whom we will seek a reference. Further details on junior demonstrating can be obtained from the Practical Class Organiser.

17.2. Tutoring

A special feature of undergraduate courses at Oxford is the college tutorial. Every week students prepare work for 1-2 tutorials, which they then discuss (usually in pairs) with a college tutor. Tutoring undergraduates is valuable experience and an excellent way of consolidating your knowledge. It also provides extra income. If opportunities arise, in an area where you feel confident, you are encouraged to take on a moderate amount of teaching (discuss it with your supervisor). You should be aware though that the ratio of staff and postdoctoral researchers to undergraduates is high in the Materials Department and relatively few postgraduate students actually have this opportunity. Some demonstrators are needed for crystallography classes and tutors for mathematics classes. Further details on tutoring can be obtained from the Chair of the Tutors' Committee, Professor Pete Nellist (73656, pete.nellist@materials.ox.ac.uk) or, for Maths Classes, from Dr Marina Galano (73731, marina.galano@materials.ox.ac.uk).

17.3. Training to Teach

A number of training workshops are organized for those new to teaching. Details are announced by e-mail and appear in the termly lecture lists, http://www.materials.ox.ac.uk/teaching/lecturelists.html.

17.4 Schools Outreach Work

There are a wide range of opportunities to help with the Department's substantial outreach work to schools: giving short talks, assisting with laboratory-based workshops for school pupils, helping with open days, visiting schools, acting as a host for residential courses held at Oxford and acting as a Science and Engineering Ambassador (see section 8 of this booklet). For more details, please contact our Schools Liaison Officer, jayne.shaw@materials.ox.ac.uk.

18. THE JOINT CONSULTATIVE COMMITTEE FOR GRADUATES (JCCG)

The Department of Materials is very interested in receiving feedback and suggestions from its students on everything that impacts their time here. For this reason we have the JCCG, a body through which the postgraduate students have an official voice in the decision making of the Department. The JCCG consists of 2 or 3 student representatives from each year together with a small number of members of staff. Meetings are held once a term (and one in the Long Vacation) and student representatives act as Chair and Secretary. The minutes of the JCCG are then brought to the attention of the senior committees in the Department. The JCCG Chair reports to the Academic Committee. It is the aim of the JCCG to provide the Director of Graduate Studies and the hierarchy of the Department with a sounding board to gauge postgraduate opinion as well as to provide postgraduates with a forum to bring up issues concerning the running of the course and the many other issues concerning them and the Department.

A similar committee exists for the undergraduate course (JCCU), and both JCCU and JCCG have managed to influence many decisions of the Department on the course structure and teaching provision, and helped to introduce new initiatives.

One of the roles of the JCCG is to collate feedback on graduate lectures and report this to the lecturers concerned. All the lecturers are asked to circulate questionnaires at the end of their course. The JCCG is keen to obtain your feedback on the courses, and sees the questionnaires as very important, so please make sure you receive, complete and return your forms. Apart from student feedback on graduate lectures, the JCCG organizes an annual questionnaire covering a broad range of subjects such as facilities, course structure and colloquia. However, it is also the intention that the student representatives will raise any matters or suggestions brought to their attention by other postgraduates. Therefore, your feedback on any aspect of the course is welcome at all times throughout your stay in the Department. Any comments will be brought up at the next JCCG meeting, so feel free to contact any of the representatives. (A full list is given in section 15 of this booklet.)

To provide a forum at which (i) your views can be sought and (ii) you can meet and network with research students from other groups, once a week, on Wednesdays at 11.00 am in the Holder Café, and at the same time in the Hirsch Building common area (next to the NanoSIMS) for those at Begbroke, the JCCG organise free coffee and biscuits for all research students.

19. CONFERENCE AND STUDY TRAVEL

During the course of your postgraduate studies, it is likely that you will have to travel to a conference or to visit other laboratories as part of a collaborative research programme. The Department is keen that every student should have the opportunity to attend at least one conference in their field of study during the course of their project. We do not expect students to cover the cost of such travel, this being funded instead from grants or other sources. However, this means it is essential that students organise themselves to secure sources of funding well in advance of the date of registration and travel, and before any expenditure has been incurred. This of course does not apply to routine travel, such as visits to an industrial sponsor, the costs of which should be included within the grant allocation for the project and are claimed by means of a Departmental travel claim form or direct from the sponsor. The form can be found on the internal website http://www.materials.ox.ac.uk/local/documents.html#AdminForms.

If you are considering travelling to attend a conference or for a study visit, first consult your supervisor and consider possible sources of funding several months before you plan to travel. There are a number of sources to which you can apply for travel funds, including your College, the Institute of Materials (all students are encouraged to join) and the Institute of Physics (if you are a member). Some sources are available for travel to given locations, such as the Sasakawa Fund for study visits to Japan. Your supervisor will be able to advise you on suitable sources of funding, and you can also consult the Director of Graduate Studies or look at the Department's web pages.

There are sources of funding, both internal and external (such as the Worshipful Company of Armourers and Brasiers and the Worshipful Company of Founders), which are available to graduate students to fund conference and study travel. Grants from the Department would typically be to the value of several hundred pounds, and would normally be awarded only once during the period of a course of study. However, it is also possible to apply more frequently for smaller amounts of money (say, £200) to 'pump-prime' applications to other sources who would be paying the majority of the cost (such as the Sasakawa Fund). **Note that students with earmarked research funding (such as a CASE studentship, project studentship or a government or industrial research grant) are expected to use these sources to cover the cost of travel and conferences and NOT to apply to the Department**.

Applications for Departmental conference/travel funds should be made **well in advance**, using the specific Department form, a copy of which is attached as an appendix to this Handbook. The form can also be downloaded from the Department's website at http://www.materials.ox.ac.uk/local/documents.html#AdminForms. It is located under the

‘Administrative Forms and Documents’ section. Students will need to obtain the support of their supervisor for the application, and also indicate the other sources of funding they have approached to cover at least some of the cost of travel.

Each year, usually in Hilary Term, the Head of Department will circulate information on how to apply for one of four annual ‘Founders Graduate Travel Scholarships’, each worth £500.

Information on support for members of the Institute of Materials can be found at http://www.iom3.org/content/professional-travel-grants.

Requests for support from the Armourers and Brasiers’ company should be made to The Clerk, Commodore C W Waite, RN, Armourers & Brasiers’ Company, Armourers Hall, 81 Coleman Street, London, EC2R 5BJ.

A number of awards are available for postgraduate students in any subject who are travelling to countries within the Santander network for academic-related activities (namely Argentina, Brazil, Chile, Colombia, Mexico, Peru, Puerto Rico, Uruguay, Venezuela, Spain and Portugal). This includes short visits to Santander universities to carry out collaborative work, to conduct fieldwork, to attend a conference, or to engage in other study projects. The maximum value of each award is £1,000. Awards will be made subject to the availability of funds. The application form together with deadlines will be available to download from http://www.ox.ac.uk/feesandfunding/graduates/internationalopportunities.

You might wish to consider attending the “Junior Euromat” conference at some point during your DPhil (http://euromat2013.fems.eu/welcome.html).

Finally, in addition to all of the funding described above, any EPSRC-sponsored students who attended the Presentation Skills Workshop and Poster Skills Workshop may apply to the Director of studies, in their second year for a grant of up to £500 from the ‘Roberts Skills Training Fund’, in order to attend a conference at which they are presenting their work as an oral or poster contribution. Applications should be made using the abovementioned Department form (as appended to this handbook).

20. CONTINUATION BURSARIES AND HARDSHIP FUNDS

(a) Continuation Bursaries

As indicated in section 2 of this handbook, the normal period for completion of a DPhil is 3 or 3½ years, and one of the purposes of the regular project management reviews is to assist in achieving the relevant target. However it sometimes happens that unavoidable or unpredictable delays or problems prevent completion in the allotted time. For this reason the Department has provision to fund a small number of continuation bursaries to assist with living costs during a few months over-run. Note however that the award of such a bursary is an exception: the funds for any one year are sufficient to help only a small fraction of the total number of DPhil students. **Normally, a student who has been funded for a 3½ year project will not be eligible for consideration for a continuation bursary (an exception to this rule is where substantial and extended delays, beyond those delays which are a common feature of any research project, have occurred that were outside the control of student and supervisor and could not be mitigated by careful project management.**

If you think that you are likely to over-run you should discuss this with your supervisor, and if necessary the Director of Graduate Studies, **before** your three year period has ended. The procedure for application for a continuation bursary is as follows:

(i) The student/supervisor to make best efforts to source matching funds (bursaries will only be awarded in exceptional circumstances if matching funds are not offered).
(ii) A **realistic** timetable for completion, including thesis writing, must be agreed with your supervisor.
(iii) A formal written letter of application should then be made to the Director of Graduate Studies (not by e-mail), to include an outline of the reasons your project is over-running, its planned timescale, your agreed completion plan and evidence of the matching funding.
(iv) Your supervisor should write to the Director of Graduate Studies (e-mail is OK) to support your application and to confirm that your completion plan is realistic. This e-mail should also identify the grant code for any matching funds.

The current rate for a continuation bursary is pro-rata to £9,000 pa and the Department will normally fund up to 3 months (£2,250). Thus with the matching funding a period of **up to** 6 months funded continuation is possible. Regardless of this funding cap your completion plan is expected to be a genuine assessment of the time required for completion - which will rarely be exactly six months.

(b) Hardship Funds

In total there is only a relatively small amount of money available within the Collegiate University to help with hardship. Your College Office is a key source of advice on some of the sources of hardship funds. Enquiries can also be made to student.funding@admin.ox.ac.uk. The list below outlines several sources for hardship funds.

Hardship Funding (http://www.ox.ac.uk/feesandfunding/graduates/targetedsupport/hardship/. Details are given for several sources of funding. For some sources applications can be made at any time during the academic year, for others there are specific deadlines (University hardship Fund – very early in each term; Vice Chancellors Fund – annually, usually early in Hilary term). You should discuss applications with your College in the first instance.

Churches Commission for International Students (http://www.admin.ox.ac.uk/shw/hardship.shtml).

British Federation of Women Graduates (http://www.admin.ox.ac.uk/shw/hardship.shtml).

Oxford Materials Hardship Fund. The Department is in the process of establishing a limited hardship fund. Once established, enquiries should be made via the Graduate Studies Secretary. Applications will be considered only in circumstances where there has been an unexpected and significant change in financial or personal circumstances of a kind that could not reasonably have been predicted and allowed for in advance.

21. PLAGIARISM, REFERENCING AND COPYRIGHT (A note from the University Education Committee)

This information can be applied to all aspects of assessment during the course.

In their **Essential Information for Students**, the University's Proctors and Assessor draw attention to three extremely important disciplinary regulations for all students.

"**3 No candidate shall cheat or act dishonestly, or attempt to do so, in any way, whether before, during or after an examination, so as to obtain or seek to obtain an unfair advantage in an examination.**

4 No candidate shall present for an examination as his or her own work any part or the substance of any part of another person's work.

5 In any written work (whether thesis, dissertation, essay, coursework, or written examinations) passages quoted or closely paraphrased from another person's work must be identified as quotations or paraphrases, and the source of the quoted or paraphrased material must be clearly acknowledged.

All undergraduate and graduate students must carefully read regulations 3, 4, 5 and 6 in the Proctors' Disciplinary Regulations for University Examinations below. These make it clear that you must always indicate to the examiners when you have drawn on the work of others; other people's original ideas and methods should be clearly distinguished from your own, and other people's words, illustrations, diagrams etc. should be clearly indicated regardless of whether they are copied exactly, paraphrased, or adapted. Failure to acknowledge your sources by clear citation and referencing constitutes *plagiarism*. The University reserves the right to use software applications to screen any individual's submitted work for matches either to published sources or to other submitted work. In some examinations, all candidates are asked to submit electronic copies of essays, dissertations etc. for screening by 'Turnitin'. Any matches might indicate either plagiarism or collusion. Although the use of electronic resources by students in academic work is encouraged, you should remember that the regulations on plagiarism apply to on-line material and other digital material just as much as to printed material.

…Where plagiarism is proven, it will be dealt with severely: in the most extreme cases, this can result in the student's career at Oxford being ended by expulsion from the University."
(The Proctors' and Assessor's Memorandum, Section 9.5
http://www.admin.ox.ac.uk/proctors/info/pam/section9/#d.en.40062)

Guidance from the University's Education Committee defines plagiarism as:

'Plagiarism is the copying or paraphrasing of other people's work or ideas into your own work without full acknowledgement. All published and unpublished material, whether in manuscript, printed or electronic form, is covered under this definition. Collusion is another form of plagiarism involving the unauthorised collaboration of students (or others) in a piece of work.

Further guidance from the University's Education Committee can be found at http://www.ox.ac.uk/students/academic/goodpractice/about/ and within its associated resources menu.

An on-line training course on how to avoid plagiarism is available at https://weblearn.ox.ac.uk/portal/hierarchy/skills/generic/avoidplag. You will need to have a Weblearn address before taking an on-line course.

Some Brief Guidance

Text

Take care when referring to the work of others. Not only are published words subject to plagiarism, but ideas and opinions can be plagiarised too. You should not allow the opinions and conclusions of others to appear to be your own or confused with your own criticism.

An extract from Stone IC & Tsakiropoulos P, Materials Science and Engineering A, Vol.189 (1994) 285-290:

> "The peak-aging time of Al-4wt.%Cu, aged at 463 K, was not altered by the addition of 20 wt.%SiCp. The particle size of the reinforcement and the matrix to reinforcement particle-size ratio did not affect the peak-aging time. This implies that, on a bulk scale, aging is not affected by the spatial distribution of the reinforcement, although it is likely to be affected locally."

Here is one example of the use of this extract:

> Stone and Tsakiropoulos studied the aging of metal matrix composites based on Al-4wt%Cu containing 20wt% SiC particles [Stone & Tsakiropoulos, 1994]. The peak-aging time of Al-4wt.%Cu, aged at 463 K, was not altered by the addition of 20 wt.%SiCp. The particle size of the reinforcement and the matrix to reinforcement particle-size ratio did not affect the peak-aging time. This implies that, on a bulk scale, aging is not affected by the spatial distribution of the reinforcement, although it is likely to be affected locally.

The first sentence is fine and is properly referenced. However the rest is plagiarised because (i) it is **directly copied** from the original without being identified as a quote and (ii) the author has not attributed the opinion in the fourth sentence to the original authors.

A second example:

> Stone and Tsakiropoulos studied the aging of metal matrix composites based on Al-4wt%Cu containing 20wt% SiC particles [Stone & Tsakiropoulos, 1994]. They showed that the addition of the reinforcing particles had no effect on the time for peak aging of the matrix at 463K. The implication of this is that whilst aging is likely to be affected locally by the dispersion of the particles, it is not affected macroscopically by the spatial distribution of the reinforcement.

This example is an improvement because the second sentence is now attributed to the original authors. The opinion in the final sentence is still plagiarised. This final sentence could be improved by

> The authors concluded that the implication of this is that whilst aging is likely to be affected locally by the dispersion of the particles, it is not affected macroscopically by the spatial distribution of the reinforcement. This is a sensible conclusion.

because whilst the new author agrees with the original opinion/conclusion they have not passed it off as their own. A belt and braces approach might be:

> The authors concluded, “This implies that, on a bulk scale, aging is not affected by the spatial distribution of the reinforcement, although it is likely to be affected locally” [Stone & Tsakiropoulos, 1994]. This is a sensible conclusion.

Quite often you will not be simply referring to a single piece of published work, but comparing & contrasting several reports of relevance to a particular point in your own document and then offering your own considered opinion on this previous work and/or comparing it with your own data and conclusions. The principles illustrated above in respect of Stone & Tsakiropoulos of course still apply to this more complicated case and in addition it is necessary to separately identify each contribution, for example:

It has been reported by two groups that the time for peak aging of the matrix at aging temperatures in the range 460-475K is not affected by the addition of reinforcing particles [Stone & Tsakiropoulos (1994), Bloggs & Jones (1997)]. Although a more recent study did observe an apparent influence of the reinforcing particles [Smith (2006)], in the present work we have been unable to reproduce this effect, our data being fully consistent with the original work of Stone & Tsakiropoulos. It seems likely that the results reported by Smith were an artefact of the analytical method that they adopted, such artefacts having been observed by others in related studies of a series of Al-Cu-Mg alloys [Jones et al (1999)].

Figures

Figures too are a potential source of plagiarism. If you use somebody else's diagram, graph, photograph or other artwork without acknowledging the original source then you are guilty of plagiarism (and possibly also of breach of copyright). If you use a figure from elsewhere then you should cite the original reference in the figure caption and in the associated body text. Even if you redraw a figure then you should still refer to the original source, e.g. [redrawn from Jones et al, 2006]. If you use a collection of data from other works to create a completely new figure (eg a graph to show a trend arising from a collection of data from several sources) then you must acknowledge the original data sources.

Copyright

If you wish to use artwork (this includes drawings, images, graphs and other figures etc) in a publication that is "communicated to the public" (including your thesis or material placed on an 'ox-only' website) you must seek permission from the copyright holder(s). A hard-copy thesis that is for examination purposes only is exempt from this rule but, since (i) such theses have to be deposited with the Bodleian and the British Library, who make them available to readers, and in particular (ii) you are required to deposit an e-thesis with the Oxford University Research Archive, you will not normally be able to take advantage of this exemption. For articles in journals the copyright holder is usually the publisher, although it is professional courtesy to ask the lead author too. Seeking permission from most publishers is a fairly painless task these days, usually achieved by completing a simple web-form. See for example http://www.sherpa.ac.uk/romeo/ and http://www.elsevier.com/journal-authors/author-rights-and-responsibilities. You will then receive a certificate of permission from the publisher. Keep these permissions in a safe place – you will need to provide copies when you make the mandatory deposit of your e-thesis with the Oxford University Research Archive. Where web-based application for permission to use material in a thesis is not available you should e-mail the publisher, or other copyright holder, directly to seek such permission.

Why is referencing important?

Quite apart from the need to avoid plagiarism because of the danger that this may invalidate a piece of assessed work and/or lead to some other penalty, there are a number of other good reasons for the internationally accepted practice of using references in a factual document:

(i) It is a simple professional courtesy to a fellow scientist who has laboured long & hard to generate the work that you are referring to.

(ii) It enables the reader to verify the statements that you are making, to make his/her own judgements on both the conclusions that you report from the referenced work and the judgements that you make on this work, and of course to learn more about the detail of the original work.

(iii) Your work is strengthened by its reference to respected authorities in a given field; as scientists we all build our work 'on the shoulders of giants'.

(iv) It enables the reader to identify very clearly what are your own original contributions to the matters discussed. Since these contributions will undoubtedly be erudite and valuable, you will want the world to know that they are yours and to be able to give you credit for them when your work is referenced in the future!

The two main referencing systems are Harvard (author name, year of publication) and Vancouver (numbered sequentially in order of use). Whichever system you decide to use, good practice dictates that references should include (depending on publication type): authors, title of book or article, title of journal or other work, name of conference, place of publication, date of publication, publisher and page numbers. The conventions for citing internet resources include URL and date accessed. Your supervisor will be able to provide further guidance.

22. UNIVERSITY POLICY ON INTELLECTUAL PROPERTY RIGHTS

The University of Oxford has in place arrangements governing the ownership and exploitation of intellectual property generated by students and researchers in the course of, or incidental to, their studies. These arrangements are set out in the University's Statutes 2000 (page 121 refers) under which the University claims ownership of certain forms of intellectual property which students may create. The main provisions in the Statutes are as follows.

Intellectual property (IP) is the result of creativity and innovation, to which legal rights (intellectual property rights) may be associated, such as patents, copyright, trademarks, design and database rights. Oxford was one of the first UK universities to develop an intellectual property policy to govern the ownership and exploitation of IP generated by students and employees in the course of their employment or studies.

Oxford's IP policy is governed by the University's Statutes and Regulations. For ease of reference, an extract from the Statutes and Regulations is contained below. The Statutes and Regulations, as they relate to the University's IP policy, together with regulations for the administration of the IP policy, may be found in full on the University website (http://www.admin.ox.ac.uk/statutes/regulations/182-052.shtml and http://www.admin.ox.ac.uk/statutes/790-121.shtml).

Essential ingredients of the University's approach are a generous revenue-sharing policy, which brings significant personal benefits to researchers (employees or students), and a hugely successful and well-resourced technology transfer operation, Isis Innovation, which has earned national and international recognition. Isis was established specifically to help researchers in the University commercialise their research. Isis files, on average, one new patent a week, and has helped create more than 50 spin-out companies and many more licence deals. Isis works closely with Research Services, a part of the University's central administration. Research Services' remit includes the management of research grants and contracts to the University, and the assignment of University intellectual property to Isis for exploitation.

University intellectual property policy
(Extract from Statute XVI – Part B)

5. (1) The University claims ownership of all intellectual property specified in section 6 of this statute which is devised, made, or created:

   (a) by persons employed by the University in the course of their employment;

   (b) by student members in the course of or incidentally to their studies;

   (c) by other persons engaged in study or research in the University who, as a condition of their being granted access to the University's premises or facilities, have agreed in writing that this Part shall apply to them; and

   (d) by persons engaged by the University under contracts for services during the course of or incidentally to that engagement.

(2) The University's rights under sub-section (1) above in relation to any particular piece of intellectual property may be waived or modified by agreement in writing with the person concerned.

6. The intellectual property of which ownership is claimed under section 5 (1) of this statute comprises:

(1) works generated by computer hardware or software owned or operated by the University;

(2) works created with the aid of university facilities including (by way of example only) films, videos, photographs, multimedia works, typographic arrangements, and field and laboratory notebooks;

(3) patentable and non-patentable inventions;

(4) registered and unregistered designs, plant varieties, and topographies;

(5) university-commissioned works not within (1), (2), (3), or (4);

(6) databases, computer software, firmware, courseware, and related material not within (1), (2), (3), (4), or (5), but only if they may reasonably be considered to possess commercial potential; and

(7) know-how and information associated with the above.

7. The University will not assert any claim to the ownership of copyright in:

(1) artistic works not listed in sub-section (2) of section 6 of this statute, books, articles, plays, lyrics, scores, or lectures, apart from those specifically commissioned by the University;

(2) audio or visual aids to the giving of lectures;

(3) student theses, exercises and answers to tests and examinations save to the extent that they contain intellectual property claimed by the University under subsection (6) of section 6 of this statute; or

(4) computer-related works other than those specified in section 6 of this statute.

8. For the purpose of sections 6 and 7 of this statute, 'commissioned works' are works which the University has specifically employed or requested the person concerned to produce, whether in return for special payment or not, but, save as may be separately agreed between the University

Press and the person concerned, works commissioned by the University Press in the course of its publishing business shall not be regarded as 'works commissioned by the University'.

9. Council may make regulations:

(1) defining the classes of persons or naming individuals to whom section 5 (1) (c) of this statute shall apply;

(2) requiring student members and such other persons as may be specified in regulations to sign any documents necessary in order to give effect to the claim made by the University in this Part and to waive any rights in respect of the subject-matter of the claim which may be conferred on them by Chapter IV of Part 1 of the Copyright, Designs and Patents Act 1988; and

(3) generally for the purposes of this Part.

10. This Part shall apply to all intellectual property devised, made, or created on or after 1 October 2000 and is subject to the provisions of the Patents Act 1977.

23. COMPLAINTS AND APPEALS

Complaints and academic appeals within the Department of Materials:

1. The University, the Mathematical, Physical and Life Sciences Division and the Materials Department all hope that provision made for students at all stages of their programme of study will make the need for complaints (about that provision) or appeals (against the outcomes of any form of assessment) infrequent.

2. However, all those concerned believe that it is important for students to be clear about how to raise a concern or make a complaint, and how to appeal against the outcome of assessment. The following guidance attempts to provide such information.

3. Nothing in this guidance precludes an informal discussion with the person immediately responsible for the issue that you wish to complain about (and who may not be one of the individuals identified below). This is often the simplest way to achieve a satisfactory resolution.

4. Many sources of advice are available within colleges, within faculties/departments and from bodies like OUSU or the Counselling Service, which have extensive experience in advising students. You may wish to take advice from one of these sources before pursuing your complaint.

5. General areas of concern about provision affecting students as a whole should, of course, continue to be raised through Joint Consultative Committees or via student representation on the department's committees.

Complaints

6. If your concern or complaint relates to teaching or other provision made **by the faculty/department,** then you should raise it with the Director of Graduate Studies (Dr Adrian Taylor). Within the department the officer concerned will attempt to resolve your concern/complaint informally.

7. If you are dissatisfied with the outcome, then you may take your concern further by making a formal complaint to the University Proctors. A complaint may cover aspects of teaching and learning (e.g. teaching facilities, supervision arrangements, etc.), and non-academic issues (e.g. support services, library services, university accommodation, university clubs and societies, etc.). A complaint to the Proctors should be made only if attempts at informal resolution have been unsuccessful. The procedures adopted by the Proctors for the consideration of complaints and appeals are described in the Proctors and Assessor's Memorandum [http://www.admin.ox.ac.uk/proctors/info/pam/] and the relevant Council regulations [http://www.admin.ox.ac.uk/statutes/regulations/].

8. If your concern or complaint relates to teaching or other provision **made by your college**, then you should raise it either with your tutor or with one of the college officers, Senior Tutor, Tutor for Graduates (as appropriate). Your college will also be able to explain how to take your complaint further if you are dissatisfied with the outcome of its consideration.

Academic appeals

9. An appeal is defined as a formal questioning of a decision on an academic matter made by the responsible academic body.

10. For undergraduate or taught graduate courses, a concern which might lead to an appeal should be raised with your college authorities and the individual responsible for overseeing your work. **It must not be raised directly with examiners or assessors.** If it is not possible to clear up your concern in this way, you may put your concern in writing and submit it to the Proctors via the Senior Tutor of your college. As noted above, the procedures adopted by the Proctors in relation to complaints and appeals are on the web [http://www.admin.ox.ac.uk/statutes/regulations/].

11. For the examination of research degrees, or in relation to transfer or confirmation of status, your concern should be raised initially with the Director of Graduate Studies. Where a concern is not satisfactorily settled by that means, then you, your supervisor, or your college authority may put your appeal directly to the Proctors.

12. Please remember in connection with all the cases in paragraphs 5 - 7 that:

(a) The Proctors are not empowered to challenge the academic judgement of examiners or academic bodies.

(b) The Proctors can consider whether the procedures for reaching an academic decision were properly followed; i.e. whether there was a significant procedural administrative error; whether there is evidence of bias or inadequate assessment; whether the examiners failed to take into account special factors affecting a candidate's performance.

(c) On no account should you contact your examiners or assessors directly.

13. The Proctors will indicate what further action you can take if you are dissatisfied with the outcome of a complaint or appeal considered by them.

(see http://www.admin.ox.ac.uk/statutes/regulations/247-062.shtml and page 47 of "Research Degrees" at http://www.admin.ox.ac.uk/edc/qa/policies

24. OUTLINE OF THE DISCIPLINARY PROCEDURE IN THE EVENT OF MISUSE OF ICT FACILITIES BY RESEARCH STUDENTS

(Further details provided during the IT briefing)

Procedure in the event of ICT misuse by research students

1st Offence Referral to the DGS following investigation by the Dept IT Manager. If the offence is confirmed a written warning will be issued by the DGS. This will be placed on file and copied to the Supervisor(s) and the Dean/Senior Tutor for Graduate Students at the offender's college (it will include a reminder of the consequences of a 2nd offence). Also the Department's IT Manager will present to the offender a detailed verbal reminder of the University ICTC Regulations. In addition the Department reserves the right to (i) require surrender to the Department's IT staff of the offending PC (for the removal of prohibited software), (ii) to require the student to pay any administration charge imposed by OUCS in relation to the offence, and (iii) in the case of infringements judged to be more

serious to report the matter for action by the Proctors and to withdraw access to ICT facilities pending a Proctorial investigation.

2nd Offence Referral to the Proctors. Pending an investigation, access to ICT facilities may be withdrawn or made subject to such conditions as the Proctors shall think proper in the circumstances. In addition the Department reserves the right to require the student to pay any administration charge imposed by OUCS in relation to the offence. The Supervisor(s) and the Dean/Senior Tutor for Graduate Students at the offender's college will be informed of the referral to the Proctors.

25. GENERAL

25.1 DATES OF TERM

A list of term dates for 2013-14 can be found on the website and also the provisional dates for 2015-2019. These can be found at
http://www.ox.ac.uk/about_the_university/university_year/dates_of_term.html

25.2 STUDENT HOLIDAYS

There is currently nothing set down in the University's regulations. An item appears in the MPLS Graduate School Graduate Handbook under "working hours, holidays, sick leave, maternity, parental and adoption leave". The Department of Materials policy is as follows: You should agree any days off in the working week (Monday-Friday) with your supervisor. As a minimum you should expect to be able to take 3 weeks leave in addition to bank holidays (8 days) and periods of fixed closure for the Department (at Christmas and Easter, 6 days in total). You must also inform your College about holiday dates. Keep a record of the days you have taken as holiday.

25.3 PAID WORK

You should not normally undertake more than about 120 hours of paid work including teaching and outreach each year while you are studying full time for a research degree.

25.4 COMPUTING FACILITIES

Computing facilities vary from group to group dictated by specific needs for that group. You should discuss what computing facilities are available to you with your supervisor(s). If you are unhappy you should let your supervisors know and if this issue is not resolved satisfactorily you could either speak

to members of the JCCG to compare your set up with other students and/or come and discuss the issue with the Director of Graduate Studies. You should also discuss with your supervisors the possibility of using research money to buy appropriate software, such as EndNote, IF THIS IS NOT AVAILABLE FROM OTHER SOURCES – in the first instance you should take a look at the Materials website at http://www.materials.ox.ac.uk/it/itsoftware.html and then discuss the issue with Paul Warren from IT Support.

25.5 EXTENSION OF VISAS

All new overseas PhD students starting in 2011 and subsequently will have a visa which is valid for 4.5 years. Those students who joined before the new visa system was introduced may require a visa extension. Students who are continuing their graduate course beyond the original date of their visa need to email the Graduate Studies Secretary, Marion Beckett, at least 4 weeks before their original visa expires. In the subject box please type **Visa extension request AND YOUR FULL NAME** and ask Marion to request a CAS (Confirmation of Acceptance for Studies) number from Student Immigration on your behalf. Make sure that you request your CAS number in good time before you need to make your visa application. This is because Marion is required to contact both your supervisor and College to seek relevant information for the extension. It may also take Student Immigration several days to issue the CAS. The CAS number will be e-mailed direct to you when it is ready.

Please be aware that renewal applications can be made no more than 3 months in advance from your current visa expiry date.

NOTE: information for the CAS application is taken from the student database (OSS system). If you have renewed your passport it is vital to let Marion know the new visa number and the new expiry date so that the student database can be updated BEFORE a CAS number is requested. If you have failed to update your address details this could delay the process whilst a new CAS request is prepared. Please ensure that you maintain the correct address and other details on the Student Self-Service system and we should like to point out that this is a requirement for overseas students during your stay in the UK under the new Immigration Rules.

25.6 RETENTION OF AND ACCESS TO DATA

Please note that your laboratory notebooks (or equivalent), data and other information gained during your research project, whether in manuscript, typescript, electronic or other form, is the property of your supervisor and should be left with him/her when you complete or withdraw from your degree.

You are required to give your supervisor access to files containing any such data which is in electronic format. You may wish to make copies of written data for your own files.

25.7 HEALTH AND WELFARE

If you become ill during your studentship, whether for one day or for several weeks, please inform your supervisor on the day you go off sick and indicate when you hope to return. If your sickness is serious, you should talk to your supervisor and consider whether it is appropriate to suspend your studies for a term.

Further information on health and welfare can be found in the MPLS Division's Graduate Handbook and on the Student Gateway website at http://www.ox.ac.uk/students/shw/. There is also new information on the Student Gateway about university policy on student maternity, paternity and adoption leave. The main elements of the policy are that student parents will now be entitled to take an additional period of suspension of study (up to 3 terms) for maternity, extended paternity or adoption leave (consonant with the requirements of their funding bodies). This will be granted automatically and is additional to the 6 terms of leave that their board may allow. Fathers may also take a standard two weeks' of paternity leave, which is not treated as a suspension of study.

25.8 DISPLAY SCREEN EQUIPMENT SELF-ASSESSMENT FORM

Linda Curson, the Department's Safety Officer will be in touch with you in your first term (Michaelmas Term) to provide you with details of the on-line DSE Self-Assessment System.

26. APPENDICES

On the following pages you will find copies of forms that you will need to complete over the course of your research project:

(i) Graduate student questionnaire and the MPLSD Brief Guide to Research Supervision
(ii) Project management form 1
(iii) Project management form 2
(iv) Project management form 3
(v) Project management form 4
(vi) Risk assessment form
(vii) Application form for conference/travel funds

(viii) Provision for a Materials research student

(ix) MPLSD Code of Practice on the Supervision of Research Students

(x) Summary of and rationale for the compulsory requirements for Materials Research Students.

You can also find copies of the various forms on the Departmental web pages at http://www.materials.ox.ac.uk/.

UNIVERSITY OF OXFORD
Department of Materials
Graduate Student Questionnaire

Last Name: (Surname or family name)	**First Name:**	**Middle Names:**
Address **Post Code:**		**Telephone:**
College:		
Your UID number:	**University email address:**	**Other email address:**
Name of person to contact in an emergency: **What is the relationship of this person to you?**		**Address:** **Telephone Number:**
Your date of birth:		**Your place of birth:**
Nationality and Ethnic Origin:		**Gender:**
Any disabilities, including dyslexia:		**Have these been registered:**
First Degree **Degree Title/Qualification:** **Class Awarded:** **Subject:** **University:** **Country:** **Year Completed:**		**Higher Post Degree Qualifications?** **Qualification:** **Subject:** **University:** **Country:** **Year Completed:**
How did you hear about this DPhil programme?		

Continued over….

RESEARCH PROGRAMME DETAILS

DPhil: ☐ MSc: ☐	
Project Title:	
Project Supervisor(s):	
Lead Supervisor:	**Oxford Co-Supervisor(s)** (*if applicable*)**:**
Deputy Supervisor (Safety):	
External Co-Supervisor (*if applicable*)**:** **Full Address:** **Tel:** **E-mail:**	**Departmental Advisor (***should not be one of your supervisors*)**:** **College Advisor** (*should not be one of your supervisors; can be your Departmental Advisor; your College will appoint this person*): **Address:**
Total Period expected to be spent at external premises (months per year):	
Professional Body Membership: **IoM3:** ☐ **IoP:** ☐ **RSC:** ☐ **Other:** ☐	
Signed: **Dated:**	
Please confirm that you have discussed with your supervisor what transferable skills training and research skills training you should undertake in the first few weeks of Michaelmas Term (*Delete as necessary*) Yes / No **Please confirm that you have considered with your supervisor the MPLS Statement of Provision for research students in Materials and the associated Divisional Code of Practice on supervision of Graduate Research Students, attached as appendices (ix) and (x) in your Graduate Handbook. Yes / No**	
PLEASE RETURN TO MARION BECKETT, DEPARTMENT OF MATERIALS GRADUATE STUDIES SECRETARY BY THE END OF WEEK 1 (18 OCTOBER 2013)	

Research Supervision: A Brief Guide

The primary purpose of a research degree programme in the Mathematical, Physical and Life Sciences Division is to enhance and develop your knowledge in a specific area of research, and to equip you with the research and transferable skills needed to become an independent researcher, or to prepare you to be able to adapt the skills you have learnt to pursue a career in other fields. Our aim is to provide you with an excellent educational experience, which should also be fun and enjoyable, as well as hard work. To achieve this result, both supervisors and students need to be clear about their respective roles and responsibilities. This note provides a brief guide to these roles. If you have any concerns about the roles described below, do discuss these with your supervisor or the Director of Graduate Studies in your department.

The role of the Supervisor (and in some cases the supervisory team) is to:

- Establish a timetable of regular meetings for detailed discussion of your progress **(**these meetings should take place at least once every two weeks averaged across the year)
- Agree a research plan and programme of work, and to establish clear academic expectations and milestones
- Agree with you a timetable for the submission of any written work and to return your work within a reasonable time
- Advise you of your department's health and safety regulations. Supervisors are responsible for all aspects of safety under their control, and in particular for the safe conduct of all experiments carried out in the course of their student's research
- Assess formally your subject-specific and personal and professional skills training needs on a regular basis and ensure you are aware of the opportunities available to meet these needs. A full review of your skills training needs should be carried out each year with your supervisor
- Co-operate with you to produce a detailed joint report on your progress at the end of each term
- Ensure you are aware of the formal requirements in relation to transfer and confirmation of status and final submission, and help you to incorporate these into your plan of work

The role of the Student is to:

- Meet with your supervisor regularly and give due weight to any guidance or corrective action proposed, keeping a written record of your discussions where appropriate
- Draw up a research plan and timetable of work in consultation with your supervisor, and to keep relevant records of all aspects of your work

-

- Co-operate with your supervisor to make a detailed joint report on your progress at the end of each term
- Take ultimate responsibility for your research programme, including the development of subject-specific, research, personal and professional skills
- Carry out research with proper regard to good health and safety practices
- Be aware of the University's guidance on plagiarism and of any ethical or legal issues, health and safety requirements, or intellectual property issues arising from your research
- Pursue opportunities to engage with the wider academic community at University, national and international level.

The Division's more detailed Code of Practice on the Supervision of Graduate Research Students is provided as a separate appendix to your materials Graduate Course Handbook and is available at http://www.mpls.ox.ac.uk/node/352.

Contacts

If you have any queries about the Division's code of practice on supervision please contact Louise Sumner, Divisional Graduate Officer, email louise.sumner@mpls.ox.ac.uk.
If you have any queries about the implementation of the code of supervision in your department please contact: the Director of Graduate Studies in your department, or the departmental Graduate Office.

The Department's statement of provision for a research student is provided as an appendix to your Materials Graduate Course Handbook.

Project Management Form 1

Graduate Studies Project Description Form

After discussion with your supervisor YOU should complete this form and associated Work Breakdown Structure and Gantt Chart. Send a copy to the Graduate Studies Secretary by Friday of 5th week of Michaelmas Term.

Name: College:

Address for correspondence:

Contact telephone number:

Title of project:

Supervisor:

In general terms describe the overall scientific objectives of your project. (Do not put in much detail at this stage.)

For the **next 6 months** of your project:

What are your major goals?

What research training will you need (eg. specific experimental equipment, software etc.) and how are you going to obtain that training?

What resources will you need (equipment, materials, technician support etc.) and are they available?

What transferable skills training have you agreed with your supervisor it is appropriate for you to undertake (the equivalent of approximately 10 days per year in years 1-3 is expected)?

Now complete a Work Breakdown Structure and Gantt Chart for your project.

Your signature: Your supervisor's signature:

Date: Date:

Project Management Form 2

First Year Report Form – Graduate Studies

After discussion with your supervisor YOU should complete this form and update your Gantt Chart. Include a copy of the form and Gantt Chart as an appendix to your First Year Report.

Name: College:

Title of project:

Supervisor:

Refer back to your Project Description Form. What were your goals for the **previous 6 months** and to what extent have you achieved them?

For the **next 6 months** of your project:

What are your major goals?

What training will you need (eg. specific experimental equipment, software etc.) and how are you going to obtain that training?

What resources will you need (equipment, materials, technician support etc.) and are they available?

What transferable skills training do you plan to undertake in the next 6 months?

Describe the objectives for the remainder of your project. Include brief details of the science involved and any experiments and/or models that you may need to develop. Then complete a revised Gantt Chart covering the period from the start of your project up to thesis submission. Show all necessary tasks with their approximate dates. Indicate those tasks and milestones already completed.

Your signature:

Date:

Your supervisor's signature:

Date:

Project Management Form 3A, 3B, 3C, 3D, 3E

(please circle correct number)

Graduate Studies Project Analysis Form

After discussion with your supervisor complete this form and update your Gantt Chart. Send a copy to the Graduate Studies Secretary by Friday of 5th week Michaelmas/Trinity Term.

Name: College:

Title of project:

Supervisor:

Describe the progress you have made in the last six months. To what extent have you achieved your goals?

For the **next 6 months** of your project:

What are your major goals?

What resources will you need (equipment, materials, technician support etc.) and are they available?

Are you satisfied with the progress of your work? If not can you identify how you may improve matters?

What transferable skills training do you plan to undertake in the next 6 months?

Describe the objectives for the remainder of your project. Include brief details of the science involved and any experiments and/or models that you may need to develop. Then complete a revised Gantt Chart covering the period from the start of your project up to thesis submission. Show all necessary tasks with their approximate dates. Indicate those tasks and milestones already completed.

Your signature:

Date:

Your supervisor's signature:

Date:

Project Management Form 4

Graduate Studies Project Analysis Form

After discussion with your supervisor complete this form and update your Gantt Chart. Send a copy to the Graduate Studies Secretary by Friday of 2nd week of your final Trinity Term (2 or 3 year projects) or Friday of 0th week of your final Michaelmas Term (3.5 year projects).

Name: College:

Title of project:

Supervisor:

Describe the progress you have made in the last six months. To what extent have you achieved your goals?

When do you expect to submit your thesis?

For the **final 5 months** of your funded period (**4 months** for MSc):

1. Outline any remaining experiments/modelling runs that are essential to the completion of your thesis.

   Are the resources for the above all available?

2. **Give an outline structure for your thesis in the form of a provisional detailed table of contents page.**

Are you satisfied with the progress of your work? If not can you identify how you may improve matters?

Finally, complete a revised Gantt Chart covering the period from the start of your project up to thesis submission. Show all necessary tasks with their approximate dates. Indicate those tasks and milestones already completed.

Your signature:

Your supervisor's signature:

Date:

Date:

Health and Safety Personal Registration and Risk Assessment Form

NAME (block capitals)……

OxfordMaterials

DATE issued……

This form must be completed by all new arrivals (employees, visitors, graduate students etc) in consultation with their supervisor, and **returned within 2 weeks.** The objective is to ensure proper assessment, guidance and training is provided for work undertaken and that new arrivals are made aware of Department procedures and rules. Forms should be reviewed annually but a new one may be submitted at any time to reflect changes in work type or risk category. **Please read the footnotes[1] for guidance on the risk categories involved.** If you need further risk assessments / training you **MUST** contact the person(s) specified in the Departmental Statement of Safety Organisation as referred to in the table below. This must be done **within 2 weeks of completing the form**.

Please return form to Dr Andrew Watt, Departmental Safety Officer, at Begbroke				
Will Your Work Involve:	**Yes / No**	**If "Yes", Give Details and refer to the relevant appendix in the Statement of Safety Organisation**	**Risk Category**	**Relevant Appendix in S. of S.O.**
Radioactive Isotopes				A & J
X-Ray Machines				A & J
Lasers				A & J
Biological hazards				C
Hazardous gas, chemicals or dust				C
Workshop Machinery				C & H
Display Screen Equipment (more than 1hr day)				L
Manual Handling / Lifting heavy loads				I
Electrical Work				A & G
Liquid Gases				C
Gas Cylinders				C
Work out of the Department				
Other significant risk (specify)		If yes, you **MUST** contact Dr Andrew Watt for further advice.		

[1] **Risk Categories**

A. Where work may not be undertaken without senior supervision;

B. Where work may not be started without advice from the Academic Supervisor. Advice should include the method of work and the safeguards to be used;

C. Where the risks are such that extra care must be observed, but where it is considered that the worker is adequately trained and competent in the procedures.

Declaration of Worker: Where **NO** has been given as an answer, it is in the belief that the work I shall be doing will expose me to no significant hazards, the consequence of which could be avoided by taking the preventative or protective measures that have been offered to me. I make this declaration, having read the Departmental Statement of Safety Organisation, and I recognise that, in the case of uncertainty, my supervisor or the Departmental Safety Officer is available to offer advice. If **YES** has been given as an answer, I recognize that is my responsibility, where appropriate to contact the person listed in the Statement of Safety Organisation or the Departmental Safety Officer, in cases of uncertainty, in order to organize the required risk assessments and training. This must be done **within two weeks of completing the form**.

Name (print) …….. Room …….

Status (e.g. visitor/post grad student/member of staff) ……

Signed …… Date …….

Declaration of Academic Supervisor: Having specialist knowledge in the field of work to be carried out by the applicant, I believe that he/she has properly declared the circumstances under which his/her work will be undertaken. I furthermore have indicated the category risk involved, and have named the person(s) who will immediately supervise work of Risk Category A. I will ensure the applicant completes all further risk assessments and/or training before the work commences.

I have also discussed procedures for the following in accordance with the Department's Statement of Safety Organisation:

☐Fire
☐Out of Hours Work
☐Accident Reporting
☐Manual Handling
☐Sources of Safety Information
☐Use of Private Electrical Equipment
☐First Aid
☐Security/Lone Working
☐Waste Disposal
☐Safety Training Courses
☐Risk Assessment

(tick to indicate discussion has taken place).

Name (print) …… Date ……

Signed ……

Departmental Administrative record

DSO Approval: Signed …… Date ……
Date form received for central filing: ……..

DEPARTMENT OF MATERIALS
Application for Conference/Travel/Skills Training Funds

The Department has a policy of seeking to support each graduate student to attend a conference approved by their supervisor, during the course of their studies. Students are expected to seek support from other sources as well as approaching the Department. Please use this form when applying for funds, indicating in section 4 other sources you have approached. When you have completed sections 1-5, ask your supervisor to complete section 6 and sign it. The completed form should be sent to the Departmental Graduate Studies Secretary (Marion Beckett).

<table>
<tr><td>1.</td><td>Your details:

Name: …….
Research Group: …….
College: ……..
Sponsor *: ……....
Year started: …….
* if applicable</td><td>2.</td><td>Conference/Other Details:

Title: …….
……..

Date: …….
Location: ……..</td></tr>
<tr><td>3.</td><td colspan="2">Cost:

Registration: …….
Travel: …….
Subsistence: …….
Other: …….
Total: ……
Any special feature:</td><td>4.</td><td>Sources approached: (please tick)
Please indicate in each case the sum requested and granted

Sponsor:
College:
University:
Other:
Total:</td></tr>
<tr><td>5.</td><td colspan="3">Request to Department

Sum requested this time: Sums previously granted:
(give date)</td></tr>
<tr><td>6.</td><td colspan="3">Statement of support by supervisor</td></tr>
<tr><td></td><td colspan="3"><u>Admin use only</u>

Amount granted

Notes/special conditions

Signed Date</td></tr>
</table>

PROVISION FOR MATERIALS RESEARCH STUDENTS

The purpose of this statement is to indicate what a graduate research student might expect to be offered in the **Department of Materials**. It is expected that during a graduate's first term at Oxford, each graduate student and their supervisor will discuss the statement of provision, and the supervisor will confirm to the departmental DGS any individualised provision as it applies to that student. The provision should be reviewed by the supervisor with the student at least once a year.
Further information and guidance about research degrees may be found in the University's 'Notes of Guidance for Research Degrees' at http://www.admin.ox.ac.uk/edc/qa/policies/.

1. What arrangements will be put in place for supervising the graduate's work?

You will have a named supervisor or supervisors, normally as indicated in your offer letter, who will have overall responsibility for the direction of your work on behalf of your department. Typically, you should expect to have meetings with your supervisor or a member of the supervisory team with a frequency of at least once a fortnight averaged across the year. The regularity of these meetings may be subject to variations according to the time of the year, and the stage you are at in your research programme. Please note that this is a minimum and your supervisors may require more frequent meetings.

2. What induction arrangements will be made?

You will have departmental induction at the beginning of your first term. The main induction to the department is provided at the start of Michaelmas Term. Other arrangements will be made for students starting at other times of the year. Your supervisor(s) will arrange more specialised induction subsequently. The main set of slides from the most recent Departmental induction event can be found at http://www.materials.ox.ac.uk/teaching/pg/pginduction.html .

3. What workspace will be provided?

Workspace will be related to individual circumstances. If undertaking experimental work, you will be provided with bench space, or its equivalent, in a laboratory and, where possible, with shared office space. If undertaking theoretical research, you will have shared office space.

4. What IT support/ library facilities/ experimental facilities will be available?

You will have access to the Department of Materials IT Support Team, the Departmental Workshop (after completing workshop induction), the Department of Materials Library (in addition to the RSL and

other university libraries, and the centrally provided electronic resources). Experimental, photographic and materials modelling facilities are available as appropriate to your research topic. The provision of other resources specific to your project should be agreed with your supervisor as a part of the planning stages of the agreed project. Details of the facilities mentioned above and others are given in the Department Handbook (http://www.materials.ox.ac.uk/local/DH.html) and at http://www-omcs.materials.ox.ac.uk. Library resources for Materials Science are outlined at http://ox.libguides.com/materials .

5. Which research seminars will be available?

You will have access to the seminars that individual research groups or groups with common areas of interest organise for their own members and others. You will also have access to the other departmental seminars and colloquia in the Department of Materials, and many of those offered by other Departments too.

6. What access to research funds will be available?

You will find that limited departmental funds are available to assist with attendance at conferences, in addition to any allocated funds via individual research group/supervisors. In the Department of Materials it is the responsibility of individual research groups to provide appropriate desktop or laptop computing facilities. Your supervisor will have a small budget to cover day-to-day consumables used in your project.

7. What formal graduate skills training will be provided?

As appropriate to the different stages of your graduate career, you will have the opportunity to attend a variety of skills training sessions and specific research training offered by the Department, as described in the Department's 'Graduate Course Handbook' and 'Postgraduate Lecture & Training Course Synopses and Research Colloquia Details' booklet (http://www.materials.ox.ac.uk/teaching/pg/pghandbooks.html). The slides from many of the generic skills training workshops are available at http://www.materials.ox.ac.uk/teaching/pg/pgskills.html although these cannot fully substitute for engaging in discussion & group exercises at the live workshops. The MPLS Division also organises courses and career planning events, details of which are emailed to students via their departments. Information about divisional training and other courses offered across the University is also available through the Skills Portal at https://weblearn.ox.ac.uk/portal/hierarchy/grad. This site provides information about transferable skills development for research students and research staff at Oxford University, and includes a searchable database of skills training opportunities, links to articles on subjects such as project management, teaching and career planning, and message boards for asking questions and

discussing issues with other researchers. An online Personal Development Planning System is also available through the Skills Portal.

8. What opportunities will be available for developing and practising teaching skills (for second and third year graduates)?

The Materials Department, the MPLS Division and the Oxford Learning Institute provide resources to support the development of research students and post-docs who aspire to follow an academic career, including training in teaching skills. Information about teaching skills training and teaching opportunities provided by the Department of Materials can be found in the three Departmental sources given in (7) above and in the General Scheme of Lectures and the Termly Lecture Lists found at http://www.materials.ox.ac.uk/teaching/lecturelists.html. These opportunities are NOT restricted to those who declare a wish to follow an academic career. See also http://www.mpls.ox.ac.uk/content/training-teaching-skills.

9. What arrangements for accommodation, meals and social facilities, will be made, on a year round basis?

Department:

Research students can use the Parks View Cafeteria in the Holder Building. This facility is shared by all staff and students of the Departments of Materials and of Engineering Science and facilitates interaction between different research groups and with support staff. Departmental seminars, colloquia and training workshops bring research students together with academic and other research staff in the department to hear about on-going research and to develop new skills and provide an opportunity for networking and socialising. In addition to many *ad hoc* social events that take place, the Department's graduate student-staff liaison committee (the JCCG) organises a number of social events including free coffee once a week for all graduate students and final year undergraduates, a subsidised evening social event in Michaelmas Term and a subsidised summer barbeque.

College:

Many colleges will be able to provide you with at least one year's accommodation. Generally speaking your college will provide meals throughout the year, but provision will vary from college to college, especially during vacations, and you will need to familiarise yourself with your college's detailed arrangements. In addition there are usually self-catering facilities available in graduate accommodation. You will be a member of the Middle Common Room, or equivalent, of your college, which is the main social centre for graduates. The MCR provides a common room and usually organises a programme of social events throughout the year. The college will also provide a bar, some computing facilities and a library, and may often have dedicated funds for research (conference

and field grants). It also represents the interests of its members to the college through an elected Committee or through elected representatives to College Committees. Again, details will vary from college to college. Graduates are also welcome to participate in all other social and sporting activities of the college. Please see individual college websites for further details about all aspects of college provision.

Central:
Graduate Research Students may become members of the University Club in Mansfield Road, and participate in the range of sporting activities provided by the University.

10. What arrangements are in place for pastoral and welfare support?

Department:
Within the Department, your supervisor, Director of Graduate Studies, Graduate Studies Secretary, Departmental Administrator and their teams are all available to offer support. The Joint Consultative Committee for Graduates (JCCG) provides a channel through which graduate students' views and concerns can be brought to the attention of the Department of Materials Academic Committee.

College:
There is an extensive framework of support for graduates within each college. Your college will allocate to you a College Advisor from among its Senior Members, usually in a cognate subject, who will arrange to see you from time to time and whom you may contact for additional advice and support on academic and other matters. In college you may also approach the Tutor for Graduates and/or the Senior Tutor for advice. The Tutor for Graduates is a fellow of the college with particular responsibility for the interests and welfare of graduate students. In some colleges, the Senior Tutor will also have the role of Tutor for Graduates. Each college will also have other named individuals who can offer individual advice. The University also has a professionally staffed confidential Student Counselling Service which offers assistance with personal, emotional, social and academic problems.

Central:
The University provides a Student Counselling Service (http://www.ox.ac.uk/students/shw/counselling/) and Careers Service (http://www.careers.ox.ac.uk/).

MPLSD CODE OF PRACTICE ON THE SUPERVISION OF RESEARCH STUDENTS

A. The wider context

This divisional code seeks to supplement in certain important areas the codes of practice already in place in the University, particularly the EPSC *Notes of Guidance for Research Degrees* http://www.admin.ox.ac.uk/edc/qa/policies/, and the *Memorandum of Guidance for Supervisors and Research Students* (*Examination Regulations,* 2007, pp.878-82). Attention is also drawn to the Quality Assurance Agency's Precepts on Postgraduate Research Programmes http://www.qaa.ac.uk/Publications/InformationAndGuidance/Pages/Code-of-practice-section-1.aspx, which underlies these Codes of Practice.

The annex to your Graduate Student Questionnaire proforma, "Research Supervision: A Brief Guide", provides a brief guide to the roles and responsibilities of supervisors and graduate research students. This code of practice expands on the brief guide. Departments are asked to ensure that a copy of the divisional code and the brief guide is given to every supervisor and every graduate research student in the department.

B. Appointment of supervisors for Graduate Research Students

The supervisory structure and sources of support

Patterns of supervision differ in the MPLS Division according to the nature of the subject. In some subjects there is typically a sole supervisor; others may typically have two or more supervisors, with one designated as the primary supervisor; and others may have supervisory teams.

Where more than one supervisor is appointed, one of the supervisors shall clearly be designated the primary supervisor.

In all cases, the department shall ensure that each graduate student has access to one or more named persons in addition to the supervisor to whom he/she can turn for support, such as the head of the research group, the Director of Graduate Studies, or where appropriate the Head of Department. Where there is a sole supervisor, these other sources of support, and the arrangements for providing cover during the absence of the supervisor referred to at 4 below, are especially crucial.

In all cases students should also expect to be able to approach a college advisor. The student's college will appoint a college advisor, receive termly supervision reports, and transfer and confirmation of status reports. The Division asks colleges not to appoint a student's departmental supervisor as a college advisor. The college may also have procedures in place to monitor the

overall well-being of the graduate research student, including a discussion of academic reports. If the college identifies any concerns which might impact on the academic progress of the student concerned, and which may not already have been recognised in departmental reports, it may refer these in confidence to the Director of Graduate Studies in the department concerned, who will initiate such action in the department as seems to him/her to be necessary in the individual circumstances.

The person(s) appointed to supervise
The supervisor shall normally be:

1. *Someone of sufficient standing to be able to operate with credibility on behalf of the responsible body*

The main supervisor shall normally be a member of academic staff of the University, or a college fellow.

Where specialist supervision is needed that is not available from a member of academic staff or college fellow, a senior member of research staff (Grade 8 or above) may be appointed as a subject specialist supervisor, OR, in appropriate cases, a supervisor may be appointed who is external to the University of Oxford. A person in the department holding a substantial external fellowship, e.g. a Royal Society Fellowship or equivalent on a fixed-term contract also may be appointed to act as a student's main supervisor. In these circumstances, an experienced member of academic staff shall always be appointed as joint supervisor. This must be a member of staff responsible to the Head of Department or Head of the Division.

2. *Someone who has sufficient experience to be able to provide appropriate guidance to the student about the necessary procedures and, in particular, the academic expectations associated with an Oxford doctorate in their subject area.*

At least one supervisor will currently be engaged in research in the relevant discipline(s) so as to ensure that the direction and monitoring of the student's progress is informed by up to date subject knowledge and research developments.

Appropriate support and training will be given to new supervisors.

For supervisors undertaking their first graduate student supervision, an experienced co-supervisor will be appointed to support the student and the supervisor.

For members of academic staff in their first period of office, the Divisional Board will appoint a mentor who will, amongst his/her other duties, provide confidential advice, support, and guidance on

teaching, and supervision of research students. The supervision record of a new member of academic staff is included in the review prior to appointment to retiring age.

Departments shall encourage all new supervisors to attend the Learning Institute's Seminar on Graduate Supervision (http://www.learning.ox.ac.uk/seminar_desc.php?cat=az&ls=&cc=AP/PGS&page=3&id=1651).

When a supervisor is not a member of academic staff at the University, or a fellow of an Oxford college, or a person with previous supervisory experience, an experienced member of academic staff will be appointed by the department either as joint supervisor or as an advisor to the supervisor, and will be expected to act as mentor to the new supervisor.

When the supervisor is a member of contract research staff, s/he will be expected to attend the Learning Institute seminar.

For the avoidance of doubt, a candidate should not be admitted if there is no suitable specialist supervision available in the University or its colleges.

3. *Someone who is able to undertake the tasks assigned to the supervisor in the memorandum and notes of guidance including integrating them into the national and international network in their subject.*

In terms of academic standing and experience, this is dealt with above.

Departments should put in place mechanisms to ensure that the quality of supervision is not put at risk as a result of the excessive volume and range of burdens assigned to individual supervisors. Although for an individual supervisor with a normal academic load, a supervisory load equivalent to six full-time students would be regarded as the normal maximum, it is recognised that there is a range of supervisory practice, in terms of supervisory teams, and the Division emphasizes the importance of adhering to the Quality Assurance Agency's precepts on supervisory practice. These are that:

"11 Institutions will appoint supervisors who have the appropriate skills and subject knowledge to support, encourage and monitor research students effectively.

12 Each research student will have a minimum of one main supervisor. He or she will normally be part of a supervisory team. There must always be one clearly identified point of contact for the student.

13 Institutions will ensure that the responsibilities of all research student supervisors are clearly communicated to supervisors and students through written guidance.

14 Institutions will ensure that the quality of supervision is not put at risk as a result of an excessive volume and range of responsibilities assigned to individual supervisors."

(An individual supervisor's responsibilities for graduate supervision should be assessed in the context of the divisional template of provision for postgraduate research students. There, the Division has stated of a research student 'Typically, you should expect to have meetings with your supervisor or a member of the supervisory team with a frequency of at least once every two weeks averaged across the year. The regularity of these meetings may be subject to variations according to the time of the year, and the stage you are at in your research programme.' It follows that, alongside his/her other duties, a supervisor should be able to provide this typical level of support for each of his/her research students.)

Departments should ensure that students are not disadvantaged by the appointment as a supervisor of someone who is about to go on leave, and shall make appropriate arrangements to cover for a supervisor's absence on leave or for other reasons.

4. *Someone who has sufficient security of tenure to make it likely that they will see the student's research through to successful conclusion.*

Nobody should be appointed as sole supervisor if it is known at the time of the appointment that he or she will not be in post at the time the student is due to complete the programme in question.

C. **How skills training needs are to be assessed.**

Skills training needs are an important part of a postgraduate research student's programme. These include skills that are specific to the research being undertaken, and personal and professional skills training, as outlined in the Joint Statement of the Research Councils on Skills Training for Research Students http://www.vitae.ac.uk/CMS/files/upload/Researcher%20development%20statement.pdf.

The student's skills training needs are assessed at three specific points in his/her programme: in the initial general review of the student's needs with their supervisor, at Transfer of Status, and at Confirmation of Status. It is, however, an integral part of the supervisor's role, at the regular supervisory meetings, to continue to monitor and advise the student on his/her skills training needs, and to draw to the attention of the research student, and encourage the student to take up, such opportunities that are available for the further development of these skills. A full review of your skills training needs should be carried out each year with your supervisor.

In addition, an online Personal Development Planning system is available through the University's Skills Portal (see below). Students should be encouraged to use this to evaluate their own skills training needs, and are encouraged to discuss these regularly with their supervisors.

A review of research and transferable skills training needs should form part of at least one meeting per term between the supervisor and the student. In a student's third and subsequent years the supervisor should also discuss career paths with the student. The student should keep a written record of the discussions.

Extensive information about transferable skills training can be found in the MPLS Division's Graduate School skills training webpages at http://www.mpls.ox.ac.uk/learning/graduate-school/graduate-training.

Information about divisional training and other courses offered across the University is also available through the Skills Portal at https://weblearn.ox.ac.uk/portal/hierarchy/grad.

SUMMARY OF AND BRIEF RATIONALE FOR THE COMPULSORY REQUIREMENTS FOR MATERIALS RESEARCH STUDENTS

A. Introductory Note

In section 2 or 3 of this handbook you will have read an overview of the Department's DPhil or MSc(Res) programme. This includes an introduction to a small number of compulsory programme requirements, more details of which are given in subsequent sections, and to a wide range of optional provision. The checklist on page one of this handbook identifies these compulsory requirements.

It may be helpful to understand that some of these compulsory requirements serve more than one purpose, and to be aware of the rationale behind their inclusion and their sequence. For this reason the summary below is provided. In particular, certain items are designed to meet the University & MPLS Division's minimum requirements for transfer and confirmation of status – these are identified by the colour coding used below. *****Those items marked with an asterisk are normally independently assessed/judged/reviewed by one or more members of staff other than or in addition to your supervisor(s). Transfer and Confirmation of status, as you have read in section 2, are formal points of assessment of your fitness to continue on the research programme, normally occurring early in your fourth and seventh terms respectively. The independent input is an important part of these assessment processes, complementing that of your supervisor(s).

In addition to the Materials requirement of a student-led six-monthly project management exercise, there is a University requirement of three formal progress reports each year, written by the supervisor(s) and with which the student is expected to engage. The purpose of these reports is self evident: clearly it is important that you, your college and the Department have a regular brief update on your progress, not least so that steps can be taken to remedy any problems as soon as possible. If you wish you may record your own entry as part of your termly report, although this is not compulsory. **If you have concerns it is essential that you raise these either verbally or through the termly report. If you wish to raise concerns in confidence you may do so directly with the DGS (Adrian Taylor) and/or with your college or Departmental advisor and/or with the JCCG.**

The University, and some sponsors, also expect each student to engage with roughly ten hours per year of transferable skills training and to report on this in their formal applications for transfer of status (usually early in fourth term) and confirmation of status (usually early in the seventh term).

Project Management is itself a useful transferable skill, but our purpose in making it a compulsory requirement is to enable and encourage you to take responsibility for the progress of your research, providing a tool for regular, but not too onerous, review of progress, identification of potential major bottlenecks and appropriate action to mitigate these, planning for the next six months and, in less detail, planning beyond the next six months right up to thesis submission. The ultimate aim is to maximize your chances of submitting a good thesis within your funded period. You take the lead on the project management, but it is essential that your supervisor engages with you in this exercise.

B. Current Compulsory Requirements, in chronological sequence

Year one

Mandatory training spread over first two terms, but front-loaded to first part of MT: Induction, Safety Lecture, Project Management, Looking to the Future, Attend seven colloquia, Satisfactory completion of two assessed lecture courses* (one to be 'broadening').

Wk 5 MT – Proj Mgt form 1

Wk 1 TT – Submit satisfactory 2500 word 1st year report*, with satisfactory Proj Mgt form 2* (inc Gantt Chart*) annexed
Wks 3-5 TT – Satisfactory performance at 15 minute 1st year viva* (Comments in termly supervisor's reports are noted too at this point)

30th September – Submit satisfactory 7000 to10,000 word Literature Review*

Year two

Early MT – Apply for Transfer of Status

Wk 5 MT – Proj Mgt form 3a

Wk7 HT – Present a satisfactory research talk* (15 min + 5min questions)

Wk 5 TT – Proj Mgt form 3b

For EPSRC sponsored students there is at present a requirement to attend a 'Grad School'

Year three

Early MT – Apply for Confirmation of Status; application to include a 1000 word report* on research achievements to date and supervisor's assessment of this report and a likely timetable for submission of your thesis.

Wk 5 MT – Proj Mgt form 3c

Wk 6 HT – Present a Poster (A0 size)

Wk 2 TT - For 3y funding Proj Mgt form 4, which includes an outline plan for your thesis*
Wk 5 TT – For 3.5y funding Proj Mgt form 3d

Year four (if applicable)

Wk 1 MT - For 3.5y funding Proj Mgt form 4, which includes an outline plan for your thesis*

C. Observations by DGS (AOT)

1. Why require the 1st year report and associated viva early in Trinity full term?

   So that any problems can be identified in good time for remedial action to be taken prior to the formal application for transfer of status.
   The 1st year report is essentially a short progress report; not all projects are expected to have delivered substantial results by this stage, but overall the report enables all concerned to reach a view on whether your project is on track (eg. have you demonstrated an appropriate understanding of the background science and rationale to your project, do you appreciate the new science to which it is hoped your project will lead, are you planning ahead adequately, is the project appropriate for a 3 to 3.5 year DPhil, have you made appropriate progress given the nature of the project, are your written English and report writing skills satisfactory).

2. Why not ask for the Lit Rev early in TT and the 1st Year Report at the end of year one?

   *The Lit Review is a substantial piece of work, typically three times the length of the 1st year report and requires the completion of a comprehensive consideration of all relevant publications on your research topic. Given the other course requirements that **have** to be timetabled in MT & HT, plus the technical training that many are engaged with, it would be very onerous to **require** the Lit Review at the start of TT. Of course you are not prohibited from completing your review in advance of 30th September if this suits you and your supervisor! It is also better to have identified in advance of this substantial literature review, by means of the short progress report, any student who needs additional support and/or training in writing a scientific report and/or in writing in English.*
   See also (1) above.

3. Why not schedule the poster session in year two and the research talk in year three?

The research talk is an oral assessment that forms part of the requirement for Confirmation of Status. It is good vehicle for this and in my opinion a poster would be less suitable. As a bonus we are also able to provide feedback on your oral presentation skills in good time for you to work on improving these if this is necessary.
If the poster were used for the Y2 assessment purpose each one would have to be unique to the assessment and single-authored, each student would be quizzed on their poster by a senior member of staff and others as part of the assessment and the option of a 'public understanding' poster would have to be dropped. The poster event would probably lose its convivial social atmosphere and would take much longer because it would in effect be an exam.
You are better placed to write a full A0 poster when you have a project that is well on the way to completion, with plenty of results and analysis, and having to do so is a good way to focus you and your supervisor's minds on what will be the key results in your thesis.

The Oxford Week numbering system for Michaelmas, Hilary and Trinity Terms

2013

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
S	. 6 13 20 27	. 3 10 17 24	. 3 10 17 24 31	. 7 14 21 28	. 5 12 19 26	. 2 9 16 23 30
M	. 7 14 21 28	. 4 11 18 25	. 4 11 18 25 .	1 8 15 22 29	. 6 13 20 27	. 3 10 17 24 .
T	1 8 15 22 29	. 5 12 19 26	. 5 12 19 26 .	2 9 16 23 30	. 7 14 21 28	. 4 11 18 25 .
W	2 9 16 23 30	. 6 13 20 27	. 6 13 20 27 .	3 10 17 24 .	1 8 15 22 29	. 5 12 19 26 .
T	3 10 17 24 31	. 7 14 21 28	. 7 14 21 28 .	4 11 18 25 .	2 9 16 23 30	. 6 13 20 27 .
F	4 11 18 25 .	1 8 15 22 .	1 8 15 22 29 .	5 12 19 26 .	3 10 17 24 31	. 7 14 21 28 .
S	5 12 19 26 .	2 9 16 23 .	2 9 16 23 30 .	6 13 20 27 .	4 11 18 25 .	1 8 15 22 29 .
	0 1 2 3	**3 4 5 6 7**	**7 8 9**	**0 1 2**	**2 3 4 5 6**	**6 7 8 9**

	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
S	. 7 14 21 28	. 4 11 18 25	1 8 15 22 29	. 6 13 20 27	. 3 10 17 24	1 8 15 22 29
M	1 8 15 22 29	. 5 12 19 26	2 9 16 23 30	. 7 14 21 28	. 4 11 18 25	2 9 16 23 30
T	2 9 16 23 30	. 6 13 20 27	3 10 17 24 .	1 8 15 22 29	. 5 12 19 26	3 10 17 24 31
W	3 10 17 24 31	. 7 14 21 28	4 11 18 25 .	2 9 16 23 30	. 6 13 20 27	4 11 18 25 .
T	4 11 18 25 .	1 8 15 22 29	5 12 19 26 .	3 10 17 24 31	. 7 14 21 28	5 12 19 26 .
F	5 12 19 26 .	2 9 16 23 30	6 13 20 27 .	4 11 18 25 .	1 8 15 22 29	6 13 20 27 .
S	6 13 20 27 .	3 10 17 24 31	7 14 21 28 .	5 12 19 26 .	2 9 16 23 30	7 14 21 28 .
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2014

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
S	. 5 12 19 26	. 2 9 16 23	. 2 9 16 23 30	. 6 13 20 27	. 4 11 18 25	1 8 15 22 29
M	. 6 13 20 27	. 3 10 17 24	. 3 10 17 24 31	. 7 14 21 28	. 5 12 19 26	2 9 16 23 30
T	. 7 14 21 28	. 4 11 18 25	. 4 11 18 25 .	1 8 15 22 29	. 6 13 20 27	3 10 17 24 .
W	1 8 15 22 29	. 5 12 19 26	. 5 12 19 26 .	2 9 16 23 30	. 7 14 21 28	4 11 18 25 .
T	2 9 16 23 30	. 6 13 20 27	. 6 13 20 27 .	3 10 17 24 .	1 8 15 22 29	5 12 19 26 .
F	3 10 17 24 31	. 7 14 21 28	. 7 14 21 28 .	4 11 18 25 .	2 9 16 23 30	6 13 20 27 .
S	4 11 18 25 .	1 8 15 22 .	1 8 15 22 29 .	5 12 19 26 .	3 10 17 24 31	7 14 21 28 .
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	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
S	. 6 13 20 27	. 3 10 17 24 31	. 7 14 21 28	. 5 12 19 26	. 2 9 16 23 30	. 7 14 21 28
M	. 7 14 21 28	. 4 11 18 25 .	1 8 15 22 29	. 6 13 20 27	. 3 10 17 24 .	1 8 15 22 29
T	1 8 15 22 29	. 5 12 19 26 .	2 9 16 23 30	. 7 14 21 28	. 4 11 18 25 .	2 9 16 23 30
W	2 9 16 23 30	. 6 13 20 27 .	3 10 17 24 .	1 8 15 22 29	. 5 12 19 26 .	3 10 17 24 31
T	3 10 17 24 31	. 7 14 21 28 .	4 11 18 25 .	2 9 16 23 30	. 6 13 20 27 .	4 11 18 25 .
F	4 11 18 25 .	1 8 15 22 29 .	5 12 19 26 .	3 10 17 24 31	. 7 14 21 28 .	5 12 19 26 .
S	5 12 19 26 .	2 9 16 23 30 .	6 13 20 27 .	4 11 18 25 .	1 8 15 22 29 .	6 13 20 27 .
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2015

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE
S	. 4 11 18 25	1 8 15 22	1 8 15 22 29	. 5 12 19 26	. 3 10 17 24 31	. 7 14 21 28
M	. 5 12 19 26	2 9 16 23	2 9 16 23 30	. 6 13 20 27	. 4 11 18 25 .	1 8 15 22 29
T	. 6 13 20 27	3 10 17 24	3 10 17 24 31	. 7 14 21 28	. 5 12 19 26 .	2 9 16 23 30
W	. 7 14 21 28	4 11 18 25	4 11 18 25 .	1 8 15 22 29	. 6 13 20 27 .	3 10 17 24 .
T	1 8 15 22 29	5 12 19 26	5 12 19 26 .	2 9 16 23 30	. 7 14 21 28 .	4 11 18 25 .
F	2 9 16 23 30	6 13 20 27	6 13 20 27 .	3 10 17 24 .	1 8 15 22 29 .	5 12 19 26 .
S	3 10 17 24 31	7 14 21 28	7 14 21 28 .	4 11 18 25 .	2 9 16 23 30 .	6 13 20 27 .
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	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
S	. 5 12 19 26	. 2 9 16 23 30	. 6 13 20 27	. 4 11 18 25	1 8 15 22 29	. 6 13 20 27
M	. 6 13 20 27	. 3 10 17 24 31	. 7 14 21 28	. 5 12 19 26	2 9 16 23 30	. 7 14 21 28
T	. 7 14 21 28	. 4 11 18 25 .	1 8 15 22 29	. 6 13 20 27	3 10 17 24 .	1 8 15 22 29
W	1 8 15 22 29	. 5 12 19 26 .	2 9 16 23 30	. 7 14 21 28	4 11 18 25 .	2 9 16 23 30
T	2 9 16 23 30	. 6 13 20 27 .	3 10 17 24 .	1 8 15 22 29	5 12 19 26 .	3 10 17 24 31
F	3 10 17 24 31	. 7 14 21 28 .	4 11 18 25 .	2 9 16 23 30	6 13 20 27 .	4 11 18 25 .
S	4 11 18 25 .	1 8 15 22 29 .	5 12 19 26 .	3 10 17 24 31	7 14 21 28 .	5 12 19 26 .
				0 1 2 3	**4 5 6 7 8**	**8 9**

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