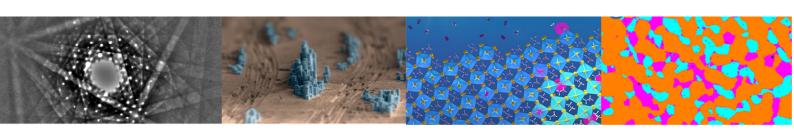




Department of Materials University of Oxford

Notes of Guidance on Research Degrees in Materials: MSc by Research in Materials



Notes of Guidance on Research Degrees in Materials:

MSc by Research in Materials

1. Introduction

The purpose of this document is to describe the key points and principles of the formal progress assessments and examinations for the MSc(Res) in Materials graduate research degree. If any of the content is confusing or worrisome then please speak to someone (supervisor, department/college advisor, materials graduate studies team, etc). Most concerns are easily addressed, but equally it is easy for worries to grow if left unaddressed.

This document is specifically for those enrolled in a MSc(Res) in Materials. If you are part of a CDT or studying for a DPhil then please find the document specific to your course.

For MSc(Res) candidates there is only one formal assessment before the final examination of the thesis, namely <u>Transfer of Status</u>. This assessment is there to help you by providing independent feedback on the research ideas you are working on and how you are able to explain and discuss them. This should help ensure you have a worthwhile research project with ambitious and achievable goals, are receiving the right training, and should give you some preparation towards the final viva.

The Education Committee of the central University is responsible for policy and regulations for degrees including graduate research degrees. The Mathematics Physical and Life Sciences (MPLS) Division implements these exam regulations through procedures and guidelines designed to support students in the sciences. This document describes the procedures that the department runs within these wider frameworks for the DPhil in Materials research degree.

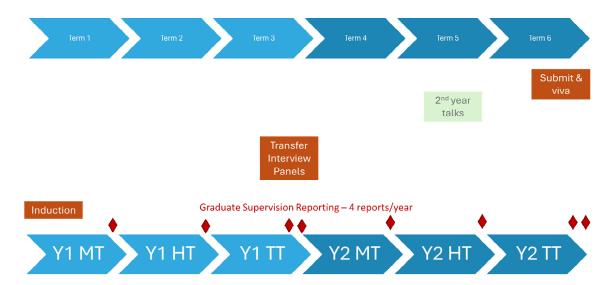
1.1. Regulations and Divisional Policies

This document should contain all the information you need concerning progression assessments and examination for a MSc(Res) in Materials. For completeness though the relevant examination regulations can be found via the following links:

- General Regulations Governing Research Degrees
- General Regulations for the Degree of Master of Science by Research
- Research Degrees in the Mathematical, Physical and Life Sciences Division
- Research Degrees in Physical Sciences

1.2. Timeline

The figure below depicts the anticipated timeline for a 2 year MSc(Res) in Materials. The terms marked at the bottom are on the basis of a Michaelmas term start, with no suspensions. The timeline near the top simply counts terms (regardless of start term or suspensions). The Graduate Supervision Reporting (red diamonds) occurs at the end of each full term, and at the end of the long vacation (ie a second report in the much longer Trinity term). The orange boxes, mark the key milestones of induction, transfer, and the final submission and viva.



In exceptional circumstances it is possible to request that the progression point of transfer are deferred. We encourage timely engagement with this process, however, as it is designed to bring in opportunities for independent feedback at an appropriate time. It is also possible for the assessor to consider transfer to a DPhil in Materials if student, supervisors, and college are open to it.

1.3 Student Self Service - eVision

The majority of procedures for progression and examination are initiated by the student using the Student Self Service system (also known as <u>eVision</u>). This is a web-based system that holds student records and is used across university departments and colleges (<u>more information here</u>). You can access the <u>Student Self Service</u> using your Oxford Single Sign On (SSO).

The main forms that you are likely to need (and many others you may not need) are detailed here. A manual describing the Student Self Service system in detail can be found here.

2. Transfer of Status

2.1 Purpose

This first progression milestone looks at: (i) the scope and significance of your project, (ii) the training that has been identified and engaged with, (iii) your knowledge of the existing literature and the gaps within it, (iv) your ability to express the key scientific/technical concepts clearly, and (v) any progress you have made to date.

The emphasis is on establishing that the project has suitable scope for a MSc(Res), and that you are taking charge of it (ie not just following instructions but thinking and contributing ideas too).

Formally, two independent assessors are asked to consider your project and the progress you have made with it. The assessors will be assigned by the DGS and will not include any of your supervisors, or advisors. The assessors will be asked whether they are satisfied that:

- a) The student has proposed a viable MSc(Res) project that can be completed within the proposed timeframe and funded period or within 9 terms.
- b) The work undertaken to date provides an appropriate background and platform for progress.
- c) The student has developed a critical understanding of the relevant literature.
- d) The student understands, can justify and defend their research project, its objectives and rationale.
- e) The student has a clear plan for the future direction of the project.
- f) The student has begun to take intellectual ownership of the project.

If the assessors are both positive about all of these points, then you will transfer status from probational research student to a DPhil student. If they have doubts (eg the project is too limited, or too ambitious, or needs some risk mitigation, or progress and training need a little more time, ...) then they will provide feedback. This might be responded to by a written submission, or by a further interview (more on this here).

2.2 Timing

The first attempt at transfer of status is ideally made within your third term of study, and at least before the end of your fourth term as stipulated by the exam regulations. During your first year, you will be working towards Transfer and timely engagement with the process is important as it will provide constructive feedback on the setup of your project. Delaying transfer is almost always unhelpful as it means that feedback comes too late to be useful in setting out the project.

During the first year, you should be carrying out the following activities: critically reviewing the background literature and formulating specific research questions, training on specific research techniques that you will use, preliminary experiments/simulations, and wider transferable skills training (research integrity, presentation skills, writing skills, public engagement and outreach, teaching, inclusive practices, research seminars). These are all important aspects of your development into an independent researcher and your engagement with them will be captured

in the following submissions detailed further <u>here</u>: (i) research integrity training certificate, (ii) skills training portfolio, and (iii) research project report. These milestone documents will be used alongside a discussion with two independent assessors to determine your progress.

To ensure that transfer happens in a timely fashion the interviews with your assessors are timetabled and organised by the Department and will occur towards the end of your third term of study. For the majority starting in Michaelmas Term this means transfer interviews will be at the end of the long vacation. Other aspects of the transfer of status process need to be completed before the interview.

For the 2025/26 Michaelmas Term starters the interviews will occur on 22nd-24th, and 29th-30th September 2026. The Materials PGR Support Team will let you know specific timings in due course.

2.3 Preparing for Transfer of Status

The MPLS Division has written a form on 'Preparing for Transfer of Status' which lists a series of questions that can be helpful to run through ahead of transfer of status. The idea is that it will prompt you to think about key aspects of your development, knowledge base, and project plan. It is sensible to go through this form yourself and then discuss it with your supervisor. The form is available via the MPLS website (https://www.mpls.ox.ac.uk/graduate-school/information-forpostgraduate-research-students/progression).

Good timing to do this is for the GSR reporting window that proceeds your transfer interview. For Michaelmas Term starters this would be in Trinity Term ahead of the September interview panel days.

2.4 Components of Assessment

2.4.1 Research Integrity Training

Everyone involved in research has a duty to consider how their work affects others whether project collaborators, local research groups, wider research community and indeed society more generally. The principles are well-captured by the <u>Singapore Statement on Research Integrity</u> as consisting of Honesty, Accountability, Professional courtesy and fairness, and Good stewardship. Upholding these principles gives rise to responsibilities for all researchers.

We feel that it is crucial for all research students to receive training in research integrity as it should underpin everything you do in your research. There are a series of on-line training courses for research integrity delivered through the <u>CoSy</u> system.

For transfer of status, you must complete the <u>Research Integrity: Introductory Core Course 2.0</u>, and achieve a score of at least 80% on the embedded quizzes. **You must upload to the eVision system the Certificate that confirms you have completed the Research Integrity course when you apply to be considered for transfer of status (before 31st August 2026).**

2.4.2 Skills Training Portfolio

As part of your growth towards an independent researcher there are a number of general academic skills that are important to develop. These are of wider reach than the specific technical skills and knowledge needed for your particular project and include topics such as: academic writing, critical reading, research methods, presentation skills, time and project management, research ethics, managing research information, good teaching practice, public engagement, outreach, inclusive practices.

There are many courses and seminars that will help you develop these academic skills. Such training is intended to help you build confidence in your research, improve how you communicate your ideas, and give you transferable skills that will benefit you both during your degree and in your future career.

To transfer status, you are required to engage with at least 20 hours of skills training activities, which must include attendance of at least 5 departmental research colloquia. We will give you freedom to construct your own skill training portfolio which you can steer towards your own needs, aspirations, and interests. In the table below we give some examples of activities that we would definitely accept within a portfolio, and a few that we would not. If you are in doubt about the suitability of an activity, please ask the PGR support team and they will let you know if it will be accepted as a contribution to your portfolio.

Please download the skills training portfolio template from the departments website and use it to record each activity. This should be done throughout the year after each activity as it includes brief reflection on what you gained from the activity. For each activity in your skills training portfolio, you must document the following:

- The name of the course/seminar/workshop
- The date it took place
- The organiser/facilitator
- Time spent on the activity
- Three bullet points on skills/knowledge gained

Can be included in Skills Training Portfolio	Outside scope of Skills Training Portfolio
Courses from the <u>Graduate Training</u> Framework (esp Your Successful DPhil) MPLS courses on Public Engagement with Research	Research Group Meetings Undergraduate Lectures EM Training on microscopes
MPLS courses on Inclusive Practices	Induction Day Sessions
Information Skills (see dept lecture list) Teaching Skills (see dept lecture list) Departmental Research Colloquia	Research Integrity: Introductory Core Course 2.0 Paid Teaching Assistant roles

You must upload to the eVision system your completed Skills Training Portfolio as one of your milestone documents for transfer of status (before 31st August 2026 – doing it early ensures that you have enough content).

2.4.3 Research Project Report: Proposal and Progress

To capture the progress you have made in your research project, you need to prepare a report of no more than 3,500 words (excluding the title page, table of contents, acknowledgements, references, figure captions, and project timeline). This word count should be divided across the following elements:

Literature Review (\leq 1,500 words): This should capture the context of your research project in terms of the technological needs, a brief description of the key literature including central facts and theories where there is consensus, any points of disagreement or competing interpretations, and any gaps in our knowledge. [Your supervisor may want you to write a longer, more in-depth literature review – you discuss this with them].

New Science/Research Questions (≤1,000 words): The literature review should lead into a clear statement of research questions you will aim to answer over the course of your studies. The research questions should show some ambition to advance the field but balance this with some other targets that seem easier to achieve. You should make it clear why the new science you aim to deliver is important and what its impact will be.

Training & Progress to date (≤1,000 words): This section should give the key techniques that you will need to deliver your project along with a description of the training you have either had or have planned. Some data (micrographs, spectra, diffraction patterns etc), however preliminary, should be given to demonstrate the progress you have made. The progress can be either on mastering techniques, or in answering research questions, or both.

Project Management and Timeline (1 page + Gantt chart or similar): One further page can be used alongside a Gantt chart, to describe the timeline and key aspects of project management. As far as possible you should identify any aspects of risk where your project is reliant on external factors, or with key pieces of equipment. A brief consideration of risk mitigation should be given for each of these, along with discussion of when very ambitious parts of a project may need to be reconsidered. Having a "plan B" can make having an ambitious "plan A" into a safer proposition.

In writing your report, make it clear when you are referring to your own work ("I" rather than "we"). If parts of the work will be in collaboration try to be explicit about others involved if you already know. Collaboration is absolutely fine, and happens in almost all scientific endeavour, but for your thesis, it is important that individual contributions are clearly demarked.

You must upload to the eVision system your Research Project Report as one of your milestone documents for transfer of status (before 31st August 2026).

2.4.4 Transfer Interviews

The final aspect of the transfer assessment is an interview which will discuss your research questions, the progress you have made so far and your plans going forward. The interviews will be organised by the Department and will occur towards the end of your third term of study. For

the majority starting in Michaelmas Term this means transfer interviews will be at the end of the long vacation. This academic year, the dates will be $22^{nd} - 24^{th}$ and $29^{th} - 30^{th}$ September 2026. The PGR Support Team will give you the specific day and time in due course.

Discussion in the interviews will be led by two independent assessors who will have already seen your written milestone documents. There may be a small number of other academics present too, one chairing the session, and in most cases the DGS. Your supervisors will not be present for your interview. This is because we are interested in what you have to say, and we realise that some may find it intimidating if their supervisor were present.

The interviews will be between 15 to 30 minutes, and the first five minutes will be for you to present a summary of your project (the chair will keep us to time). It is important that you think about and practice this presentation. You should certainly discuss this with your supervisor, and it would be sensible to have a run through in a group meeting. You should prepare a slide deck for this – our guidance would be that any more than five slides will very likely lead to you over running and being cut off by the chair. Think hard about the central messages. Things are likely to go well if your assessors understand what your research questions are, why they are important, and how you plan to answer them. You might want to look at some "three-minute thesis" videos or attend the MPLS training session. The remainder of the time will be spent discussing your project proposal and progress with it. This is a chance for the assessor to explore any points they had not fully understood from your written submission, and/or suggest other approaches you might consider. Sometimes links to other pieces of work are suggested and even possibilities of new collaborations emerge. We will make sure you have a chance to voice any concerns you have about the project, delivery of training etc.

After the interview, your assessors complete a report form and make a recommendation on the outcome of the assessment.

2.5 Possible Outcomes

A blank copy of the report form that assessors complete is given in appendix A. This is submitted into the <u>eVision</u> system, approved by the DGS, and passed onto the MPLS Division. You will then receive an email detailing your transfer outcome from the MPLS Division.

Whether pass or fail, you should spend some time reflecting on the verbal and written feedback you have received and discussing this with you supervisor. In some cases, you may be asked to provide a written response to some questions that have been raised by the assessors before the transfer of status is confirmed.

If the outcome is not favourable at the first attempt, then you can make a further attempt to transfer. This is normally done one term after the initial attempt. For the second attempt, a new application should be submitted with a revised research report, and another interview will be held (the PGR Support Team will provide detailed instructions). In these circumstances, honest and open discussion with your supervisors is the best way forward. Construct a plan that will enable you to address specific points of concern that the assessors have raised. Remember too that you can seek guidance from your departmental and/or college advisor, and indeed from the DGS, though this may lack technical insight.

An extension of time of one term will be granted if necessary to make the second application. If your second attempt at transfer is unsuccessful, then you will no longer be able to continue with your studies, and your name will be removed from the Register of Graduate Students.

3. Removal from the Register & Appeals

3.1 Removal from the Register

If a student's academic performance is unsatisfactory, or there are other concerns about a student's academic progress, the department may find it necessary to initiate the <u>removal from the register process</u>. Before we reach that formal process, we will have worked with your supervisor and college to thoroughly discuss making any suitable adjustments to your study, and have tried to seek help and advice from other suitable sources. Students whose academic performance remains below the standard required will be advised at every stage of the options available to them, including voluntary withdrawal, a period of suspension, and requesting to change their registration to another degree (if appropriate).

3.2 Appeals for transfer and confirmation of status

It is possible to contest the outcome of the transfer or confirmation assessment. You should first discuss the matter with the DGS. Where this does not satisfactorily explain or resolve your concern, then you, your supervisor, or your college authority may put your appeal directly to the Proctors. The Proctors can only consider whether the procedure for reaching an academic decision were properly followed, and cannot challenge the academic judgement of the assessors. Please view the University complaints and appeals processes.

4. Final Examination

As you progress with writing your thesis you should find time to talk with your supervisor about suitable examiners. You will need two examiners. Usually, one of these is a senior member of University of Oxford (the internal), and the other is from outside Oxford (the external). The exam regulations only actually stipulate that at least one examiner should be from outside Oxford, so it is possible to have two external examiners. You need to use the eVision system (under My Student Record) to initiate an application for the appointment of examiners. We strongly advise that you start this process four to six weeks before you intend to submit your thesis, otherwise, the process of approving the examiners may lag behind your eventual thesis submission. It is acceptable to enter an estimate word count if you are applying ahead of finalising and submitting your thesis. Once you have completed your part of the application it will pass to your primary supervisor who will submit details of the proposed examiners. The DGS and MPLS Division will determine if the examiners are suitable and free from any conflicts of interest (see section 7.3.3 of the university's Policy and Guidance on Research Degrees). Examiners can only be appointed after you have achieved confirmation of status.

The final examination will centre on your thesis, which should critically survey the relevant literature, identify the aims of the research (ie your research questions), describe the methodology used and the results obtained. Remember that the development of new techniques and methods of analysis can be as valuable as the results they produce. The work

should be discussed not just in isolation, but within the wider research context. Conclusions should try to draw out the significance or impact of the work rather than just summarise it. All of this needs to be delivered in fewer than 25,000 words for the main body of the text (the following can be excluded from the word count: references, figures, figure captions, tables, declaration, title page, acknowledgements, glossaries, table of contents, and abstract). An abstract is explicitly required and should concisely summarize the scope and principal arguments of the thesis, in about 300 words.

The thesis must be written by you, in your own words. If you quote from other people's writing, then you need to make this explicit and give clear credit to the original author(s). Failing to do this is plagiarism and is completely unacceptable. <u>Plagiarism</u>, and other research misconduct, will jeopardise your degree and can lead to expulsion from the University. This extends beyond text to figures and tables which can be presented, often in the literature review, but must be credited to the originators. You must also comply with copyright law.

Although the writing must be yours, it is not uncommon for some of the work to have been conducted with or by others (for example particular measurements, or synthesis steps). This is not inherently a problem as most science is collaborative, but you must make it clear and explicit where others have contributed. If there has been significant collaboration, then in addition to noting this in your thesis, it is advisable to also submit a Statement of Authorship. This lays out in a separate document the details of work completed in collaboration, and/or work completed by others along with a guide to where these are reported in the thesis. The Statement of Authorship is then uploaded to eVision as part of the appointment of examiners application.

You are entitled to receive thorough formative feedback on one draft of each chapter of your thesis from your supervisory team. This takes time to happen, and time for you to make any amendments so plan this into your schedule. Most supervisors prefer to get work in chapters, maybe even smaller sections, rather than be faced with a whole draft thesis. Discuss this with them, and if you have more than one supervisor talk about who will comment on each part of your thesis.

Arranging for adequate proof-reading of your thesis is your responsibility, though your supervisor may comment if they feel further proof-reading is required. Proof-reading focuses on the grammar, spelling and clarity of the writing rather than the scientific or technical ideas being presented. You could proof-read for yourself, or it is acceptable to bring in third parties (family, friends, or even a professional proof-reading service). Be aware that a proof-reading service may be part of a set of reasonable adjustments for disability. Make sure that use of a third-party does not contravene any agreements concerning confidential material within your thesis.

When completed, your thesis should be submitted via the <u>eVision</u> system via the 'My Research Degrees' tab. There is no requirement for a printed version of your thesis to be submitted.

Once the thesis is submitted and examiners appointed, the research degrees office will release your thesis to the examiners and prompt the internal examiner to make arrangement for the oral or viva voce exam.

There is no prescribed duration for the viva, but typically in Materials, they last from 2 to 3 hours. Candidates (and internal examiners) must attend the viva in academic dress. Often, the candidate will be asked at the start to outline the context, main findings and significance of the research. Come prepared to respond to such a request but don't try to learn a speech by rote (it

comes over poorly). Often the discussion then moves chapter by chapter through the thesis. Try not to get flustered if you cannot answer a specific question – no one is an expert on everything and there may not be a known/agreed answer to some questions. After some understandable nerves, a viva settles into a discussion between three knowledgeable and interested people into a body of research work.

The examiners are asked to assess whether:

- a) the student possesses a good knowledge of the particular field of learning within which the subject of the thesis falls
- b) that the candidate has shown competence in investigating the chosen topic
- c) the student has made a worthwhile contribution in the particular field of learning within which the subject of the thesis falls
- d) the thesis is presented in a lucid and scholarly manner
- e) in their opinion, the thesis merits the degree of Master of Science by Research
- f) the candidate has presented a satisfactory abstract of the thesis

The examiners are guided to take into account what may be reasonably expected of a capable and diligent student after two years of full-time study.

The examiners write a joint report and make a recommendation to the Board concerning the outcome of the exam. For a first examination, the examiners make one of the following four recommendations:

- Outcome A. That the candidate be given leave to supplicate for the degree of Master of Science by Research without any further amendments to the thesis;
- Outcome B. That the candidate be given leave to supplicate for the degree of Master of Science by Research following minor corrections of the thesis;
- Outcome C: That the candidate should make major corrections to the thesis;
- Outcome D: That the candidate should make major corrections of the thesis, followed by a mandatory viva;
- Outcome E: Reference back of the thesis for further work followed by re-examination for the degree of Master of Science by Research;
- Outcome F: That the candidate's application for leave to supplicate should be refused (fail).

For each of these outcomes you will be given specific guidance on what to do next, but more general information can be found here