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# Graduate Induction Course Oct 2021

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# Aims of Induction Course

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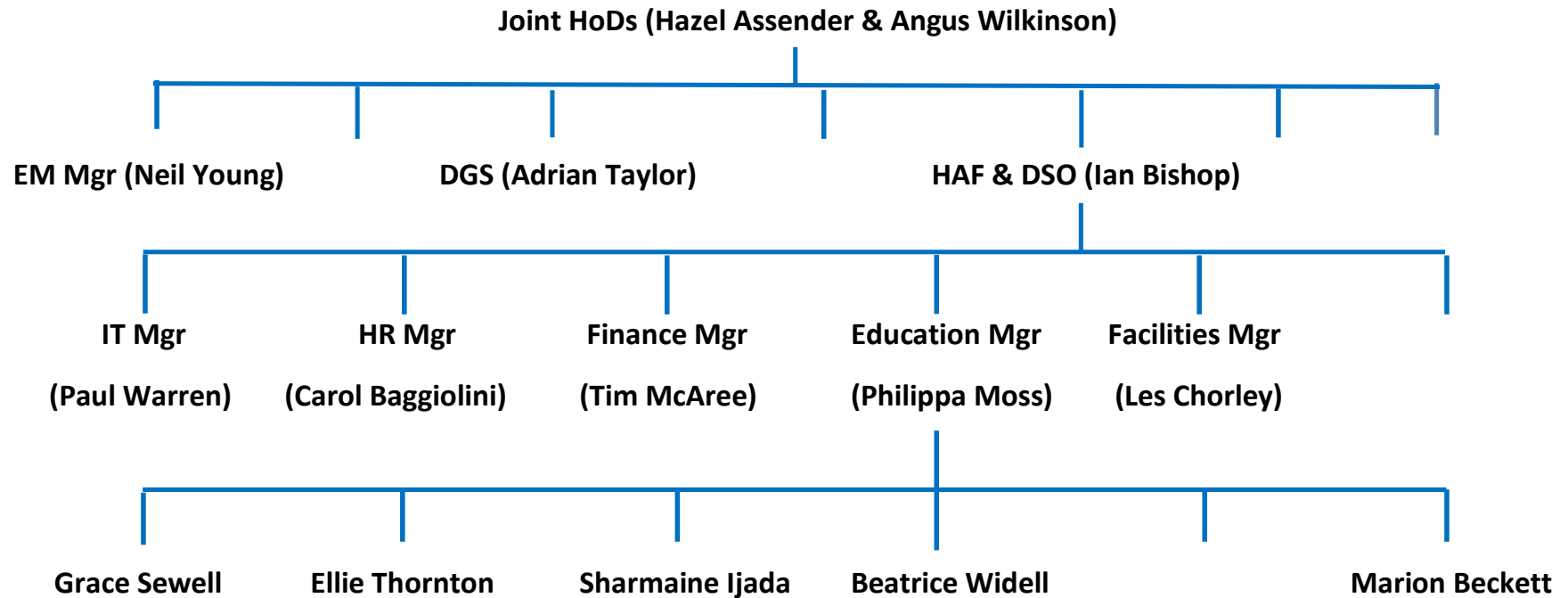
- To introduce you to the Department's:
  - staff
  - buildings
  - facilities
- To give you an overview of the structure of the degree programme you are about to start
- To give you a chance to meet each other, and some of the other graduate students
- To help you get started with the rest of the term...

# PGR Support Structure

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- Supervision Team & Research Group
  - Dept. Advisor
  - Director of Graduate Studies & Materials Education Support Staff
  - Materials Graduate Studies Committee
  - Joint Consultative Committee for Graduates (JCCG)
  - Departmental Harassment Advisors
  - Departmental Administrative & Technical Support Staff
  - College Advisor
  - Divisional Skills Training Officer
  - MPLSD Grad School
  - University Education Committee and The Proctors

# MATERIALS SUPPORT STRUCTURE FOR PGR STUDENTS



OUTLINE OF OXFORD MATERIALS SUPPORT STRUCTURE FOR RESEARCH STUDENTS

# On-line Handbooks and guides

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- **Materials Graduate Student Handbook**
  - the Materials DPhil & MSc(Res) Research Programme
- MPLSD on-line PG Research Student ‘Handbook’
- EdC Notes of Guidance for Research Degrees
- **Materials PG Lecture & Training Course Synopses and Research Colloquia Details**
  - information on training and teaching
- **MPLSD Researcher Training & Development Opportunities Brochure and Webpages**
- **Materials Information Centre** - where to find what you need (and who to ask!) [www.materials.ox.ac.uk/mic](http://www.materials.ox.ac.uk/mic)

# IMPORTANT WEBPAGES

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- Lecture/Workshop documents and recordings (see CANVAS VLE, Materials: PGR Teaching & Training)  
<https://login.canvas.ox.ac.uk/>
- ‘Materials: PGR Progression’ On-line Site  
Portal soon to migrate to CANVAS
- Oxford Materials webpages [www.materials.ox.ac.uk](http://www.materials.ox.ac.uk)
- Mathematical, Physical & Life Sciences Division (MPLSD) webpages [www.mpls.ox.ac.uk](http://www.mpls.ox.ac.uk)

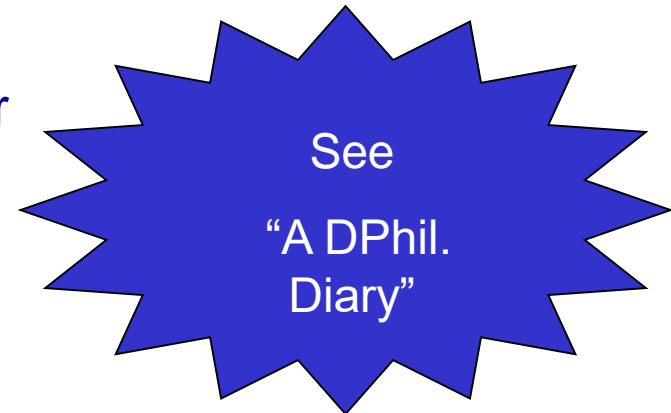
# Forms/tasks that need to be completed

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- ‘New Graduate Student’ questionnaire
  - your personal details + supervision team
- Risk Assessment
  - your safety in the type of work you will be doing
- Radiation protection form
  - arranging training for use of X-rays, lasers and radioactive materials
- Key application form
- Swipe card access (Fob for Begbroke)
  - to allow you access to building and labs/offices

# Overview of the D.Phil. programme

- First Year: Probationer Status
  - begin research
  - transferable 'career skills', research skills training, academic courses & broadening elements
  - informal meeting with Lead Assessor
  - literature review
- Second Year
  - transfer of status exam
  - main research year
  - skills training, including research talk to Department
- Third Year (plus a further 6 or 12 months if funded for 3½ or 4 years)
  - completion of research and thesis submission
  - skills training, including poster competition





# Overview of the M.Sc. programme

- First Year: Probationer Status
  - begin research
  - transferable ‘career skills’, research skills training, academic courses & broadening elements
  - begin research
  - informal meeting with Lead Assessor
  - literature review
- Second Year
  - transfer of status exam
  - main research year
  - skills training, including research talk to Department
  - completion of research and thesis submission



# DPhil Exam Criteria – 777 days to achieve!

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- To possess a good general knowledge of your research discipline
- To have completed a **significant and substantial piece of research** of a kind which might reasonably be expected of a capable and diligent student after 3 or at most 4 years of full-time study
- To submit a thesis that is presented in a lucid and scholarly manner

# Supervision Team

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- Supervisor(s) – one of whom will be your ‘**Responsible Supervisor**’, the others being co-supervisors. Together these supervisors will:
  - be the main source of advice and guidance for your project
  - keep a watch on your progress and report to Dept, University and College (**GSR: quarterly on-line reports**)
- Associate Supervisor – in addition, a postdoctoral researcher of less than three full years at that level may be appointed as an associate supervisor but this role does not carry the responsibilities of the ‘full’ supervisors

# Supervision Team

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- Departmental Advisor:
  - should be familiar with your research area
  - there for help and advice if things go wrong
- Deputy-supervisor (appointed for laboratory safety):
  - will be **either** one of your co-supervisors (not the lead) **or** your Dept Advisor
  - to give safety advice if supervisor(s) absent
  - if appropriate may temporarily take the role of Responsible Supervisor (RS) in the event of an extended absence of your normal RS

# Your supervisor(s):

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- What you should expect from them:
  - help with planning your research programme
  - skills audit (what training and teaching you need)
  - regular discussions of your work and academic advice
  - feedback on progress (formal and informal)
- What they should expect from you:
  - conscientious working, according to their advice
  - follow Departmental rules at all times (e.g. safety)
  - keep them informed of problems in good time

It is important for **you** to arrange regular meetings

# Project Management Arrangements

3.5y project  $\equiv$  777 working days to completion

- Aim of the scheme:
  - to allow you as the student to take responsibility for the successful outcome of your research project by assessing expectations and progress throughout duration of your course and flagging up any problems
- Structure of scheme:
  - 6-monthly forms assessing progress and future aims
  - student-led
- Workshop explaining the scheme:
  - Friday wk4 12.30 to 3.30pm; In advance you should draft PMF1 – please consult with your supervisor for this

# Research & Transferable 'Career Skills' Training

- Safety (Ian Bishop, wk 1 MT)
- Project management skills (wk 4 MT)
- Career-related skills (wk 6 MT)
- Research Integrity – mandatory on-line course (by 31<sup>st</sup> July 2022)
- Training for role of TA in the UG Practical Classes (wk 7 MT, tbc)
- LabVIEW (MT, tbc)
- Presentation skills/PowerPoint/PPT for posters/Adv a/v skills, (HT)
- Writing skills, Lab notebooks, IPR & Patents (HT)
- Information skills, including literature searching (wk 2 MT)
- Reference Management skills (HT)
- Workshop skills (throughout year)
- Microscopy skills (modular)
- Institute of Materials - Benefits of Membership (wk 7 MT)
- Poster Presentation skills (wk 8 MT tbc, & wk 6 HT)
- Teaching skills (a series of workshops, some early in MT)

# Transferable 'Career Skills' Training

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- Other skills training courses at University level
  - IT Services, MPLSD, OUCaS, Bodleian
  - Language Centre (**Register for a course by Friday of Week 1 MT**)
  - MPLS Entrepreneurship workshops & activities
  - Scientific Computing for DPhil students (MATLAB based)
- Further information & links from MPLSD web site
  - MPLSD Grad School workshop 'Your Successful DPhil' (MT, book one of several dates offered)
- **Keep a portfolio as a record of your skills training**



# MPLSD GRAD SCHOOL TRAINING FRAMEWORK

Phase Category	Foundations Phase (0-12 months)	Intensive Research Phase (12-30 months)	Completion Phase (24+ months)
Transferable Career Skills	Project Management Career Planning TA for UG Practicals - Training	Research Talk	
Research Skills	Safety Induction Talk Colloquia Brief presentation during 'Transfer of Status' interview Research Integrity Training		Poster Presentation
Academic Skills	Two assessed lecture courses Literature Review		

# Broadening elements

- DPhil Examiners' Rubric:
  - to satisfy themselves that candidates possess good general knowledge of research discipline

## Hence

**Requirement to attend 7 colloquia**

**Requirement to pass 2 assessed courses:**

- one of which must be 'broadening' not 'deepening'
- assessment by written work and sometimes classes/tutorials
- Look at 'Postgraduate Lecture Synopses' handbook
  - PG level teaching in Department (includes Y3 UG M.Eng Options)  
**some lecture courses start in week 1 MT**
  - UG-level teaching in Department (for graduates of other subjects)
  - interdisciplinary assessed courses (see MPLS Dept Websites)  
**check choices with supervisor/DGS in advance**

# Transfer of Status Examination

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- Normally conducted in mid-September to early-October 2022 by two assessors [not your supervisor(s), Dept Advisor or College Advisor]
- Details provided in 2021/22 Materials Graduate Student Handbook

# Transfer from PRS to D.Phil./M.Sc. Status

- Four threshold requirements for transfer
  - Passes in two assessed courses
  - Attend at least seven MT & HT colloquia
  - Submission of Literature Review
  - Completion of on-line Research Integrity course
- Informal meeting with Lead Assessor (early TT)
- Apply for Transfer of Status (form GSO.2.MPLS)
  - Normally by 31<sup>st</sup> July 2022
  - Form includes comments by your supervisor on your progress
  - Form includes a summary of skills training attended

# Literature review

- 5,000 - 6,000 word survey of your research field
- Aim: to familiarise yourself with the topic area
- Feedback from a member of staff:
  - overall standard
  - breadth of coverage
  - critical judgement shown
  - style and presentation
- Submit to WebLearn by Fri Week 8 TT 2022
- Taken into account for Transfer of Status Exam
- IoM<sup>3</sup> prize offered for best Materials Literature Review from graduate students studying in UK

# Transfer of Status Examination

- Written Submission
  - 2,500 words on progress during first year
  - project timetable for completion (2, 3, 3½ or 4 years)
  - MPLS Preparing for Transfer of Status form
  - Submit the above to 'Materials: PGR Progression' site with GSO.2.MPLS three weeks prior to interview
  - **Warning:** see section 21 of handbook, on plagiarism
- Interview
  - 5 minute presentation (using visualiser)
  - 10-25 minutes questions & discussion (and advice)
  - **Mid-September to Early October 2022**
  - Feedback

# Second-year talks

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- 9am-6pm, Mon to Fri of Week 7 HT
  - 15 minute presentations (often PowerPoint)
  - 5 minute questions
- Written collective feedback from Convenor after a set of talks.
  - quality of visual aids
  - pace, diction, structure and timing
  - ability to get points across to peer-group
- Individual feedback from Supervisor and Peers
- Hetherington Prize awarded by Department for best talk in terms of communication of science.

# Third Year (for D.Phil students)

- Already you should have:
  - written a Literature Review (one chapter of your thesis)
  - completed a significant amount of original work that will form a substantial part of your thesis
- **This year you will:**
  - apply for confirmation of status
  - define a timetable for the completion of your thesis within 12 months (3y funding) or 18 months (3½y funding)
- **You should aim to be completing your main research work SIX months before your funding expires** and hence start writing your thesis in April 2024 (3y funding), October 2024 (3½y funding) or April 2025 (4y funding)
- HT Poster Competition (RR & Ironmongers prizes)
- Continuation Bursaries



# Confirmation of D.Phil. Status

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- Threshold requirement for confirmation of status
  - satisfactory Y2 presentation on research progress to all members of the Department (Mon to Fri week 7 HT, 9am-6pm)
- Apply for Confirmation of Status (form GSO.14.MPLS)
  - including timetable for completion of thesis
  - requires satisfactory written report from student
  - requires support of supervisor
  - form includes summary of skills training attended
  - append copy of MPLS Preparing for Confirmation of Status form
  - normally submit GSO.14.MPLS form in HT 2024
- Confirmation of Status Interview (Y3, Trinity Full-Term)

# M.Sc. and D.Phil. examinations

- From the Examiners' Rubric for D.Phil:
  - To have presented in a lucid and scholarly manner a significant and substantial piece of research of a kind which might reasonably be expected of a capable and diligent student after 3 or at most 4 years of full-time study.
- which External Examiners will interpret as:
  - 'the D.Phil. thesis exhibits substantial evidence of original scholarship and contains material worthy of publication [in peer-reviewed journals].'
- From the Examiners' Rubric for M.Sc(Research):
  - To have made a contribution to knowledge or understanding of a kind which might reasonably be expected after 2 years of full-time study.

# Thesis write up and Viva

- Useful information on writing a thesis:
  - writing skills lecture (HT)
  - Postgraduates section of the Vitae website
  - MPLSD's Graduate Student Handbook / Website (procedures)
- After **on-line** thesis submission, examiner will arrange viva
  - usually 2-3 months after submission
  - usually lasts 2-3 hours, where work is discussed in detail
  - examiners make a report to the University
  - corrections are often required before report submitted
- Need to deposit final hardbound copies with University and Department (for which Department offers a £35 contribution to costs) and e-thesis with Oxf Res Archive

# Facilities

- Libraries
- Mechanical workshop
- Heat treatment workshop
- Photographic/Imaging
- Specimen preparation
- Electron microscopes
- Optical microscopes
- X-ray diffraction facilities
- Stores
- Computing

See Materials Information Centre <https://www.materials.ox.ac.uk/mic> for details of facilities and how to gain access and training...

See <http://begbrokenano.materials.ox.ac.uk> for details of the extensive materials characterisation facilities

# Conference/Study Travel & Fees

- The Department expects that every student should have the opportunity to attend at least one conference
- Students are not expected to cover the cost of this (or other work-related travel themselves)
- Make funding arrangements **in plenty of time**
  - consult your supervisor
  - try College, conference, University and other sources
  - Department has some funding available (see Grad Handbook)
- Routine travel (e.g. to sponsor) should be funded from grants
- Transferable Skills training
  - EPSRC-funded students may apply to the DGS for funding

# What to do next...?

- Meet Supervisor(s). Settle in and get to know people.
- Fill in forms with supervisor(s)
  - 'New Graduate Student' questionnaire (inc. selection of Advisor and proposal of Assessors)
  - Risk assessment form and, if needed, Radiation Protection form
  - Key request form and swipe card access
- Compulsory lectures/workshops/training:
  - Safety (Ian Bishop, wk1)
  - Project Management Skills (Adrian Taylor & others, wk 4)
  - Career Planning & Skills (Adrian Taylor & others, wk 6)
  - Training for role of TA in the UG Practical Classes (wk 7, tbc)
  - On-line Research Integrity course (by 31<sup>st</sup> July 2022)
- Plan project and carry out skills audit
  - decide which teaching/training courses to attend
- Contact DGS/Graduate Support Team if problems arise

# First Colloquium of the 2021/22 Year

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- **Thursday 14 October**
- Prof Michael Dickey, NC State University USA  
“Liquid Metals: Beyond the Terminator”
- Some colloquia may be presented on-line using Microsoft Teams – details and times to follow