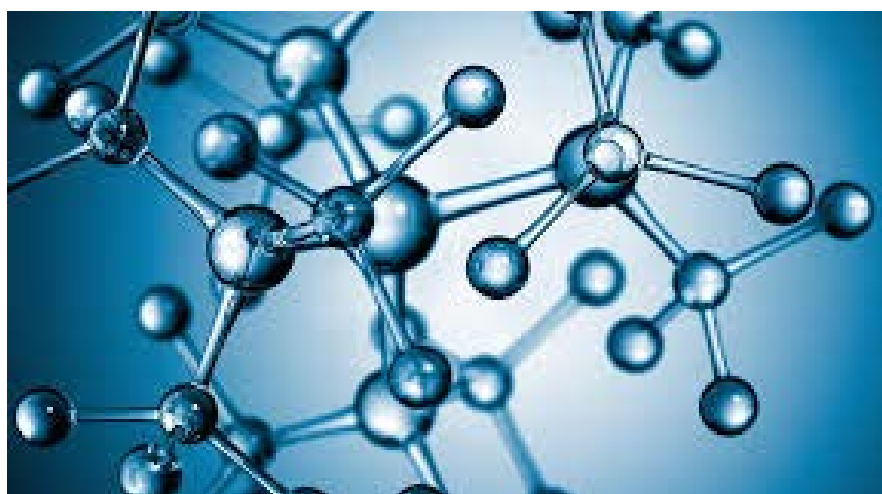


## SCHOOL OF CHEMISTRY



## POSTGRADUATE RESEARCH STUDENTS HANDBOOK

2015/16

## **Welcome statement from Head of School**

Welcome to the School of Chemistry. This School has a proud history of driving the boundaries of science forward and working with industry. Our academic staff are at the forefront of research on the global stage. We are the largest and one of the top-rated Schools of Chemistry in the UK.

We believe you will find your research degree a challenging, yet rewarding chapter of your career. We hope that you will become part of our ambitions for the future and will enjoy your time here with our enthusiastic lecturers and students.

Professor Richard Winpenny  
Head of School

# Contents

1	GENERAL INFORMATION .....	5
1.1	Notes about Handbooks.....	5
1.2	School Contacts.....	5
1.3	Demonstrating.....	6
1.4	Communication within the School of Chemistry.....	6
1.5	Change of address/phone number .....	7
1.6	Tier 4 Visa Attendance Monitoring Census .....	7
1.7	Faculty of Engineering and Physical Sciences Graduate Education.....	8
1.8	Code of Practice for Postgraduate Research Degrees .....	8
1.9	University Policy on Supervision .....	8
1.9.1	The Role of the Supervisory Team.....	8
1.9.2	The Role of the Student .....	10
1.9.3	Changing Supervisors.....	11
1.10	Channels for Complaints.....	12
1.11	Student Feedback and Representation .....	12
1.12	English Language Support.....	12
1.12.1	English Language Proficiency Testing .....	12
1.12.2	In-sessional Language Courses.....	13
1.12.3	Academic Writing Tutorial Service.....	13
1.13	University Support Services .....	13
1.13.1	Accommodation .....	13
1.13.2	Childcare.....	13
1.13.3	Counselling Service .....	14
1.13.4	Careers.....	14
1.13.5	Disability Support.....	14
1.13.6	International Students .....	14
1.13.7	Mature Students.....	15
1.13.8	On Campus Security.....	15
1.13.9	Religious Support.....	15
1.13.10	Student Health.....	15
1.13.11	Student Services Centre.....	16
1.13.12	Students Union Advice Centre.....	16
1.14	EPS Graduate and Researcher Development.....	17
1.14.1	What's does the programme offer? .....	17
2	SCHOOL SERVICES.....	19
2.1	Purchase of goods and services .....	19
2.1.1	Stock items (from the stores) .....	19
2.1.2	Non-stock items for purchase direct from the supplier.....	19
2.2	Purchase of Fine Chemicals .....	19
2.2.1	Gases .....	20
2.2.2	Liquid Nitrogen and dry ice .....	20
2.2.3	Waste disposal.....	20
2.3	Other purchasing & finance information .....	21
2.3.1	Travel & accommodation .....	21
2.3.2	Fees & expenses .....	21
2.3.3	School photocopying.....	21
2.3.4	Use of binding machine.....	22
2.3.5	Facilities in the John Rylands university library (JRLUM) .....	22
2.3.6	Telephone calls & personal mail .....	22
2.3.7	Use of fax machine .....	22
2.3.8	Parcel services.....	22
2.3.9	IPROC for chemistry .....	23
3	COURSE REQUIREMENTS .....	24
3.1	Coursework requirements .....	24
3.2	Course Units offered in 2015/16.....	25

3.3	Guidelines for 1 <sup>st</sup> Year Research Report .....	28
3.4	eProg .....	33
3.5	Submission of the Thesis .....	33
3.6	Electronic Thesis Submission .....	33
4	APPENDIX 1 – University Guidelines and Regulations .....	36
4.1	Code of Practice for Postgraduate Research Degrees .....	36
4.2	Postgraduate Ordinances and Regulations .....	36
4.3	Guidance Notes .....	36
4.4	Student Related Policies and Procedures .....	36

# 1 GENERAL INFORMATION

## 1.1 Notes about Handbooks

This handbook should be read in conjunction with the Faculty of Engineering and Physical Sciences Graduate Resource Book, which gives full information about the structure of your studies, expected timetable and the milestones which you are expected to complete during your research. A copy of the Graduate Resource Book can be found at:

[http://www.researchsupport.eps.manchester.ac.uk/postgraduate\\_home/getting\\_started/graduate\\_resource\\_book/](http://www.researchsupport.eps.manchester.ac.uk/postgraduate_home/getting_started/graduate_resource_book/)

## 1.2 School Contacts

Education Office  
School of Chemistry  
Chemistry Building  
University of Manchester  
Oxford Road  
Manchester M13 9PL

Email: [chemistry@manchester.ac.uk](mailto:chemistry@manchester.ac.uk)

Fax: (0161) 275 4598

Opening Hours: Monday – Friday 9:00 am – 5:00 pm (except Wednesdays 9-4)

### Administrative Contacts:

#### Senior Education Officer

Karen Charters G.024 [Karen.Charters@manchester.ac.uk](mailto:Karen.Charters@manchester.ac.uk)

#### Education Officer

Abigail Webb G.020 [Abigail.Webb@manchester.ac.uk](mailto:Abigail.Webb@manchester.ac.uk)

#### Education Team (PG)

Helen Kreissl G.020 [Helen.Kreissl@manchester.ac.uk](mailto:Helen.Kreissl@manchester.ac.uk)

Angela Dermody G.020 [Angela.Dermody@manchester.ac.uk](mailto:Angela.Dermody@manchester.ac.uk)

For **non-administrative** enquiries please contact Dr Robin Pritchard, Director of Postgraduate Studies. Dr Pritchard will also act as advisor and will provide pastoral and academic support.

Dr Robin Pritchard

[Robin.Pritchard@manchester.ac.uk](mailto:Robin.Pritchard@manchester.ac.uk)

Director of Postgraduate Studies

Ext: 64516

Room: 4.02J Chemistry Building

### 1.3 Demonstrating

All PhD students are considered to be available for demonstrating in undergraduate laboratory classes.

**Please note that new first-year students will not carry out demonstrating duties in Semester 1.**

Students selected for demonstrating duties will be contacted by the members of staff responsible for the teaching labs and workshops before the start of each semester.

More information can be found at <http://intranet.chemistry.manchester.ac.uk/intranet/pg/ta/index.php>

### 1.4 Communication within the School of Chemistry

#### Email

- a) All email messages initiated by staff in the School will be sent only to your University email address. All messages sent to you via email distribution lists will include only your University email address.
- b) You are required to check your University email account on a regular basis. If you wish to set up auto forwarding arrangements to a private email account, you may do so; but it is your responsibility to ensure, one way or another, that you read with minimal delay all messages sent to your University email address. Failure to read messages delivered to your University e-mail account will not be accepted as a legitimate excuse if you fail to act on information that has been sent to you.
- c) You may send messages to staff from your private email address, and they will normally be read by members of staff (but see d) below). Staff may choose to send their reply to your private email address, but they are not obliged to do so. If you send a message from your private account, you must also check your University email account for any replies to your message.
- d) **Important Note:** If you send a message from a private email address, you should also be aware that, due to the increasing problems of spam and viruses, a member of staff may sometimes have legitimate cause for suspicion about your message, and may therefore be obliged to delete it without opening it. This is especially likely to apply if your name and the subject matter of your message are not clearly identified in the email address and header.

#### Mail/Post

The postgraduate mail boxes are located on the Concourse near the main lifts.

Mail for staff in the chemistry building can be left with the house services team at the front desk – each member of staff has a pigeon hole. For staff outside the chemistry building, please use an envelope with their address and mark it internal. You can then take this to the front desk staff for delivery.

#### Common Room

The postgraduate students Common Room in the Chemistry Building is located in G.09.

There is a café on the ground floor of the Chemistry building.

There is a café on the lower ground floor of the M.I.B. and a kitchen on each floor.

## 1.5 Change of address/phone number

It is essential that you keep your Self-Service record up to date, so that we can contact you. You must ensure that you update any changes online via My Manchester: <http://my.manchester.ac.uk/> - if you require assistance please consult staff in the Education Office.

The University requires you to reside within a commutable distance from Manchester during your time as a registered student, unless you are on approved fieldwork / a formal placement or are on a period of Submission pending. This is to ensure that you are able to meet attendance expectations and participate in wider research activities within your discipline area and/or school.

Should you be unable to do this at any point during your programme, a formal case must be made to the Faculty office, together with the full support of your supervisor (s). The University reserves the right to reject such a request where it is considered that your residency could have a detrimental impact on the progression and engagement of your studies.

## 1.6 Tier 4 Visa Attendance Monitoring Census

The University operates attendance monitoring census points within the academic year in order to confirm the attendance of students holding a Tier 4 Student Visa. This is to ensure the University meets the UKBA statutory requirements as a sponsor of Tier 4 students and its responsibilities in accordance with its Highly Trusted Sponsor status.

If you are a Tier 4 visa holder, you must attend these attendance monitoring census points, in addition to complying with the School's own programme attendance requirements.

### When are the census points?

In the 2015/16 academic year, the attendance monitoring census points will be during the following periods:

Census Point	Dates	Population
* October 2015	28 September – 09 October 2015	All active Tier 4 students
January 2016	18 January – 29 January 2016	All active Tier 4 students
May 2016	19 May – 08 June 2016	All active Tier 4 students
July 2016	15 July – 29 July 2016	Active PGT, PGR and visiting students only

Please add them to your diary.

\*Please note: If you are a new student, registration is your first point to confirm your attendance at the University and you will not be required to attend a further census point in October 2015.

You will receive an e-mail from the School to confirm when and where you should attend to have your attendance confirmed. You must check your University e-mail account regularly. Failure to check your e-mail account is not a valid reason to be absent from a census point.

### What if a Tier 4 student cannot attend a census point?

If you cannot attend in person due to a valid reason which includes: illness; placement; field studies; on year abroad; research work; or any other reason connected to your programme of study, you must email the School ([chemistry@manchester.ac.uk](mailto:chemistry@manchester.ac.uk)) to inform us of your absence and your inability to attend in

person. In the case of illness, you must provide a copy of a medical certificate. If you are in this position you should report in person to the School as soon as possible after you return to campus.

Students who are recorded as interrupting their studies are not expected to attend during their period of interruption.

### **What happens if a student does not attend a census point?**

The School must be able to confirm your presence to the UKBA by the end of each census point in the academic year. If you do not attend a census point when required by your School and you do not provide a valid explanation for your absence you will be deemed to be “not in attendance”.

Those students identified as “not in attendance” will be reported to the UKBA and the University will cease to sponsor the student’s Tier 4 visa. The Tier 4 visa will then be curtailed and the student must leave the UK within 60 days

### **Further information**

For more information on Tier 4 visas:

[www.ukba.homeoffice.gov.uk/visas-immigration/studying/adult-students/](http://www.ukba.homeoffice.gov.uk/visas-immigration/studying/adult-students/)

If you have any concerns about the attendance monitoring census points, or your Tier 4 visa status, please contact [pbs@manchester.ac.uk](mailto:pbs@manchester.ac.uk)

## **1.7 Faculty of Engineering and Physical Sciences Graduate Education**

Graduate Education is based in the Faculty's Academic Services structure and provides administrative and Quality Assurance services for Postgraduate Education.

Graduate Education processes and authorises all applications for interruptions to study and extensions to submission deadlines. To assess these applications Graduate Education utilise a Panel of school academic representatives who meet every month.

Graduate Education also manages the submission process for all research theses and dissertations.

The Graduate Education Office can be found in Room C4 in the Sackville Building; contacted by telephone: 0161 306 9191, or by email to [eps-subs@manchester.ac.uk](mailto:eps-subs@manchester.ac.uk)

## **1.8 Code of Practice for Postgraduate Research Degrees**

The University has a formal code of practice for research programmes, which can be found at: <http://www.staffnet.manchester.ac.uk/services/rbess/graduate/code/>

## **1.9 University Policy on Supervision**

The full policy can be found here: <http://documents.manchester.ac.uk/display.aspx?DocID=615>

### **1.9.1 The Role of the Supervisory Team**

**Main Supervisor.** The main supervisor takes full responsibility for the overall management and direction of the student’s research degree in addition to administrative issues relating to the student's registration, attendance and progress. Where two members of staff are both actively involved in supervising a research candidate this requirement still stands and whilst recognising the equal academic

contributions of the staff concerned it is essential for one of the supervisors to be appointed main supervisor.

**Co-Supervisor.** The co-supervisor will normally be appointed to contribute their specific expertise in assisting the main supervisor throughout the development of the student's research degree and may act as a supervisor of sections of work in progress in consultation with the main supervisor.

The co-supervisor may be required to offer specialist advice to complement the main supervisor's expertise or to provide continuity of supervision when the main supervisor is absent from the University in addition to providing the student with a second opinion on research matters. The balance of responsibility for the student's day-to-day supervision should be negotiated between members of the supervisory team, in consultation with the student, as the research progresses.

**External/Collaborating Supervisor.** Where a formal collaborative research degree arrangement has been approved between the University of Manchester and an external institution, supervisors must be appointed at both institutions. The Main Supervisor should be an employee or have an honorary contract with the University of Manchester. The collaborating supervisor is expected to have comparable research experience and should fulfil the same selection criteria that are applied to the appointment of supervisors at the University of Manchester. The collaborating supervisor should take responsibility for the day-to-day supervision of the research student and their research degree whilst they are in attendance at the external organisation.

**Advisor/Tutor.** The advisor / tutor should be included as part of the supervisory team and their main role is to provide pastoral support to the student and to monitor their progress, providing advice accordingly. If the student has any difficulties that he/she would prefer to discuss with someone other than their supervisor, they can approach their advisor / PG tutor in the first instance. This role is different to the Advisor role for BBSRC DTP students – please contact the DTP administrator directly of further information:

#### **Organic**

Professor David Procter for Professor David Leigh' students ([david.j.procter@manchester.ac.uk](mailto:david.j.procter@manchester.ac.uk); Ext: 51425; Room 4.19 Chemistry Building)

Professor David Leigh for **all** others ([david.leigh@manchester.ac.uk](mailto:david.leigh@manchester.ac.uk); Ext 51926; Room 4.17b Chemistry Building)

#### **Inorganic**

Dr Robin Pritchard for Dr Coe's students ([robin.pritchard@manchester.ac.uk](mailto:robin.pritchard@manchester.ac.uk); Ext: 64516; Room 4.02j Chemistry Building)

Dr Ben Coe for **all** others ([benjamin.coe@manchester.ac.uk](mailto:benjamin.coe@manchester.ac.uk); Ext: 54601; Room 5.59 Chemistry Building)

#### **Biological**

Professor Jason Micklefield for Professor Nick Turner's students ([Jason.micklefield@manchester.ac.uk](mailto:Jason.micklefield@manchester.ac.uk); Ext 64509; Room 2.015 MIB)

Professor Nick Turner for **all** others ([Nicholas.Turner@manchester.ac.uk](mailto:Nicholas.Turner@manchester.ac.uk); Ext: 65173; Room 1.021 MIB)

#### **Materials**

Professor Michael Turner for Professor Peter Budd's and Professor Stephen Yeates' students ([Michael.Turner@manchester.ac.uk](mailto:Michael.Turner@manchester.ac.uk); Ext: 54625; Room 1.24 Chemistry Building)

Professor Peter Budd for **all** others ([Peter.Budd@manchester.ac.uk](mailto:Peter.Budd@manchester.ac.uk); Ext: 54711; Room 1.31 Chemistry Building)

#### **Physical/Theoretical**

Dr Andrew Horn ([Andrew.b.horn@manchester.ac.uk](mailto:Andrew.b.horn@manchester.ac.uk); Ext 54618, Room 2.062 Chemistry Building)

**Industrial Supervisor.** In certain areas of the University it may be necessary to appoint an industrial supervisor to cover industrial or clinical aspects of the research degree, or where students are pursuing research which involves collaboration with an external body. The duties of an industrial supervisor are complementary to those of the internal University of Manchester supervisor and should focus on providing critical commentary on planned research and the programme of work completed. The industrial supervisor may also enable access to equipment or data resources otherwise inaccessible to the student. The industrial supervisor should, however, only be appointed if the arrangement is covered by a formal agreement.

### **1.9.2 The Role of the Student**

Students are required to take responsibility for their own personal and professional development throughout the degree. Their main supervisor is their primary point of contact for consultation on all matters, academic, professional and personal; but they should also be aware of the opportunity to consult other members of their supervisory team and their advisor / tutor.

In addition, research degree students will:

- a. Maintain regular contact with supervisors, according to the pattern of meetings agreed between the supervisor and the student. The frequency of meetings will be determined by the nature of the research that is undertaken and the stage of development of the student's research, but a normal expectation would be for such meetings to take place every fortnight.
- b. Prepare adequately for meetings with supervisors.
- c. Record and monitor progress in the University's progression monitoring systems and provide and keep to timetables and deadlines for the planning and submission of work, and generally maintain satisfactory progress with the research degree. Develop, in consultation with the supervisor, an agreed schedule for progressing and submitting the thesis in a timely manner.
- d. Make supervisors aware of any specific needs and of any circumstances likely to affect their work, and take the initiative in raising issues or difficulties as soon as they arise, particularly in relation to targets relating to progress and achievements.
- e. Attend and participate fully in any training and development opportunities, research-related and other, that have been identified when agreeing their development needs with their supervisors.
- f. Be familiar with relevant University regulations and policies.
- g. Ensure that any reports and the final thesis presented to the supervisor is written in accordance with requirements relating to the correct use of language and grammar and the presentation of tables, references, figures etc.
- h. Decide when the final thesis should be submitted, taking into account the opinion of the supervisor. A supervisor's agreement to submission does not indicate that the examiners will find the thesis acceptable for the award of the research degree.
- i. Accept ultimate responsibility for his/her own research activity.
- j. Prepare periodic progress reports on the research project as may be required by external agencies.
- k. Inform the supervisor of any communications from the sponsoring or other external body in relation to the research project.
- l. Maintain adequate records of the progress of the work and of the development of the project and their own skills using the University's progression monitoring system.

- m. Gain approval, in advance, from their supervisor if they wish to issue questionnaires and adhere to the University Code of Good Research Conduct. If a student wishes to use the University's address for this purpose, the text of any communication must be approved by the supervisor before it is sent.
- n. Make every effort to provide feedback on the supervisory experience, through completion of the Postgraduate Research Experience Survey (PRES) for postgraduate research students.
- o. Inform the supervisor of any paid or unpaid work they are carrying out or wish to carry out in addition to their full time study.
- p. Inform their supervisor of any intention to take holiday and discuss the timing of the intended holiday in relation to academic priorities.
- q. Have a joint meeting with both supervisors to discuss progress at least twice per year.

### **1.9.3 Changing Supervisors**

Schools cannot guarantee that students will be able to work with a particular supervisor or that they will have the same supervisor for the duration of their research degree, but will endeavour to ensure continuity wherever possible.

A change of supervisor may be requested by the student or supervisor through the Head of School or his/her nominee, although it should be borne in mind that there may be difficulties in finding a replacement supervisor with experience of the thesis research area.

If a situation arises whereby a supervisor is no longer in a position to continue with their supervision duties, for example, if a supervisor retires, transfers to another institution or is absent from the University for an extended period of time due to illness, research leave or other reasons, then the Head of School, or an appointed nominee, should discuss the options with the student and assess the most beneficial outcome for the student.

Where the period of absence is less than three months the co-supervisor should normally assume responsibility for the student until the main supervisor returns. Where the period of absence exceeds three months, it is essential in these circumstances that alternative arrangements are made in advance by the supervisory team, with the Head of School, to ensure continuity of supervision and that the student's interests are protected.

In all cases of research leave the Head of School should ensure that either the person on leave continues with their supervision duties or that every effort is made to arrange a replacement.

If the main supervisor retires or becomes an honorary member of staff during the period of a student's PhD degree, they can continue to undertake a supervisory role as co-supervisor within the supervisory team, but a new main supervisor must be appointed.

Where a supervisor who has moved to another institution, they may be able to continue to supervise at a distance, with support from a co-supervisor at this University. Using supervisors external to the University in this way is not in general desirable, but in certain circumstances there may be valid reasons why it may be in the best interest of the student and University. These arrangements would normally only apply to students in their final year, or submission pending period. It may also be more appropriate in some circumstances, for the student to transfer to the supervisor's new institution.

## 1.10 Channels for Complaints

The School contains many research groups covering a wide range of aspects of Chemistry and of differing sizes. It is therefore inevitable that the various groups provide different environments in which you will work. However, the general pattern of supervisory practice is the same throughout the School. Admission to a research group is made on the basis of your interests, qualifications, and, of course, the availability of places. In most cases, students are well satisfied with this. In the rare case where you find yourself in a group in which you are unable to work to your full potential, the normal procedure to resolve this problem is through discussion with the PG Director and research group head.

Where there are early signs that the student / supervisor relationship has broken down, the advisor / PG tutor should be consulted initially and every attempt will be made to resolve the issues involved at School level. The advisor / PG tutor should be able to advise you and will consult with the Postgraduate Director and/or Head of School.

If the student / supervisor relationship breaks down and there is no possible resolution, the Head of School is responsible for identifying and allocating a new permanent supervisor with the appropriate academic background and supervisory experience in consultation with the supervisory team. Every effort should be made to find alternative provision for the student, but in exceptional circumstances it may not be possible to appoint a new supervisor and there may not be a successful outcome. In this circumstance the student should be made aware of this as soon as reasonably possible.

In the case of any general grievances or complaints, other than appeals against marks, the student is encouraged to initially raise the matter with their supervisor or advisor. If the matter is not resolved at this stage, or if none of these points of contact seems appropriate, the student is encouraged to raise the problem with the PG Director and then, if necessary, the Head of School.

## 1.11 Student Feedback and Representation

A student from each research grouping will be invited to become a representative and to attend meetings with the PG Director and/or Head of School, to bring forward any issues and to input into policy development and practice. Regular invitation will be made asking all eligible students if they wish to undertake this role.

The School runs a Staff-Student Liaison Committee for research students, which meets every three months. Anyone wishing to become a student representative and take part in these meetings, should contact [Helen.Kreissl@manchester.ac.uk](mailto:Helen.Kreissl@manchester.ac.uk) or [Angela.Dermody@manchester.ac.uk](mailto:Angela.Dermody@manchester.ac.uk)

Students who take taught courses will be invited to comment on these via University and School questionnaires. Some of these will be paper-based and some online.

Students are also encouraged to discuss matters of concern with their supervisors, advisors or with the School's PG director.

## 1.12 English Language Support

The University's Language Centre runs a variety of Academic Support courses and services, all of which are designed to help students to learn and improve in all areas of English Language. The highly qualified teachers will guide your learning using a variety of methods ensuring you have every opportunity to reach your potential.

Full details of the services offered by the Language Centre can be found at <http://www.langcent.manchester.ac.uk/english/>

### 1.12.1 English Language Proficiency Testing

The University Language Centre provides an English language proficiency testing service for international students for whom English is not their first language. The proficiency test is for post-

registration students who have already met the minimum language requirements for admission to their Schools: <http://www.langcent.manchester.ac.uk/english/academicsupport/>

**It is recommended that all students who are studying in English as their second language take the diagnostic test upon arrival.**

The purpose of this test is to provide an indication of whether a student needs additional English language support. It is a diagnostic test and students cannot pass or fail it so there is no requirement to prepare for this test. Registered students must complete an English language proficiency test in order to register for the University Language Centre's programme of in-sessional courses.

### **1.12.2 In-sessional Language Courses**

During the teaching session, the University Language Centre provides an extensive range of courses in academic English to help meet the language support needs of international students during their studies here at Manchester. These classes are free of charge to the student and take place in various locations across the University:

<http://www.langcent.manchester.ac.uk/english/academicsupport/courses/>

### **1.12.3 Academic Writing Tutorial Service**

The University Language Centre offers international students a one-to-one tutorial service to support them in their written academic work. Home students may also be referred for an appointment if they are experiencing particular difficulties:

<http://www.langcent.manchester.ac.uk/english/academicsupport/courses/academicwritingclasses/>

Each academic writing tutorial is based around a sample of the student's own writing - submitted at the time of making the appointment - allowing the tutor's advice to be tailored to the student's specific needs. Feedback will focus on areas such as structure, referencing and appropriate use of English.

The academic writing tutorial service is available during term-time throughout the academic session. Tutorials last for up to one hour and students are restricted to one tutorial per semester. This service is free of charge to students, but should NOT be used as a proof reading service.

## **1.13 University Support Services**

More details of the University's Support Services may be accessed through the Crucial Guide at: <https://my.manchester.ac.uk/d/crucial-guide/dashboardw/index.htm>

### **1.13.1 Accommodation**

If you are in University accommodation or wish to enquire about renting a place in halls:

#### **Accommodation Office**

<http://www.accommodation.manchester.ac.uk/>

Tel: 0161 275 2888 Email: [accommodation@manchester.ac.uk](mailto:accommodation@manchester.ac.uk)

For information about private Halls of Residence or room, flat or house rentals:

#### **Manchester Student Homes**

<http://www.manchesterstudenthomes.com/> Tel: 0161 275 7680 Email: [info@msh.manchester.ac.uk](mailto:info@msh.manchester.ac.uk)

### **1.13.2 Childcare**

The University has two nurseries on campus. There are long waiting lists. More information about childcare facilities within Manchester can be found at:

<https://my.manchester.ac.uk/d/crucial-guide/personal-life/student-parents/>

### 1.13.3 Counselling Service

The Counselling Service is available for all University of Manchester students (undergraduate, postgraduate or research students) and all members of staff. It is free of charge and consists of a team of professional counsellors with extensive experience of helping people cope better with all kinds of personal problems affecting their work or well-being.

Mostly people find it helpful to see a counsellor for only a few sessions and sometimes just one or two meetings are enough. We mainly offer brief, focused time-limited counselling that encourages you to make the most of each session and actively use the time in between sessions to help you achieve your aims.

As well as individual counselling we offer a range of groups and workshops in which you can learn new personal skills or better ways of coping with particular issues.

The service is open 9.00 am to 5.00 p.m. Monday to Friday all year round except public holidays.:

Other people who can help include:

- The Samaritans 08457 909090
- CALM (Campaign Against Living Miserably) 0800 585858
- Nightline 0161 275 2983/4.
- NHS Direct 0845 46 47 <http://www.nhsdirect.nhs.uk>
- MRI A&E department 0161 276 4147 - when there is serious risk of harm to self or others

### 1.13.4 Careers

The University Careers Service can help you to prepare your CV and applications for full time work and to research job opportunities. In addition the Service runs several job fairs across Manchester throughout the year. The service runs specially designed on-line noticeboards for different subject areas within the School, and The Careers Service website can be found at:

<http://www.careers.manchester.ac.uk/>.

### 1.13.5 Disability Support

The University has a Disability Support Office (DSO), whose aim is to assist students, both prospective and current, to identify their needs whilst studying at the University.

The DSO has a website: <https://my.manchester.ac.uk/d/crucial-guide/academic-life/support/disabled-students/>

In addition, the School has a Disability Support Officer, Abigail Webb, who co-ordinates support arrangements for all students. Abigail is available to discuss support needs with individual students.

Abigail can be contacted via the Education office (G.020), or by email: [abigail.webb@manchester.ac.uk](mailto:abigail.webb@manchester.ac.uk)

### 1.13.6 International Students

The **International Students Advice Team** are part of the Student Services Centre and are available to assist with all areas of your study at Manchester. They can be contacted through the SSC. An outline of the services offered can be found at <https://my.manchester.ac.uk/d/crucial-guide/academic-life/immigration/>

The **International Society** is a busy centre for international students based in the Greater Manchester area. It is located on Oxford Road (see map of campus). Manchester has more students from abroad than anywhere else in Britain, other than London, and International Society members come from all over

the world. In fact, there were students from more than 130 different countries last year - so it's a good place to make friends and contacts during your stay here. The International Society has a website which can be found at: <http://www.internationalsociety.org.uk>.

Students who require assistance with **English Language** should consult the University's Language Centre <http://www.langcent.manchester.ac.uk/english/>. The Centre provides language courses which cover areas such as academic writing, public speaking, pronunciation and grammar as well as an academic writing tutorial service. All international students are advised to take the language diagnostic test, which is free and done online. The language centre will then advise whether extra support is advised.

### **1.13.7 Mature Students**

The Burlington Society (<http://www.burlington.manchester.ac.uk/>) is the University society for mature and postgraduate students. They have their own facilities in the Burlington Rooms, next to the John Rylands University Library. Facilities include a bar, common room (quiet, non-smoking, with free tea and coffee facilities for members), and a vegetarian cafe. The Society organises events and activities on Thursday and Friday evenings during term time. In addition there are smaller groups for theatre and film visits, music, football, squash and others.

### **1.13.8 On Campus Security**

All big cities have problems with crime and Manchester is no better or worse than London, Liverpool, Leeds, Glasgow or Birmingham. Advice can be found here: <https://my.manchester.ac.uk/d/crucial-guide/personal-life/crisis-and-emergencies/university-police-contacts-and-security/>

There are local officers dedicated to helping keep students safe, and they run special events on campus several times a year along with the University's own Crime Reduction Adviser.

Your nearest local police station is Longsight, on Grindlow Street.

- Tel: 0161 856 4223
- Email: [longsight@gmp.police.uk](mailto:longsight@gmp.police.uk)
- Twitter: <http://twitter.com/GMPLongsight>

The University of Manchester employs its own 24/7 security service, which consists of 90 security officers operating in uniform on 4 shifts. The security officers patrol the academic and residential campus areas on foot and in marked security vehicles to ensure the safety of students, staff and visitors. The security service monitors fire and intruder alarms and respond to all emergencies. Security officer are in trained in first aid and are always available to offer security advice and support.

In addition, the University campus areas are covered by a large number of CCTV cameras, which are monitored 24 hours. The security service can always be contacted on 0161 306 9966

### **1.13.9 Religious Support**

Details of services, facilities and all places of worship (Christian and non-Christian) adjacent to the University are available at <http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=9044>

### **1.13.10 Student Health**

Whilst studying at the University of Manchester it is essential that you register with a local General Practitioner. A list of GP practices can be obtained from the Student Health Centre, any University hall of residence or a local pharmacy.

### **1.13.11 Student Services Centre**

The SSC is the University's point of contact for most of the tasks you need to carry out during your time here as a student, including registration/fees, documentation, loans and grants, exams and graduation. Burlington Street and Sackville Street sites will be open 10am to 4.00pm from Monday to Friday. Contact details are:

- Tel: 0161 275 5000 (from 9-5pm Mon, Wed, Thurs, Friday, 10-5pm Tuesdays)
- email: [ssc@manchester.ac.uk](mailto:ssc@manchester.ac.uk) (emails will be dealt with from 9 to 5, Monday to Friday).

### **1.13.12 Students Union Advice Centre**

The Students Union has advisers who can help with any matter ranging from finances to housing and beyond. On the South Campus, the Advice Centre is on the first floor in the Student Union Building, and is open Monday to Friday, 9.30 am to 4.30 pm, term time and vacation. There is no need to make an appointment: <http://manchesterstudentsunion.com/advice/service>

## 1.14 EPS Graduate and Researcher Development

<b>STAFF:</b>	Dr Jim Boran (Researcher Development Manager) Dr Gemma Muckle (Researcher Development Officer) Dr Alex Hinchliffe (Researcher Development Assistant) Alys Kay (Online Development Officer) Dee-Ann Johnson (Communications Officer)
<b>WEBSITE</b>	<a href="http://www.researchsupport.eps.manchester.ac.uk/postgraduate_home/programme/">http://www.researchsupport.eps.manchester.ac.uk/postgraduate_home/programme/</a>
<b>EMAIL</b>	<a href="mailto:eps-grads@manchester.ac.uk">eps-grads@manchester.ac.uk</a>
<b>TWITTER</b>	<a href="http://twitter.com/epsgrads/">http://twitter.com/epsgrads/</a>
<b>FACEBOOK</b>	<a href="https://www.facebook.com/EPSSGrads">https://www.facebook.com/EPSSGrads</a>
<b>EPROG</b>	<a href="http://www.manchester.ac.uk/eprog">http://www.manchester.ac.uk/eprog</a>

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The **Graduate Development** programme is designed to provide you with opportunities to develop as professional researchers by recognising and developing key skills and attributes needed to effectively manage your research, and to prepare and plan for the next stages of your career. It also provides opportunities for you to meet other researchers from different disciplines, which can be a valuable and interesting experience.

The programme of courses and opportunities has been designed around the:

- [University of Manchester's Strategic Goals](#)
- [Vitae's Researcher Development Framework \(RDF\)](#).

The RDF divides the skills and attributes early career researchers should have into four main domains:

- Knowledge and Intellectual Abilities
- Personal Effectiveness
- Research Governance and Organisation
- Engagement, Influence and Impact.

You may find [Vitae's RDF Professional Development Planner](#) useful for assessing your skills, identifying areas for development, creating an action plan, and recording evidence of your progress. This can help to inform personal development planning discussions with your Supervisor.

### 1.14.1 What's does the programme offer?

The Graduate Development programme is varied and includes courses designed to help you with specific aspects of your PhD and your progression through the PhD, as well as courses to help you develop more effective personal and professional skills in preparation for your future employment.

Graduate Development encompasses a range of training initiatives and opportunities that promote personal development, active career management, and researcher independence. This evolving programme aims to help you develop as flexible researchers who can excel in a global environment which calls for expertise in collaboration, communication, public engagement, and knowledge transfer in a variety of career paths.

The programme is arranged around four key themes:

- [Career Management](#)
- [Communication and Public Engagement](#)
- [Research and Enterprise](#)
- [Personal Effectiveness](#)

View our [workshop training calendar](#) and [events](#) page to see what courses and opportunities are available to you.

**TEACHING METHODS:** The courses on offer are delivered at the point at which they are most relevant using a combination of group activities, workshops, peer-review, and online learning. The courses also provide an opportunity for networking with other researchers across the faculty.

**ARRANGEMENTS:** Information about training and development will be provided at the Faculty Induction Event, where you can sign up for the required workshop - *Introduction to Research 'Speed PhD'*. This highly interactive workshop with 20 – 30 other new postgraduates explores what is expected of a postgraduate researcher, both by the University and by future employers. These workshops will be run numerous times throughout October as well as in January, April and July. You will also learn how to access the online Personal Development Plan.

After gaining a more complete understanding of your research requirements, you have approximately three months to conduct the online Development Needs Analysis. You can then discuss your development needs with your supervisor and construct your Personal Development Plan, which will help you to set your personal and professional goals for the immediate future.

**WORKSHOPS:** Workshops provided by Graduate Development are tailored to particular stages within the three years of the PhD programme. All workshops are repeated in multiple sessions throughout the year. They include:

**Year 1:**

- Introduction to Research (compulsory)
- Evidencing Your Skills
- Academic Writing
- Effective Presentations: The Basics
- Effective Research Posters
- Creating Ideas (Enterprise)
- Critical Thinking
- Graduate Teaching Assistant/Demonstrator
- Time Management
- Creating a Map to Research Success: Project Management
- The Effective Researcher

**Year 2:**

- Effective Presentations: The Next Level
- Publishing Academic Papers
- Networking
- Negotiating Skills
- Planning the Final Year
- The Manchester GRADschool

**Year 3**

- Writing up Your Thesis
- Managing Electronic Thesis Submissions
- Viva Survivor
- Applying for Funding: From Bursaries to Fellowships
- Career Management (CVs, Interviews, Job Guide)
- Teaching in Higher Education
- Starting a Business (Enterprise)

**All Years:**

- Managing Your Relationship with Your Supervisor
- Social Media for Researchers
- Engaging Others With Your Research
- Writing Lay Summaries / Abstracts
- Writing Scientific Summaries / Abstracts
- Communicating Your Message: Radio Interviews
- Successful Student Representation
- Pathways: Career Options for Researchers

**ONLINE COURSES:** The following courses are provided through Blackboard:

- Academic Writing
- Endnote

## 2 SCHOOL SERVICES

Please take the time to read this document. It contains valuable information which you will need whilst carrying out your research in this School.

Research Associates and Graduate Students should discuss the account number to be used with their Supervisor.

### 2.1 Purchase of goods and services

#### 2.1.1 Stock items (from the stores)

A Items held in stock can be purchased from Chemistry Stores (Ground floor, Chemistry Building). Please ensure you have your staff/student id card with you and the full account that will be charged including the full task (eg R123455 Task A07). A catalogue of all stocked items is available at the Stores Counter.

#### 2.1.2 Non-stock items for purchase direct from the supplier

**ALL PURCHASES/TRANSACTIONS MUST BE MADE VIA THE UNIVERSITY INTERNET PROCUREMENT (IPROC).**

**Exceptions to this are conference fees etc. that can only be booked on the internet using the School credit card (see Emma Mellor / Catherine Humphreys\ Room G.020, for details), and internal orders from other areas/Schools within the University. In these cases a paper requisition must be completed fully and legibly and authorised by your supervisor/line manager and taken to Pamila.**

IPROC orders must be completed accurately, using e-marketplace wherever possible and you should discuss with your supervisor/line manager if he/she wishes you to have access to this system. On-line training is provided (see below). IPROC requisitions that are not completed correctly with, where appropriate, full supporting documentation e.g. competitive quotes, will be rejected.

To request access to IPROC please log an access request on the University Finance web page <http://www.staffnet.manchester.ac.uk/services/finance/> follow the link to Oracle Financials, Online Access request through to select roles and select "Raise requisition" under Procurement. You will then receive a link to the training for i-procurement and e-marketplace. Once training is complete you should receive access to IPROC

### 2.2 Purchase of Fine Chemicals

Please note: ACROS Chimica (Fisher Scientific) and Avocado/AlphaAesar/Lancaster offer **DISCOUNTS**. Aldrich also give a *significant* discount on core products – you are advised to **compare prices before ordering** and in many cases e-marketplace provides this facility. (Availability of chemicals can be checked using freephone telephone numbers or internet web sites.) ALDRICH have a website giving special prices for the School of Chemistry - contact Stores for the link and put **these** prices on the requisition.

Standard catalogue discounts are Acros 15% on catalogue price; Avocado/Alfa Aesar 10% on catalogue price.

There are also a number of special contract prices on Science Warehouse (via e-marketplace)

2. Where a **quotation** is obtained a copy must be attached to the iproc requisition and the quotation reference quoted on the form. The quotation can be a fax or email but must contain the name and

address of the company submitting the quotation. Purchases over £2K that are not from a University approved supplier and all purchases over £5K require 3 competitive quotes.

Details of University **approved suppliers** can be found on CuPid on the University intranet under <http://www.staffnet.manchester.ac.uk/services/procurement/>

### 2.2.1 Gases

Rent will be charged monthly at one month on purchase of cylinder and the balance on return of the cylinder, at the rate of about £5.00 per month. It is in your interest to return unwanted cylinders **PROMPTLY** as the rental cost frequently exceeds the value of the gas. Please complete a **requisition form** for gas/rental.

Orders for special gases can take two or three weeks, **so please plan ahead.**

### 2.2.2 Liquid Nitrogen and dry ice

Can be purchased in the same way as other stock items with your id card and a valid activity code or Project code plus task number.

**DRY ICE:** Only 10 kg bags are available.

### 2.2.3 Waste disposal

Unused chemicals in sealed and unopened bottles may be returned to the Stores for credit providing they are stock items.

Every effort should be made to render waste chemicals harmless. Wherever possible you must dispose of them yourself in accordance with local health and safety regulations.

Waste chemicals for professional disposal should be returned to the Main Stores in the smallest possible container, properly sealed and clearly labelled with the name of the chemical. Unknown chemicals are much more expensive to dispose of. Lecture gas bottles should have the outlet securely fitted with a safety plug. Waste solvents should be taken to the Solvent Store and decanted into the appropriate drum. Appropriate details should be entered on the waste disposal form (a separate form should be used for solid, gaseous and solvent waste).

5 litre plastic containers can be re-used for liquid waste. The quantity of waste is determined by the size of the container and NOT the amount of waste it contains.

2.5L = one unit of waste solvent; 500ml/g = one unit of waste chemical

If you are unsure about any of the details regarding waste disposal, you must contact either Mr Mark Mullin (ext 60584) or Mr Simon Holden (ext 60577).

If in doubt about any of the items covered above then, please consult one of the following in the first instance:

STORES:

Alan Beaver / Mark Mullin

Chemistry Stores

Tel. 54607 / 60584

## 2.3 Other purchasing & finance information

### 2.3.1 Travel & accommodation

**ALL** travel relating to University business (e.g. to a conference directly related to your research) must be booked through Egencia Travel wherever possible. Conference registration, travel and accommodation arrangements should be made well in advance and only following consultation with your Supervisor. An IPROC requisition should be completed and submitted where applicable. Students **must not** make independent travel and accommodation arrangements with the expectation that they will later be reimbursed from University funds. Where on-line conference fees or, occasionally, travel need to be paid on the School credit card, please contact one of the credit card holders listed on page 1.

**N.B. Travel or conference arrangements etc. for students must have written approval from either the budget holder or an authorised alternative before bookings can be made. This may be in the form of a completed paper requisition or an email.**

### 2.3.2 Fees & expenses

Items should only be claimed on Fees & Expenses forms for out of pocket travelling expenses when it is not possible to purchase an item by raising an order *via* a requisition. Please ensure the correct expense claim form is completed in full with all relevant information and ORIGINAL receipts are securely attached using staples rather than paperclips. The forms must be countersigned by your line manager or academic supervisor (for students).

Forms can be downloaded at <http://www.staffnet.manchester.ac.uk/employment/expenses/>

Anyone who is on the University payroll (All staff and any students who do regular lab demonstrating) must use the online form, download the form, attach receipts and obtain appropriate signatures.

Please hand all completed forms to Emma Mellor or Catherine Humpreys in G.020, Chemistry Building or to the South Campus Finance Hub in Room 6.56, Schuster Building, or they can be put in the internal mail, however please ensure receipts are **securely attached** as expenses without original receipts may not be paid or may be taxed.

**It is advisable to keep a copy of the form and receipts for your own records.** Where claims are made against receipts in a foreign currency overall totals must also be given in pounds sterling. The exchange rate at the time of reimbursement will be used for payment unless supporting documentation is attached (eg credit card statement with numbers blanked out showing amount paid in sterling, or evidence of currency exchange on the date of expenditure)

Please note that claims relating to a specific event will not be reimbursed until after the event.

**Forms must be properly and legibly completed.**

### 2.3.3 School photocopying

One of the School's copying machines is fitted with a card operated self-service system. Cards are available from the Education Office, Room G.020 Education Office for the following denominations and on the presentation of a standard requisition form:

100 copies @ £2.20  
1000 copies @ £20.20

The larger copying machine is for staff pin number account holders only (pin numbers for staff are available from Emma Mellor or Catherine Humpreys, an account code for charges must be given).

### 2.3.4 Use of binding machine

Please see a member of the Education Office Team, Room G.020 Education Office to obtain covers and spirals for the binding machine.

### 2.3.5 Facilities in the John Rylands University Library (JRLUM)

#### **PHOTOCOPYING**

There is a card operated self-service photocopying system in the John Rylands University Library. New cards, costing £1.00, with an initial value of £5.00 are available from Room G.020 Education Office on presentation of an appropriately completed standard requisition form. On expiry, the cards can be reset to a maximum of £10.00 by presenting a further appropriately completed standard requisition form as above. A note will then be issued authorising the Library to reset the card.

#### **INTER-LIBRARY LOANS**

Inter-library loan vouchers for use in the JRULM may also be purchased from Room G.020 Education Office on presentation of an appropriately completed standard requisition form. Vouchers should be obtained before going to the Library. The value of each voucher is equal to the cost of a standard inter-library loan (£2.00).

**NOTE:** Refunds for cash payments for inter-library loans will not be given by the Department.

### 2.3.6 Telephone calls & personal mail

Private calls should not be made using the University telephone system and staff and students should be aware that telephone usage is monitored regularly.

Personal mail should not be sent to the School.

**Pigeon Holes** for internal mail and other correspondence for Graduates, Visitors, and other Research Workers are situated on the ground floor near to the main lifts. These should be checked daily.

### 2.3.7 Use of fax machine

Fax machines are NOT for private use and staff and students should be aware that fax machine usage is monitored regularly.

### 2.3.8 Parcel services

Please see House Services Staff located at the desk at the front of the Building. This service must be used for University business only.

Any items sent must have a properly completed and authorised paper requisition to attach to the consignment note.

**FOR ANY QUERIES ON ANY OF THESE MATTERS OR ANY OTHER ACCOUNTS MATTERS PLEASE TALK TO THE FINANCE OR STORES STAFF WHO WILL DO THEIR BEST TO HELP**

### 2.3.9 IPROC for chemistry

***Please read and note otherwise goods will not be delivered to the correct address and we will not meet the requirements of auditors for back-up information on procurement of goods. If in doubt please ask advice from Chemistry procurement staff.***

SUPPLIER NAMES & ADDRESSES - ensure you use the correct supplier address. You must use a University preferred supplier where at all possible. If the supplier address is not on the drop down list you will need to request it to be set up otherwise the order will go to the wrong address.

CATALOGUE NUMBERS - please quote these FIRST in the description box followed by the description. This enables Stores staff to speedily match deliveries to requisitioners.

DELIVER TO ADDRESS for CHEMISTRY BUILDING on checkout screen - Please ensure this is **CHEMISTRY STORES** for all items to be delivered to Chemistry Building except travel, accommodation and food. You will need to change this manually and type in Chemistry Stores to match it to the drop down list. This also enables Stores staff to speedily match deliveries to requisitioners. (If you are ordering **travel, accommodation or food this remains as School of Chemistry, Brunswick Street**). The default deliver to address can be changed to default to Chemistry Stores under "My Purchasing Options"

DELIVER TO ADDRESS FOR MIB BUILDING – **MIB Stores**

JUSTIFICATION - any notes backing up the requisition, reason for purchase etc should be entered in this box. If you are raising the requisition on behalf of someone else who does not have access to requisitioning, please put the name of the person in this box.

Please remember all travel, accommodation; meals etc. must have the reason for the purchase in the JUSTIFICATION (similar to expense forms) and meals must have entertainment forms attached. You must also attach other information (e.g. copy of emails, quotes etc.) to the requisition where relevant.

NOTE TO BUYER – Enter any special instructions relating to the sending out of the order, eg fax number or email address..

VAT - The normal VAT for purchase orders is standard (apart from books and travel which are zero rated). If however the goods are to be zero rated as entirely for medical research and you are not using a VAT reclaimable grant then the VAT code will be ZERO MEDICAL PRODUCT / EQUIPMENT, this will then generate a VAT certificate with the purchase order which must be signed before being sent with the purchase order. If in doubt about this please ask to ensure you use the correct code

Any iproc not containing correct or sufficient information will be rejected for amendment. If you have any queries about raising requisitions please consult the Chemistry finance staff. The current contact for queries is Jonathan Masterson, email [jonathan.masterson@manchester.ac.uk](mailto:jonathan.masterson@manchester.ac.uk), ext 9116

## 3 COURSE REQUIREMENTS

### 3.1 Coursework requirements

First year PhD students are required to undertake the following training:

Attend the Introduction to *Introduction to Research – Essentials*. This highly interactive workshop with 20 – 30 other new postgraduates explores what is expected of a postgraduate researcher, both by the University and by future employers, using a team scenario based on doing a PhD in two days.

- Students are also required to do a Development Needs Analysis and Personal Development Plan (these are available through eprog). Please consult your graduate resource book for more details.
- Taught Modules (for those entering with a BSc award or equivalent).
- Attendance at School Colloquia.

We would encourage you to also make use of the workshops and seminars which form part of the Graduate Development Scheme. Please consult your Graduate Resource Book for more details and how to register.

The School also requires you to attend a minimum of 8 School Colloquia per year.

A list of Taught Modules in Chemistry is included in this handbook.

Please note that the final digit in these course codes is either 1 (i.e. a semester 1 course) or 2 (a semester 2 course) or 0 (i.e. the course runs in both semesters).

The procedure for deciding what coursework you should do and then, if necessary, registering is as follows.

1. Discuss with your supervisor which courses you should do. These may include courses from other Schools.
2. If you have an MSc, an MChem, or an equivalent qualification, you need not sit the examinations (unless your supervisor requests it!) as you are deemed to have the necessary qualifications already
3. If you need to take University examinations, you must register in the **first month** of your course (before the end of October 2012) by completing the enclosed sheet and handing back to Angela Dermody in the Education Office.
4. Keep a record of all courses (including demonstrating, health and safety etc.), colloquia, skills courses, workshops, conferences etc. that you have attended using eprog

## 3.2 Course Units offered in 2015/16

PhD students entering with a BSc award or equivalent should register two options

### Level 4 Units

More detailed description of these course units can be found on the Student Intranet

<http://www.chemistry.manchester.ac.uk/study/undergraduate/courses/chemistry-mchem/year-4-course-units/>

Course units with a code ending in 1 are taught in the first semester; those ending in a 2 are taught in semester 2, those ending in a 0 are taught across both semesters.

### Semester 1

#### **CHEM40211 Advanced Instrumental Methods**

This course provides an understanding of spectroscopic instrumentation and signal retrieval methods used in modern chemical and biological instrumentation and analysis.

#### **CHEM40261 Biophysical Chemistry**

Biomolecular Function and Health, Bioenergetics of Photosynthesis and Respiration  
Macromolecular Analysis

#### **CHEM40271 Surface and Interface Chemistry**

#### **CHEM40311 Nuclear Chemistry and Radiochemistry**

The atomic nucleus, Nucleosynthesis, Interactions of radiation with matter and nuclear spectrometry

#### **CHEM40411 Advanced Organic Synthesis**

Heteroelement chemistry in synthesis, asymmetric synthesis, total synthesis

#### **CHEM41521 Organometallic Chemistry**

Structure, bonding and applications in organic synthesis of organometallic reagents.

### Semester 2

#### **CHEM40232 Case Studies in Experimental Physical Chemistry**

Charge transfer in chemistry, radiation effects on materials, modern magnetic resonance methods, carbon nanostructures

#### **CHEM40242 Computational Modelling Techniques**

The course aims to introduce some principles of computational scientific modelling in the chemical sciences.

#### **CHEM40252 Advanced Magnetic Resonance**

The course aims To explain the principles and applications of modern advanced techniques in magnetic resonance and spin chemistry

#### **CHEM40322 Advanced Topics in Inorganic Chemistry**

Flourine/noble gas chemistry, frontiers of boron chemistry, main group organometallics, sub-valent actinide chemistry, magnetic materials, Lanthanide ions as luminescent sensors and probes

**CHEM40422 Molecular Interactions & Analysis in Organic Chemistry**  
Supramolecular Chemistry, Applied NMR Spectroscopy, Electron Transfer in organic chemistry, Mass Spectrometry

**CHEM41412 Advanced Bioorganic Chemistry**

Biosynthetic Pathways, Metabolic Processes & Biomimetic Synthesis, Biosynthesis & Prebiotic Chemistry

**Level 3 course units:**

More detailed description of these course units can be found on the Student Intranet

<http://www.chemistry.manchester.ac.uk/study/undergraduate/courses/chemistry-mchem/year-3-course-units/>

Course units with a code ending in 1 are taught in the first semester; those ending in a 2 are taught in semester 2, those ending in a 0 are taught across both semesters.

**Semester 1**

**CHEM30531 Topics in Environmental Chemistry**

The unit comprises introductory lectures on the basics of environmental chemistry; atmospheric physics and chemistry carbon cycling. Case studies will be drawn from topical areas of environmental pollution and global climate change

**CHEM31331 Bioinorganic Chemistry**

Metalloenzyme Chemistry, Metal Ions in Biology, Metals in Biology and Medicine, Metals in Photobiology

**CHEM30211 Principles of Modern Physical Chemistry**

Statistical mechanics, electronic structure & potential energy surfaces, photochemistry & reaction dynamics, modern NMR spectroscopy

**CHEM30311 Coordination Chemistry**

Macrocyclic and supramolecular chemistry, organometallic chemistry, f-block chemistry

**CHEM30411 Core Organic Chemistry**

Designing organic synthesis, modern physical organic chemistry, hetrocycle synthesis

**Semester 2**

**CHEM30242 Electronic Structure Calculations, Simulation and Photonics**

Electronic structure calculations, computer simulation, Photonics

**CHEM30432 Bioorganic and Medicinal Chemistry**

Enzyme Mechanisms and Biosynthesis, Nucleic Acid Chemistry, Medicinal Chemistry

**CHEM30212 Soft Matter Chemistry**

Colloids & interfaces, physical properties of polymers, polymer synthesis

**CHEM30312 Solid State Chemistry**

Seeing molecules, disordered and partially ordered systems

**CHEM30412 Organic Synthesis**

Develop further understanding of synthetic and mechanistic organic and bioorganic chemistry with emphasis on reactive intermediates and biosynthetic pathways

THE UNIVERSITY OF MANCHESTER  
School of Chemistry

MSc by Research and PhD Students

Registration of Courses 2015/16

Name: \_\_\_\_\_ MChem or BSc Graduate: \_\_\_\_\_

Student id Number: (on student card) \_ \_ \_ \_ \_

Main Supervisor name: \_\_\_\_\_

Courses - (please note that students **not** required to sit the examination will still have access to blackboard):

Module Code\* and Title (see list in handbook)

1. \_\_\_\_\_ Exam Required Y/N

2. \_\_\_\_\_ Exam Required Y/N

3. \_\_\_\_\_ Exam Required Y/N

4. \_\_\_\_\_ Exam Required Y/N

*\*Students taking courses with codes starting CHEM6\*\*\*\* should ensure they have **both** PG and UG timetables where applicable, as the teaching on some of these course is split between UG and PG cohorts.*

Supervisor's name: \_\_\_\_\_

Supervisor's signature: \_\_\_\_\_

PLEASE RETURN TO ANGELA DERMODY OR HELEN KREISSL

ROOM G.020 Chemistry Building

By the end of week 2

### 3.3 Guidelines for 1<sup>st</sup> Year Research Report

**\*Students who begin their research in September 2015 must submit their reports on 1st July 2016. The reports must be submitted on time unless there are extenuating circumstances.**

**Please be aware that if you start late, you will still be classed as a September starter and will be expected to work to these deadlines.**

**Students who begin their research in January/Feb/Mar 2016 must submit their reports by 1<sup>st</sup> November 2016.**

**Students who begin their research in April/May/June 2016 must submit their reports by 1<sup>st</sup> February 2017**

**Students who begin their research in July/Aug 2016 must submit their reports by 1<sup>st</sup> May 2017.**

An electronic copy must be uploaded to Eprog using the relevant link on the progression area. 2 paper copies of the reports must be submitted to the Education Office, Room G.020 (see page 5 for details and location).

The oral examination conducted by your supervisor and an independent internal examiner **must be held by the end of month 10 at the very latest.**

As indicated in the Graduate Resource Book, all new research students who register for PhD degrees must present a formal written report at the end of their first academic year. The primary purpose of this document is to provide evidence that the extent and quality of the research carried out form a sufficient basis for continuation on the PhD course. Other objectives are to provide training in the written presentation of scientific data in English and to assist in the preparation of your PhD thesis at the end of your full period of research.

After three years of demanding practical work, the task of writing a PhD thesis from scratch often seems formidable, and far too many research students fail to complete their thesis before the termination of their grant.

**You should be aware that all PhD theses must be submitted within 4 years of registration.**

If you exceed the 4 year limit you could fail to graduate. Extensions will not be granted except in exceptional cases. In order to help you to avoid this situation, the following format for your first year report is recommended.

1. The title of your report should be the same as that which you expect to use for your PhD thesis.
2. The first section of the report should take the form expected of the introduction to your PhD thesis. It should consist ideally of a description of the work to be attempted, the motivation for it, and the methods to be adopted. An appropriate critical review of the relevant literature should be provided; this would normally be expected to be about 5000 words in length and should consist of an appraisal of the state of knowledge, not a catalogue of references of doubtful relevance. Your aim should be to produce a concise account which can be used with little modification in your final thesis. An original piece of writing is required, and copies of other reviews or literature surveys will certainly not suffice. Make sure that you fully understand everything you present, since any lack of understanding of the work you have reviewed is sure to be exposed at your oral examination.
3. The literature survey should be followed by a full report of your own work (approximately 2000 words), written in a form and at a level of detail appropriate to a thesis. Its length will depend on

the volume of experimental results which you have accumulated, and you are advised to consult previously submitted theses in related areas to obtain an idea of the desirable format. It is expected that supervisors will have asked their students to provide written reports of their work at regular intervals during the year, and if these have been written in an appropriate style you should be able to use them with little modification to compile your complete account. Both detailed experimental description and relevant discussion of the results should be included.

4. The final section of the report should consist of an outline (300-500 words) of the work planned for the second year of research.

All students are advised to consult their supervisors regularly during preparation of their reports, three copies of which should be prepared. These should be typed and enclosed in a folder or hard cover. Two copies are used by examiners and one by the candidate at the oral examination; afterwards, one copy must be deposited in the School's education office.

Please note that the literature survey and report should normally be no longer than 7000-8000 words, and it should not be necessary to spend a long time away from your research work to prepare the report if you organise your time efficiently. In most cases it may be sensible to complete the literature survey in the first few months of your research programme so that you are more aware of the background literature.

Reports in year 2 can be in the same format as year 1 progression reports, or can be in the style of a Research Paper – this will be discussed with you in month 8/9 of your first year.

Students registered on the 4yr PhD programme will be required to write a 3<sup>rd</sup> year continuation report.

\*BBSRC students will not have the same milestones or deadlines as other PhD student's and should follow their individual eprog pathway.

Example forms for First Year Progression

**THIS FORM IS AVAILABLE ON E-PROG – PAPER COPIES ARE NO LONGER ACCEPTED**

**FORM 4: First Year Research Progression Advice**

When: Full-time: 9<sup>th</sup> month / Part-time: 18<sup>th</sup> month

Purpose: Use this form to record your intentions on how you should progress your research at the end of year one and submit to your Supervisor for advice.

Part A - To be completed by the student

Research Project Title: .....

Name: ...

Student Number: .

Supervisor: .....

School: ..

**TO MOVE TO THE SECOND YEAR OF A PhD PROGRAMME:**

You are expected to:

- Present a report which details the research you have undertaken during your first year and your planned programme of study to meet the criteria required for a PhD;
- Take and pass a viva that will include an oral presentation of your research.

**TO GRADUATE WITH AN MPhil:**

You are required to:

- Present a thesis in accordance with University regulations and to a standard that satisfies the examiners;
- Take and pass a viva that will include an oral presentation of your research.

**Your proposal:**

	Tick
I wish to graduate as an M.Phil. Student and have discussed thesis content and presentation with my Supervisor. (Tick box if applicable)	<input type="checkbox"/>
I wish to be assessed for progression to the second year of a PhD. Programme and have discussed the content and presentation of a report with my Supervisor. (Tick box if applicable)	<input type="checkbox"/>

**Part B – Supervisor advice for progression**

Options	Tick as appropriate
The Student should prepare a report and presentation for assessment, with the aim of progression into the 2 <sup>nd</sup> year of a PhD programme	<input type="checkbox"/>
Although originally on a PhD route, the student should prepare a thesis with the aim of graduation with the degree of MPhil	<input type="checkbox"/>
The student should prepare a thesis with the aim of graduation with the degree of MPhil as originally intended	<input type="checkbox"/>

Signatures

Date

Student: .....

.....

Supervisor: .....

.....

Co-Supervisor (if applicable): .

.....

## FORM 5: First Year PhD Progression Decision

**When:** This process must be completed before the end of month 10 (full-time) / month 20 (part-time).

**Purpose:** Use this form to accompany the submission of your first year report describing in detail your work to date and your plans for the remaining period of your research. This form will initiate the process for the independent assessment of your progress at the end of the first year of research, based on an assessment of your report and approved through a viva process that may include an oral presentation of your research achievements and plans. The form is used for PhD continuation and/or MPhil to PhD transfer. Your report will be retained by the School.

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### Part A - To be completed by the student

**Research Project Title:** .....

**Name:** ..... **Student Number:** .....

**Supervisor:** ..... **School:** .....

**Internal Assessor:** ..... **Other Assessor(?):** .....

**Date of Initial Registration:** .....

**Date of Submission of First Year Report:** .....

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### Part B - To be completed by the assessors

**Part B1 – Assessment of Report** Please comment on the report as evidence that the student will be able to write a thesis at the end of the project and any other comments you wish to make.

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### Part B2 – Assessment of Interview

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### Part B3 – Assessment of Planning

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**Part B4 – Recommendation** (tick the appropriate box)

- Proceed to PhD**
- Proceed to PhD subject to review after \_\_\_\_\_ months by Internal Assessor(s) and the PGR Director**
- Not to register for Year 2 of PhD but submit for MPhil instead**

Please give reasons for this recommendation and give any remedial action necessary:

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<b>Signatures</b>	<b>Date</b>
<b>Student:</b> .....	.....
<b>Supervisor:</b> .....	.....
<b>Internal Assessor:</b> .....	.....
<b>2<sup>nd</sup> Internal Assessor:</b> (if applicable): .....	.....
<b>Co-Supervisor:</b> (if applicable): .....	.....
<b>Postgraduate Research Director</b> .....	.....

### 3.4 eProg

eProg is a University programme which is designed to help you plan your PhD or MPhil. The system allows you to complete electronic versions of the forms you should complete before having official meetings with your supervisor at certain points during your degree and also gives you a timeline, so that you can see when important deadlines, such as end of year reports, are coming up.

#### **ALL RESEARCH STUDENTS ARE EXPECTED TO KEEP THEIR EPROG RECORDS UP TO DATE.**

eProg is YOUR system. It has been primarily designed as a personal development tool which will enable you to periodically reflect on your plans and progress and share this information with your supervisor. It will also help you plan your time around the major milestones in your programme (such as end of year reports, submission etc).

eProg is also designed for you to keep a record of skills training and for you to keep a record of any research outputs during your time here (such as presenting at conferences, writing papers and so on). The fact that all of this personal development information is kept in one place should mean it will be easier to develop your CV when required.

At the end of your programme, a Notice of submission and a record of the examination process will also take place in eprog.

### 3.5 Submission of the Thesis

Please refer to your personal eprog record for a note of your thesis deadline. This should be the same as your expected end date.

Note that all theses must be submitted electronically first (see 3.6), then 2 copies, printed and soft bound (via the online print and bind service), should be submitted to the graduate Education Office (C4 Sackville St Building).

The electronic submission window closes 3 days before your submission deadline.

Please refer to the University guidelines on the Presentation of Theses:

<http://documents.manchester.ac.uk/display.aspx?DocID=7420>

Note that final copies of the thesis (post viva, corrections etc.) are required only in electronic format.

### 3.6 Electronic Thesis Submission

All research students are required to submit electronic copies of their thesis via eScholar. This is accessed via 'My Manchester'. Submission of your ETD is made through the My Manchester service. Once you have logged in to My Manchester you will make your ETD submission through the **My ETD Summary portlet**.

- [My Manchester](#) (login required)

**Note:** If after logging in to My Manchester you are unable to see the My ETD Summary portlet choose the *CUSTOMISE* option (just under the Home tab). Enter ETD into the *Search for stuff* box. You should see the My ETD Summary portlet listed, place your mouse pointer over this and click *Add*. This will add the portlet to your selected tab.

To log-in in to My Manchester you will require an active central network username and password. This is the same username and password that you use for network access, email and other IT services at the

University of Manchester. All staff and students are issued with these details when you first arrive at the University.

Follow our 'Submit your ETD guide' for further details:

<http://intranet.chemistry.manchester.ac.uk/intranet/pg/>

More information can be found via the Electronic Theses and Dissertations (ETD) website at

[www.escholar.manchester.ac.uk/etd/](http://www.escholar.manchester.ac.uk/etd/)

### **Top 20 facts about electronic theses**

1. The University of Manchester has adopted the mandatory submission of electronic theses for all Doctoral-level students.
2. All doctoral-level students handing in a Notice of Submission from 1st December 2009 are required to submit electronic versions of their thesis in addition to bound paper copies.
3. Students are required to submit a pre-examination AND post-examination (corrected) version of their thesis electronically.
4. Students are required to submit their electronic thesis as a set of metadata and a Portable Document Format (PDF) file for each version.
5. The maximum PDF file size that can be submitted is 50 megabytes.
6. Provision exists for electronic submission of both non-digital and non-text based theses. For theses that cannot be represented electronically, students are required to submit a description of the work and any associated text-based report.
7. Students are required to use the University's Student Portal service to complete their electronic submissions.
8. Bound paper copies of theses must be printed directly from the submitted electronic version and include an automatically generated cover page.
9. It is the student's responsibility to ensure their print submission is a true and accurate representation of their electronic submission.
10. Students can practice preparation and submission of their electronic thesis at any time.
11. Students can only submit their electronic thesis when they have an open electronic submission window.
12. Normally, only when a completed Notice of Submission form is submitted via eProg will Graduate Education open a student's electronic submission window.
13. Graduate Education retains the right to open and close submission windows and set the duration of the submission window at any time.
14. Usually under The University of Manchester's Intellectual Property Policy (subject to some exceptions), the student owns the copyright and intellectual property (IP) in their thesis itself. (IP described in the thesis may belong to someone else.) Those exceptions are where:
  - o the student is undertaking a sponsored studentship and the sponsoring body has a claim on arising IP
  - o the student participates in research together with employees of the University (other than simply being supervised) where potentially commercialisable IP may be created
  - o the student creates IP outside of their course using more than incidental use of University resources
  - o the student writes a thesis which is generated by research performed in whole or in part using equipment or facilities provided by the University under conditions that impose copyright restrictions e.g. software licenses
15. Only authorised University staff i.e. administrative support staff, librarians, supervisors and examiners, will have access to the pre-examination version of the students' thesis. The University will retain this version for internal administrative purposes and reserves the right to apply automated plagiarism detection mechanisms on this material.
16. Where the student owns the copyright (see item 14), the student has the right to restrict access or make open access the post-examination version of their thesis. Access constraints apply to electronic and print versions.

17. The University requires that electronically submitted theses that the student makes open access are approved by an authorised member of staff (normally a postgraduate administrator and librarian) prior to their dissemination using University's approved IT systems.
18. Electronic theses made open access will be freely available to anybody with access to the World Wide Web and will be exposed to Google and other search services via the University's institutional repository, Manchester eScholar.
19. The University reserves the right to restrict access to a thesis that was initially made open access without prior permission from the copyright owner. This is to accommodate where, for example, copyright infringements are subsequently reported to the University.
20. The University aims to preserve and store electronic theses in Manchester eScholar, indefinitely.

## 4 APPENDIX 1 – University Guidelines and Regulations

The University's Research Office website has a full list of all guidelines and regulations relating to research degrees, including:

### 4.1 Code of Practice for Postgraduate Research Degrees

<http://www.staffnet.manchester.ac.uk/services/rbess/graduate/code/>

### 4.2 Postgraduate Ordinances and Regulations

[http://www.researchsupport.eps.manchester.ac.uk/postgraduate\\_home/policy/#ordinancesandregs](http://www.researchsupport.eps.manchester.ac.uk/postgraduate_home/policy/#ordinancesandregs)

- Doctor of Philosophy (PhD) degrees  
<http://documents.manchester.ac.uk/display.aspx?DocID=20673>
- Master of Philosophy (MPhil) degrees  
<http://documents.manchester.ac.uk/display.aspx?DocID=15731>
- Master of Science (MSc) by research  
<http://documents.manchester.ac.uk/display.aspx?DocID=15731>
- Master of Enterprise (MEnt)
- <http://documents.manchester.ac.uk/display.aspx?DocID=7467>

### 4.3 Guidance Notes

- Presentation of Theses (PhD/MPhil)  
<http://documents.manchester.ac.uk/display.aspx?DocID=7420>
- Presentation of Dissertations (MSc by Research and MEnt)  
<http://documents.manchester.ac.uk/display.aspx?DocID=7441>

### 4.4 Student Related Policies and Procedures

It is your responsibility to ensure that you are aware of the regulations relating to the conduct of students within the University, and the official procedures to follow if you have a complaint. In the first instance you are advised to speak informally to the Postgraduate Director or advisor assigned to your area of study.

- Academic Appeals  
<http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=1872>
- Complaints Procedure <http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=1893>
- Conduct and Discipline of Students  
<http://documents.manchester.ac.uk/display.aspx?DocID=6530>