Department of Chemistry

Scientific induction sessions

(check with your supervisor which of these sessions you should attend – you will not be able to use any specialist equipment unless you have attended the relevant induction session below)

The following sessions will be held from 2pm on Thursday 5th October in the Lecture Theatre, ICL– open to all Part IIs and graduate students

2.00 - 2.30pm	**Introduction to Mass Spectrometry facilities** The Mass Spectrometry induction session will introduce researchers to the mass spectrometry facilities available to support research in organic chemistry, inorganic chemistry and chemical biology. It will explain how these can be accessed including the Open Access Mass spectrometer system, training to use LC/MS and GC/MS and how the sample submission services are arranged by the mass spec staff. *It is essential that anyone planning to use the Mass Spectrometry facilities attend this induction session*.	**Professor James McCullagh**
2.30 - 3.00pm	**Introduction to NMR Spectroscopy facilities** The NMR induction session will introduce the NMR staff, instruments and facilities available to support research in organic chemistry, chemical biology and inorganic chemistry. It will explain how these can be accessed, the training that is required to use the instruments, and will introduce the NMR Submission Service provided by the NMR staff. There will also be the opportunity to sign-up for the compulsory introductory training sessions. *It is essential that anyone wishing to make use of the NMR facilities attend this induction session*	**Professor Tim Claridge and Dr Nick Rees**
3pm – 3.20pm	**Break for tea** **And sign-up for NMR/MS training sessions**	
3.20 - 3.40pm	**Introduction to X-Ray Crystallography** A short introduction to the single crystal X-ray crystallography service suitable for all Part II and new DPhil students. This session is relevant to chemists doing synthetic work in all sections of the Department.	**Professor Richard Cooper**
3.40 – 4pm	**Introduction to ESR Spectroscopy facilities** The ESR induction session will introduce the ESR staff, instruments and facilities available to support research in chemical biology and inorganic, organic, and physical chemistry. It will explain how the instruments can be accessed and the training that is required to use them. There will be an opportunity to sign-up for 1-Day introductory Pulsed/CW-EPR training sessions occurring in the week of 23 October.	**Dr Will Myers**

Walk-up NMR and MS training

Walk-up NMR and MS training – Friday 6th and Monday 9th October (sign-up sheets will be made available at the induction lecture).

For details of other induction sessions please turn over

In addition, other induction sessions available include:

Liquid nitrogen, and gas regulators:
Additional training on these commonly used items will be given by your Building Manager.

Compulsory Safety Office courses:
Some students will be required to undertake additional, compulsory courses run by the University Safety Office due to the nature of their research. **PLEASE CHECK WITH YOUR SUPERVISOR IF YOU NEED THIS TRAINING:**

Introduction to Laser Safety:
An essential course for any individual operating a laser where the beam is not fully enclosed (open). This might include both routine and non-routine operations (e.g. alignment, modifications, maintenance).

Training is available:
Thursday 5th October, 15:00 - 16:30, *Martin Wood Lecture Theatre, Clarendon Laboratory, Parks Road*, book a place

Thursday 16th November, 14:30 - 15:30, *Wolfson Seminar Room, Chemistry Research Laboratory, Mansfield Road* (places can be booked from 14th September)

Radiation Safety for Laboratory Workers:
New radiation workers intending to work with unsealed (open) radioactive sources, such as radioactive labelled compounds.

Training is available:
Wednesday 25th October, 14:00 - 16:00, *Lecture Theatre, Medical Sciences Teaching Centre, South Parks Road* (places can be booked from 11th September)

Wednesday 29th November, 14:00 - 16:00, *Lecture Theatre 1, Academic Centre, John Radcliffe Hospital, Headington* (places can be booked from 11th September)

Note: This session is relevant to use of unsealed radioactive sources e.g. U/Th compounds.

Introduction to Biological safety and Genetic modification:
For new students, workers new to Oxford University and non-biologists undertaking (or planning to undertake) biological and/or genetic modification work.

Training is available:

Friday 20th October, 10:30 - 12:30, *Centenary Room, Careers Service, 56 Banbury Road* (places can be booked from 14th September)

Thursday 26th October, 14:00 - 16:00, *Seminar Room, Nuffield Department of Medicine Research Building, Old Road Campus, Roosevelt Drive* (places can be booked from 14th September)

Thursday 16th November, 10:30 - 12:30, *Centenary Room, Careers Service, 56 Banbury Road* (places can be booked from 14th September)

Thursday 30th November, 10:30 - 12:30, *Centenary Room, Careers Service, 56 Banbury Road* (places can be booked from 14th September)

Thursday 7th December, 14:00 - 16:00, *Seminar Room, Nuffield Department of Medicine Research Building, Old Road Campus, Roosevelt Drive* (places can be booked from 14th September)

For details of other induction sessions please turn over

Safe use of X-ray generators, sealed sources and accelerators:
For new radiation workers intending to work with sealed (closed) radioactive sources or ionising radiation generators.

Training is available:
Wednesday 8th November, 14:00 - 16:00, *Lecture Theatre, Medical Sciences Teaching Centre, South Parks Road* (places can be booked from 11th September)

Note: This session is relevant to x-ray single crystal and powder diffraction.

Short Intensive Course in Single Crystal X-ray Structure Analysis, Professor Richard Cooper:
Wolfson Seminar room , CRL

Monday 6th November
11.00-12.30 Introduction to Single Crystal X-ray Structure Determination
13.00-14.00 Interpreting and analysing results

Monday 13th November
Some hands on - bring a laptop if possible

11.00-11.30 Data collection; Structure Solution; Refinement
11.30-12.30 Hands-on structure analysis including disorder and twinning
13.00-14.00 Session continues

Structure determination from X-ray diffraction can unambiguously determine the composition, bonding and three-dimensional structure of complex molecules, provided that crystals of the material are available.

This 2 x 2.5h course will cover sample crystallization, interpretation of crystallographic data from publications, and some hands-on data analysis, for which you will need to bring a laptop running Windows.

To reserve a place on this course please e-mail: richard.cooper@chem.ox.ac.uk.

IT courses:
Dr Karl Harrison, Information Co-ordinator and Training Officer, will give an introductory lecture on 'Research Discovery Using IT' several times in the first couple of weeks of term followed by a series of hands-on workshop courses. Check your e-mail for further details.

Chemistry workshop in ICL open day:
Tuesday 3rd October
2.00pm – 4.00pm
The Electronics Workshop will be open for students and academic staff from all sections to find out what facilities are available and the kinds of work that can be carried out. You are welcome to visit the workshop.

Chemistry workshops in PTCL open day:
Tuesday 3rd October
2.00pm – 4.00pm
All workshops will be open for students and academic staff from all sections to find out what facilities are available and the kinds of work that can be carried out.

Workshops are as follows:

- Electronics Workshop;
- Mechanical Workshop;
- Student Workshop; and
- Mechanical Design Office

– all in PTCL. You are welcome to visit any, or all of the workshops.