Imperial College London





Health and Safety Matters

OCCUPATIONAL HEALTH & SAFETY NEWSLETTER

Introducing the new Health & Safety Newsletter

The Occupational Health Service and the Safety Department have decided to publish a joint newsletter. The aim of the letter is to create awareness of new information and to keep staff up to date on health and safety issues.

The newsletter will be produced quarterly with the March, June and December editions coinciding with the Safety, Health and Radiation Users Group (SHRUG) meetings. It will be accessible on both the Occupational Health service and Safety Department web pages and will also be distributed by email to Divisional /

Departmental Safety Officers and Administrators to cascade to staff. If you have any queries or comments regarding the newsletter please contact the Editors, Brondwyn Dee (Occupational Health Service) and / or John Luke (Safety Departon page eight of the newsletter.

With thanks.

Editorial team

ment). You will find their contact details We hope you find the newsletter informative and useful.

Issue 1

June 2005

| Inside | this | issu | e: |
|--------|------|------|----|
| | | | |

Introduction

| Safety Dept and OH to | |
|-----------------------|--|
| Relocate | |

| Working with an | |
|-------------------|--|
| Automatic Pipette | |
| | |

| moking Policy at | 3 |
|------------------|---|
| ledical Campuses | |

2

3

3

4

4

5

6

7

New Pathogen Screening

| Changes to initial | |
|---------------------|--|
| Health Surveillance | |

| Safety | Dept | Staff |
|--------|------|-------|
| Change | es | |

| Safety Dept Web | |
|-----------------|--|
| Pages | |

| Work at Height | |
|----------------|--|
| Regulations | |

| Microbiological S | Safety |
|-------------------|--------|
| Cabinets | |

| ccidents | | |
|----------|--|--|
| | | |

| Drug and Alcohol | |
|------------------|--|
| Awareness | |
| | |

FAQ—Gloves

| COSHH 2002 | 7 |
|------------|---|
| Amendments | |

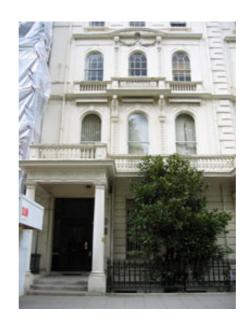
Training and Upcoming Events

Safety Department and Occupational Health to Relocate

The Safety Department and Occupational Health Service are scheduled to move location in June. The move has been prompted by the planned redevelopment of Southside.

Occupational Health will move to the 4th Floor of the Sherfield Building. The move is scheduled to take place on the 30th of June. This means that there will be limited services on this day. The OH Service will again be fully operational on the 4th of July. All email addresses and telephone numbers for the department will remain the same. OH services on the medical campuses will continue as nor-

The Safety Department will move to 8 Princes Gardens, a five storey Victorian building next to the new Sports Centre which is currently under construction. Three floors of the building will be occupied by the Department - the first, second and third. The first floor has been occupied and utilised for safety training since November 2004, so the move consolidates the whole Department within the building. All telephone numbers and email addresses will remain the same.



8 Princes Gardens

Working with an Automatic Pipette

Repetitive Strain Injuries are one of the largest jobrelated injury and illness problem in the workplace. Overuse of an automatic pipette can cause teno-synovitis a painful, disabling inflammation of the thumb tendons. A bad episode can mean weeks away from experimental work. Several cases occur every year amongst biomedical researchers in College. There are a number of ways to reduce the risk of developing these injuries and should be considered if pipetting is something you do frequently and for significant periods of time.

1. Choosing pipettes

There's no perfect type of automatic pipettes: all available models have inherent design faults. If you are buying pipettes consider testing a variety of models whilst considering these design points—Manual models:

- Plunger pressure: Choose a pipette which requires less finger/thumb movement and effort to aspirate or dispense
- · Length of plunger travel: less is better
- Use only the force required to perform a task i.e. avoid jamming tips on
- Tip ejector: select a model with a tip ejector that is comfortable to use. If it can be finger-operated the loading on the thumb tendons will be less
- · Grip: is the pipette comfortable to hold?
- Overall length: again, the less, the better

<u>Electronic models</u>: higher cost and often less versatile, but much less work for your thumb. See *Anachem* website for helpful advice: http://www.anachem.co.uk/

2. Organise your work

- Plan things so that you will not be pipetting for more than 10-15 minutes at a stretch and so you're not spending hours on lab work without breaks.
- · Intersperse pipetting with other tasks.
- Alternate lab work with other activities.
- · Take your breaks!
- If you do have a long pipetting run, use an electronic pipette, or time it so that it is followed by a decent break—the last activity before your lunch-break, for example.

"pain or swelling over the wrist tendons..."

3. Organise your bench

A comfortable working position means your muscles & tendons are less likely to get tensed up and damaged. The length of most automatic pipettes means you may have to position yourself higher in relation to your working surface than for other tasks.

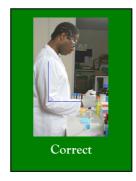
- Limit the amount of work where the arms are in an elevated position.
- Keep your work area tidy— make sure there is sufficient desk space.
- Avoid having to repeatedly twist round to carry out parts of your procedure.
- Position your stock of tips and discard container so you don't have to stretch out to use them or lift your arms unnecessarily.

Brondwyn Dee & Claire O'Brien, Occupational Health





 Sit or stand so that your forearms are roughly horizontal to the benchtop when using the pipette. Use a high lab stool or lowered bench surface if necessary to achieve this.





4. Holding your pipettes

Using your pipettes with a light touch and varying how you hold/ operate them helps lessen and spread out the loading on tendons.

- Don't press harder than you need to on the plunger
- Try holding your pipettes with a variety of grips
- Use a variety of different pipettes
- Try using your other hand
- Use electronic pipettes for long runs of identical dispensing or filling multi-well plates

5. Don't ignore symptoms

The early symptoms of teno-synovitis are usually aching in the forearm muscles, perhaps first coming on after an unusually long day or intense period of lab work. The tendons on the thumb side of the wrist may feel sore, or feel a bit stiff on waking in the morning.

Established teno-synovitis causes pain or swelling over the wrist tendons; gripping with the thumb becomes painful and you may feel- or hear- a creak over the tendon. Don't ignore early symptoms.

- If you do get warning signs, take a break from pipetting for a few days, or reduce the amount of pipetting work you do
- Review your schedule to spread out work that uses the pipette
- If symptoms persist or recur, seek help from the Occupational Health Service. See web site for contact information:

https://www.imperial.ac.uk/spectrum/occhealth/

Smoking Policy at Medical Campuses

Dr Alan Swann, Director of Occupational Health

Smoking on all medical campuses is to be banned by the end of 2005, in support of the NHS Smoke-free initiative. No-one— staff, patients and visitors— will be allowed to smoke, neither inside hospital buildings nor anywhere on hospital sites. To help smokers prepare for the change, hospitals are running quit smoking groups.

The initiative is designed to protect non-smokers from passive smoking, now proven to be a real danger, and to help encourage those who still smoke to give up.

Most of the buildings occupied by College and the land on which the buildings stand on our medical campuses are owned by the hospital trust. The College is keen to support the initiative, as well as meeting our obligations as tenants. The College's current smoking policy already effectively bans smoking inside buildings. We will now also require staff and students to comply with the Trusts' policies. Local arrangements for smoking breaks will continue as now, although if going off-site for a cigarette means breaks are longer, a manager may have to restrict the frequency of breaks or require the

member of staff to make up the time lost from work.

St. Mary's have already introduced their policy. Smoking is not allowed in any of the hospital buildings. Smokers are also requested not to smoke around the entrances to the hospital, including in Norfolk Place.

The Hammersmith Trust will introduce its policy on the 1st September 2005. From that date, smoking will only be permitted in the outside smoking shelters provided for staff. The Trust hope to be able to remove these by the end of the year. At the Hammersmith campus, smokers will need to go either over to the Scrubs to light up, or out to the front of the hospital. At Charing Cross, smokers will need to go out into the surrounding streets before lighting up. The Trust requests that smokers do not congregate around the pedestrian or vehicle entrances to hospital sites.

The Chelsea & Westminster Hospital will go smoke-free by the end of December (the exact date has not yet been decided). Smoking areas inside the building are already being phased out and smokers will be requested to not smoke anywhere

along the frontage of the building on Fulham Road. The Trust is discussing with the local council whether the pavement outside can be made a non-smoking zone.

The Brompton hospital policy came into force last month. The entire NHLI site has been smoke-free for many years so we are already compliant with the hospital's policy.

Northwick Park's Policy will come into force in December. Smokers will need to go down to the main road or to the park if they still want a cigarette at work.

For details of the each Hospital's quit smoking support groups contact...

Hammersmith: Stop smoking clinic 020 8846 6840

Charing Cross: Stop smoking clinic 020 8846 6840

St Mary's: Martina Opara-Evoeme, Out Patients, extension 2155.

Brompton: Occupational Health, 020 7808 2139

Chelsea & Westminster: NHS Quit line on 0800 169 0169

Northwick Park: Occupational Health, 020 8869 0169

New Pathogen Screening

The College OHS is extending entry health surveillance to all research projects involving deliberate work with dangerous pathogens in Hazard

Group 2 or 3.

Currently screening is only carried out where the pathogen may pose specific additional risk to immunocompromised individuals or to identify those who require vaccination. However, there are other health problems which can increase vulnerability to any infection or affect safety in the laboratory. The aim of the screening will be to identify any individual who may be at increased risk, so that they can be advised on additional precautions necessary.

Sheila Boyle, Occupational Health Manager

Screening will be by confidential questionnaire asking about skin disease, medical treatments or indicators of possible impaired resistance to infection. New members of staff will be sent the questionnaire along with their pre-employment health questionnaire, provided that the project leader indicates they will work with a Category 2 or 3 pathogen when completing Page 1 of the form. For students, their Project Leader or supervisor will need to instruct them to fill in the form and send it to Occupational Health. It is available on the OH Services pages on Spectrum.

Screening will be audited annually to assess compliance.

Changes to the Initial Health Surveillance Programme

Sheila Boyle, Occupational Health Manager

The OHS has introduced the testing of all staff and students to detect specific antibodies against laboratory animal allergens at their initial health surveillance appointment.

This will help us identify individuals sensitised through exposure prior to work at Imperial who are at high risk of progression to symptomatic disease and to better establish how and where new cases arise.

Health and Safety Matters

Safety Department Staff Changes

Leaving.....

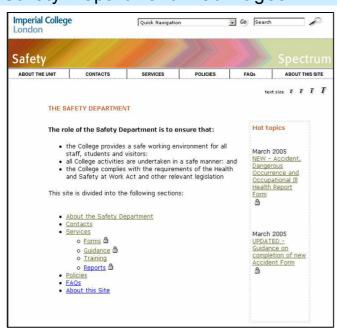
Mark Ramsay, College Radiation Protection Manager leaves the Safety Department in July after nearly eight years service. Mark plans to develop his own radiation protection consultancy and we wish him well with this venture.

Welcome to new staff.....

Lisa Hall joined the training section in May as Admin Assistant.

Julia Cotton joins in June in the role of Audit Officer. Julia, formerly the Divisional Safety Officer for Investigative Sciences was the recipient of the Rector's Award for Health and Safety in 2004.

Safety Department Web Pages



We would like to take the opportunity to further promote the Safety Department web pages which, judging by some of the enquiries we receive, is still an under-used resource.

The pages include details of policies, risk assessment forms and other templates, guidance notes on a wide variety of topics and details of the current safety training programme. Recent changes and new additions are flagged in the 'Hot Topics' box on the front page.

Please visit the pages from time to time.....you may well find the answers to your questions.

www.imperial.ac.uk/spectrum/safety/

Work at Height Regulations 2005

The new *Work at Height Regulations 2005* came into force on 6 April. The Regulations relate to all work at height where there is the risk of a fall liable to cause personal injury and require duty holders to ensure:

- All work at height is properly planned and organised;
- Those involved in work at height are competent;
- The risks from work at height are assessed and appropriate work equipment selected and used;
- The risks from fragile surfaces are properly controlled, and
- Equipment for work at height is properly inspected and maintained.

The Regulations set out a simple hierarchy for managing and selecting equipment for work at height. Duty holders must:

- · Avoid work at height where they can;
- Use work equipment or other measures to prevent falls where they cannot avoid working at height; and
- Where they cannot eliminate the risk of a fall, use work equipment or other measures to minimise the distance and consequences of a fall should one occur.

The key points are:

- Those following good practice for work at height now should already be doing enough to comply with these Regulations;
- Follow the risk assessments you have carried out for work at height activities and make sure all work at height is planned, organised and carried out by competent persons;
- Follow the hierarchy for managing risks from work at height
 take steps to avoid, prevent or reduce risks; and
- Choose the right work equipment and select collective measures to prevent falls (such as guardrails and working platforms) before other measures which may only mitigate the distance and consequences of a fall or which may only provide personal protection from a fall.

The Regulations will not apply to the provision of instruction or leadership in caving or climbing by way of sport, recreation, team building or similar activities.

Implications for the College

There are many activities undertaken around the College which will be subject to the requirements of these regulations - maintenance activities; access to plant and equipment; shelving books; and, horticulture - even putting up Christmas decorations. Several different kinds of equipment are used to gain access and work from, including: ladders; stepladders; Genies; mobile elevated working platforms (MEWPs); and, kickstools. *Please Note: Chairs and stools should not be used as a means of access.* There is an on-going review of access to roof areas and the Estates Division have recently installed edge protection on several roofs around the College. A system for tracking maintenance requirements for ladders is also being implemented.

A free information leaflet, *The Work at Height Regulations 2005 – A brief guide* is available on the HSE website at :

http://www.hse.gov.uk/pubns/indg401.pdf

Microbiological Safety Cabinets

Anton de Paiva, College Biological Safety Officer

A new Code of Practice governing the selection, installation, use, maintenance and decommissioning of Microbiological Safety Cabinets (MSCs) is to be launched. Adherence to this Code is mandatory when the MSC is required to control exposure to biological agents in Hazard Group 2 / GM Class 2, or above. It is the responsibility of the Principal Investigator to ensure this compliance. This article provides an overview of the key aspects of this Code.

Selection and Installation

All MSCs can provide a good level of protection to the user whilst handling biologically hazardous samples. Class II and III cabinets are designed to also provide a good level of microbiological protection to the work by ensuring that HEPA filtered air passes over the sample.

All exhaust air must pass through a HEPA filter. Whilst it is good practice to discharge this air direct to the outside atmosphere, it is sometimes necessary to consider recirculation back into the laboratory. The College's standards for when recirculation of exhaust air may be considered are available on Spectrum.

Purchasers are advised to select their cabinets and suppliers with care whilst considering the following factors;

- Cost savings should be sought elsewhere other than with MSCs
- If purchasing through an agent, careful checks must be made on the relationship between the agent and the cabinet manufacturer. Also, check what access there is to technical support from the manufacturer both for the users and any for the installation contractors.
- Check the service and backup provision.

A major factor in ensuring the optimal performance of an MSC is its siting. If poorly positioned, air currents within the laboratory can disrupt operator and sample protection. Part 2 of BS5726 provides recommendations for the installation of MSCs in laboratory areas. The College requires that these recommendations are adhered to, in full.

Commissioning

All commissioning tests specified in BS EN12469 must be completed. This must include an operator protection factor test (OPFT) or an in-use OPFT as necessary. A record of these tests must be passed on to the users (or their manager) before use of the cabinet.

Use

Poor working practice will adversely affect the ability of an MSC to protect both the user and, where relevant, the sample. All users must be trained in the correct use, decontamination and limitations of their MSC. The provision of this training must be recorded.

Cleaning and decontamination

MSCs must be kept clean and decontaminated immediately after any known spillage of infected material. Procedures must also have been developed for routine decontamination. A risk assessment must be undertaken in order to identify the most appropriate method of decontamination. A pro-forma has been developed to aid in this process and is available either from the Safety Department website or your DSO.

Maintenance and performance testing

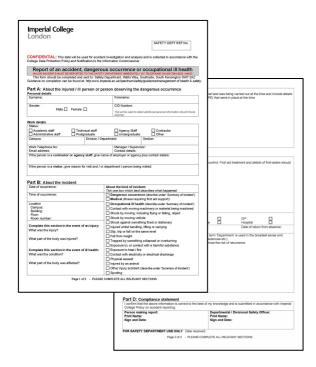
MSCs must be maintained and tested according to the regime laid out in the table below.

| | Containment Level 2 | Containment Level 3 | |
|----------------------|--|---|--|
| Every use (by users) | Alarms/ indicators | Alarms/ indicators | |
| Monthly (by users) | Airflow test | Airflow test | |
| 6 monthly | Check manufacturer's requirements for maintenance | Check manufacturer's requirements for maintenance | |
| (by engineer) | Visual examination of cabinet surfaces for damage | Visual examination of cabinet surfaces for damage | |
| | Examination of visible extract ductwork | Examination of visible extract ductwork | |
| | Check of anti blow-back device | Check of anti blow-back device | |
| | Checks and recalibration of alarms/ indicators/ pressure gauges Airflow test | Checks & recalibration of alarms/ indicators/ gauges | |
| | | Airflow test | |
| | | In-use KI operator protection factor test (OPFT) | |
| | | HEPA filter integrity test (including of any by-pass filters) | |
| 12 monthly | Check manufacturer's requirements for maintenance | Check manufacturer's requirements for maintenance | |
| (by engineer) | Visual examination of cabinet surfaces for damage | Visual examination of cabinet surfaces for damage | |
| | Examination of visible extract ductwork | Examination of visible extract ductwork | |
| | Check of anti blow-back device | Check of anti blow-back device | |
| | Checks and recalibration of alarms/ indicators/ gauges | Checks & recalibration of alarms/ indicators/ gauges | |
| | Airflow test | Airflow test | |
| | OPFT or In-use OPFT (as determined by risk assessment) | In-use KI operator protection factor test (OPFT) | |
| | HEPA filter integrity test | HEPA filter integrity test (including of any by-pass filters | |

New Accident Report Form

A reminder that a new report form for recording accidents, dangerous occurrences and occupational ill-health was introduced in March following consultation with Departments and Divisions. This should now be used for recording all such events and any surviving printed copies of the old form should be discarded. Blank copies of the new form can be downloaded from the Safety Department web pages:

https://www.imperial.ac.uk/spectrum/safety/internal/services/forms/forms_index.htm



Consultation on Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 1995 (RIDDOR)

The Health and Safety Commission (HSC) has recently published a Discussion Document with regard to reviewing RIDDOR - in particular, to look at the reporting system and its direction.

The HSC has developed proposals regarding changes which could be made to benefit both the enforcing authorities and duty holders. Each of the proposals has been identified with the benefits and risks outlined. Views are being sought from individuals with health and safety responsibilities, such as:

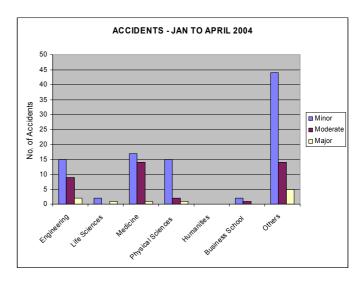
- Safety managers;
- · Safety representatives; and
- Those who measure health and safety performance.

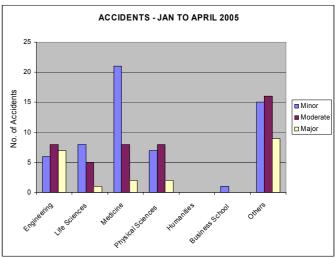
The Discussion Document questionnaire is currently being assessed by the Safety Department in liaison with Occupational Health before submission to the HSC.

Accident Statistics

| | Jan-April 2004 | Jan-April 2005 |
|---|-------------------|-------------------|
| Total incidents reported to the Safety Department | 145 | 124 |
| Total incidents reported to the Health and Safety Executive in accordance with RIDDOR 1995. | 10 | 5 |

Comparison Graphs January to April 2004 vs. 2005





Accident rating:

Minor: No treatment required / First Aid.

Moderate: Visit to Occupational Health / GP / Health Centre or A&E. Major: HSE reportable / Lost time (up to 3 days) / member of public

taken to hospital for treatment.

Drug and Alcohol Awareness

Claire O'Brien, Occupational Health Advisor

The Occupational Health Service and the Student Welfare Committee organised a drug & alcohol awareness session on May 3rd. We invited The Space KC to come along to increase awareness amongst those with a responsibility for and an interest in student welfare.

The Space KC provides health and well being services for young people from 12 to 30 years of age in London. They operate within the Borough of Kensington and Chelsea with sites at Earls Court and Golborne Road. As well as offering one to one support and a range group support and complementary therapies to young people they work with youth groups and schools to raise awareness of alcohol and drug related issues. The ses-

sion was lively and enlightening; it broke down some pre-conceptions—many of us who attended now find ourselves somewhat better informed on the broader aspects of the issue. To get more information the contact details are: WEB, www.thespacekc.org and email, info@thespacekc.org.



Frequently Asked Question:

What gloves should be worn in a microbiological Containment Level 2 and 3 laboratory?

Nitrile gloves should replace latex gloves in Containment Level 2 and 3 laboratories because they can provide adequate microbiological protection whilst preventing occupational exposure to latex. Nitrile gloves also offer better protection against many of the chemicals used in these laboratories. There may however be certain circumstances under which powder-free latex gloves are the better choice. These include:

- Tasks requiring high levels of manual dexterity or precision;
- If sharps are in use;
- Where there is a risk of gloves snagging e.g. handling live animals;
- Where double-gloving is required as a control measure

If latex gloves are used then the following actions will need to be completed in accordance with College Policv:

- 1. The risk assessment for the work must document the justification for selecting latex;
- You should check whether anyone working in the laboratory is allergic to latex. If anyone is, the advice from the College OH Service should be sought before adopting latex gloves;
- 3. All users must be provided with information on latex allergy and the need to report possible symptoms to the College OH Service;
- 4. Users must be aware of the limitations of latex gloves, in particular their susceptibility to damage by some solvents or disinfectants e.g. 70% ethanol;
- 5. Only those latex gloves fulfilling the quality criteria specified in the policy can be used:

www.imperial.ac.uk'spectrum/occhealth/advice/glovepolicy.htm

COSHH 2002 Amendments



The HSE have recently published a revised Approved Code of Practice (ACoP) for the Control of Substances Hazardous to Health Regulations 2002 (as amended). Considerable changes have been made to the new ACoP, most of which relate to a new framework for establishing adequate control of exposure by setting out a hierarchy of principles of good prac-

tice. Another major change concerns the replacement of the old occupational exposure standards (OESs and MELs) with new Workplace Exposure Limits (WELs). The amendments to COSHH outlined in the ACoP came into effect on 6 April 2005.

The principles of good practice are described in Schedule 2A of the Regulations and are as follows:

- Design and operate processes and activities to minimise emission, release and spread of substances hazardous to health
- Take into account all relevant routes of exposure inhalation, skin absorption and ingestion—when developing control measures.
- Control exposure by measures that are proportional to the health risk.
- Choose the most effective and reliable control options which minimise the escape and spread of substances hazardous to health.
- 5. Where adequate control of exposure cannot be achieved by other means, provide, in combination with other control measures, suitable personal protective equipment.
- 6. Check and review regularly all elements of control measures for their continuing effectiveness.
- Inform and train all employees on the hazards and risks from the substances with which they work and the use of control measures developed to minimise the risks.
- 8. Ensure that the introduction of control measures does not increase the overall risk to health and safety.

The new WELs can be found online at:

http://www.hse.gov.uk/aboutus/hsc/meetings/2004/091104/c0

Training Christine Wright, Assistant Safety Director (Science, Engineering & Training)

The 2005 / 2006 Health and Safety Education and Training Programme has been prepared based upon College need and suggestions made by Safety Officers and course participants during the past year.

Approximately 250 courses were held on a variety of campuses from September 2004 to July 2005 and 5,000 participants attended annually. When required, sessions are repeated even if they are not included in the initial programme. New courses included the IEE 16th Edition Wiring Regulations, the CIEH Principles and Practice of Risk Assessment and an annual legislative update for NEBOSH certificate holders. The Programme is open to staff and postgraduates and, in some cases, to external participants too.

In 2005 / 6, course outlines and dates will again be included in hard copy format as part of the Staff Development Programme. A more detailed version will be available on the College's website: https://www.imperial.ac.uk/ spectrum/safety/services/training.htm

A Training Passport for all staff and postgraduates students will be launched in September 2005 to enable individual records to be kept not only of participation in centrally provided sessions but also local knowledge of standard operating procedures. It will also serve as a reminder that refresher training is required regularly.

Suggestions are welcome to c.m.wright@imperial.ac.uk

Contact Details

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If you have any comments or suggestions for inclusion in future Newsletters, please contact the Editors:

Brondwyn Dee Occupational Health b.dee@imperial.ac.uk

John Luke Safety Department j.luke@imperial.ac.uk

Training Schedule & Upcoming Events

OH Department

Safety Department

June

Food Hygiene – 14th (SK)

Safety Induction (Lab) – 20th (SK)

Managing III Health/Managing Attendance Fire Safety – 22nd (RB) and 29th (SK) $(Module 1) - 17^{th} (SK)$

Computer H&S for Users and Assessors

Laser Safety - 29th (SK)

 -30^{th} (SK)

CDM Regulations – 30th (SK)

July

June

July

Food Hygiene – 12th (SK)

Safety Induction (Office) – 4th (SK)

Radiation Safety - 6th (SK)

CIEH Foundation Certificate in Workplace Health & Safety 14th (SK)

Lifesaver training – 14th (SK)

Using breathing apparatus – 14th (SK)

Safety Induction (Lab) – 18th (SK)

Next issue of Health & Safety Matters: September 2005