

**Imperial College
London**

Health and Safety Matters

**Issue 16
June 2009**

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OCCUPATIONAL HEALTH & SAFETY NEWSLETTER

iCare

Control the situation

Assess the hazards

Reduce the risk

Educate staff & students

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Swine Flu — Latest Advice

Although media interest in swine flu has died down, it hasn't gone away and is slowly spreading around the world. The new virus has all the capabilities needed to cause a pandemic and there remains a significant risk of the UK experiencing a major epidemic towards the end of the year. If many people fall unwell at the same time, this could cause some disruption to normal working in College.

Preparations at College level are in place, ready to be activated once flu activity picks up to ensure essential services continue to operate and to help reduce the risk of infection spreading rapidly in College and in our halls of residence.

The most important control measure will be for every member of College to follow the guidance on personal hygiene and staying away from College if they develop flu, until they have been treated and recovered.

Departments need to have their own plans in place to maintain essential operations and research activity. The latest projections are that up to 25% of staff and students may be off sick at the peak of the epidemic. Absence may not be uniform so it is possible that, at research or work group level, all members could be off sick at the same time. Some research groups will need to consider contingency plans to protect research activity which requires regular tending to avoid data loss or health and safety risks.

Plans should also take into account that supplies of some materials used to support research activity may be difficult to obtain during an epidemic. Hospitals will have priority for medical gases and equipment such as face masks. Liquid nitrogen, an essential consumable in many research laboratories may also be in short supply. Recommendations on conserving use of nitrogen are being drawn up.

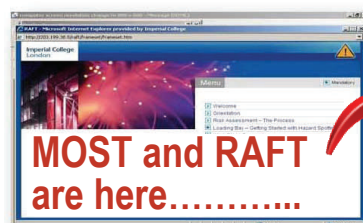
Managers will need to institute extra local cleaning arrangements. Once the epidemic begins, cleaning staff will concentrate on cleaning doors and other surfaces touched by people during their work rather than on-floor cleaning, but they will only be able to clean most areas once per day.

Cleaning materials should be provided for use in computer suites, reception counters, hot desks and meeting rooms and other shared-user offices to allow users to clean surfaces that may have become contaminated. Detailed advice, similar to that given below will be circulated to departments next month.

With some forward planning, it should be possible for College to continue to work normally through a flu epidemic.

Reducing cross infection risks at reception desks & counters

- ♦ Display a 'cough and sneezes' poster where it can be seen by both staff and customers
- ♦ Have tissues available to offer to customers
- ♦ Discourage customers from leaning over the counter. Try to keep a metre distance from one another
- ♦ Have a waste bin available on the customer side of the counter for them to discard used tissues
- ♦ Wipe over counters with a standard household cleaner regularly: at least every 2 hours
- ♦ Remind staff to wash or clean their hands before coffee and meal breaks
- ♦ If you don't have easy access to hand washing facilities, have alcohol gel or tissues available for staff use



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Access this Newsletter in electronic format at:

<http://www3.imperial.ac.uk/safety/otherresources/newsletter>

WASTE BY NUMBERS

Management of hazardous laboratory waste is a big issue for any university. Here are some recent approximate statistics for Imperial. Figures relate to the past twelve months unless otherwise indicated.....

180,000

The amount spent (£) on chemical waste disposal College-wide

24,000

The biggest single cost (£) for a chemical waste disposal job—Wye campus clearance

The amount spent (£) on chemical waste disposal at South Kensington campus—the biggest spend in the College (by campus)

84,000

The number of individual chemical waste collections undertaken by our waste contractors—on average they have been somewhere on site most working weeks

40

50

The total weight (tonnes) of chemical waste generated for disposal across College for academic year 2007 to 2008—we expect this years figures to be a significant increase on this

32.5

The weight (tonnes) of chemical waste generated for disposal at South Kensington campus in the same period—65% of the College total

The cost (£) of the new chemical waste store at Hammersmith campus (not including lighting and CCTV improvements)

17,000

The number of clinical waste ID tags issued by the College Safety Department

130,000

43

The number of 770 litre clinical waste bins (Eurocarts) currently removed from South Kensington campus every week

3291

The United Nations ID number for 'clinical waste, unspecified'—under which all College clinical waste is consigned for transport

....and an indication of what becomes of it:

Inorganic acids → neutralisation or incineration at licensed facility

Pharmaceuticals & controlled drugs → incineration at licensed facility

Mercury → recovery and re-use

Organic solvents → bulked and used as secondary kiln fuel

Other hazardous chemicals → incineration at licensed facility

Empty glass chemical bottles → recycling into aggregates

HEPA filters → incineration at clinical waste facility with energy recovery

Aerosols → all elements separated and recycled or re-used as an energy source

Clinical waste → incineration or approved method of alternative treatment such as industrial autoclave or microwave / steam treatment



Planting the seed of understanding.....

Ian Hackford attempts to unravel the complexities of importing plants, seeds and plant growth material

The Safety Department is now responsible for overseeing plant health research issues within the College and we are currently in the process of developing policy and procedures covering such activities. In the interim, all enquiries and interface with the regulators should be via the Safety Department (Ian Hackford). Here is a brief introduction to the issues surrounding the importation of plants, seeds and plant growth material.

Why are controls required?

To reduce the risk to commercial crop production and the environment from the introduction of plant pests and diseases.

What is covered?

Examples include: whole and parts of live plants, cut flowers, cut and dried leaves, seeds, bulbs and tubers, soil, compost, plant pests, geological samples and surprisingly, wooden packing crates and pallets.

What are the key considerations?

Five main influencing factors:

- ♦ Whether the material is from within our outside the EU. If from outside the EU it is subject to the *Plant Health Order*.
- ♦ Whether movement of the material is controlled in anyway. Under the *Plant Health Order* the material might be prohibited, controlled, or unrestricted and, as such, may require licensing or certification.
- ♦ Whether it is contaminated with any parasites, invertebrates, fungal or bacterial infections.
- ♦ Whether the material is for research purposes only. Material for commercial purposes is subject to additional legislation and may require plant passports or plant phytosanitary certificates even within the EU.
- ♦ Whether there is there any soil or other plant growth medium involved with the material. A licence to import is required for importing any soil or growing medium from outside the EU (geologists take note).

What does prohibited, controlled and unrestricted mean?

- ♦ **Prohibited:** Poses such a serious risk that import is only permitted under authority of a licence issued by Defra or the Forestry Commissioners. Includes many species of rooted plants and trees from outside Europe.
- ♦ **Controlled:** Normally requires a phytosanitary certificate issued by the plant protection service of the exporting country. Includes those cuttings, rooted plants and trees that are not prohibited, bulbs, most fruits, certain seeds and some cut flowers.
- ♦ **Unrestricted:** Presents little or no risk and is not subject to routine plant health controls. Includes nearly all flower seeds, some cut flowers and fruit and most vegetables for eating (except potatoes).

Who are the regulators and what are the regulations?

As of 1 April 2009, the responsibility for the development and delivery of policy on plant health, plants, seeds, and bees rests with the Food and Environment Research Agency (FERA) www.defra.gov.uk/fera.

FERA, together with the devolved administrations and the Forestry Commission (FC), forms the UK Plant Health Service and works with other EC Member States and the European Commission to agree appropriate plant health rules for Europe and co-ordinate their implementation. This includes the plant health controls that apply to the import into the UK of the aforementioned materials from outside the European Union (EU).

The European Plant Health Directive controls are implemented in England by the *Plant Health (England) Order 2005* and the *Plant Health (Phytophthora ramorum) (England) Order 2004*. However there is other legislation that might affect import and movement of these materials, including those listed below.

CITES (Convention on International Trade in Endangered Species of wild fauna and flora). A licensing system operates to allow trade in certain CITES specimens.

Wildlife and Countryside Act 1981 Whilst some non-native species may be imported into Great Britain, their release into the wild is prohibited by the Act. It is also an offence to release any non-native animal, or to allow one to escape into the wild. This includes invertebrates. In addition the possession and sale of native plants is an offence in certain circumstances if the specimens have been taken from the wild.

Wood, wooden pallets/crates/packing/dunnage Controls are in place to prevent the introduction of pests and diseases on wooden packing materials. For further details see: www.forestry.gov.uk/forestry/INFD-6ADJGL

Imports of certain forest trees, wood, bark and some wood products are subject to legislation implemented by the Forestry Commission For further details see: www.forestry.gov.uk/forestry/INFD-6ADJGL

Genetically modified organisms (GMOs) contained use regulations 2000 Although not a condition of import, all first-time use of premises involving activities with GMOs in containment (e.g. culturing storage, transporting, destruction, disposal of or use in any other way) must be notified to the Health and Safety Executive (HSE) via the Safety Department.

Genetically Modified Organisms (Deliberate Release) Regulations 2002 Release of GMOs into the environment must be approved by Defra.

You will have gathered by now that the situation is complex.

Can we have some real-life examples relevant to College activities?

Yes—but not right now. A Safety Department web page will be launched in the near future that will include some specific examples.

Safety Department and Occupational Health Service News

Welcome....

Ross Morgan joined the Safety Department in March as Radiation Protection Officer. Ross joins us from Thermo Fisher Scientific where his work involved management of the gamma and X-ray calibration facility at Beenham in Berkshire servicing the company's global customer base. Prior to this, he worked as a Radiation Metrologist for the Radiation Metrology Group of the Health Protection Agency (formerly NRPB) based at Chilton in Oxfordshire.

Clinical waste update

If everything goes according to plan, with effect from the beginning of June, an alternative treatment disposal route will be implemented for clinical waste generated at South Kensington, St. Mary's and Royal Brompton campuses. Up until now, all clinical waste from these sites has been sent for incineration, however, it is estimated that up to 90% of the waste we produce is eligible for alternative treatment methods such as microwave / steam treatment or industrial autoclaving. This has the potential to translate into significant cost savings to the College. The alternative treatment route will be "orange stream" waste and will need to be consigned in orange clinical waste bags. The incineration route will remain for those types of waste that are not suitable for alternative treatment—this will continue to be "yellow stream" waste. Waste producing departments have already been advised of this development. The individual clinical waste bins in the central collection compounds will be suitably labelled to accommodate the two different types of waste (exact method yet to be determined) and the contents of the bins will be closely monitored by Facilities Management to ensure that the correct waste is going into the correct bins.

The Safety Department are currently looking to source a new supplier of clinical waste tags, again as part of a value for money exercise. We will take the opportunity to change the design slightly and intend to have the new tags printed with 'Imperial College London' as opposed to the "ICL" that they are currently stamped with. This will make them more conspicuous and further help to distinguish our waste from that produced by the NHS Trusts on the sites where we share premises.

Decontamination and clearance guidance

Building upon lessons learnt from the recent L-Block clearance at Hammersmith campus, the Safety Department in conjunction with Facilities Management, will be reviewing the existing College guidance on decontamination and clearance. There will be a focus on merging some of the related existing guidance and upgrading the final document into a College Code of Practice.

iCheck Initial Audit

A number of departments and divisions (twelve in total) have been selected to undertake a simple safety audit to test the new *iCheck* auditing system. A basic question set has been devised to cover issues such as management arrangements for implementing the College Health and Safety Policy, allocation of safety responsibilities, leadership of safety committees, competence, risk assessment and performance monitoring. The deadline for returns has now passed and responses have been received. A summary report is being produced for tabling at the next meetings of the College Health and Safety Committee and Audit Committee.

Nanotechnology

The College are still awaiting receipt of the final version of the HSL report on the study into exposure and control of nanoparticles undertaken at Imperial last year (similar studies have also been undertaken at Cambridge and Manchester universities). There was further discussion on the subject when the HSE and HSL visited the College in February to give a number of presentations and the HSE has since published an information sheet: *Risk management of carbon nanotubes* :

<http://news.hse.gov.uk/2009/03/06/risk-management-of-carbon-nanotubes/>

The current HSE advice with regard to using local exhaust ventilation to control exposure to carbon nanotubes is that extract air must be both HEPA filtered and ducted to a safe location outside the building. Recirculating the air through HEPA filters back into the room is not deemed acceptable as a precautionary approach has to be taken due to the uncertainty about the risks associated with exposure to these materials. The Safety Department has questioned the need for this approach, citing the fact that it is permissible to use recirculating filtered safety cabinets to handle highly pathogenic biological agents. We are still awaiting a formal response.

New College Insurer

The College recently changed travel insurers, with Aon Protect replacing AIG as provider for trips commencing on or after 1 April 2009. For further information about the policy and College business travel in general, staff are advised to consult the relevant link on the Finance website:

www.imperial.ac.uk/finance/sections/insurance/overseastravelinsurance/travellingoncollegebusiness

Aon Protect provides a website featuring regularly updated destination information, as well as a security and natural disaster alerts facility. The Aon Protect website is <http://www.aonprotect.international.sos.com/> and the site access passcode is **7797** (the final four digits of the assistance telephone number).

David Chinn, College Insurance Manager

Check out your health with EAR

All staff, and members of their family, can find out just how healthy their lifestyle is, and get advice on how to stay fit and well by completing the free, confidential health assessment available on the College's new staff counselling and advice service's website.

The questionnaire-based assessment considers diet, exercise patterns, personal and family history, as well as exposures to recognised health hazards in your work and home environments to assess your health risks and identify the good and not-so-good aspects of your lifestyle. It includes tailored recommendations on simple steps you can take to improve your lifestyle. There are links through to pages of information and advice on the self-management of common health problems.

For those interested in complementary therapies, the health assessment pages also offer alternative ways of assessing your health and wellbeing, including ayurvedic and Tibetan medicine health profiles. There's also an entire suite of pages on homeopathic remedies. The EAR website is at www.ear.co.uk. To access the full range of their information and advice resources, log-in as **IMPERIAL** with the password **COLLEGE**. Simplify itself.

All personal information you enter when registering or completing the health assessment questionnaires is confidential.

Dr. Alan Swann, Occupational Health Director

New Health and Safety Law Poster

The HSE has now published a new version of the Health and Safety Law poster and leaflet. The HSE consider the new publications to be more visually appealing than the previous incarnations that were introduced in 1999. The basic points covering what employers and employees must do are set out in simple terms that are easier to understand. There is no longer a requirement to enter the names and addresses of the enforcing authority or Employment Medical Advisory Service. Instead, workers are pointed in the direction of the HSE "Infoline" for this information. The new poster does retain sections where details of local health and safety representatives and contacts can be entered (see below).

Existing old style posters do not have to be replaced until 5 April 2014, however, the Safety Department has purchased a number of new posters for the main College campuses. Departments may of course purchase their own additional posters. More information may be found on the HSE website:

<http://www.hse.gov.uk/pubns/books/lawposter.htm>



Your health and safety representatives

This section should be completed with the contact details of the College Trade Union representatives. See: <http://www3.imperial.ac.uk/safety/policies/healthandsafetylawposter>

Other health and safety contacts

This section should be completed with the contact details of the College Safety Director, OH Director, Chief Fire Officer and Radiation Protection Manager. See: <http://www3.imperial.ac.uk/safety/policies/healthandsafetylawposter>

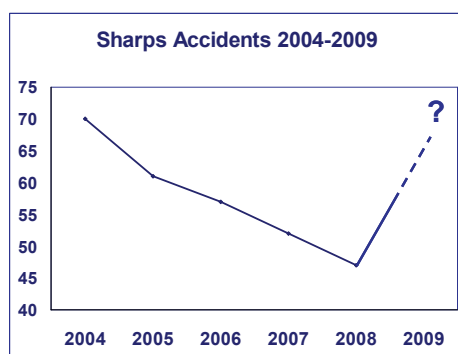
Accidents & Near Misses

Rohini Gowtham, Accident Investigation Officer

Accidents that give us the needle.....

Time to revisit the subject of accidents involving sharps.

Our statistics reveal a total of 486 sharps accidents recorded since the beginning of 2000. We have seen a downward trend since 2004 culminating in a 33% drop by 2008. However, if sharps accidents continue at the same rate as they have done for the first quarter of this year, 2009 will see a return to 2004 levels. The needle-stick is back. Needles remain the most common cause of sharps injuries, with glass in second place and scalpel blades in third.



So what can we glean from some of the more recent statistics:

- One interesting fact is evident. Since 2007, nearly a third of the accident reports involving needles advise in the remedial actions section that blunt needles could or should have been used for the procedure. This implies that all of these accidents were 100% avoidable. A further implication is that the reason they were not avoided was a lack of prior risk assessment—analysis of the task and substitution of a hazardous tool with a less hazardous one that still gets the job done. We heavily promoted the use of blunt needles during our last sharps campaign.
- Accidents involving re-sheathing still occur though with no measurable increase. This has long been regarded as bad practice and should be eliminated.
- Some accidents identify selection of the wrong tool for the job as the cause of injury e.g. using something for a purpose for which it was not designed.
- Some accidents identify incorrect technique as the cause. This could imply lack of training or supervision.
- The inevitable 'lack of care' or 'lack of concentration' reasons are still given. These are much more difficult to qualify. It is probably unrealistic to suggest that we can eliminate all sharps accidents given that we carry out activities that require the use of sharps out of necessity.

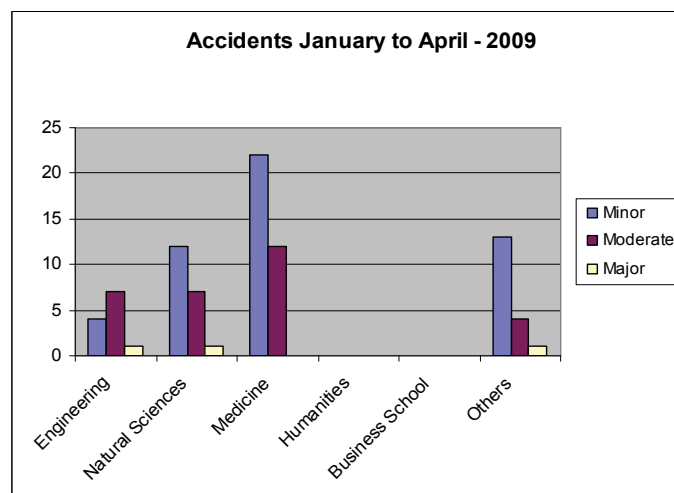
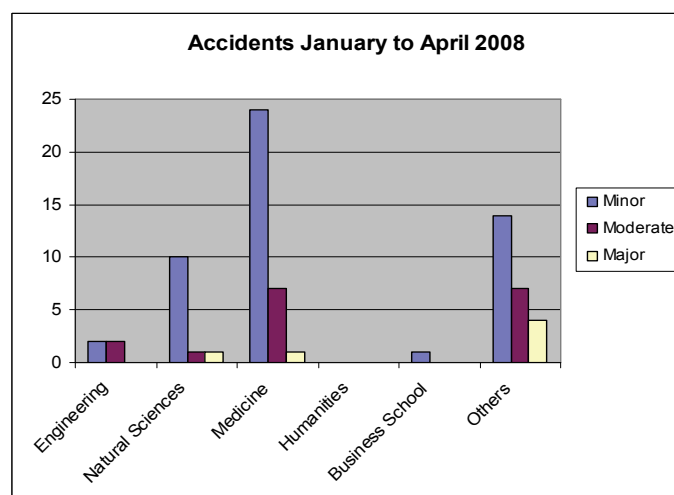
The Safety Department poster 'Get the Point' is still available for download from the Safety Department website:

<http://www3.imperial.ac.uk/safety/otherresources/signs>

Accident Statistics

	Jan-April 2008	Jan-April 2009
Total accidents reported to the Safety Department	74	84
Total accidents reported to the Health and Safety Executive in accordance with RIDDOR 1995	2	4

Comparison Graphs January to April 2008 vs. 2009

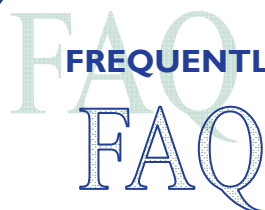


Accident rating:

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.



FREQUENTLY ASKED QUESTION:

What is the remit of the College cleaning contractors with regard to laboratory cleaning?

The College cleaning contractors work to a specification agreed with Facilities Management.

The daily cleaning of laboratories is restricted to:

- ♦ a dust control sweep of the floors (those parts that are accessible).
- ♦ a wash and clean of handwash basins, taps and surroundings.
- ♦ replenishment of consumable supplies as required—hand soap, paper towels etc.
- ♦ cleaning of door glass where present (both sides).

With regard to laboratory floors, it is inevitable that some items will occasionally fall from benches and remain—particularly if it goes unnoticed by the laboratory worker or is kicked beneath an underbench unit for example.

Common items are likely to be small consumables used in experiments such as pipette tips, cuvettes, eppendorf tubes, plastic specimen bottles etc. Cleaners have been instructed not to touch or remove such items but to report their presence either directly to any laboratory staff present, or to their supervisor who can in turn alert laboratory staff who can dispose of them in an appropriate

manner. In some areas it is within the remit of the cleaners to remove clinical waste or 'black bag' waste once it has been closed and tagged.

On a less frequent basis, more attention is paid to laboratory floors. This may involve damp mopping, burnishing and re-polishing. The exact treatment will depend upon the nature of the flooring material. For more involved works such as this, the cleaning contractors may require the co-operation of laboratory workers with respect to temporarily relocating easily removable items of laboratory furniture such as stools and chairs.

The above summary covers routine cleaning as it applies to the majority of College laboratories. However, in the case of more specialised laboratories where hazards and security issues become more acute i.e. areas that have been designated amber or red in accordance with the College Access Control Scheme, there is no routine cleaning permitted. If cleaning of such areas is required, it must be requested and conducted in a controlled manner. This would normally involve those responsible for the laboratory making the area 'safe' and ready for access, specifying the extent of the cleaning required and instigating a written permit-to-work for this to be conducted.

Below is a selection of forthcoming courses. The complete list for this term is too comprehensive to include here—please consult the training programme link for the entire range:

<https://www3.imperial.ac.uk/safety/training/coursesindex.htm>

training schedule & events

June 2009

Using Breathing Apparatus (South Kensington) 10th

Gas Safety training (South Kensington) 17th

First Aid Coordinator Update (South Kensington) 22nd

Manual Handling Assessors Annual Update (South Kensington) 22nd

DSE Assessors Annual Update (South Kensington) 22nd

June 2009 (continued)

Principles of Radiation Protection (Hammersmith) 25th

July 2009

Principles of Radiation Protection (South Kensington) 1st

CIEH Level 2 Award (South Kensington) 3rd

First Aid Lifesavers (South Kensington) 10th

** the training schedule and event calendar has been temporarily relocated from the back page to accommodate the article on MOST and RAFT*

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

John Luke
Safety Department
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New Online Safety Training Courses Launched

Julia Cotton, College Safety Auditor

Two new on-line safety training courses were launched on 1st May after a very busy 12 week development period involving ICT, Learning Development Centre, many other contributors - and of course, the Safety Department. From this date, all new staff are automatically notified that they have been enrolled onto and must take and pass the Month One Safety Training (MOST) course and test. Amongst other things, MOST draws attention to the need for identifying training requirements. This includes being trained to conduct risk assessments, via the second of our on-line courses, Risk Assessment Foundation Training (RAFT). Both courses are designed to be used on an individual's computer, or as a one-to-one with their line manager - or even projected to enable larger workshop-style training. The material is available for anyone to use if they are involved in carrying out such training - or for future reference.

What is MOST about?

MOST is an enjoyable way to learn about the College's hazards and how we manage them - and about your responsibilities should you either work with them or accidentally encounter them. MOST describes and explains the College systems. It is also aimed at contractors, tenants and spin out companies, who as well as having their own management systems for any hazards they introduce to our sites, must know about our hazards and how we manage them.

What are the benefits of MOST?

Hopefully a safer environment. Information relating to hazards and how to control them must be shared between employer, staff, visitors and contractors for our mutual benefit.

How do I take MOST?

MOST is an on-line course designed to be taken in a number of ways - at one's work or home computer; in a one-to-one with one's line manager or delegate; in a computer laboratory or via a projector in a classroom or lecture theatre. <http://www3.imperial.ac.uk/safety/training/courseindex/most/2009>

Do existing staff who joined before 1st May need to take it?

It's a good idea - and it's quite enjoyable! Existing staff don't need to take the test, mainly because we don't have the means yet to enrol them on the course held

on the College Learning Management System. Instead, staff should access the course directly via the web:

<http://www3.imperial.ac.uk/safety/training/courseindex/most/pre2009>

What is RAFT about?

RAFT is a realistic and practical way to learn about the College's risk assessment process via video scenarios based on one's own work environment. After an introduction on why risk assessments are required, the learner is taken through the process of risk assessment before engaging with a series of video scenarios representative of their own work environments. They have to use one of the College forms to conduct risk assessments and a risk matrix to help identify significant risk. There are also sections on risk increasing factors such as lone working and working outside of one's own department or offsite.

What are the benefits of taking RAFT?

It will aid compliance with College policy and should enable staff to identify information relating to hazards and their controls. As a result, your workplace and that of your colleagues will benefit from being safer and healthier - and there may be an associated cost benefit as sometimes the controls in use are unnecessary or ineffective.

Who should take the course?

It's mandatory for certain new staff who started after 1st May 2009 - and something that line managers will need flag to them as part of their training needs analysis. It should be done by anyone who is required to conduct risk assessments. This includes line managers (and those who supervise students and practical classes), those in charge of areas, equipment, or processes - and any persons to whom they delegate the task of risk assessment. It's also a great idea for any students wishing to add to their management competencies.

How do I take RAFT?

Staff who joined the College **before 1 May 2009** and students with College email accounts will need to undertake the RAFT course directly via the web <http://www3.imperial.ac.uk/safety/training/courseindex/raft/pre2009>. Departments may wish to organise the test locally as the College doesn't yet have the means to enrol them on the course held on the College Learning Management System. Please contact Julia for further information.

Staff who joined the College **after 1 May 2009** will need to enrol on the course so that it can be recorded in their learning history: <http://www3.imperial.ac.uk/safety/training/courseindex/raft/2009>