

# **School Of Computer Science Health and Safety Policy**

## **SCHOOL SAFETY RULES, PROCEDURES & ARRANGEMENTS**

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***The safety policy and procedures contained in this document must be adhered to by all staff and students of the School of Computer Science, by all visitors to the School, and by any staff, students and visitors in all areas under the administrative control of the School. These are the whole of the IT Building and those areas of the Kilburn Building that are not under the administrative control of University IT Services.***

*Throughout this document 'Kilburn Building' means those areas of the Kilburn Building that are under the administrative control of the School of Computer Science*

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## 1) Statement

This Health and Safety Policy Statement expresses the School of Computer Science's commitment to do all that it reasonably can to ensure the safety and to sustain and improve the health of its staff, its students, its visitors, and any other users of the buildings that the School is responsible for.

In order to achieve this objective the School will seek to:

encourage all staff and students to take personal responsibility for health and safety by actively identifying any risks to health or safety and bringing them to the attention of their manager, the Health and Safety Advisor, or the Head of School as appropriate in order to ensure continual improvement;

ensure that all staff and students are aware of the School's Health and Safety Policy, its contents and the School's health and safety procedures;

ensure that all staff actively identify any activities where risk assessments are necessary and follow the procedures outlined in any risk assessments or other guidelines or policies that are in place;

ensure that all staff with health and safety responsibilities have appropriate training;

engage competent specialist advice wherever it is required;

ensure that all school managers are aware of their responsibilities for health and safety so that health and safety are managed for any new activities;

involve appropriate staff and student representatives in the School Health and Safety Committee;

promote safe systems of work that minimise, as far as practicable, risks to the health and safety of staff, students and visitors;

provide staff with such information, training and supervision as is necessary for them to meet the School's health and safety aims;

to allocate duties for safety matters and the particular arrangements for implementing the policy as set out in this document and to allocate whatever other resources are reasonably required;

annually review this statement, the School Health and Safety Policy and the School procedures and its practices in order to continuously improve and to take account of changes in legislation, codes of practice and other relevant guidance;

involve staff and students in the annual review of the School Health and Safety Policy;  
take responsibility for the health and safety of other people who may be affected by School activities;  
comply with all relevant legislation, codes of practice and other relevant guidance.

Signed:

Date:

(Head of School)

## 2) Roles and Responsibilities

**The Head of School** has legal responsibility for the health and safety of all staff and students in the school as well as all users of the buildings. The Head of School has the authority:

to enforce any processes that the school requires for purposes of health and safety.

to instruct any staff, students or visitors to the school to immediately cease any activity thought to present any threat to health and safety.

to require any person to leave the buildings where the Head of School perceives there to be a threat to health and safety.

**All staff and students** are responsible for taking an active approach to the health and safety of themselves and other people. This means actively seeking out any risks or hazards and informing their line manager, the school Health and Safety Advisor or the Head of School.

**All members of staff** have a responsibility to co-operate with managers having special responsibility for safety within their working area, and to consider the health and safety of everyone in the school to achieve a safe and healthy workplace.

**The School Health and Safety Advisor** will provide health and safety advice to all staff and students, will put in place processes that will reduce any risks and will advise the Head of School on policy, rules and procedures.

### 2.1) People with specific Health & Safety roles:

The Head of School has appointed Tony McDonald as **School Health and Safety Adviser** (See University's "Statement of Health & Safety Policy" for details of the role of the School Health and Safety Adviser). The School Health and Safety Advisor reports directly to the Head of School on all matters of Health and Safety.

#### **The Health & Safety Committee**

Membership of the committee will include as much representation as possible from all sections of the school including academic and support staff, trade union and student representation.

Other persons with specific day-to-day health and safety responsibilities for maintaining safety in particular areas are:

<b>Name</b>	<b>Area/Room</b>
Dr Paul Nutter	Laser Safety Officer
Dr Ernie Hill	Manager, Centre for Mesoscience and Nanotechnology
Richard O'Connor	Technician, Centre for Mesoscience and Nanotechnology
Tony McDonald	School Health and Safety Adviser
Lynn Howarth	Print Room Manager
Mike Keeley	Computer Room Manager
Frank Pickard	Environment Technician
Christine Bowers	Estates House Services
Mabel Yau	School contact - Students on placements officer

Additional Health & Safety information on aspects such as working in clean rooms is available from the above named staff members, who will ensure that there is no access to facilities without appropriate training.

## **2.2) School Leadership Team (SLT)**

The School Leadership Team is composed of the academic Heads of Function who have management responsibility for aspects of the academic mission of the school, and the senior PSS staff with lead responsibilities for aspects of school administration. As such, the members of the School Leadership Team are the management of the school and are responsible for determining all school policy including health and safety policy. The School Health and Safety Adviser is a member of the School Leadership Team and is expected to bring any matters that cause concern to the attention of the School Leadership Team as they arise.

Health and Safety is a standing item on the School Leadership Team agenda. This gives the School Health and Safety Adviser an opportunity to raise any health and safety concerns and report any significant incidents which may have occurred. Minutes of the Health and Safety Committee are made available to the School Leadership Team. Heads of function are expected to report all health and safety matters arising from their committees that require the attention of the School Leadership Team.



### 2.3) Health and Safety Committee

The Health and Safety Committee is chaired by the Head of School. The committee will include representatives from both staff and students, and will aim to provide representation of all sectors of the school including union representation.

It is expected that the Head of School, Head of School Administration and School Health and Safety Advisor are members of the committee. All other members attend on a voluntary basis.

The Health and Safety Committee is responsible for monitoring the implementation of the School Health and Safety Policy by reviewing, where possible, practices carried out within the school against the requirements of the policy. The committee is an integral part of the school workplace inspection process and will consider any matters of health and safety within the school where concerns have been raised. All accidents and incidents are reported to the Health and Safety Committee where consideration regarding what action needs to be taken to reduce the risk that such incidents reoccurring will be discussed.

The Health and Safety Committee is empowered by the School Leadership Team to make changes to health and safety related operational procedures in the school, and is required to inform them of such changes. The Health and Safety Committee annually reviews school health and safety policy and proposes changes for consideration and approval by the School Leadership Team.

The School of Computer Science Health & Safety Committee Members are:

Prof Jim Miles	Head of School (Chair)
Karen Varty	Head of School Administration ( HoSA)
Tony McDonald	School Health and Safety Adviser
Frank Pickard	Assistant Environment Manager
Dr Richard Banach	Academic Staff Representative
Mabel Yau	Unison Trade Union/ Placement Representative
Caroline Jay	Research Staff Representative
Dr Paul Nutter	Laser Representative
Ruth Maddocks	Secretarial Staff Representative

Richard O'Connor	Representative for the Centre of Mesoscience and Nanotechnology
Christine Bowers	Estates House Services
Stephen Rhodes	Technical Engineer Representative
Catherine Davidge	Safety Services Co-ordinator (Guest member)

In addition, two representatives from the student body are appointed annually.

## 2.4) Heads of Function

Heads of Function are members of The School Leadership Team and chair their relevant School committees. Heads of Function have a responsibility to ensure that health and safety is a standing item on all of their committee agendas and that the School Safety Adviser is a member of their committee. The committees have a responsibility (defined in their terms of reference) to consider health and safety in all matters that they discuss, especially changes that they make to procedures. The School Health and Safety Adviser will bring any matters that cause concern to the attention of the Committee as they arise. If any concerns cannot be resolved by the committee then they must escalate any concerns to the Health and Safety Committee, who will then invite them to attend.

Heads of Function participate in relevant annual safety reviews and are expected to take pro-active responsibility for health and safety within their remit.

## 2.5) Heads of Research Groups

Heads of research groups are responsible for the health and safety of personnel within their group. Current heads of research groups are:-

### **Advanced Interfaces Group**

Dr Steve Pettifer      [steve.pettifer@manchester.ac.uk](mailto:steve.pettifer@manchester.ac.uk)

### **Advanced Processor Technologies**

Prof Steve Furber      [steve.furber@manchester.ac.uk](mailto:steve.furber@manchester.ac.uk)

### **Bio-Health Informatics**

Prof Andrew Brass      [andy.brass@manchester.ac.uk](mailto:andy.brass@manchester.ac.uk)

## **Formal Methods**

Prof Allan Ramsey [allan.ramsay@cs.man.ac.uk](mailto:allan.ramsay@cs.man.ac.uk)

Prof Andrei Voronkov [Andrei.Voronkov@manchester.ac.uk](mailto:Andrei.Voronkov@manchester.ac.uk)

## **Imaging Sciences**

Prof Chris Taylor [chris.taylor@manchester.ac.uk](mailto:chris.taylor@manchester.ac.uk)

## **Information Management**

Prof Carole Goble <mailto:carole.goble@manchester.ac.uk>

## **Machine Learning and Optimisation**

Dr Jonathan Shapiro <mailto:jonathan.i.shapiro@manchester.ac.uk>

## **Nano Engineering and Storage Technology**

Prof Tom Thomson [Thomas.Thomson@manchester.ac.uk](mailto:Thomas.Thomson@manchester.ac.uk)

## **National Centre for Text mining**

Dr Sophia Ananiadou <mailto:Sophia.Ananiadou@manchester.ac.uk>

## **Software Systems**

Prof John Gurd <mailto:john.r.gurd@manchester.ac.uk>

## **2.6) Managers and Supervisors**

Managers and supervisors with responsibility for staff, students, visitors and contractors are also responsible for the health and safety of those individuals and must ensure that appropriate training is undertaken.

Managers and supervisors must ensure that all necessary risk assessments are carried out and that all reasonably practicable measures are undertaken to secure the health and safety of all personnel in areas under their control. Where substantial modifications are made to procedures or equipment, managers are responsible for ensuring that risk assessments are reviewed and updated and a copy sent to the School Health and Safety Advisor.

Whenever new personnel arrive or individuals are required to use new processes or equipment where a risk assessment applies, the manager or supervisor is responsible for ensuring that appropriate induction or training is completed.

Managers must ensure that where a need for specific training in the use of any process or equipment has been identified, no person is permitted to carry out such processes or use such equipment until the required training has been completed.

### 3) Arrangements

#### Fire, Emergencies and First Aid

##### 3.1) Fire Safety Arrangements and Requirements

All staff and students are expected to respond promptly to all fire alarm activations (except the weekly tests at specified times). Staff who are responsible for groups of students or visitors at the time of an alarm activation e.g. when lecturing or tutoring in meetings are expected to call a halt to all activities and to lead the whole group in the evacuation procedure.

<b>Fire Detection</b>	<p>The Kilburn and IT Buildings are fitted with automatic detectors supplemented by break glass points located throughout each building. These activate the building’s audible alarm in the event of fire or smoke. The automatic detectors allow early detection of any developing fire.</p> <p>If you discover a fire and the building alarm is not sounding, activate the nearest break glass point on your escape route and evacuate the building immediately. Make your way to the building assembly point and await further instruction. If possible you should inform security of the event and supply them with as much information as possible in order for them to evaluate the risk and to take appropriate action.</p>
<b>Fire Alarm</b>	<p>The audible alarm for the <b>Kilburn building</b> is a two-stage system.</p> <p>Stage 1) An intermittent alarm – be prepared to evacuate the building.</p> <p>Stage 2) A continuous alarm - evacuate the building immediately</p> <p>The audible alarm for the <b>IT building</b> is a single-stage system. Upon hearing the fire alarm evacuate the building immediately.</p>

	In the event of the alarm being activated security will attend in the first instance.
<b>Fire Evacuation Procedure</b>	<p>Upon hearing the fire alarm all occupants should evacuate the building immediately by their nearest available exit.</p> <p><b>DO NOT USE LIFTS.</b></p> <p><b>DO NOT RETURN TO OFFICES TO COLLECT BELONGINGS.</b></p> <p><b>ONCE OUTSIDE, MOVE AWAY FROM THE BUILDING.</b></p> <p><b>GO TO THE NEAREST BUILDING ASSEMBLY POINT.</b></p> <p>Fire action notices are located throughout all buildings on campus summarising the specific local fire safety arrangements. Local fire notices also indicate the nearest fire assembly point. Please see a sample copy of the Kilburn Building fire notice below.</p> <p>Fire Evacuation Marshals are located throughout the building (identified by hi-visibility vests in an evacuation situation) and are instructed to provide assistance and direction in the event of the fire alarm being raised. Staff must follow all instructions given by Fire Marshals.</p> <p><b>DO NOT RE-ENTER THE BUILDING UNTIL THE EMERGENCY SERVICES OR SECURITY HAVE ADVISED YOU THAT IT IS SAFE TO DO SO.</b></p>
<b>Means of Escape</b>	<p>Means of escape are signed throughout the building. Green <i>running man</i> signs indicate the nearest emergency exit. You should familiarise yourself with the nearest means of escape within your local working area, as well as alternative routes should your main means of escape become inaccessible.</p> <p><b>DO NOT USE LIFTS.</b></p>
<b>Fire Alarm Weekly Test</b>	<p>The fire alarm is tested at the following times and should last for no longer than 20 seconds:</p> <p><b>Kilburn Building - Wednesday 1.55pm</b></p> <p><b>IT Building - Thursday 2pm</b></p>
<b>Fire Extinguishers</b>	<p>Fire extinguishers are provided extensively throughout all university buildings and should only be used by those trained in their correct operation.</p>
<b>Redlam Bolt</b>	<p>Many fire doors are kept secure by use of a <i>Redlam Bolt</i>. Should you need to evacuate the building via a fire door fitted with a <i>Redlam Bolt</i>, you must</p>

	break the glass tube and remove the bolt to open the door.
<b>Automatic door closers</b>	<p>Throughout the buildings many of the fire doors are allowed to remain open during the day. In the event of a fire these doors will close automatically by means of an automatic fire alarm detection system.</p> <p><b>Dorgard x</b> automatic door closing system is used in the Kilburn and IT buildings. These units are designed to release the door following a continuous constant sound of 65 decibels and above, lasting for a period of 20 seconds or more.</p>
<b>Link bridge</b>	<p>The Kilburn and IT buildings have separate fire alarm systems in place. The link bridge between the Kilburn and IT building has been fitted with a flashing beacon integrated into the fire alarm system, which is activated during an emergency situation. A Marshal will be stationed on the bridge to assist occupants of the vulnerable building to escape in an orderly manner and to prohibit re-entry.</p> <p><b>NEVER ENTER A BUILDING WHEN THE FIRE ALARM IS SOUNDING.</b></p>

Kilburn  
Building A



Two Stage  
Alarm

On discovering a fire


Sound the alarm by breaking the glass in the nearest call point


Call the Fire Brigade by dialling 9-999 from any internal telephone


Tackle the fire with the equipment provided but only if safe and you are trained to do so

If you hear an intermittent alarm sound - you should


Check your exit route is clear. You may resume what you are doing. Be ready to evacuate if it changes to continuous

If you hear a continuous alarm sound - you must


Leave the building by the nearest exit and close all doors behind you


If you are unable to negotiate the stairs, use one of the Refuge areas provided in the stair lobbies


Report to your assembly point located at:  
Bottom of precinct steps


Do not collect personal belongings.  
Do not run.  
You cannot use the lifts - the dedicated "Fireman's" lift is solely for the rescue of disabled persons.  
Do not re-enter the building until authorised to do so.

Fire alarms are tested every: Wednesday at 1.55

**Example of a Fire notice – Kilburn building**

### 3.2) Emergencies

In the event of an emergency, medical or otherwise, please contact the emergency services by calling 999 on an internal line or 999 on an external line.

The University Security Office should also be informed once the emergency services have been alerted by calling 69966 internal or 0161 306 9966 external line.

**University Security telephone number can be found on the reverse side of your University staff/student card.**

The School Health and Safety Advisor must be notified of any emergency by calling 56118 internal number

0161 275 6118 if dialled externally, (07917558862 mobile number)

### **3.3) First Aid**

The School has a number of trained first aiders in the Kilburn and IT buildings able to provide basic first aid as required. Details of current first aiders are available on first aid notices located next to each fire notice and can be found near to every exit point of the building, on notice boards throughout the buildings and via the following link: -

<http://documents.manchester.ac.uk/DocuInfo.aspx?DocID=11029>

If local first aiders are not available or assistance is required outside normal working hours, Security can be contacted to provide first aid by calling 69966 internal or 0161 306 9966 external line.

If you are interested in training to become a first aider please seek the permission of your line manager and then contact the School Health and Safety Advisor, Tony McDonald: [tony.mcdonald@manchester.ac.uk](mailto:tony.mcdonald@manchester.ac.uk) Telephone 0161 27(56118).

The university runs regular in house first aid courses, details of which are available via the following link:

<http://www.staffnet.manchester.ac.uk/services/occupational-health/first-aid/>

### **3.4) Emergency Evacuation Marshals**

The university requires that all schools appoint suitable numbers of emergency evacuation marshals to assist in the evacuation of all occupants from the buildings should an emergency situation arise. The criteria used for identifying the number of evacuation marshals required is at least one marshal per floor per protected stair case. In the School of Computer Science a marshal is also required to be posted on the link bridge between the Kilburn and IT buildings to ensure no one enters a vulnerable building from one building to the other during an emergency situation. Should the fire alarm be raised in the Kilburn building, a marshal from the Kilburn Building will be posted on the link bridge. If the alarm is raised in the Information Technology Building, a marshal from the Information Technology Building will be posted on the bridge.

Areas covered by Evacuation Marshals is as follows:-



## Kilburn Building

Area covered	Name
Ground Floor	Josh Knowles, Joe Mellor
Lower First Floor North	Darren Lunn, Caroline Jay
Lower First Floor West (Including Lecture theatre 1.1)	Jeff Pepper, Steve Rhodes
Lower First Floor South	Vacant
First Floor	Ian Dunlop, Shoaib Sufi, Stian Soiland-Reyes
Second Floor East	Toby Howard, Andy Carpenter
Second Floor North	Harold Simmons, Sue Wolfenden, Ruth Maddocks,
Second Floor South	Mike Keeley
Second Floor West	Simon Harper, Ian Pratt-Hartmann,

## Information Technology Building

Area covered	Name
Ground Floor	Richard O'Connor, Ian Stutt, Ernie Hill, Paul Nutter
Second Floor	Dave Clark
Third Floor	Goran Nenadic, Steve Temple
Fourth Floor (Inc Bridge Marshal)	Graham Riley, Frank Pickard

## 4) Risk Assessments

The Management of Health and Safety at Work Regulations and the University Health and Safety Policy require the school to make suitable and sufficient assessments of risks associated with its activities to safeguard all staff, students and others affected by these from harm.

The school expects all staff to be actively engaged in ensuring the safety of staff, students and visitors. Staff are therefore required to undertake any necessary new risk assessments for any areas of the building, activities, other staff or students that they are responsible for. This includes active participation in periodic safety reviews and conducting risk assessments when there are any significant changes in working environment. In particular if new equipment is installed or if new procedures are developed the member of staff responsible for the area must ensure that all necessary risk assessments are carried out and that all affected staff and students are informed of any revised safe working procedures.

All staff have a responsibility to make themselves aware of any risk assessments applicable to their work or their working area, and to raise any risks, hazards or other safety issues with their line manager and/or the School Health and Safety Advisor.

#### **4.1) Risk assessments. When, who and how**

Risk assessments must be carried out for all activities where there is a risk to a person's health or safety, the health and safety of others or a risk to school facilities and buildings.

Risk assessments must be produced by the person proposing to carry out the work or the person in charge of the area or activity. The person must be competent to produce the assessment (competency requirements are detailed in section 9 of the University risk assessment guidance document – see link below)

The risk assessment must be checked and approved by the supervisor, line manager or School Health and Safety Advisor.

The production of a risk assessment should involve relevant expertise as required to advise on hazards and risks. Assistance in the production of a risk assessment can be obtained by contacting the School Health and Safety Advisor

Staff should document significant findings using the standard university risk assessment form. The form can be found within the *Topic A-Z* section of the University Safety Services website via the following link:

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

A copy of the final risk assessment should be sent electronically, if possible, to the School Health and Safety Advisor.

## 4.2) Using the risk assessment

Assessors should:-

Put in place the control measures identified by the risk assessment.

Ensure that any necessary training is undertaken.

Communicate risk assessment findings to anyone affected by or involved in the activity **BEFORE** it commences.

Monitor the effectiveness of the risk assessment and control measures and update the risk assessment if any changes occur.

Ensure the risk assessment is displayed in the work area and is available for reference by anyone involved in the research / experiment or use of equipment including providing any training identified by the risk assessment.

Check control measures on a regular basis to ensure they remain adequate and proportional to the risk, and that they are used.

As a minimum review the risk assessment annually, even if nothing has changed.

***It is important that all of the people involved are aware of and understand the risk assessment findings before the activity is carried out.***

## 4.3) On Completion of Work/Activity

All risk assessments should be reviewed by the assessor as soon as practically possible after the event or task, and any necessary amendments noted. Risk assessments should be kept on site for a minimum of 5 years following completion of work. A copy of the final (reviewed) risk assessment should be sent to the School Health and Safety Advisor. If a likelihood of exposure to chemicals known to be carcinogens or other substances specifically hazardous to health has occurred, the risk assessment needs to be kept for 40 years in accordance with university record retention requirements. Details available at: - <http://documents.manchester.ac.uk/display.aspx?DocID=6514>

#### **4.4) Further information**

University guidance on what is required in a risk assessment and how to complete the process can be found within the *Topic A-Z* section of the University Safety Services website via the following link:

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

The university standard risk assessment form is to be used for recording risk assessments

Health and Safety Executive (HSE) guidance and information on risk assessments is available at: - <http://www.hse.gov.uk/risk/index.htm>

Further guidance in completing local risk assessments can be obtained from your Health and Safety Advisor. Tony McDonald [tony.mcdonald@manchester.ac.uk](mailto:tony.mcdonald@manchester.ac.uk)

Telephone 0161 27(56118)

### **5) Workplace Inspections**

Workplace inspections take place within the school on an annual basis.

Members of the School Health and Safety Committee are invited to take an active role in the inspection process.

Low risk areas such as computer clusters and offices may be inspected by one committee member and the person responsible for the upkeep of the area being inspected.

Inspection of workshops, clean rooms and server rooms will be carried out by two committee members and the person responsible for the upkeep of the area being inspected.

A representative from Safety Services will be invited to attend the inspection process and to offer guidance as necessary.

The inspection documentation will take the form of a check sheet to ensure all necessary areas are covered and will also contain a section for comments to highlight any necessary remedial measures.

Maintenance issues will be reported directly to the estates department.

Minor health and safety breaches (trip hazards, untidy working spaces etc.) will be reported to the person responsible for the area and allocated a reasonable and specific time frame in which to resolve the issues.

Any findings carrying a risk of serious injury or damage to equipment or property will be acted upon immediately by the person responsible for the area and reported to the Head of School.

Committee members will report their findings to the Health and Safety Committee.

A summary report will be presented to the SLT by the Health and Safety Advisor.

All completed check sheets will be 'signed off' by the committee member once all remedial measures have been resolved and will be kept for review for a minimum time of three years.

### **5.1) Local school inspections**

Fortnightly inspections of all teaching rooms are carried out within the School of Computer Science. This provides an opportunity to identify any hazards or maintenance issues needing attention

### **5.2) Fire door and exit checks**

On a monthly basis all fire doors and exit routes are checked to ensure all emergency exit routes leading out of the building are clear of obstructions.

These checks are documented and any action deemed necessary will be acted upon as soon as practicably possible.

## **6) Accidents and incidents**

All accidents, incidents, dangerous occurrences and near misses must be reported in the first instance to the School Health and Safety Advisor and documented as necessary using the correct form. Accident, incident and near miss forms are available via the following link:-

[http://www.healthandsafety.manchester.ac.uk/topic\\_a-z/](http://www.healthandsafety.manchester.ac.uk/topic_a-z/)

Reporting of accidents and incidents are necessary for the following reasons: -

To allow collation of accident statistics so that causes of accidents or incidents can be identified.

To investigate the accident / incident and take steps to prevent recurrence.

To comply with legal requirements depending upon the nature of the accident or incident.

To keep records in case of possible future litigation.

Near misses should also be reported to your School Health and Safety Advisor as acting upon near misses will help to prevent accidents occurring.

## **7) Health and Safety Training**

The School of Computer Science is responsible for ensuring that all staff and students receive appropriate and relevant training to allow duties and activities to be carried out in a safe manner.

Line managers in conjunction with the School Health and Safety Advisor, are responsible for identifying, monitoring and organising the health and safety training of staff. The Head of School is responsible for facilitating necessary health and safety training of academic staff.

## 7.1) Health and Safety Induction

All new staff and students must receive a health and safety induction for the school in accordance with university policy.

For staff, the induction should be completed within one month of commencement of employment, and preferably within the first week. Health and Safety inductions can be given by a line manager or senior staff member having adequate knowledge of the school health and safety rules and procedures, or alternatively can be arranged via the School Health and Safety Advisor.

For both UG and PG students an E-learning Health and Safety Induction is available. This is a university wide course and is accessible via Moodle or Blackboard. All students are required to complete this course within one month of first registration in the school, and preferably within Welcome Week. Failure to complete the course in the required time can result in suspension of the student from some or all activities until induction has been completed.

Student handbooks are also made available to all student cohorts and contain basic health and safety information such as emergency evacuation and first aid procedures.

A Health and Safety Induction Presentation will be communicated to all student cohorts in individual year groups during welcome week. Although not mandatory, it is strongly advised that **all** students attend this presentation.

## 7.2) Specific Safety Training

The requirements for training in the use of equipment, or any procedure where a specific risk assessment is required, should be identified in risk assessments and these should take into account the level of experience and competence of the personnel involved.

All members of the school (staff and students) must consult with their supervisor or line manager before carrying out any hazardous activity for which they have not been trained. Work should not proceed until training has been received and the individual has demonstrated understanding and competence to the person responsible for the training.

Some elements of training are mandatory and certain tasks should **not** be carried out unless the person has received a specific site induction and training. Examples of this are as follows:-

All clean room activities.

Use of liquid nitrogen.

Use of liquid nitrogen storage tanks.

Use of lasers.

Use of any substances such as chemicals that are hazardous to health and are covered by the Control of Substances Hazardous to Health ([COSHH](#)).

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Training in the use of standard equipment can be organised via the responsible member of staff for the area. Where training is provided in-house, details of the training given, persons trained, trainer, date and renewal date should be passed to the School Health and Safety Advisor and the information added to the school training matrix.

The university guidance on health and safety training should be followed at all times. This document can be found by following the link below:

[http://www.healthandsafety.manchester.ac.uk/topic\\_a-z/](http://www.healthandsafety.manchester.ac.uk/topic_a-z/)

## **8) Use of Computer Science buildings and facilities by other schools and departments**

Due to the diverse nature of work carried out by the School of Computer Science it is on occasion beneficial for certain staff or students of other schools to have a base in the Kilburn or IT buildings.

All permanent and temporary members of staff working within the Kilburn and IT buildings, irrespective of their school or department of origin will be equally protected by the school safety rules, procedures and arrangements.

Whilst in the Kilburn or IT buildings all members of the university and all visitors are required to follow the health and safety procedures of the School of Computer Science, failure to do so may result in access being denied.

### **8.1) Centre for Mesoscience & Nanotechnology**

The *Centre for Mesoscience & Nanotechnology* (CMN) is located on the ground and second floors of the IT Building. The Centre provides clean rooms and experimental facilities for nanoscience and nanotechnology for staff and students from various schools including Computer Science, Physics, Chemistry and Materials Science. The CMN has a director and



a manager who may be, but are not necessarily, members of the School of Computer Science.

Due to the unique nature of research work carried out within this area it has a bespoke health and safety certification system which only allows access to certain areas upon completion of relevant health and safety documentation including induction and specific training.

Whilst the overall health and safety responsibility for the CMN remains with the Head of School for Computer Science, day to day management of health and safety within the CMN is the responsibility of the manager. All staff, students and visitors using the CMN must abide by the CMN rules, procedures and practices and any failure to do so may result in removal of access to the CMN.

The Health and Safety Policy and procedures of the CMN must incorporate or exceed all those of the School of Computer Science. The procedures that must be followed by all users of the CMN can be found at:

<https://www.cs.manchester.ac.uk/intranet/acso/cmnprocesses/>

No person will enter any of the clean rooms, use any of the experimental or workshop facilities within the CMN, or use any of the materials within the control of the CMN unless either they have successfully completed the specific induction required for that activity or they are accompanied and continuously supervised by a suitably qualified person.

Further guidance regarding working with Nanomaterials including Graphine is available from Safety Services via the following link:

[http://www.healthandsafety.manchester.ac.uk/topic\\_a-z/](http://www.healthandsafety.manchester.ac.uk/topic_a-z/)

## **8.2) The NanoEngineering and Storage Technology (NEST) Research Group**

The NEST research group occupies IT rooms 108, 109, 110, 105, 115, 228A, 228B and 401. Health and safety in these areas is managed by the CMN Manager using the same processes and policy as for the CMN. All staff, students and visitors to the NEST group and its facilities must abide by the rules, procedures and practices determined by the manager of the CMN, and any failure to do so may result in removal of access to the NEST research group laboratories.

## **9) Lone Working**

Lone working is defined as working without close or direct supervision, and without contact from others.

To reduce the risks associated with lone working it is the policy of the School of Computer Science not to permit any lone working activity beyond normal office based activities without first completing a risk assessment for the activity.

The requirements of the University guidance on lone working should be followed at all times. Details of these requirements can be found on the Safety Services website via the following link:

[http://www.healthandsafety.manchester.ac.uk/topic\\_a-z/](http://www.healthandsafety.manchester.ac.uk/topic_a-z/)

### **9.1) Office based work**

Office based work includes: reading papers or books, writing by hand or computer and talking with staff or students face to face or via telephone or Skype. The operation of any machinery, electrical work, chemical work, use of ladders, moving heavy items, or any activity which runs the risk of physical harm are not recognised as standard office based activities. If your work requires specialised activities you must first complete a risk assessment. Please contact the School Safety Advisor, Tony McDonald via email ([tony.mcdonald@manchester.ac.uk](mailto:tony.mcdonald@manchester.ac.uk)) for guidance and further Information. Special arrangements are in place for the Centre for Mesoscience and Nanotechnology in the IT Building, students who work in the CMN should consult the Centre Manager (Ernie Hill) or the Clean Room Technician (Richard O'Connor).

## **10) Out of Hours Work**

Normal opening hours for the Kilburn and IT buildings are 8am to 6pm weekdays, excluding weekends, bank holidays and any other days when the building is closed (for example Christmas closure period).

On occasion it may be necessary to use the facilities available in the Kilburn and IT buildings outside normal working hours.

During this time the presence of security or school staff members cannot be guaranteed. It is therefore extremely important that all occupants know what to do should an emergency situation occur within the school such as a fire, or the need for medical attention.

## 10.1) Kilburn Building

### Students

Use of the Kilburn building outside normal working hours will be permitted following successful completion of the out-of-hours induction.

The out-of-hours induction can be found via the hyper link below

<https://moodle.cs.man.ac.uk/course/view.php?id=290>

Upon successful completion of the out-of-hours induction the following access times will be made available:-

Taught students (including Undergraduate and Postgraduate taught) 6pm – 11.30pm  
Monday – Friday, 8am – 11.30pm Saturday and Sunday

Post Graduate Research students 24 hour access, 7 days per week.

Outside normal working hours the Kilburn Building is to be used for study and research (office based) purposes only. No social events or gatherings will be permitted unless an appropriate member of staff has been notified and has agreed to the event. Depending upon the details of the event it may be necessary to complete a risk assessment (see *out of hours events* section below). Please contact the School Safety Advisor, Tony McDonald via email ([tony.mcdonald@manchester.ac.uk](mailto:tony.mcdonald@manchester.ac.uk)) for guidance and further Information.

## 10.2) Information Technology Building

Outside normal working hours access into the IT building is gained via the south entrance door only. Swipe access is required and the **out-of-hours book must be signed by all users detailing name, work location and times of entry and exit**. The swipe card access system for the IT building is only enabled for staff and postgraduate students based in the IT

building and members of the CMN who have undertaken the necessary local and health and safety inductions

### **10.3) Occupants of the buildings remaining on site after normal working hours**

Any person wishing to remain in the buildings outside normal working hours must sign the appropriate out-of-hours books. The out-of-hours book for the Kilburn Building is located at the porter's lodge; the-out of-hours book for occupants of the IT building is located in the foyer of the building by the main entrance.

This procedure is necessary should an emergency situation occur. Responding emergency services must be able to account for all personnel on site during an emergency situation such as a fire or bomb scare.

The school reserves the right to spot check anyone on site outside normal working hours to ensure that this procedure is being followed. Anyone found not to have followed the correct procedure may be asked to leave the building, and may be suspended from out-of-hours activities for a period of time not exceeding seven days. Decisions regarding the temporary exclusion from site during periods outside normal working hours of any student can be made by the Area Supervisor, the School Health and Safety Advisor or the Head of School.

Please remember that authorisation to use The Kilburn and IT buildings outside normal working hours is a privilege, and not an automatic right, and that there is no right of appeal for anyone excluded from out-of-hours access to these buildings.

## **11) Housekeeping**

Good standards of housekeeping should be maintained at all times in all areas of the school to prevent slips, trips and falls and reduce the risk of fire. It is the responsibility of the person in charge of the area to ensure that standards are maintained.

The Computer Science House Services Attendant, Chris Bowers should be contacted directly to deal with any housekeeping hazards such as spillages, should the situation be

unmanageable locally. She can be contacted directly via mobile telephone number 07799 075400, or via email. [Christine.Bowers@manchester.ac.uk](mailto:Christine.Bowers@manchester.ac.uk),

The '*Ban the Bin*' campaign in offices has proved successful in reducing the presence of rodents attracted by waste food. Rodent proof bins are located local to all areas, and must be used to dispose of food and packaging waste.

## **12) School Visitors and Events**

### **12.1) External visitors to the school**

The school of Computer Science is responsible for the health and safety of all visitors whilst on the school premises. The member of staff who invited the visitor to the school is responsible for ensuring that one of two processes is followed:

For short term visitors (less than 5 working days) the visitor must be accompanied by a member of staff at all times. The member of staff is responsible for ensuring that school health and safety policy and procedures are followed at all times, including dealing with any accidents or incidents that occur and the safe evacuation of the visitor in the event of the fire alarm sounding.

Any visitor to the school who will be in the school for longer than 5 working days (whether continuous or as a number of shorter visits) must be registered as a visitor through the normal school process for visitors, and this will result in the school health and safety advisor being informed and the visitor being required to undertake an appropriate health and safety induction.

### **12.2) Non-Computer Science Students**

On occasion students from other university schools use the facilities available in the School of Computer Science.

Whilst on site these students will be afforded the same duty of care as other students, and will be asked to follow the same code of conduct, as outlined in the School Handbook. To ensure compliance all visiting students must undertake a site induction, which may take the form of an introductory talk held by the organiser or lecturer. Information regarding the location of emergency exits and first aid provision must be included as a minimum requirement.

### **12.3) Out of hours events**

From time to time out of hours events are held within the School of Computer Science.

To ensure the health and safety of staff, students and visitors during such activities a school document has been developed which identifies the procedure and time frame necessary to hold an out-of-hours event within the school. This document can be found by following the link. [https://wiki.cs.manchester.ac.uk/staff/index.php/Out\\_of\\_hours\\_document](https://wiki.cs.manchester.ac.uk/staff/index.php/Out_of_hours_document)

A fundamental part of allowing any out of hours activity to proceed is the development of a bespoke risk assessment.

The risk assessment must address:

What areas of the school will the event be held in?

Who will be in attendance?

Will any minors be attending?

What dates and times will the event take place?

What activities are involved?

Who will be responsible for the health and safety of the attendees?

Who needs to be made aware of the event?

Any other matters which the organiser or the School Health and Safety Advisor consider necessary or appropriate for the specific event.

Adequate control measures need to be documented on the risk assessment to ensure, as far as reasonably practical, the health and safety of all attendees. Emergency procedures must be in place and contact details of the organiser and responsible person need to be included within the body of the risk assessment. For further guidance please contact Tony McDonald, School Safety Advisor. [tony.mcdonald@manchester.ac.uk](mailto:tony.mcdonald@manchester.ac.uk)

### **12.4) Events involving significant numbers of visitors**

The organiser of the event must ensure that sufficient staff members are on hand to deal with any eventuality which may occur during the event, and must undertake a brief health and safety induction at the start of the event, identifying notices in the room(s), the nearest fire exits and describing the operation of the fire alarm system. The organiser will be

responsible for ensuring that rooms in use are promptly evacuated in the event of a fire alarm. For further information please contact the School Safety Advisor.

### 12.5) Event catering services

Should the services of a catering company be required for an event, it is the responsibility of the event organiser to ensure that:-

- any company used has been approved for the supply of food and beverages by the University.
- a safe and adequate area is provided for the provision and consumption of food and drink.
- a risk assessment has been carried out and consideration is given to things such as food allergies and special dietary requirements.
- all waste food and utensils are removed from the building as soon as practically possible. **No waste food will be left in the building exposed overnight.**

### 13) Staff and students in other university buildings

The fundamental principle of health & safety management in the University of Manchester is that the responsibility for health and safety lies with the line manager.

The responsibility for the health and safety of **all** computer science staff, including those based in buildings other than the Kilburn and IT buildings will ultimately remain with the Head of School for Computer Science.

Due to geographical constraints, when Computer Science staff are based in non-Computer Science buildings, the expectation is that their day-to-day management, including management of health and safety, will be delegated to the host school or department.

Where responsibility is delegated, this should be explicit, agreed, recorded, and evidence gathered in order to assure the delegating manager that their staff are working in a properly managed environment.

For students based in university buildings other than the Kilburn or IT buildings the supervisor of the student must ensure that a similar process is followed.

Further guidance is offered within the *University Health and Safety Arrangements – Section 18*, and can be found by following the link to the Safety Services website below:

[http://www.healthandsafety.manchester.ac.uk/topic\\_a-z/](http://www.healthandsafety.manchester.ac.uk/topic_a-z/)

## **14) Fieldwork and Placements**

‘Fieldwork’ means any organised activity involving students that takes place off-site, including but not limited to: visits to other organisations or facilities, conferences, meetings, placements, and internships (where these constitute a part of a course in any sense).

‘Placements’ are a period of vocational or academic experience, paid or unpaid where there is the transfer of direct supervision of a student to a third party and the placement is integral to the individual student’s course and the student is currently enrolled at the university during the period of the placement.

The school placement officer (Mabel Yau) is the link between the student and placement provider, and should be contacted in the first instance should any health and safety concerns arise during the placement. Mabel can be contacted via telephone number 0161 275 0141, or via email at: [mabel.yau@manchester.ac.uk](mailto:mabel.yau@manchester.ac.uk)

The Placement Provider is any third party who provides the placement. During the placement responsibility for the direct supervision of the student is transferred.

The placement provider must provide the same health and safety protection for the placement student as it will for all other employees of the company.

### **14.1) Students**

Any member of staff who organises any fieldwork or who supervises any student who is involved in fieldwork associated with their project must ensure that appropriate arrangements are in place to ensure the health and safety of the student(s) involved.

The placements of students by the school in industry or other work locations must be organised by, or in consultation with, the School Placement Officer (Mabel Yao) and must follow the guidelines identified by the UCEA Health and Safety Guidance for the Placement of HE Students available via the following link: -

<http://www.ucea.ac.uk/en/publications/index.cfm/HSplace>



This document covers relevant legal requirements, insurance issues, risk assessments and examples of good practice.

### **14.2) Staff**

On occasion it may be necessary for a member of staff to visit a student placement location. On such occasions the member of staff must adhere to the health and safety rules of the host site. Upon arriving at the host site a health and safety induction should be carried out by the placement provider and any known hazards be identified. Should any health and safety concerns be noted by the visiting staff member these concerns should be brought to the attention of the School Placement Officer or School Health and Safety Advisor at the earliest opportunity as these identified hazards, if not dealt with directly, could represent an ongoing risk to the placement student.

### **14.3) Guidance**

Any fieldwork organised or arranged by the School must follow the guidelines identified in the UCEA guidance on Health and Safety in Fieldwork which is available via the following link: -

<http://www.ucea.ac.uk/en/publications/index.cfm/guidance-on-health-and-safety-in-fieldwork>

This document covers issues such as roles and responsibilities, planning, risk assessments, emergency arrangements and insurance issues. As the type of fieldwork undertaken can vary significantly, different requirements are needed. As a minimum all field work activities require a risk assessment to be carried out by the person undertaking the work and approved by the supervisor responsible. The School Health and Safety Advisor is available to assist in the production of the risk assessment. Please contact [tony.mcdonald@manchester.ac.uk](mailto:tony.mcdonald@manchester.ac.uk) for guidance.

## **15) Display Screen Equipment (DSE)**

The school is required to identify all staff users of computer equipment / DSE and carry out an assessment of their equipment and workstations. All staff users will be given appropriate information, instruction and training to ensure that they set up their workstation correctly. To ensure that these requirements are met all school staff using computer equipment as part of their daily work are required to complete a self-assessment questionnaire which should be

returned to the School Health and Safety Advisor upon completion. These should be reviewed on a regular basis or when circumstances change, for example moving office, new equipment is provided or the staff member experiences musculoskeletal pain.

Should you require a DSE self-assessment questionnaire please contact the School Health and Safety Advisor, Tony McDonald, for guidance. [tony.mcdonald@manchester.ac.uk](mailto:tony.mcdonald@manchester.ac.uk)

The school's DSE assessors are the School Health and Safety Advisor (Tony McDonald) and the School Environment Technician (Frank Pickard)

Where assessments identify medical issues or the need for eye tests, a referral can be made to Occupational Health directly by the staff member concerned or via the Health and Safety Advisor or line manager.

## 16) Electrical Equipment

Any electrical equipment brought into the school for use in offices, laboratories or workshops must be suitable for the intended purpose and meet UK requirements for safety and display the **CE** universal quality standard mark. The School Health and Safety Advisor must be informed if any electrical equipment is brought into the school other than via the normal purchasing system. For the school to comply with health and safety legislation it is essential for all portable appliances, including those built at The University of Manchester, to be checked and tested on a regular basis. The school carries out Portable Appliance Testing in accordance with university guidelines and maintains a database of all such equipment. Checks and tests are carried out at regular intervals. High risk portable appliances (Heaters, power supplies, electric drills, kettles, etc) are checked and tested annually. Lower risk items like computer workstations, which are classed as semi-permanent fixtures, are checked and tested every four (4) years.

All portable appliances, including separate mains cables will be clearly labelled upon completion of the test. A recommended retest date will be indicated on the label

**Please ensure that ALL heaters and high load non-essential appliances within your working area are switched off before you leave the building**

## 17) Manual handling and lifting

Manual handling operations may cause many types of injury, including to the spine (“slipped disc”), muscle strain and sprain, stretching and tearing of tendons, hernia, cuts, crush injuries and fractures. The risk of injury caused by manual handling can be reduced significantly by adopting correct handling procedures.

The Manual Handling Operation Regulations provide a clear hierarchy of measures to be considered prior to carrying out the operation.

- 1. Avoid** Manual handling must be avoided, so far as is reasonably practicable.
- 2. Assess** If the task is unavoidable, then the task must be assessed to find the easiest method to adopt.
- 3. Reduce** The potential risks of injury from manual handling must be reduced so far as is reasonably practicable by use of equipment.

Manual handling activities can only be undertaken by members of staff or students who have been trained in the correct techniques and practices. For all activities involving manual handling a risk assessment must be undertaken which considers the task, the individual, the environment and the load before work commences to determine how it should be safely carried out.

Further information on manual handling is available from the HSE website via the following link: -

<http://www.hse.gov.uk/msd/manualhandling.htm>

### 17.1) Working at Height

Staff needing to use access equipment in order to carry out part of their duties must attend an in house working at height course run by STDU (Staff Training Development Unit). Risk assessments are required for any task involving work at height. The erection of scaffold towers must only be undertaken by trained staff.

All access equipment is subject to regular inspections including before first use, following any alteration in structure or following any adverse event such as being struck by any moving object.

Information relating to working at height is available via the following link: -

<http://www.hse.gov.uk/falls/index.htm>

## **17.2) Lifting equipment**

All School lifting equipment (as defined by Lifting Operations and Lifting Equipment Regulations) is subject to regular inspections by University Insurers. Any faults with lifting equipment should be reported immediately to technical staff and equipment taken out of use until the problem is resolved.

Any lifting equipment that has not been inspected cannot be used.

Any new equipment brought into the school should be registered with the School Health and Safety Advisor and inspected before initial use.

## **18) Smoking**

The University of Manchester forbids smoking and the use of electronic cigarettes in University buildings or vehicles and within a 5 metre radius of all building entrances and exits.

As a courtesy to building users smokers should also avoid standing by open windows where smoke may drift into school premises.

## **19) Personal Protective Equipment**

The use of personal protective equipment should always be the last means of protection against harm. PPE is designed to protect the wearer ONLY when all other means of protection have failed.

If it is provided for your protection it MUST be worn.

The use of any personal protective equipment as a means of control should be identified by the risk assessment and must be suitable for the work being carried out. The quality and standard of protective equipment required should be specified.

All personal protective equipment required to carry out the task must be provided before work commences and must be used in accordance with manufacturer's instructions. Guidance on selecting the correct personal protective equipment is available at: - <http://www.healthandsafety.manchester.ac.uk/toolkits/ppe/>

## **20) Workshops and Laboratory safety rules**

All staff and students are required to actively review health and safety in an ongoing manner in all of the school buildings, especially in workshops and laboratories. It should never be assumed that the existence of a manager or School Health and Safety Advisor makes an environment safe. Any perceived risks or hazards must be reported immediately to the manager of the space and procedures and/or risk assessments should be modified immediately if required.

Each workshop or laboratory in the school has an identified member of staff responsible for the space. This member of staff will actively seek to improve health and safety within the space and will monitor the completion of risk assessments.

### **20.1) Use of work and laboratory equipment**

The use of any work and laboratory equipment is limited to those who have received appropriate training, are competent to do so and have been authorised by the person responsible for the area.

### **20.2) Risk Assessments**

Risk assessments and local rules, where appropriate, must be in place before any work commences. All new procedures, experiments and equipment will require a risk assessment. Risk assessment documents should be:

Kept in the vicinity of the work.

Read and fully understood prior to the task being carried out, and

Used as a point of reference during the task.

Necessary amendments to the risk assessment should be discussed with the Supervisor and implemented as necessary before any work is carried out.

### 20.3) Training

Any relevant training, including review of the risk assessment, must be provided before any person commences work for the first time on any process or equipment. Training required for the safe use of equipment should be identified by the risk assessment as a control measure. Training should be provided by the named responsible person prior to any work taking place. Supervision should be given until the required level of competency has been reached by the operator

### 20.4) Machinery Safety Features

All equipment incorporating safety features necessary for safe operation should be inspected prior to use by the area supervisor and on a regular basis to ensure they are functioning as intended. Safety features include interlocks, guards and emergency stop devices. If safety equipment is not operating as intended the work should not be carried out and the issue reported via the appropriate channel.

Any equipment brought into the school **MUST** meet current UK safety standards and display the **CE** universal quality standard mark.

### 20.5) Operation of Equipment

All operators of equipment must be adequately trained and regarded as being competent before being left to work unsupervised. Operating instructions and safety rules for equipment should be prepared by the person responsible for the equipment and these should be followed at all times.

### 20.6) Fume cupboards/extraction systems

All local exhaust ventilation and fume cupboards (fume hoods etc) must undergo a thorough examination and test at least every 14 months. Information on the correct use and operation of fume cupboards is available at: -

<http://www.hse.gov.uk/lev/index.htm>

Measurements of air flow across the face of fume cupboards are taken and recorded by the relevant lab technician at regular intervals. The Estates Department is responsible for keeping a central register of fume extraction equipment and carrying out regular checks on

the fans and ductwork. Local members of staff are responsible for ensuring fume cupboards are in correct working order. Should a malfunction arise with any piece of extraction equipment, the task being carried out within the area will be halted and the problem reported for repair via the environs e-mail [environs@cs.man.ac.uk](mailto:environs@cs.man.ac.uk). An incident report form should also be completed to identify which substances were in use when the malfunction arose.

### **20.7) Gas cylinders**

The movement and attaching of gas cylinders is to be carried out by trained staff only. Gas cylinder handling training courses are available in house via the *Staff Training Development Unit* (STDU).

All gas cylinders are to be secured at all other times and fitted with correct regulators. Any new types of gas cylinders brought into school buildings should be brought to the attention of the School Health and Safety Advisor to enable necessary checks on proposed use to be carried out and potential risks to health be identified.

### **20.8) Compressed air**

Connections to compressed air supplies must only be made by competent technical staff. Eye protection must be worn at all times when using compressed air, irrespective of the task.

### **20.9) Liquid Nitrogen**

Liquid nitrogen must be handled with care as contact with the skin may lead to burns and frostbite and excessive concentration of nitrogen in the atmosphere may lead to asphyxiation. Contact with surfaces cooled to liquid nitrogen temperatures must also be avoided for the same reasons. Areas in which liquid nitrogen is to be used must be risk assessed and appropriate control measures put in place prior to first use. A specific formulae is used to ensure adequate ventilation available within the area should leakage occur. Please refer to the following document for further information.

[http://www.healthandsafety.manchester.ac.uk/toolkits/chemicals/specific\\_chemical\\_hazards/](http://www.healthandsafety.manchester.ac.uk/toolkits/chemicals/specific_chemical_hazards/)

Oxygen depletion monitoring systems and alarms may be required in some locations. Liquid nitrogen should only be contained in purpose-designed containers. When decanting liquid nitrogen insulating gloves must be worn as well as a full-face mask. When touching surfaces cooled by liquid nitrogen insulating gloves must be worn at all times.

All users of liquid nitrogen must attend the university cryogenic gas users' safety course before use. Details of available training courses can be found by contacting the Staff Training Development Unit via the following link:-

<http://www.staffnet.manchester.ac.uk/employment/training/>

### **20.10) Pressure Systems**

Pressure systems are subject to regular inspections by University Insurers. Any faults with pressure equipment should be reported immediately to technical staff and equipment taken out of use until the problem is resolved.

Any new systems brought into the school should be registered with the School Health and Safety Advisor.

### **20.11) Lasers**

The School Laser Safety Advisor is Dr Paul W Nutter.

The use of school laser facilities is restricted to authorised users having attended and passed the University Laser Safety Training course (HS42) run via the STDU.

The School Laser Safety Officer MUST inspect any new laser system or setup before any experimental work takes place.

All laser work must have a risk assessment produced using the approved university format available via the following link: -

<http://www.campus.manchester.ac.uk/healthandsafety/laser.htm>

### **20.13) Radiation Sources**

Any activity involving radiation sources, including ionising and non-ionising, must comply with the University rules and regulations as defined by the University Radiation Unit. The relevant document can be found by accessing the link to the University Safety Services Department below

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

All personnel involved in the use of radiation sources must attend the appropriate university training course before being allowed to commence work.



## 20.14) Long Running Experiments

Equipment used in these experiments must be flame-free and incorporate fail-safe devices. Water supplies must be well-secured to guard against increases in pressure and potential flooding. Each laboratory should display a notice giving information on whom to contact in an emergency. Any equipment which is likely to be left running continuously must be identified with an overnight form in the vicinity of the equipment and a copy kept by the laboratory supervisor.

An overnight form **MUST** be filled in for ALL experiments that are to be left unattended outside normal working hours. A copy of the documentation should be placed near the experiment and a further copy handed to the area supervisor. Both the researcher and the supervisor **MUST** provide a contact telephone number to House Services/portering Staff for use in case an emergency situation arises. **Failure to fill in an overnight form could result in your experiment or equipment being turned off.**

## 21) Chemical/Biological Safety

Any chemical(s) brought into the school for experimental, practical or general use must be controlled and a risk assessment carried out to ensure that the chemical is used, stored and disposed of safely. University guidance on chemical safety is available at: -

<http://www.healthandsafety.manchester.ac.uk/toolkits/chemicals/>

HSE guidance is available at: -

<http://www.hse.gov.uk/chemicals/index.htm>

### 21.1) Procedure for Use of chemicals

For any activity involving the use of chemicals within the School of Computer Science the following procedure must be followed: -

The person responsible for the work must identify what the chemicals are to be used for and whether there are any hazardous properties associated with their use. (Always check to see if there is a less hazardous chemical available and suitable for the task being carried out).

The responsible person must assess the chemical(s) properties and consider the following:-

How often will the substance be used, and in what quantities?

Where will the work take place?

Is the working area suitable for the task being undertaken?

Is the person undertaking the task competent to carry out the work unaided?

Who else could be affected by any adverse effects of the substance such as other lab users, cleaners and estates staff?

Is any health surveillance or occupational health support required prior to or during the planned task?

Where will the substance be stored whilst not being used?

If necessary, is adequate signage visible within the working area?

How will the substance be disposed of on completion of the task and what are the associated costs?

Where chemical reactions will be carried out a more detailed analysis is required and University COSHH Form should be used which is available via the above link. Should you require any further advice or guidance on chemical safety please contact the School Health and Safety Advisor, Experimental Officers or your Academic Supervisor.

Any control measures identified by the risk assessment, including the purchase of any protective equipment and arrangements for storage, **MUST** be in place before work commences. If specialist training or first aid provision is recommended this must be undertaken prior to commencing the activity. This includes emergency arrangements for spillages or accidental release.

Monitor arrangements and review risk assessment as work progresses to ensure control measures are adequate and working correctly, and to see if further control measures are needed.

On completion of work dispose of chemicals in accordance with University waste management requirements.

## 21.2) Biological Hazards

No biological work can be undertaken within the school without prior discussion with the School Health and Safety Advisor and approval of Faculty Bio Safety Committee. University bio safety arrangements must be followed at all times. Details of university arrangements

regarding the control of biological hazards can be found by following link to the Safety Services website.

## **22) Safety Services**

Further guidance on individual matters of health and safety, including up to date university policy and arrangements section can be found by accessing the link to the University Safety Services Department below

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

Here you will find university guidance notes on all aspects of health and safety relating directly to the University of Manchester, as well as Accident/Near Miss Report forms, Risk Assessment forms and Induction Health and Safety Checklists. Please refer to the *Topic A-Z* section on the front page of the web site to locate the document you wish to refer to.

Your assistance in keeping the School of Computer Science a safe and healthy place to work and study in is much appreciated.