Health and Safety at Bath

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We all have obligations under H&S

Duty of Care

Governed by both Civil Law & Criminal Law

Breach is an offence and may have significant and & serious consequences

H&S policy

University:

- Statement of Intent
- Safety, Health and Employee Wellbeing team (SHEW)
- Safety committee (legal requirement)
- Safety manual
- University home page

Department:

- Safety committee
- Regular audits and inspections
- Safety handbook
- Departmental home page

Content

- Emergency evacuation/invacuation
- First aid
- Incident reporting
- Workshops
- Training
- PPE
- Lone working
- **Risk assessments**
- Buildings & access
- Personal electrical appliances - electrical Safety testing (PAT)

Emergency evacuation

On hearing the fire alarm:

- Leave the building in an orderly manner
- Fire escape routes are signposted (green background with white writing)
- **Do not use the lift**
- Go to the appropriate **assembly point** for your building.
- Stairwells can be used as refuges for disabled people
- Do not re-enter the building until you have been told it is safe to do so.

Fire Assembly Point (FAP) Key

FAP 1	6 East 8 East STV The Edge
FAP 2	STV
FAP 3	STV
FAP 4	5 South Central Stores
FAP 5	2 East 4 East 4 East South Norwood House Founders Hall Chaplaincy Library 1 West 3 West 4 West 2 West University Hall 1 East
FAP 6	1 South 2 South 3 South 4 South 4 South Annexe 3 South Annexe
FAP7	8 West Wessex House 6 West 6 West South
FAP 8	5 West 7 West 9 West 10 West
FAP 9	Polden Court Quarry Mendip
FAP10	Conygre West Accommodation Centre
FAP 11	Quantock Cotswold
FAP 12	Derhill Wolfson Brendon Court 3 West North 1 West North
FAP 13	3 East Estates
FAP 14	Chancellors Building Marlborough Court Solsbury Court The Quads, Blocks A and B Bale Haus The Lime Tree
FAP 15	Eastwood Accommodation
FAP 16	Eastwood Accommodation
FAP 17	Eastwood Accommodation
FAP 18	Woodland Court Eastwood Accommodation
FAP 19	The Quads, Blocks C, D and E East Building

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PEEP

- Personal Emergency Evacuation Plan
- Must be carried out for anyone with an issue that may affect ability to evacuate

Emergency invacuation

- A warbling siren will be sounded for 30 seconds

- If you are in the open air, proceed to the nearest building and go inside
- Take immediate cover away from windows and doors
- If possible, ensure access to a computer screen running active directory for further information

- Only leave the building when the ‘all clear siren’ is sounded

First Aid

- Normal working hours:
  - First aiders listed on notice boards around department and Department Safety Handbook

- All security staff are first aid trained
- Security **emergency** phone numbers:
  - 666 (internal phones) 01225 383999 (mobile)

Incident reporting

Incidents involve:

- Ill health (work related)
- Injury/accident (work related)
- Dangerous occurrence/near miss

'Report an incident or accident' available on University web pages or contact your **Department Safety Coordinator**

Incidents must be reported to **Department Safety Coordinator** or **SHEW**

Training

- Never carry out any activity/operation you have not been trained to do.

PPE

- Personal Protective Equipment
- Will be provided by University to all staff and students as required

Lone working

Undergraduates are not permitted to work in the laboratories or workshops unsupervised at any time.

Staff and graduates are not permitted to work out of hours without a suitable risk assessment signed off by the Department Safety Coordinator.

Risk assessments

- Legal duty for all activities – must be approved by your supervisor and department safety coordinator before any work can commence.

- Risk assessments must be read before you commence an activity

How to carry out a risk assessment

- **Identify** hazards (something that may cause harm)
  - Physical, chemical, biological
- **Decide** who might be harmed
- **Control measures**
  - prioritise collective over individual measures
- **Evaluate** risk
  - how severe/how likely? Do you need further controls in place?

RISK ASSESSMENT TEMPLATE

Risk Matrix and Rating Guidance:

The assessor shall assign values for the hazard severity **(a)** and likelihood of occurrence **(b)** (taking into account the frequency and duration of exposure) on a scale of 1 to 5, then multiply them together to give the rating band:

Hazard Severity (a)		Likelihood of Occurrence (b)	
1 – Trivial	(e.g. discomfort, slight bruising, self-help recovery)	**1 – Remote**	(almost never)
2 – Minor	(e.g. small cut, abrasion, basic first aid need)	**2 – Unlikely**	(occurs rarely)
3 – Moderate	(e.g. strain, sprain, incapacitation > 3 days)	**3 – Possible**	(could occur, but uncommon)
4 – Serious	(e.g. fracture, hospitalisation >24 hrs, incapacitation >4 weeks)	**4 – Likely**	(recurrent but not frequent)
5 – Fatal	(single or multiple)	**5 – Very likely**	(occurs frequently)

Risk Assessment Matrix

(B)↓ (A)→	Trivial	Minor	Moderate	Serious	Fatal
Remote	1	2	3	4	5
Unlikely	2	4	6	8	10
Possible	3	6	9	12	15
Likely	4	8	12	16	20
Very likely	5	10	15	20	25

Risk Rating Bands (A x B)

LOW RISK (1 – 8)	MEDIUM RISK (9 - 12)	HIGH RISK (15 - 25)
Continue, but review periodically to ensure controls remain effective	Continue, but implement additional reasonably practicable controls where possible and monitor regularly	STOP THE ACTIVITY Identify new controls. Activity must not proceed until risks are reduced to a low or medium level

Risk Assessment Record

Risk Assessment Title:	Date Produced:	Review Date:
Overview/Description of Activity:	Duration/Frequency of Activity:	
Location of Activity:	Generic or Specific Assessment:	

#	Hazard(s) identified	Who might be affected and how	Existing controls & measures	Severity (a)	Likelihood (b)	Risk Rating (a x b)	Additional control/action required
1			•				•
2			•				•
3			•				•
4			•				•
5			•				•
6			•				•

Risk Assessment Action Plan

Hazard No.	Action to be taken	By whom	Target date	Review date	Outcome at review date
Responsible manager's signature: Print name: Date:					Responsible manager's signature: Print name: Date

Risk Assessment Record

Risk Assessment Title: Woodwork and timber engineering laboratory	**Date Produced:** 15/08/2017	**Review Date:** August 2018
Overview/Description of Activity: Use of timber workshop by technicians, other staff, postgraduates and undergraduates for manufacture and model making using timber and other materials.	**Duration/Frequency of Activity**: Daily	
Location of Activity: 4ES1.02	**Generic or Specific Assessment:** Generic risk assessment	

#	Hazard(s) identified	Who might be affected and how	Existing controls & measures	Severity (a)	Likelihood (b)	Risk Rating (a x b)	Additional control/action required
1	Trip/slip hazards	Technicians, staff, postgraduates, undergraduates, visitors	• Floors to be kept clean and clear at all times to reduce trip hazards. All workshop users are responsible for keeping the workshop safe by clearing up after themselves. • Personal belongings should be stored off the floor in the unit provided.	2	2	4	
2	Manual handling	Technicians, staff, postgraduates, undergraduates	• Large and heavy objects should be moved using the appropriate lifting equipment and/or following the correct manual handling procedures • Correct PPE to be worn as appropriate • See manual handling risk assessment for further guidance	3	2	6	
3	Use of Harmful Substances/Chemicals	Technicians, staff, postgraduates, undergraduates	• Before commencing any work with chemicals, users must familiarise themselves with the individual hazards associated with these by looking at the relevant COSHH assessment and MSDS. • Wear appropriate PPE	3	2	6	
4	Dust inhalation	Technicians, staff, postgraduates, undergraduates	• Extraction systems should always be used with machinery. Most equipment has automatic starters to switch this on. • Air filters in workshop should be switched on during and after machine use. • Hand power tools should be connected to vacuum extractors where possible. • Work that produces dust that can't be contained by extraction must be done in a well-ventilated area away from other personnel	4	1	4	

Chemical Hazard Risk Assessment (COSHH)

COSHH Assessment Template

Academic/Supervisor/Researcher Name:	
Academic/Supervisor/Researcher Signature:	
Laboratory:	Date:

Minimum Laboratory Standards and working practices, such as PPE of fastened lab coat and safety glasses (BSEN 166 F) must be adhered to.	 ☐ ☐

Experiment:
Proposed Procedure/Reaction Scheme:

Reaction Volume	<5mL/NMR	<25ML	<100mL	<500mL	>500mL

Substances to be used:

Substance/Compound (include reagents, solvents and product)	**Stock Quantity** (g, mg, ml, etc.)	**Physical Form** (gas/es, liquid, vapour, etc.)	**Hazard** (taken from label/MSDS)	**Exposure Route** (inhalation, skin/eye contact, ingestion, etc.)
Any **unknown** compound should be assumed to be **Toxic** and treated as such.				

Risk Implications:

Can any of the substances listed above be substituted with a less hazardous one?	Y/N
Are any of the substances used on the dangerous chemicals list?	Y/N
Is there the possibility of a fire/explosion from any of the substances used/formed? If Yes, include control measures in Emergency procedures	Y/N

Is there a likelihood of copious amounts of gas being released or thermal runaway? Is Yes, include control measures in Emergency procedures	Y/N

Control Measures to be used:

Containment: *(tick those that apply)*	*Additional **Personal Protective Equipment** (PPE): (mark those that apply)*
Glovebox ☐ Fume Cupboard ☐ Class 2 microbiological cabinet ☐ Local Exhaust Ventilation ☐ Other (specify) ☐	 ☐ ☐ ☐ ☐ ☐  ☐ ☐ Type of glove (EN374): thin nitrile/purple nitrile Other (specify):

Waste Disposal:	*Safe disposal of waste, avoiding contamination or injury to persons or to the environment. State method of disposal, e.g., Flammable solvent waste bottle, laboratory bin, special waste, etc.*
Do any of the compounds used or produced require special disposal methods?	

Emergency Procedures:	*Identify action to be taken in the event of an incident. Give realistic spill clean-up procedures. Report all incidents.*
What should happen in case of exposure, spillage or if equipment fails?	
Making the Reaction Safe:	*Provide details on how to make your experiment safe in case of emergency.*

Effectiveness of Control Measures:

Is the MSDS for the chemicals used available? Has suitable instruction and training been provided?	Y/N
Is Supervision of the person/s carrying out this task required?	Y/N
Is Exposure Monitoring required, e.g. workplace exposure limit likely to be exceeded?	Y/N
Is Health Surveillance required?	Y/N

Sign on Sheet to acknowledge understanding of Risk Assessment:

Names and Signatures of other workers/researchers/PG/UG students

All others undertaking the process described/using the hazardous substances must signify that they understand the hazards and risks.

Print name:	Signature:	Date:

Nanomaterials

- Defined as where particles have one or more external dimensions in the size range 1nm – 100nm

- Must register work with the USHE and do comprehensive risk & COSHH assessments before work can commence

Lasers

- Use of lasers must be risk assessed before work can commence – include the class of lasers intended to be used.

- More information can be found on the University web pages

Buildings

Alterations to the fabric of the building are not permitted under any circumstances. This can interfere with building services (e.g. Water, gas, network, electricity supplies, etc.) Or expose potentially hazardous materials. Contact your technical services manager if any such changes are required.

Building access

- Buildings 2 East, 4 East, 4 East South, 6 East, 8 East & certain rooms/laboratories in the departments are card access controlled
- Library cards are programmed into the system and are used as access cards to the department
- For E & EEng – Dave Chapman, Senior Technician. 2 East 2.17a
- For Mech Eng – Dave Wood 4 East 1.28
- For ACE – 4ES, 6 East and Computer Suite in 5 East Sports Hall. Cards are activated at the security desk in the foyer of the library
- Your card is your personal responsibility, and should not be used by others. Abuse of the system may result in you having your access to departmental facilities reduced or withdrawn

Electrical appliances

- Permitted personal electrical appliances – computers, printers, oil filled radiators, etc.
- Personal electrical appliances that are not permitted – fan heaters, toasters, etc.
- Electrical safety testing

Smoking

- University is a smoke-free campus

- Smoking is not allowed:
  - in any building
  - the Parade and Underdeck
  - all outside covered areas
  - all student residences
  - all other areas on University property that are within 4 metres of a building


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