

MANAGEMENT OF HEALTH AND SAFETY AT WORK REGULATIONS 1999

GENERAL RISK ASSESSMENT - FORM RA2

DEPARTMENT/SCHOOL/UNIT	Risk Assessment	REF NO.	RA 96
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TASK/OPERATION BEING ASSESSED	LABORATORY TECHNICIAN DUTIES
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PURPOSE/METHOD OF WORK

NOTE: If the university does not employ a laboratory technician then the following duties must be carried out by a suitably qualified and responsible person.

To prepare for a science lesson according to the curriculum, using basic materials, equipment and chemicals. A lesson plan must be prepared prior to the preparation of any materials or substances.

To clear equipment, substances, waste products etc from the laboratory after a lesson has taken place.

- Ensure that adequate; materials, work equipment, chemicals and Personal Protective Equipment (PPE) are available in accordance with the lesson plan.
- Ensure that appropriate fire precautions/extinguishers are in place.
- Ensure that all chemicals prepared for within the lesson have HAZCARDS available
- Ensure that assessments of each substance are carried out prior to use
- Ensure that the teacher is aware of the assessment and the hazards involved
- Ensure that all equipment used is set up in accordance with manufacturers guidelines.
- Ensure that in the case of a practical session only sufficient material is available to each pupil to enable the objective to be achieved.
- Ensure that all waste materials are disposed of in accordance with the relevant guidance
- Ensure that waste material is stored in appropriate containers prior to disposal.

It is not possible to include all hazards and control measures in a single model risk assessment. Certain common hazards can be dealt with such as electricity and high-pressure apparatus, however the range of other hazards is too great. Risk assessments therefore need to be completed on a more specific basis i.e. relevant to the particular class or course. Risk assessments should therefore be included in schemes of work, and lesson plans. All hazards associated with a particular lesson should be identified on the lesson plan risk assessment, and information provided as to how the risks may be reduced to all concerned.

SPECIFIC LEGISLATIVE REQUIREMENTS
Health & Safety at Work etc. Act Management of Health & Safety at Work Regulations Control of Substances Hazardous to Health Regulations Electricity at Work Regulations Personal protective Equipment at Work Regulations Provision and Use of Work Equipment Regulations Gas Safety (Installation and Use) Regulations Pressure Systems and Transportable Gas Containers Regulations.

LEVEL OF SKILL/TRAINING REQUIRED
Competent Technician with relevant science qualification General health and safety awareness Awareness of CLEAPPS guidance and the use of HAZCARDS

CHEMICALS/MATERIALS INVOLVED	HSC NO.	ASSESSMENT DATE

SPECIFIC WORK EQUIPMENT PROVIDED
A wide variety of equipment will be used dependant upon the particular lesson being prepared for. See the lesson plan for detail.

MAIN HAZARDS IDENTIFIED	WHO WILL BE AFFECTED	CONTROL MEASURES TO REDUCE THE RISK
Hot liquids or surfaces	Students/teachers/technicians	<p>Ensure that adequate caution is taken when clearing away substances and equipment.</p> <p>Ensure when clearing away articles such as hot beakers etc care is taken when handling, with protective gloves/clothing being worn.</p>
Pressure systems	Students/teachers/technicians	<p>Pressure vessels such as autoclaves must only be used by competent members of staff and always in strict accordance with manufacturers guidelines.</p> <p>A competent person must inspect pressure vessels on a regular basis. Particular attention should be paid to signs of damage to the vessel or deterioration of the seal.</p> <p>A safety data sheet must be available for all compressed gas products. Compressed gas cylinders must only be used in accordance with the information contained in the safety data sheet.</p> <p>Only competent laboratory staff must handle gas cylinders. Cylinder regulators should be inspected annually by a competent engineer.</p>
Electricity	Students/teachers/technicians	<p>Ensure that all electrical equipment is tested annually to ensure electrical safety.</p> <p>Ensure the implementation of adequate reporting procedures with regard to potential electrical hazards i.e. faulty wiring. Members of staff should regularly check cables, plugs, sockets etc visually for any signs of any defects and report any problems promptly. Arrangements should be made to ensure that equipment is repaired, or disposed of as necessary.</p> <p>Ensure that any member of staff without the relevant competencies does not interfere with, or attempt to make repairs to electrical equipment.</p> <p>Where practical electrical equipment should be low voltage (110v or battery operated). Bench power supplies must be protected with residual current devices (RCD). RCD's must be tested on a regular basis.</p> <p>Do not use any electrical equipment close to a sink.</p>
Slips/trips	Students/teachers/technicians	<p>Handle beakers of liquids with great care. Do not overfill.</p> <p>Clear up any spillage immediately.</p> <p>Ensure walkways in classrooms and preparation rooms are kept clear from obstructions.</p> <p>Ensure that all materials and equipment are stored away safely.</p>
Gas	Students/teachers/technicians	<p>Gas appliances must be inspected annually by a CORGI registered engineer.</p> <p>Laboratory gas supplies must be provided with cut-off valves at easily accessible places so that the supply can be isolated in the event of an emergency.</p> <p>Gas supplies must be isolated at the end of each lesson so that unauthorised people cannot turn them on.</p>
Manual Handling	Students/teachers/technicians	<p>Ensure that equipment, substances, glassware etc. are accessed and moved by someone who is trained in manual handling techniques.</p> <p>Ensure that heavy or bulky items are stored in easily accessible places. Also ensure items to be stored are split into smaller loads for easier access to loads. If heavy or bulky items need to be accessed from height, ensure that the correct equipment is used.</p> <p>Ensure that mechanical devices are used to transport equipment wherever possible- i.e. trolleys, sack trucks etc.</p>
Radioactive Sources	Students/teachers/technicians	<p>Only sealed radioactive sources may be purchased and used. Approval must be obtained prior to the purchase of any radioactive source.</p> <p>Each university should appoint a Radiation Protection Supervisor (RPS) who should ensure that all appropriate procedures regarding storage and use of radioactive sources are</p>

Living organisms	Students/teachers/technicians	<p>in place and complied with.</p> <p>More detailed advice can be sought from a Radiation Protection Advisor.</p> <p>Storage facilities must be appropriate to the sources being stored, all sources must be kept locked and clearly labelled.</p> <p>More specific guidance on production, storage, use and disposal of radioactive sources must be consulted before any work; experiments or demonstrations are undertaken.</p> <p>A specific risk assessment must be undertaken in line with the COSHH Regulations where any living organism presents a hazard to health.</p> <p>Good personal hygiene must be followed before, during and after handling living organisms.</p> <p>Various animals are suitable for keeping and studying, providing that they are looked after properly. Consult with more detailed guidance to check which animals are suitable and the precautions that should be adopted.</p>
Cuts from broken glassware	Students/teachers/technicians	<p>Ensure that broken glassware is cleaned up immediately using the appropriate tools. Broken glassware should be placed in a suitable (impermeable) marked container. Broken glassware should be wrapped in newspaper and disposed of. Hand protection should be used when handling broken glass.</p> <p>All glass vessels should be checked for cracks and damage prior to use.</p> <p>Never allow damaged glassware to be used.</p> <p>Use glassware only for the purpose in which it was designed. When cleaning out glassware, inspect carefully beforehand.</p>
Chemical hazardous substance	Students/teachers/technicians	<p>Ensure that only minimum quantities of substances are stored on-site and minimum quantity provided for the lesson.</p> <p>Ensure that all chemicals are stored appropriately i.e. separating of acids, flammables, oxidising agents etc. Flammable substances must be stored separately in a specifically designed storage area. The storage area must be fire resistant, be well ventilated and contain no source of ignition. Sources of ignition must be removed prior to the use of flammable substances.</p> <p>Ensure that all chemicals are handled, stored prepared and disposed of in the manner prescribed by the safety data sheets, or CLEAPS HAZCARDS. Substances must not be stored in the laboratory. They must be stored in locked cupboards in the preparation room. Preparation rooms must be locked when unattended by members of staff.</p> <p>Ensure that the appropriate PPE is available and used when handling substances.</p>

MANUAL HANDLING RISK

Has a manual handling risk been identified?	Yes
Is the risk considered to be	Medium
Is a further detailed assessment required?	Yes
If the answer to the above question is YES a separate manual handling assessment will be required to fulfil the requirements of the Manual Handling Operations Regulations 1992.	

PERSONAL PROTECTIVE EQUIPMENT REQUIRED

Eyewear (appropriate for the hazard)	
Gloves (appropriate for the hazard)	
Lab coats	
Appropriate footwear	
Is training and instruction required	NO
Is there need for special accommodation	NO
Is there need for test/examination	NO
Is all P. P. E. compatible	YES

FREQUENCY OF MONITORING

N/A	3 Months	6 Months	1 Year	> 1 Year

ASSESSMENT REVIEW PERIOD

< 1 Year	2 Years	3 Years	4 Years	> 4 Years

Signed

Post/Title

Date