

## LABORATORY AND WORKSHOP SAFETY INSPECTION CHECKLIST

This checklist covers the health and safety (H&S) procedures expected in laboratories, workshops and chemical stores. The checklist should be completed at least every six months.

Faculty/Unit	
Department/School/Branch	
Building/Floor/Room(s)	
Date	
Name of person(s) completing the checklist	

**Work through these questions** - if the answer is 'yes' or 'N/A', then no further action is required.

If the answer is 'no', then please note what you intend to do to fix the problem in the 'Action to be taken' section on the last page of this checklist.

1. Risk management, information and signage		Yes	No	N/A	If the answer is 'no' - then
a)	Is there an up to date Hazard Information Poster posted on or adjacent to the door?				Create a Hazard Information Poster online at <a href="http://www.safetyandwellbeing.uts.edu.au/environment/lab/posters/">www.safetyandwellbeing.uts.edu.au/environment/lab/posters/</a>
b)	Is special signage for radiation, biological or other hazards prominently posted?				
c)	Is H&S signage specific to the work area displayed?				
d)	Is the H&S laboratory manual available and up to date?				
e)	Are risk assessments conducted/reviewed <u>annually</u> for all hazardous activities in the facility?				
f)	Are risk assessment records easily accessible?				
g)	Are staff and students made aware of risk assessments?				
h)	Are risk assessments included in laboratory notes for each subject?				
2. H&S management, information, consultation and training		Yes	No	N/A	If the answer is 'no' - then
a)	Has action been taken to reduce the risk of dangerous activities and tasks?				Contact the Safety & Wellbeing Branch on ext 1063 or 1326 for advice.
b)	Do staff know to report hazards, accidents and near misses to their supervisor?				E-mail a reminder to staff or include in the agenda for your next staff meeting.
c)	Is H&S information included in staff (and student) orientation?				
d)	Are records of the staff/students who have received orientation kept?				
e)	Are staff consulted on H&S issues as part of regular meetings, communications and/or committees?				Talk to staff about H&S risks and issues and how they might be resolved.
f)	Are staff encouraged to attend H&S related training?				For training course information, check the Staff Notices ( <a href="http://www.uts.edu.au/staff/notices/">www.uts.edu.au/staff/notices/</a> ).
g)	Are H&S responsibilities noted in staff position descriptions?				See generic UTS responsibilities for health & safety at <a href="http://www.safetyandwellbeing.uts.edu.au/responsibilities/">www.safetyandwellbeing.uts.edu.au/responsibilities/</a> .
3. Emergencies		Yes	No	N/A	If the answer is 'no' - then
a)	Are emergency evacuation procedures posted in the main work areas?				Contact the Essential Services Compliance Manager on ext 4689.
b)	Is the emergency telephone number '6' clearly displayed (e.g. stickers on phones, coasters, phone lists, etc.)?				
c)	Are emergency wardens trained and available in an emergency?				
d)	Are appropriate fire extinguishers easily accessible and signposted (e.g. carbon dioxide for labs)?				Contact Building Services on ext 7477 or 7476 or send a maintenance request via the FMU website at <a href="http://www.fmu.uts.edu.au/works/maintenance-requests.html">www.fmu.uts.edu.au/works/maintenance-requests.html</a> .
e)	Check the tags attached to fire extinguishers - have the fire extinguishers been inspected within the last nine months?				
f)	Are overhead sprinklers and smoke detectors clear of obstructions, stores, etc.?				

g)	Are the exit doors marked, clearly visible and clear of obstructions?				Clear up and/or contact Building Services on ext 7477 or 7476.
h)	Have all staff and students seen the 'Escape from UTS' video?				Send them a reminder and refer to <a href="http://www.fmu.uts.edu.au/emergency/escape_video.html">www.fmu.uts.edu.au/emergency/escape_video.html</a>
<b>4. Hazards</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are staff and students made aware of all relevant hazards present in the facility?				
b)	Are staff and students encouraged to report hazards via HIRO?				Report hazards and incidents at <a href="http://www.safetyandwellbeing.uts.edu.au/accidents/reporting.html">www.safetyandwellbeing.uts.edu.au/accidents/reporting.html</a> .
c)	Are inspections completed at least every six months and action taken to ensure compliance?				
<b>5. Accidents/incidents and first aid</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are staff aware of how to report accidents/incidents through HIRO?				Report hazards and incidents at <a href="http://www.safetyandwellbeing.uts.edu.au/accidents/reporting.html">www.safetyandwellbeing.uts.edu.au/accidents/reporting.html</a> .
b)	Have all reported accidents/incidents resulted in an investigation with action taken to ensure it does not happen again?				
c)	Is a First Aid Officer readily available during normal work hours?				
d)	Are posters/notices indicating the contact details of the First Aid Officers on display?				Ask the First Aid Officers to check the details on all First Aid Officer signs. Additional posters and notices are available from the Safety & Wellbeing Branch at <a href="http://www.safetyandwellbeing.uts.edu.au/first-aid/signage/">www.safetyandwellbeing.uts.edu.au/first-aid/signage/</a> or by calling ext 1102.
e)	Are the First Aid Officers keeping their First Aid kit stocked with supplies that are not out-of-date and aware that they should never include medication (including Aspirin, Panadol or other headache preparations or pain killers of any kind)?				Ask the First Aid Officers to order missing supplies via the order form at <a href="http://www.safetyandwellbeing.uts.edu.au/emergency/firstaid.html">www.safetyandwellbeing.uts.edu.au/emergency/firstaid.html</a> Dispose of any medication appropriately.
<b>6. Work environment - slips and trips, lighting</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Is access to the facility restricted to trained staff/students or is supervision required?				
b)	Are walkways free of trip hazards (e.g. electrical cords)?				Move or secure the offending cord or obstruction.
c)	Do floors have even surfaces (no lifted carpet or holes)?				Contact Building Services on ext 7477 or 7476 or send a maintenance request via the FMU website at <a href="http://www.fmu.uts.edu.au/works/maintenance-requests.html">www.fmu.uts.edu.au/works/maintenance-requests.html</a> .
d)	Are stair treads in good condition?				
e)	Are corridors, walkways and work areas adequately lit?				
f)	Are window coverings available to minimise glare and reflection on computer screens?				
<b>7. Electrical</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are electrical sockets and switches in good repair?				Tag the item "not for use" and get fixed.
b)	Is there a schedule for testing and tagging plug-in electrical equipment and electrical cords based on risk assessment?				Contact Safety & Wellbeing for assistance on ext 1063.
c)	Is there a schedule for testing and tagging plug-in electrical equipment and electrical cords?				Contact Safety & Wellbeing for assistance on ext 1063.
d)	Is there a register of tested electrical equipment?				Establish and maintain a register.
e)	Do all portable electrical appliances have a current inspection tag?				Test and tag immediately.
f)	Has the use of double adaptors been eliminated?				Replace adaptors with power boards.
g)	Are all electrical conductors, such as power boards and sockets, away from wet areas?				Move away from where water can reach.
<b>8. Manual handling</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Is work organised to limit unnecessary or excessive bending and the need to transport heavy loads?				Redesign the work area or the work, or call the Safety & Wellbeing Branch on ext 1326 or 1056 for advice.
b)	Are trolleys available for transporting heavy loads?				Consult with staff to determine the type of trolley needed...then purchase it. Call the Safety & Wellbeing Branch on ext 4540 or 1326 if you require assistance.
c)	Are heavy items stored between mid-thigh and shoulder height?				Reorganise storage areas if possible. If this is not

d)	Is stored material secured to prevent shifting/falling?				possible consider providing more space or reduce the amount stored.
<b>9. Chemical inventory, labelling and risk assessments</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Is there an up to date inventory/register of chemicals available in hard and soft copy?				
b)	Is an up to date (<5yrs old) MSDS available in hard and soft copy for each chemical used?				
c)	Are chemicals labelled according to the relevant legislation?				
d)	Has a risk assessment been completed for all hazardous substances or dangerous goods (designated as such by the MSDS)?				
e)	Has there been consultation between the subject coordinators and lab manager regarding controls required for each class?				
f)	Are there up to date risk assessments and relevant MSDS's included in all student lab notes?				
g)	Are staff and students aware of the procedures in place for the use of high-risk chemicals (i.e. flammables, explosives, cytotoxics, poisons, HF, carcinogens, etc.)?				
<b>10. Chemical use, risk controls and emergency response</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Does the laboratory have appropriate ventilation for the types of chemicals in use (general exhaust, local exhaust, dust extraction, fume cupboards, glove boxes etc)?				
b)	Is safety equipment (jerry cans, grounding straps, etc) available for use?				
c)	Is personal protective equipment (gloves, goggles, aprons, etc) available and maintained in good condition?				
d)	Are appropriate spill kits, PPE and decontamination material available where needed?				
e)	Is there a sign noting the location and instructions for use for the spill kits - noting use of appropriate PPE?				
f)	Is safety equipment maintained in good operating condition and accessible to laboratory staff at all times?				
g)	Are safety carriers available for transporting glass or plastic containers of 2L or greater?				
h)	Are fire extinguishers clearly signposted and kept clear of any obstructions?				
i)	Are safety showers and eye-wash stations regularly checked and records kept?				
j)	Do staff in the area know how to respond to an emergency involving flammable liquids (ask them)?				Instruction must be provided.
k)	Do staff in the area know how to respond to a chemical spill (ask them)?				Instructions for chemical spill response must be posted and communicated.
<b>11. Fume cupboards and laminar flow cupboards</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are electrical services located outside the chamber?				
b)	Are emergency switches clearly identified for power and gas supply?				
c)	Has the cupboard been inspected and certified within the last 12 months?				
d)	Are restrictions posted near fume cupboards (< 2.5L of flammables; no H <sub>3</sub> ClO <sub>4</sub> , etc.)?				
e)	Are fume cupboards appropriate for the type of hazard (i.e. radiation, biological, etc.)?				
f)	Have all laminar flow cabinets been certified within the last 12 months?				
g)	Are procedures for the appropriate use of cabinets posted?				
h)	Do the cabinets look clean and tidy (i.e. routine cleaning performed recently)?				

<b>12. Chemical storage</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are chemicals stored correctly (i.e. only with other compatible chemicals)?				
b)	Are domestic refrigerators kept free of flammable material?				Move to a special chemical storage refrigerator.
c)	Are all storage refrigerators spark-proof?				
d)	Are cabinets used for the storage of large quantities of chemicals?				
e)	Is there security/restricted access to store areas?				
f)	Are chemicals stored in completely separate storage rooms from gas cylinders?				
g)	Is fire suppression or fire protection equipment available?				Contact Building Services on ext 7477 or 7476.
h)	Is the ventilation sufficient to prevent build-up of offensive odours?				
i)	Is there appropriate secondary containment to prevent the spread of major spills?				
j)	Are all glass containers > 1kg or 1L stored below 1.5m high?				
k)	Is all shelving compatible with chemicals stored or covered with a protective coating?				
l)	Are all containers free from leaks or damage?				Dispose damaged containers according to hazardous waste disposal guidelines.
<b>13. Flammable liquid cabinets</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Is there not more than one flammable liquid cabinet per 250m <sup>2</sup> of floor space?				
b)	Are flammable liquid cabinets at least 3m from power points and other ignition sources?				Move it to comply
c)	Is the bunding/bottom shelf in place and kept clear?				
d)	Is the area around and on top of the cabinet clear of all material i.e. no storage of combustible materials on or around cabinet?				
e)	Is there appropriate signage in place?				
f)	Are warning signs on the cabinet legible?				
<b>14. Hazardous waste</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Is hazardous waste separated and labelled as per the UTS procedures?				
b)	Are there sufficient and appropriate waste disposal containers in the laboratory?				
c)	Have all staff and students working in the facility received hazardous substances/dangerous goods training?				
d)	Is there signage stating that tipping of hazardous waste down the sink is prohibited?				
<b>15. Gas cylinders</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are all gas cylinders in laboratories connected for use? (i.e. no laboratory storage)?				
b)	Are gas cylinders securely chained and supply valves closed/capped if not in use?				
c)	Are flashback arrestors used in fuel gas supply lines?				
d)	Are non-return (check) valves fitted to all processes that exceed cylinder pressure?				
e)	Is gas use confined to areas with good ventilation?				
f)	Are specialised trolleys available for moving gas cylinders?				
g)	Are all cylinders at least 3m away from ignition sources and combustible material?				
h)	Are empty cylinders separated and identified as empty?				

<b>16. Biological</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are safe work practices in place for laboratory techniques (including minimisation of aerosols)?				
b)	Are cleaning procedures established for normal cleaning and emergency spills?				
c)	Are autoclaves/procedures available for disinfection?				
d)	Are staff aware of decontamination procedures established?				
e)	Are sharps and biohazardous waste procedures established and implemented?				
f)	Is all research approved (where required) by the appropriate agency/ethics committee?				
g)	Is specialised personal protective equipment available and maintained in good condition?				
h)	Are recombinant DNA laboratory areas inspected and certified by the UTS Biosafety Committee?				
i)	Are specimen containers always labelled and legible?				
j)	Have all staff/students been provided with information on appropriate vaccinations?				
<b>17. Communicable diseases</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are sharps containers and personal protective equipment available as required?				
b)	Are staff made aware of safe work practices for handling of sharps and disposal procedures?				
c)	Are the laboratory manager and academic staff aware of the emergency response procedure?				
<b>18. Animal handling and facilities</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are separate facilities available for animal storage, cleaning, examination etc.?				
b)	Are infected and non-infected animals segregated?				
c)	Are all staff trained in safety procedures associated with animal handling?				
<b>19. Ionising radiation</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>If the answer is 'no' - then</b>
a)	Are the areas designed for specific radiation procedures/work appropriately registered?				Contact the Radiation Safety Officer.
b)	Is radiation monitoring and detection equipment readily available and calibrated?				Contact the Radiation Safety Officer.
c)	Are appropriate personal and/or area monitoring procedures adopted?				Contact the Radiation Safety Officer.
d)	Is adequate and sufficient shielding material/equipment provided?				
e)	Are all staff licensed users unless specifically exempted as postgraduate students?				Contact the Radiation Safety Officer.
f)	Are radioactive materials securely stored according to procedures?				
g)	Is radioactive waste securely stored and disposed of according to procedures?				Contact the Radiation Safety Officer.
h)	Are safe work procedures and decontamination/emergency procedures established?				
i)	Are staff and students provided with training on safe work procedures?				Contact the Radiation Safety Officer.
j)	Are relevant licenses and exemption notices displayed?				Display notice of exempted students.

20. Non-ionising radiation		Yes	No	N/A	If the answer is 'no' - then
a)	Are arc-welding operators provided with helmets (with filter lens), fire-resistant gauntlet gloves and apron, boots, spats, skull cap and boilermaker's coverall or bib, brace, shirt?				
b)	Do arc-welding areas have ventilation to protect operators from inhaling fumes?				
c)	Do laser laboratories have the appropriate warning signs?				
d)	Are lasers equipped with protective housings, safety interlocks, key controls, beam stops, attenuators and scanning safety guards as appropriate?				
e)	Are laser operators provided with wavelength-specific eye protection?				
f)	Is suitable eye protection and skin protection worn by any persons exposed to ultraviolet radiation?				See AS/NZS 1337 and AS/NZS 2211.1 for eye protection
21. Plant and equipment		Yes	No	N/A	If the answer is 'no' - then
a)	Are machines built in accordance with relevant Australian Standards?				
b)	Are safe operating instructions/warning signs clearly visible?				
c)	Are machines guarded/protected to prevent contact, entanglement or damage?				
d)	Are any items of plant obsolete and unsafe to operate?				If the item cannot be repaired it should be disposed of.
e)	Have preventative maintenance arrangements been made if required?				
f)	Have items of plant/equipment requiring risk assessment been identified and risk assessments documented?				
g)	Are documented safe work procedures available for high risk plant and equipment?				
h)	Are staff and students trained in the safe work procedures for use of the plant/equipment?				
i)	Is personal protective equipment available (where specified in the risk assessment/safe work procedure) and maintained in good condition?				
j)	Are machines appropriate for the area of use (i.e. explosion proof, etc.)?				
k)	Is a register of slings/ladders kept, with details of all maintenance and inspections noted?				
l)	Has sound level testing been performed on noisy equipment and adequate controls / hearing protection provided?				Contact Safety & Wellbeing on ext 1063 to organise sound level testing.
m)	Are residual current devices in use for electrical equipment?				Contact Building Services on ext 7477 or 7476 or send a maintenance request via the FMU website at <a href="http://www.fmu.uts.edu.au/works/maintenance-requests.html">www.fmu.uts.edu.au/works/maintenance-requests.html</a> .
n)	Is local exhaust ventilation drawing air effectively?				
o)	Are lighting levels sufficient for operators to run equipment safely?				

Signature of staff completing the checklist

Date

Signature of staff consulted for checklist

Date

