Mechanical and Manufacturing Engineering

Laboratory Based Induction

UNSW Policy Documents

- UNSW Health and Safety Policy
- UNSW Environment Policy
- UNSW Smoke-Free Environment Policy
Hazards and Risks Involved in Your Job

Resources available for dealing with Hazards and Risks in the workplace include:

- [Office Safety Toolkit](#)
- [SafeSys](#)
- [Workstation Checklist](#)
- [Guide to Setting Up Your Workstation](#)
- [Reporting a Hazard or Risk](#)
UNSW Health, Safety and Environment

Web resources: https://safety.unsw.edu.au
MECH ENG Laboratory Inductions

Before booking a lab induction with the OIC of your research area, please fully complete the School Access Approval (SAA) form (found on the School Intranet or from your Technical Staff or Supervisor).

The required courses are tabled below. Enrolment information is available at: http://safety.unsw.edu.au/Training

<table>
<thead>
<tr>
<th>Course</th>
<th>Required by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratory Safety Awareness (online for students, face-to-face for staff)</td>
<td>Hons, Postgrads, Staff, Visitors staying 3 months or more</td>
</tr>
<tr>
<td>WHS Awareness (online)</td>
<td>Hons, Postgrads, Staff</td>
</tr>
<tr>
<td>Ergonomics (online)</td>
<td>Hons, Postgrads, Staff, Visitors staying 3 months or more</td>
</tr>
<tr>
<td>Green Lab Environment Compliance (online)</td>
<td>All Lab users</td>
</tr>
<tr>
<td>Laser Safety Induction</td>
<td>Where applicable</td>
</tr>
<tr>
<td>Lab Safety Induction (face-to-face with Technical staff once online training is completed)</td>
<td>All Lab users (HS049 form)</td>
</tr>
</tbody>
</table>
Training

UNSW Training Webpage

**Mandatory**
- Work Health & Safety Awareness (online)
- Ergonomics (online) [Workstation Checklist (HS114)]

**Additional training for laboratory workers**
- Laboratory Safety Awareness (online)
- Green Lab Environment Compliance (online)
- Laser Safety Induction (online)
- Gene Technology (online)
- Introduction to Radiation (online)
- Hazardous Substances (online)
- Biosafety for PC2 Laboratories

**If you are a supervisor**
- Health and Safety for Supervisors (Low-risk e.g. offices)
- Health and Safety for Supervisors (Medium-High risk e.g. labs/workshops)
## Access to Laboratories, 8am to 6pm

<table>
<thead>
<tr>
<th>Location</th>
<th>Laboratory</th>
<th>Contact for Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>Willis Annexe</td>
<td>Aerodynamics</td>
<td>Omear Saeed</td>
</tr>
<tr>
<td></td>
<td>Mechatronics</td>
<td>Jim Sanderson</td>
</tr>
<tr>
<td></td>
<td>Advanced Manufacturing</td>
<td>Terry Flynn</td>
</tr>
<tr>
<td></td>
<td>Precision and Nano Processing</td>
<td>Evan Yang</td>
</tr>
<tr>
<td></td>
<td>Applied Mechanics</td>
<td>Omear Saeed</td>
</tr>
<tr>
<td></td>
<td>Tribology</td>
<td>Omear Saeed</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>Martyn Sherriff</td>
</tr>
<tr>
<td></td>
<td>Engines Research Lab</td>
<td>Bryce Edmonds</td>
</tr>
<tr>
<td></td>
<td>Solids</td>
<td>Seetha Mahadevan</td>
</tr>
<tr>
<td></td>
<td>Thermofluids Laser Lab</td>
<td>Ben Willis</td>
</tr>
<tr>
<td></td>
<td>Microfluidics</td>
<td>Eldad Ben Ishay</td>
</tr>
<tr>
<td></td>
<td>Refrigeration and Air Conditioning</td>
<td>Joe Tscherry</td>
</tr>
<tr>
<td></td>
<td>UTL</td>
<td>Bruce Oliver</td>
</tr>
<tr>
<td></td>
<td>Future Vehicle</td>
<td>Nathan Palmer</td>
</tr>
<tr>
<td>Ainsworth Building</td>
<td>Levels 1-5</td>
<td>Saurabh Attreya</td>
</tr>
<tr>
<td></td>
<td>Solar Lab</td>
<td>Mark Baldry</td>
</tr>
</tbody>
</table>
Risk Assessments and Safe Working Procedures

Risk management needs to be carried out when:
- Tasks involve risks;
- The legislation requires it;
- Using new equipment or substances;
- There is a change to existing work practices;
- A new risk becomes known;
- An incident has happened;
- There is a change in legislation.

It is always easier to design out a risk at the beginning rather than implementing expensive changes, therefore, the earlier risk management is completed the better.

During risk management it is important to consider the safety of workers when working at workplaces not under the control of UNSW, e.g. hospitals, fieldwork, work vehicles, since UNSW is still responsible for the work activities undertaken.

Please refer to HS017-1 Guide to Completing Risk Management Form and HS329 Risk Management Procedure.
Safety information can be located at:
https://safety.unsw.edu.au/documents-resources
Injury/ Incident Report

- You must report any Accident, Incident, Injury or Near Miss that occurs on UNSW campus or while carrying out work for UNSW.
- This can be done by completing a form on MyUNSW.
SafeSys is UNSW’s Health and safety document management system
URL: https://safesys.unsw.edu.au
Jaggaer Chemical Inventory Management

- Jaggaer Chemical Inventory Management (CIM) software is the system used for managing hazardous chemicals at UNSW.

- It can do the following:
  - Chemical management life cycle from sourcing through acquisition, receipt, tracking, and disposal.
  - Source laboratory consumables and chemicals from UNSW Campus Stores
  - Source laboratory consumables and chemicals from preferred suppliers and specialty supplies.
  - Pro-active hazard flagging and reporting on chemicals
ChemAlert

ChemAlert is used as database of Safety Data Sheets (SDS) for chemicals
Safety Hazards and Personal Protective Equipment

![Safety Hazards Sign](image)
Safety Equipment – Spill Kit Locations

Level 2
- 202 AERO
- 204 Mechatronics
- 205 Micro
- 210 Refrig.
- 212

Level 2
- 216 Engines
- 215 Precision
- 214B Thermo.
- 214C
- 214A UTL
- 213

Level 1
- 102/106 Solids/Manufacturing
- 115 Precision
- 116 Maker spaces

120 Workshop

Chemical Spill Kit
Mercury Spill Kit
Defibrillator in J18 ground floor or call Security on 93856666

# Safety Equipment – Manual Handling Tools

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forklift</td>
<td>Terry Flynn&lt;br&gt;Martyn Sherriff&lt;br&gt;Seetha Mahadevan&lt;br&gt;Bruce Oliver&lt;br&gt;Tamsin Peters&lt;br&gt;Bryce Edmonds</td>
</tr>
<tr>
<td>Crane</td>
<td>Seetha Mahadevan (Dogman)&lt;br&gt;Bruce Oliver (Dogman)</td>
</tr>
<tr>
<td>Dangerous Goods Lift</td>
<td>Bruce Oliver</td>
</tr>
</tbody>
</table>
Chemical Purchasing UNSW

Staff/Student
Discuss purchase of DG with the Technical Staff (storage, supplier, RMF etc)

Technical Staff
Raises the requisition

Finance Pod
Raises a purchase order

HS Officer
Enters DG into Jaggaer (barcode system), and notifies staff/student that DG has arrived.

HS Officer/Lab Manager
Approves the purchase of the DG

DELIVERED

HS Officer
Enters DG into Jaggaer (barcode system), and notifies staff/student that DG has arrived.
If you need to use ANY chemicals or biological substances in MME labs – please discuss with your Technical Staff

Helpful links:

UNSW Hazardous Chemicals Procedure HS332

UNSW Labelling of Hazardous Chemicals Guideline HS429

UNSW Biosafety Procedure HS323
Chemical Purchasing UNSW

Staff/Student
Discuss purchase of DG with the Technical Staff (storage, supplier, RMF etc)

Technical Staff
Raises the requisition

HS Officer/Lab Manager
Approves the purchase of the DG

Finance Pod
Raises a purchase order

DELIVERED

HS Officer
Enters DG into Jaggaer (barcode system), and notifies staff/student that DG has arrived.
Chemicals Labelling

Non Hazardous solution/substances
(e.g. Water) “NON HAZARDOUS” written on the label plus the owners name.

Hazardous chemicals

Step 1: Find the correct PICTOGRAMS in the chemical SDS

Step 2: Label your chemical properly.
   - Use thick text or pen or whiteboard marker.

Incorrect Labelling 1 – Thin Pictogram
   - Hard to distinguish the valid pictogram
   - Not Permitted

Incorrect Labelling 2 – Circling Pictogram
   - Does not match on the phrase “cross out”
   - Not Permitted

Incorrect Labelling 3 – Do Nothing on Pictogram
   - Cannot identify the chemical hazard
   - Does not match on the phrase “cross out”
   - Not Permitted
Laboratory WASTE includes:

<table>
<thead>
<tr>
<th>Chemical Waste and their empty containers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous Waste (non DG)</td>
</tr>
<tr>
<td>Inc. general household cleaners, bleach, motor oil etc.</td>
</tr>
<tr>
<td>Broken Glass Waste</td>
</tr>
<tr>
<td>Needs to be segregated as 'uncontaminated broken glass', and 'contaminated broken glass', and labelled as such. Use 15L lidded buckets</td>
</tr>
<tr>
<td>Sharp Waste</td>
</tr>
<tr>
<td>Scalpels, needles, slides, coverslips, small broken glass</td>
</tr>
<tr>
<td>Use lidded buckets</td>
</tr>
<tr>
<td>Chemically Contaminated Lab Waste</td>
</tr>
<tr>
<td>Any contaminated material including gloves (used or not), pipettes, lab consumables etc.</td>
</tr>
<tr>
<td>Use general lab waste bucket – ask Technical Officer if unsure</td>
</tr>
</tbody>
</table>

School Health and Safety Committee

• The Committee meets quarterly and consists of members that are representatives of School workgroups.

• Committee minutes are placed on the Intranet. All members of the School are informed via email when they have been uploaded.

• The University sends out a Monthly Health and Safety Newsletter which is emailed to everyone in the School.

• **OTHER IMPORTANT** information such as Safety Alerts are sent out via email when the need arises.

• Worker may also raise issue with their work group’s Health & Safety representative. Please refer to [HS337 Health & Safety Consultation Procedure](#) for more detailed information.
Health and Safety Committee Members

Chairperson / Laboratory Staff Representative  
Mr Omear Saeed

Minutes Secretary / HSE Advisor  
Mr Mikhail Farid

Management Representative (Head of School)  
Prof. Chun Wang

Laboratory Manager  
Dr Tamsin Peters

Academic Staff Representative  
Dr Shaun Chan

Laser Safety Officer  
Mr Joe Tscherry

Undergraduate Student Representative  
Mr Moustafa Ali

Postgraduate Student Representative  
Mr Amr Omar

Professional/admin Representative  
Mrs Rodina Atme

Faculty HS&E Coordinator  
Ms Blathnaid Farrell
After Hours Protocol

- The UNSW Working Alone or After-Hours Guideline
- UNSW Shutdown Period students
- UNSW Shutdown Period staff

MME school have an after hours protocol.

- MME After Hours Access. School Protocol
Emergency Poster
Emergency Procedures

When an alarm is raised you need to follow the directions of the Emergency Team.

The assembly point will be at [Physics Lawn].
# J18 – Willis Annexe Emergency Team

<table>
<thead>
<tr>
<th>Level 1</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Warden</td>
<td>Tamsin Peters</td>
</tr>
<tr>
<td>Deputy Chief Warden</td>
<td>Terry Flynn</td>
</tr>
<tr>
<td>First Aid Officer</td>
<td>Bruce Oliver (UTL)</td>
</tr>
<tr>
<td>Floor Wardens</td>
<td>Seetha Mahadevan</td>
</tr>
<tr>
<td></td>
<td>Evan Yang</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level 2</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>First Aid Officer</td>
<td>Joe Tscherry</td>
</tr>
<tr>
<td></td>
<td>Tamsin Peters</td>
</tr>
<tr>
<td>Floor Wardens</td>
<td>Stephen Kuhle</td>
</tr>
<tr>
<td></td>
<td>Ben Willis</td>
</tr>
<tr>
<td></td>
<td>Bruce Oliver</td>
</tr>
<tr>
<td></td>
<td>Omear Saeed</td>
</tr>
<tr>
<td></td>
<td>Jim Sanderson</td>
</tr>
<tr>
<td></td>
<td>Eldad Ben-Ishay</td>
</tr>
<tr>
<td></td>
<td>Bryce Edmonds</td>
</tr>
</tbody>
</table>
Security and Medical information

UNSW Emergency number is **938 56666**

**Security Services**
- Free escort around campus
- Free bus between Kensington and Paddington Campus
- Night shuttle bus, Monday to Friday, 6.30pm - 11.30pm

To contact UNSW Security:
- General number (not emergencies): 938 56000
- Security Office located at Gate 2, open 24/7
- Email Security Services [security.services@unsw.edu.au](mailto:security.services@unsw.edu.au)

**UNSW Medical Centre**
The University Health Service is located in the South Eastern corner of the ground floor of the Quadrangle Building (E15).
UNSW Wellbeing

Web resources: http://www.wellbeing.unsw.edu.au/
Health & Wellbeing

_Do not neglect your mental health – act early._

Staff:

The Employee Assistance Program (EAP), is offered by [Benestar](#).

- Benestar provides free confidential counselling, coaching and wellbeing services for all UNSW staff and their eligible family members.

- To help you stay healthy and happy at work, the University offers a wide range of benefits, services and facilities ranging from flexible working to counselling services.

- Access the BeneHub app to access the service:
  - [https://unsw.sharepoint.com/sites/ENG/Pages/News/Introducing-Benestar.aspx](https://unsw.sharepoint.com/sites/ENG/Pages/News/Introducing-Benestar.aspx)
  - BeneHub user guide.
Health & Wellbeing

*Do not neglect your mental health – act early.*

Students:

- Support and resources for students including information about counselling, medical and health services, wellbeing, safety, bullying etc. can be found at this website: https://student.unsw.edu.au/wellbeing

- Counselling and Psychological Services provide a free and confidential service to all students enrolled at UNSW. Further information can be found at website: https://www.counselling.unsw.edu.au/