Health and Safety in the Research Environment

There are many different health and safety hazards that can cause risk in research, including:

Mechanical hazards: plant and equipment that may cut, tear, crush or result in an impact that can cause injury or harm in the workplace.

Chemical and biological substances: liquids, powders, dusts and vapours that are inappropriately handled or stored can cause illness or disease, a fire or may explode.

Sources of energy: electricity, heat, cold, noise and damaging radioactive sources can cause harm in the workplace.

Body stress or impact: manual handling, tripping hazards or falls can cause stress to muscles or bones. Incorrectly configured workstations, excessive working hours without breaks or repetitive working with machinery or equipment can similarly cause bodily strain and stress.

Gravity: situations where a person or object may fall can also cause harm.

Psychological hazards: work related stress, including that resulting from poor practices in achieving study/work/life balance; bullying, aggressive or violent behaviour or fatigue are also hazards that need to be identified, assessed and controlled to prevent harm.

Many specialist University facilities and laboratories require the use of potentially hazardous equipment and/or materials and access to such facilities requires mandatory specialist training, induction and monitoring processes. Worksafe recognised that there are processes in place within many such facilities, but specifically recommended that there needs to be more regular and transparent processes for monitoring and reporting on OHS compliance for HDR student work.

We ask that you work with your supervisors to systematically identify and assess risks in relation to your research, and develop, implement and regularly review control measures to eliminate, reduce or prevent injury, illness and disease. One way of achieving this is to develop a Research OHS Action Plan.

The following four steps assist in identifying hazards and assessing and controlling risks:

Step 1: Identify hazards
Step 2: Assess risks
Step 3: Control hazards and risks
Step 4: Check controls

Step 1: Identify hazards

There are three parts to hazard identification:
Establish effective methods to identify hazards

Identify potential hazards
Evaluate the effectiveness of the methods you adopted to identify hazards

Step 2: Assess the risk

To assess the risk associated with a hazard you need to answer three key questions.

What harm might occur?
Is the hazard likely to cause minor discomfort, serious illness, injury or death? What factors are likely to influence the severity of the harm? How many people may be affected?

How might the harm occur?
How might the hazard cause the harm? Will there be a sequence of events? If an event occurs, what will happen next? Where are potential control points in the sequence of events?

How likely is it that harm will occur?
Is it certain, very likely, likely, unlikely or rare? How effective are current control measures? How could changes increase the risk? How long might people be exposed to the risk? Could the way individuals act or behave affect the likelihood of the harm occurring?

Step 3: Control hazards and risks

Risks in the workplace must be eliminated so far as reasonably practicable. Where it is not possible to eliminate the risk you must reduce the risk to a level that is as low as reasonably practicable. There are a range of control measures that can be implemented to prevent incidents and promote safe behaviour.

Step 4: .Check controls

An OHS Management System is a process implemented to ensure the controls established to protect the health and safety of people are effective. Monitoring and checking also enable you to identify and implement controls to eliminate or reduce new or emerging hazards and risks.

Checking controls involves the same steps used in steps 1, 2 and 3. This means the same methods used in the initial hazard identification, risk assessment and developing and implementing control measures are used to check the ongoing effectiveness of control measures.

Further guidance on OHS policy and procedures can be found in the relevant VU OHS policies, such as:

OHS Working Alone or in Isolation (POH060822001)
OHS Equipment Safety Management(POH060822002)
OHS Safe and Healthy Working(POH060823005)
OHS Hazardous Materials (POH060823000)
OHS Legislative Compliance(POH060823003)

You can also download a copy of the Computer Workstation Adjustment Worksheet.

There are also a number of government publications and resources that may assist you:

How WorkSafe applies the law in relation to 'Reasonably Practicable'. Edition 1 November 2007

WorkSafe: Information for employees. Edition 1. 2006.
WorkSafe Handbook: Controlling of OHS hazards and risks: a handbook for workplaces. Edition 1, November 2007
WorkSafe Officewise: A guide to health and safety in the office. January 2006
WorkSafe Hazard Guide: Your health and safety guide to manual handling. Edition 1. June 2007
WorkSafe Hazard Guide: Your health and safety guide to plant. Edition 1. June 2007
WorkSafe: What to do if bullying happens to you. Edition 1, March 2010
WorkSafe Handbook: Fatigue prevention in the workplace. Edition 1. June 2008
Workwise Guide: Stresswise - preventing work related stress: a guide for employers in the public sector. Edition 2. April 2007
WorkSafe: A Summary of compliance, enforcement and prosecution policy. Edition 1. June 2005