8. **MANUAL HANDLING & ERGONOMICS**

**Summary**

**Manual Handling:**

Assessment of all manual handling activities is required under the Occupational Health and Safety (Manual Handling) Regulation 1999, and in accordance with the University of Melbourne Environment, Health and Safety Manual Section 8.3 Manual Handling.

Staff and students undertaking manual handling and ergonomic duties should undertake training offered through the Environmental Health and Safety Unit.

**Lifting and carrying:**

All staff and students undertaking manual handling duties to lift and carry items should ensure that:

- The size of the load is reduced where possible
- Lift properly – back straight and knees bent
- Keep the load close and balanced
- Don’t strain – for heavy loads ask for help
- Use a trolley or other mechanical aid
- Secure the load prior to transporting it
- Take care on stairs – avoid them where possible

**Repetitive Work:**

All staff and students undertaking repetitive work should ensure that:

- The workplace design and layout is comfortable
- The system of work is functional
- The objects used in the task are appropriate
- Mechanical aids are available
- Postural problems have been assessed and corrected
- Forceful movements are eliminated or reduced
- Regular rest breaks are taken.

**Ergonomic Set Up:**

All staff and students are advised to undertake the Keyboard Workstation Assessment checklist when they are setting up their workstation.

Risk Assessments:

Generic Risk Assessments for activities undertaken within the Department of Mathematics & Statistics have been documented along with some suggested risk controls. These assessments are available in hard copy from the Department Safety Officer. The identification Checklist is from the EHSM Appendix A: [http://www.unimelb.edu.au/ehsm/Man_Hand_RA2.pdf](http://www.unimelb.edu.au/ehsm/Man_Hand_RA2.pdf)

Risk Assessments and Controls:

All manual handling assessments have rated as a Low-Medium Risk and the controls have been identified from Administrative controls from the Hierarchy of Control.

**Office**

<table>
<thead>
<tr>
<th>ACTIVITY &amp; RISK</th>
<th>CONTROL MEASURES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Use of telephone for extended periods</strong></td>
<td></td>
</tr>
<tr>
<td>- sustained awkward posture</td>
<td>Use a handset or hands-free on the phone</td>
</tr>
<tr>
<td>- long duration</td>
<td>Avoid cradling between neck and shoulder</td>
</tr>
<tr>
<td><strong>Reception duties</strong></td>
<td></td>
</tr>
<tr>
<td>- repetitive / sustained actions</td>
<td>Try for task rotation for repetitive work</td>
</tr>
<tr>
<td>- long duration</td>
<td>Take regular rest breaks</td>
</tr>
<tr>
<td><strong>Photocopying for prolonged periods</strong></td>
<td></td>
</tr>
<tr>
<td>- repetitive / sustained actions</td>
<td>Set photocopier to automatic where possible</td>
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<tr>
<td>- long duration</td>
<td>Stand clear of photocopier when in action</td>
</tr>
<tr>
<td></td>
<td>Photocopy double sided where possible</td>
</tr>
<tr>
<td><strong>Using a laptop computer</strong></td>
<td></td>
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<tr>
<td>- sustained awkward posture</td>
<td>Look at installing external keyboard or monitor</td>
</tr>
<tr>
<td>- long duration</td>
<td>Set up the area for a computer workstation</td>
</tr>
<tr>
<td></td>
<td>Use an ergonomic chair</td>
</tr>
<tr>
<td></td>
<td>Use aids such as monitor stands etc. for comfort</td>
</tr>
<tr>
<td><strong>Using a computer at a workstation</strong></td>
<td></td>
</tr>
<tr>
<td>- repetitive movements</td>
<td>Keyboard workstation assessment checklist</td>
</tr>
<tr>
<td>- long duration</td>
<td>Address issues through an ergonomic assessment</td>
</tr>
<tr>
<td></td>
<td>Use an ergonomic chair</td>
</tr>
<tr>
<td></td>
<td>Use aids such as monitor stands etc. for comfort</td>
</tr>
<tr>
<td><strong>Undertaking written work</strong></td>
<td></td>
</tr>
<tr>
<td>- sustained awkward posture</td>
<td>Use an ergonomic chair adjusted for your comfort</td>
</tr>
<tr>
<td>- long duration</td>
<td>Write at a comfortable desk height</td>
</tr>
<tr>
<td></td>
<td>Be able to sit directly facing your work</td>
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<td></td>
<td>Limit tasks to 30 minutes where possible</td>
</tr>
<tr>
<td></td>
<td>Take regular rest breaks</td>
</tr>
</tbody>
</table>
### General

<table>
<thead>
<tr>
<th>ACTIVITY &amp; RISK</th>
<th>CONTROL MEASURES</th>
</tr>
</thead>
</table>
| Bending to lift items over 10 kg                    | Reduce the size of the load where possible  
- high force  
- heavy loads  
Lift properly - back straight and knees bent  
Keep the load close and balanced  
Don’t strain – for heavy loads ask for help  
Use a trolley or other mechanical aid               |
| Moving items of furniture, *computer equipment etc* | Plan the move and measure access of the path  
- high force  
- heavy loads  
Use a trolley or castors where possible  
Bring in professionals for large jobs  
*Computer equipment must only be transported on the appropriate trolley (the flatbed trolley for transportation within floors, the blue 6-wheel 'stairclimber' trolley for transport between floors). The equipment must be firmly strapped to the trolley. Operator instructions to be followed. Stairclimber can only be operated by trained personnel. |
| Receiving deliveries of heavy items                 | Use mechanical aids:  
- high force  
- heavy loads  
Forklift, pallet truck, flatbed trolley  
2 person activity where required                 |
| Receiving deliveries of office supplies              | Use mechanical aids where load is above 10kg (or where lift is difficult)  
- difficult/unbalanced loads  
- difficult to move  
Ensure clear passage  
Ensure adequate space for temporary storage away from access areas |
| Moving items through corridors                       | Ensure Clear Corridor Policy is adhered to  
- difficult/awkward action  
- difficult to move  
Allow minimum 1.2m width for corridors  
Ensure clear passage within areas (at least 1m for common passages)  
Measure load and width prior to move               |
| Storing items on shelves                             | Heavy items at waist height or below  
- repetitive force  
- heavy loads  
Common use items between neck and knee  
Do not store items over shelf capacity  
Use stepladders for accessing items above chest height  
Store archival/non accessible material at height |
| Using a filing cabinet                                | Never have more than 1 drawer open at a time  
- repetitive force  
- awkward posture  
Place often used files at waist height  
Do not place heavy folders or items above 1.5m  
Leave very often used folders on the desk          |
| Giving lectures and tutorials standing up            | Wear comfortable low heeled footwear  
- sustained posture  
- long duration  
Wear comfortable clothing for the climate  
Drink plenty of fluid to keep the body hydrated   |
Take 10 minute break every hour  
Stop if there is pain or discomfort

Shelving Load Limits

<table>
<thead>
<tr>
<th>Allowed Weight</th>
<th>Width (in mm)</th>
<th>Thickness (mm)</th>
<th>Material</th>
<th>Mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 kg</td>
<td>0 – 500 mm</td>
<td>18 mm</td>
<td>Chipboard / wood</td>
<td>Bookshelf ( to 2m)</td>
</tr>
<tr>
<td>20 kg</td>
<td>500 - 600 mm</td>
<td>18 mm</td>
<td>Chipboard / wood</td>
<td>Bookshelf ( to 2m)</td>
</tr>
<tr>
<td>20 kg</td>
<td>600 - 900 mm</td>
<td>18 mm</td>
<td>Chipboard / wood</td>
<td>Bookshelf ( to 2m)</td>
</tr>
<tr>
<td>110 kg (max 8)</td>
<td>750 – 900 mm</td>
<td>Approx 25 mm</td>
<td>Metal</td>
<td>Bookshelf ( to 2m)</td>
</tr>
<tr>
<td>10 kg</td>
<td>Per 300 x 300 mm</td>
<td>18 – 25 mm</td>
<td>Metal / wood</td>
<td>Bracket to wall</td>
</tr>
</tbody>
</table>

AVOID STORING ITEMS ON TOP OF SHELVING

**Shelf height:** 2.0m and above  
**Suggested Stored Items:** Archival items  
Items never to be accessed  
Display items  
Seldom used light items  

ACCESS WITH LADDER OR STEPSTOOL

**Shelf height:** 1.5 - 2.0m  
**Suggested Stored Items:** Archival items  
Seldom used light items  

ACCESS WITH LADDER OR STEPSTOOL (IF REQUIRED)

**Shelf height:** 1.0 – 1.5m  
**Suggested Stored Items:** Heavy items  
Often used items  

TAKE CARE WITH HEAVY ITEMS

**Shelf height:** 0.5 – 1.0m / Bench & Desk Height  
**Suggested Stored Items:** Heavy items  
Often used items
TAKE CARE WITH BENDING TO ACCESS – BEND THE KNEES

Shelf height:
0.0 – 0.5m / Under Bench or Desk

Suggested Stored Items:
Seldom used items
Medium weight items
Items on castors or wheels

TAKE CARE WITH BENDING TO ACCESS – BEND THE KNEES