

#### **ENGG1000 Session 2018 Biomedical Engineering Technical Stream**

#### **Lecture 4: Workshop Safety**



### **Health and Safety – Why?**

- Lots of workplace injuries are preventable
- . WHS think before you do.
- . "This paperwork is boring. I just want to cut wood and drill holes"....
- Trust me, this paperwork is nothing compared to the paperwork you have to complete when an incident occurs...



# Workshop opens Thursday Week 7 2-4pm

- Biomed Lab 518 /519 in Samuels building. Facilities are limited.
- If you don't know where this is, find it NOW
- Space is small strongly suggest that you send a subteam to the workshop (2-3 members)
- There are other facilities on campus (Willis Annexe, Michael Crouch Innovation Centre) – see Moodle section "Resources"
- GOAL: No Injuries



#### You must have:

- Safety glasses (Arc store)
- Covered footwear (no thongs, sandals)
- Read and electronically sign the SWP and Risk Assessment on SafeSys (links on moodle)
- Otherwise, no entry!

Warning: Graphic content on the next slides.



## Hands





## Hands





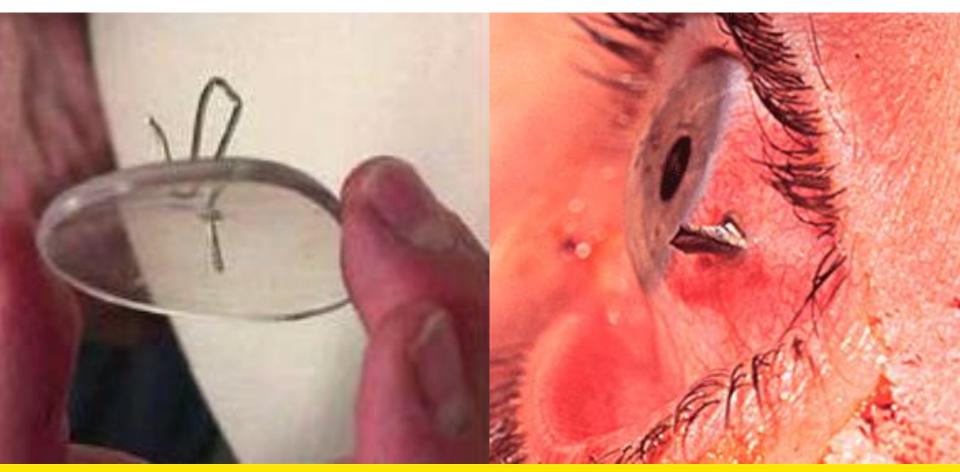
## Hands





# **Eyes**

Spinning machinery can throw things





# **Eye protection**





### **Feet**









# Foot protection





# Why would someone faint in the workshop?





#### Mmm, nice boots ..



#### Hazards

- Sharp / cutting tools: saws, knives, chisels
- Pinching tools: pliers
- Hitting tools: hammer
  - Thumbs
  - Eyes
- Spinning tools: drill, especially large diameter drill bits
  - "Helicopters"
  - Hold the work piece securely
- Force → slip → cut flesh that is in the way
  - Use the vice!
- Heat



### **Controls**

- Recognise the hazard
- Hold the workpiece (clamp, vise, helping hands)
- Be aware of onlookers around you
- Onlookers stand back from the tool user
  - Speak up if you see a safety hazard
- Use controlled force
- Cut away from yourself (and others)
- Wear eye protection
- Wear foot protection



#### **Tool list**

- Cross-cut saw (for wood)
- Hacksaw (for metals)
- Coping saw (jigsaw)
- Hammer
- Square
- Tape measure
- Screwdrivers
- Clamps
- Vice

- Cordless drill + bits
- Tin snips
- Pliers
- Vice-grip
- Pop rivet tool + rivets
- Soldering iron
- Files (for metal,...)
- Rasp (for wood)











