

# School of Engineering

# Office Safety Manual

THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE "PARENT SAFETY STATEMENT" OF DUNDALK INSTITUTE OF TECHNOLOGY.



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# INTRODUCTION

THIS SAFETY MANUAL IS A <u>WORKING DOCUMENT</u> AND AS SUCH MAY REQUIRE PERIODIC CHANGING AND UPDATING. THIS DOCUMENT SHOULD BE READ IN CONJUNCTION WITH THE "PARENT SAFETY STATEMENT" OF DUNDALK INSTITUTE OF TECHNOLOGY.

# **GENERAL STATEMENT**

It is the policy of the School of Engineering to ensure, so far as is reasonably practicable, the safety, health and welfare at work of all its employees, at its office locations.

The procedure by which the safety, health and welfare of people at work will be secured is by provision of:

- a) Safe place
- b) Safe equipment
- c) Safe procedures
- d) Safe people

It is the schools intention to update this document when knowledge of change of legislation requirements and/or change of practices occurs in its "office locations" which will advance the policy of safe work practices.

Safe work practices will be secured by the manner laid out in the following pages.



# Assignment of Responsibilities

The Health and Safety act of 2005 and subsequent EU Directives have placed a particular responsibility on directors to conform with, and where necessary enforce acceptance and compliance of these acts on those engaged in their employment.

As a manager one must accept the role of responsibility for the safety of their employees, visitors and members of the public under their control.

In terms of what is <u>Reasonably Practicable</u> the departmental manager must do all that is reasonable to provide a safe and healthy work environment.

Record details of incidents, accidents, dangerous occurrences on accident report form 3.1 and dangerous occurrence form 3.2.

Co operate and provide details of any unsafe acts, observations, incidents and accidents.

It is the duty of the departmental managers to ensure, so far as is reasonably practicable that all work carried out by its employees at its **office locations** is carried out in a safe manner and in no way can be a safety risk to other office workers or members of the public who may be affected.

The designated Health and Safety responsible persons in the Engineering School under normal working hours are as follows:

Head of School of Engineering:	Mr. Eugene Roe	Ext. 2893
Head of Departments	Mr. John Carolan	Ext. 2897
	Dr. William Lyons	Ext. 2685
	Mr. Noel McKenna	Ext. 2891
	Mr. Pat McCormick	Ext. 2551
Main Reception	Dial "500" to alert caretaker on duty	
First Aid Responsibilities: Engineering Administration	A full List is displayed at First Aid Stations First Aider: Orlagh Devine	
Doctor Shane Gleeson :	Ext 2702/ 042 9320038	
Campus Nurse	Ext : 2777	

In the event of an incident or accident taking place in the office, the office manager will follow the "Emergency Response" procedures posted and as quickly as possible notify the Head of School above / Head of Department.



# The School of Engineering in so far as is reasonably practicably is responsible for ensuring the provisions of:

A safe place of work, in a safe condition and provide a safe means of access and egress.

Sufficient lighting, ventilation, and welfare facilities as laid down in current legislation and codes of practice.

Information provided to its employees on the requirements on how to act in the event of a fire, or injury.

Training provided to certain employees on the use of fire fighting equipment and information to all employees on emergency evacuation procedures.

Provide information / training as regards workstation assessments.

Provide all Safety and Health information to employees pertinent to their tasks and working environment requested by employees.



# EMPLOYEE RESPONSIBILITIES

Under the provision of the 2005 Safety, Health and Welfare at Work Legislation (Section 13); it is the duty of the employee to take reasonable care for his/her own safety, health and welfare and that of any other person who might be affected by his/her actions.

The employee has a duty to co-operate with the employer or any other person to enable the employer or any other person to comply with statutory obligations.

Not to be under the influence of any intoxicant.

The employee has a duty to use/wear any suitable appliance, protective clothing, convenience equipment or any other means provided for securing safety, health and welfare.

It is the duty of the employee to report to their immediate supervisor, without unreasonable delay, any defects of which he/she becomes aware of in plant, equipment, place of work, system of work which might endanger the safety, health or welfare of themselves or others.

All employees must not intentionally or recklessly interfere with or misuse any appliance, protective clothing, convenience, equipment or any other means provided to ensure the safety, health and welfare of themselves or others.

Employees must leave the area in a condition, when work is completed so no injury or damage results.

Many detailed regulations on safety and health, including the General Applications Regulations (S.I. 299) of 2007 impose specific duties on employees to comply with safety procedures implemented by the employer.



# 2 Common Office Hazards

While office work may not be considered as a high risk activity by many workers unsafe work systems and poor office layouts can and do result in accidents and injuries to office workers.

Common office hazards include:

- Slips, trips and falls
- Collision with poorly positioned furniture or other items
- Exposure to chemicals used in the office
- Fire
- Electricity

# Computer workstations / Display Screen Equipment

The potential hazards associated with the use of Computer Workstations / Display Screen Equipment are as follows:

### **Poor Posture**

Incorrect workstation layout or design can lead to poor posture and associated musculoskeletal / physical complaints.

### **Visual Discomfort**

Visual discomfort may be due to a number of factors, including:

- user eyesight problems
- screen glare
- inadequate lighting in the work area
- screen brightness
- poor clarity of characters on the screen

### Poor Posture

Poor posture or work space set up can give rise to serious and significant musculoskeletal disorders in persons utilizing computer workstations. To minimize the risk poor posture both the correct equipment must be used and this equipment must be set up in an appropriate manner.



# **Workstation Equipment**

# **Office Chair**

The chair used for sitting when working at a workstation must comply with minimum standards which include:

Both the seat height and the backrest of the chair must be adjustable The base of your spine should be supported by the back of the chair The chair seat should reach to within a hand width of the back of your knees Arm rests are optional but if they are present they should be adjustable to ensure that the chair can get close to the desk. You should be able to place your feet flat on the floor when sitting; if you are not able to do this then a foot rest is required. There should be sufficient knee and thigh clearance beneath the worktop to comfortably allow you to get your upper leg under the desk.

# **Monitor Position**

To make sure that your workstation monitor is set up in the optimum position to ensure good posture you should ensure that:

- The monitor is positioned directly in front of you
- Your eyes should be level with or just below (5cms approx) the top of the screen
- The monitor should be as far away from you as possible arms length is ideal
- If a document holder is in use it should be within 100mm of the screen on the side of your dominant eye
- The monitor should have a swivel and tilt facility

### **Screen Characteristics**

- As well as the monitor being posited correctly it is also essential that the screen is functioning correctly and is not contributing to poor posture or eye fatigue.
- There should be no screen flicker
- The screen should be clean
- Images on the screen should be sharp
- The screen brightness / contrast should be adjusted by the user depending on their preferences
- The monitor should be positioned so there is no glare from any other source on the screen. You may need to close window blinds and / or tilt the screen down slightly
- Screen characters should be sharp and in focus

### Keyboard

• The keyboard should be tiltable (i.e. have little 'legs' underneath to allow you to raise it



to an angle)

- The keys should be easily readable
- Keep a 10cm space in front of the keyboard for resting wrist

### Desk

- The workstation desk should be large enough to comfortably accommodate all computer hardware; paperwork; document holder; desk lamp; telephone and any other material that has to be positioned on it.
- All materials placed on the desk should be positioned so as to allow a comfortable position to be adopted.
- The desk should be high enough to allow you to get your thighs comfortably underneath when sitting.
- Adequate space should be maintained to the front of keyboard in order to allow your hands and wrists to rest on the desk top.

# **Working Practices**

In addition to the use of the appropriate equipment it is also essential that working practices are designed to reduce the risk of developing musculoskeletal disorders. As a guide the following should be adhered to:

- Keep your wrists flat and straight in relation to your forearms in order to use the keyboard and the mouse
- Keep your arms and elbows relaxed and close to your body
- Centre the monitor and keyboard in front of you
- Keep your wrists straight while typing
- Avoid sharp edges pressing on your forearms or bending your wrists upwards when typing or using the mouse
- Do not grip the mouse tightly
- Do not overreach to the mouse
- Use a footrest if necessary to support your feet
- Do not cross your legs or ankles as this puts pressure on the lower back and is also bad for circulation

Take frequent short breaks from working at the display screen Micro breaks: 10 - 20 seconds every **10 -20** minutes. Look far away (at least 20 feet refocusing your eyes on a distant object)

Mini-breaks: 1 - 2 minutes every hour. Stand and stretch and do eye exercises







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# FIGURE 1. WORKSTATION QUICK SET UP GUIDELINES



- 1. Use an adjustable chair
- 2. Top of monitor casing 5-8 cm approximately above eye level
- 3. Ensure no reflections or glare on screen
- 4. Sit at arms length from monitor
- 5. Place feet flat on floor or footrest
- 6. If using a document holder keep in-line with the computer screen
- 7. Keep wrists flat and straight in relation to forearms to use keyboard and mouse
- 8. Keep the arms and elbows relaxed and close to the body
- 9. Centre the monitor and keyboard in front of you
- 10. Use a tilt able keyboard
- 11. Use a stable work surface
- 12. Take frequent short breaks (microbreaks)

Remember to keep a 10cm space in front of keyboard for resting wrists.





# Visual Discomfort

# Eye Comfort

Working at a display screen can also give rise to eye problems including eye fatigue, drying of the eyes, etc. Blinking is an automatic function which we do on average to 15 -20 times per minute under normal circumstances. However we blink less frequently when reading or concentrating thus allowing our eyes to become relative dry. It is therefore important that when working at a display screen that users `remember' to blink. In addition to this frequent 'eye' breaks should be taken. Micro breaks should be taken every 10 minutes for 10 seconds at a time. When taking micro breaks look far away (at least 20 feet) in order to refocus your eyes. Mini breaks should be taken every hour for at least 1 to 2 minutes and should involve standing and stretching and frequent refocusing of the eyes on distant objects.

# Laptop Use

When working with laptops away from the office or when docking stations are not available then the following guidance should be adhered to.

Always use a chair that gives you good lower back support, consider propping a pillow, rolled-up towel or other soft object against the back of your chair. Sitting on a soft object such as a cushion is an easy way to adjust an otherwise non-adjustable chair such as those typically found in a conference room or hotel room.

Keep your forearms, wrists and hands in a relaxed, neutral position. This can be accomplished by adjusting the height of either the work surface or your chair.

Keep your thighs parallel to the floor and your feet flat on the floor or a footrest. In a mobile computing environment consider placing your feet on a book, briefcase or other solid object.

Keep your head in a comfortable position. A 15-degree downward viewing angle is optimal.

Maintain a comfortable viewing distance; 50 – 75cm is optimal.

Position your display so as to avoid glare or reflections from overhead lighting, outside sources of light, or even reflections off of your own shirt. Consider closing blinds, turning off some overhead lights and / or orienting the display perpendicular to the light source.

Keep your display screen clean and set the contrast and brightness to levels that allow you to see the screen clearly. Remember that LCD displays are not as bright as standard displays. Frequent short work / rest breaks are especially important in a mobile computing environment. In addition it is especially important to listen to your body and take a work / rest break when the first signs and symptoms of discomfort arise. You may also want to try some basic stretching exercises.



### Manual Handling

Manual handling is defined as the transportation or supporting of a load by one or more persons, and includes lifting, putting down, pushing, pulling, carrying or moving a load.

In the office environment staff may be required to lift document boxes, files, bins, computer equipment, etc

It should be borne in mind that even light objects can cause significant back injuries if incorrect lifting practices are used. Similarly lifting a light weight on a regular or repeated basis can also give rise to manual handling issues.

The risks of injury are exacerbated when:

- 1. Incorrect methods of lifting are used
- 2. Excessive weights are handled
- 3. Loads with sharp or awkward edges are handled
- 4. Loads are lifted in confined spaces

The selection of persons to carry out manual handling tasks will be made on the basis of physical capabilities and the level of training received by that person. Staff who regularly perform manual handling tasks will be trained in safe Manual Handling Techniques.

Check requirements with your office manager / departmental manager



#### Manual Handling

Office staff should design their work environment and work practices so that the requirement for manual handling is minimised.

Before you lift any load assess it's characteristics. Consider the size, weight, shape, condition, contents and position of the load to be handled. If deemed unsafe to handle a load an individual employee may decline to do so. If you feel that the load is too heavy or awkward for you to lift then do not do so.

Mechanical aids such as trolleys should be used where possible when transporting loads to minimise the need to lift.

Please refer to Guideline weights issued by the Health and Safety Authority below.



When handling loads which by the nature of their shape, loading or unstable contents pose a risk of injury assistance <u>must be obtained</u>, e.g. water cooler bottles.

Whenever possible do not carry load down stairs unless the loads are very light and small in size. Break the load down into smaller component parts.

If necessary wear gloves when handling loads with sharp edges.

Step ladders will be made available when manipulating loads at a height.

All spillages must be cleaned up immediately so that they do no pose a slip hazard to those involved in manual handling. If you spill something clean it up immediately.

Persons should avoid bending over or stooping in their work for long periods.

Materials should be stored in such a way that the heavier material is placed in a position where ease of access for removal is guaranteed and that all material is easily accessible. <u>The storage of any materials under desks and in confined spaces is to be avoided.</u>



There must be sufficient lighting levels in areas where manual handling occurs to ensure adequate visibility. Where replacement diffusers are required please make a maintenance request. Please do not undertake tasks where there is poor visibility.

All work areas must be kept tidy and free from obstructions at all times to reduce the risks of slips, trips and falls.

Pregnant employees should not engage in manual handling tasks unless a *"Pregnant Employee Risk Assessment"* has recently been carried out by the school of Engineering.



# Office Equipment Safety

### Photocopiers

When using photocopiers the following must be adhered to:

- 1. Photocopiers must be positioned in adequately ventilated areas.
- 2. The photocopier should not be used when the lid is open.
- 3. When opening the copier doors to clear a paper jam be aware that there are hot surfaces inside the machine.
- 4. If a paper jam requires to you place your hands deep into the machine then the power must be turned off and the machine allowed to cool.
- 5. Do not try to manoeuvre a photocopier on your own.

# Shredders

When using shredders the following must be adhered to:

- 1. Do not place fingers inside the shredder.
- 2. Turn off the power supply when clearing blockages or emptying bags.
- 3. Be aware that loose clothing can catch in the shredder, be especially careful of ties and loose sleeves.

# **Office Chemicals**

Within the office environment small quantities of hazardous chemicals are found in inks, toners, cleaning chemicals and correction fluids. Hazardous chemicals can cause injury through contact with skin and eyes, or the inhalation of vapors.

Chemicals commonly used in the office must never be allowed to come into contact with the skin and eyes, or be inhaled.

Office staff must observe good hygiene practices at all times. Persons should always wash their hands after changing toner or print cartridges; using cleaning agents or handling inks and correction fluids.

If required gloves should be worn when handling these agents.

Any employee who develops a reaction to a substance at work, e.g. skin irritation, or experiences breathing difficulties, etc, must stop immediately from using that substance and inform their manager.



## **Office Housekeeping**

Poor housekeeping poses a variety of risks to the health and safety of workers. Workers may slip, trip, or fall over material and / or they may collide with inappropriately placed material. The obstruction of exit routes by poorly stored material can result in delayed escape in an emergency whilst improper stacking of objects can lead to objects falling on persons. Inadequate and infrequent disposal of combustible materials can also represent a fire risk.

To help guard against these hazards in the office the following should be adhered to:

- All furniture, fittings and equipment should be arranged so that staff can move about without collision with desk corners, filing cabinets, etc. Edges that are frequently collided with should be cushioned.
- Filing cabinets should be arranged so that their drawers can be fully opened when in use.
- Only one drawer of a filing cabinet should be opened at any one time. All drawers must be closed after use.
- Electrical or telephone cables must not trail unprotected across the floor. Where
  required cable covers or ramps should be requested or to install additional sockets in
  a suitable location.
- Chairs, desks or drawers should never be used to access shelving or any other elevated area. Stepladders or kick stools must always be used.
- All items stored above head level must be positioned properly to prevent falling.
- The mains power supply must be disconnected before attempting to move electrical equipment.
- All damaged floor coverings, furniture equipment or other office equipment should be removed from use if required and replaced or repaired as necessary.
- Defects in lighting fixtures must be reported to office management / departmental management
- All signs of vermin should be reported at once to your departmental manager.
- Floor areas must be kept clear of materials and litter.
- The areas around workstations must be kept be tidy.
- All spillages must be cleaned up immediately. If you spill any liquids e.g. coffee, clean it up yourself immediately.
- Sufficient refuse bins should be provided in office areas and emptied on a regular basis
- Dangerous wastes, e.g. broken glass, must be carefully disposed off.
- <u>No staff member may attempt to repair or modify any equipment for which they</u> <u>have not received the proper training</u>; please make a maintenance request and inform your superior.
- All walkways, exit routes and emergency exit doorways must be kept free and clear from obstruction.
- All equipment supplied must be used and maintained as per the manufacturer's



instructions.

- Articles must not be placed at a height in a location, where if they fall, they can strike
  persons below.
- stacked material must not be higher than 1.5 metres, and must involve light materials only.

All employees are reminded that under current legislation that they have a statutory obligation not to endanger the safety of themselves or their co-workers whilst at work through any act or omission that they may make, including poor workplace housekeeping as per Safety, Health & Welfare At Work Act 2005.



# Fire Safety In The Office

There is always an ever-present risk of fire occurring in all workplaces. Common fire hazards in the office environment include improperly stored combustible materials, faulty electrical equipment, the build up of combustible wastes in the workplace and smoking in undesignated areas.

Dundalk Institute of Technology is committed to providing a fire safety programme that guards against the outbreak of fire in all areas and also makes provisions for the safety of all persons in the event of a fire. The Institute would like to reiterate to all staff at this point that every employee has a responsibility to guard against the outbreak of fire in their workplace through the implementation of good fire safety practices and where applicable the adherence to the control measures outlined below.

To guard against the outbreak of fire in the office the following must be adhered to:

- Employees should make themselves familiar with the location of fire alarm activation points and escape routes in their working areas, offices, workshops and laboratories (Evacuation plan and Exits Displayed)
- The amount of combustible materials stored within every workplace should be kept to a minimum.
- It is prohibited to disengage a fire detection device or remove a fire extinguisher from its designated location without the express permission of Head of School.
- In the event of an evacuation all persons must leave the work area without exception and assembly at their designated assembly point. You should know were your local assembly point is.
- Employees must adhere to any instructions given by staff or emergency services personnel in the event of an emergency.
- Persons must not fight workplace fires unless they have been trained to do so and it is safe to do so.
- It is the responsibility of all employees to ensure that escape routes and emergency exits in their working area are kept free from obstruction.
- All employees are reminded of their statuary obligation to protect their own and their co-workers safety by guarding against the outbreak of fire in the workplace through the use of safe systems of work.



## **EMERGENCY EVACUATION AND FIRE**

# SOUNDING OF THE FIRE ALARM

*On hearing the fire alarm sound <u>intermittently</u> all persons <u>should prepare</u> to evacuate the building. If after 3mins of intermittent sounding the system goes into full alarm mode by: A continuous bell signal indicates a real fire and <u>all</u> occupants <u>must leave</u>* 

the premises immediately

Delegated staff will dial the emergency services (Emergency Phone No's are displayed at Strategic Points) see SWPS "EMERGENCY RESPONSE"

- Staff will initiate evacuation procedures.
- Delegated trained staff will assist in evacuation and sweep of building in the event of alarm activation of their departmental areas of responsibility.
- Ensure assistance is provided for disabled persons or venerable persons.
  - Leave the building or work area and go directly to the agreed assembly point.
  - Using the "**nearest and shortest safe**" exit.
  - Do not re-enter the building or area while the fire or emergency situation still stands.
  - □ Follow the instructions of the Institutes representative at the assembly point.
  - Do not leave the assembly point or return to the building unless instructed to do so.
  - Remove students to a safe area and insure the safety of the public at all times.
  - All staff and students must proceed to their ASSEMBLY POINT

# Engineering Administration Staff must proceed to ASSEMBLY POINT

Individuals who fail to co operate in any Emergency Response may be placing persons at risk if a real life event. <u>"THINK"</u> - & DON'T LET THIS BE YOU.

# ALL HAVE A RESPONSIBILTY TO CO OPERATE FULLY



# Electrical Safety In The Office

- The main hazard from electricity in the office environment is electric shock, which can lead to electrical burns, shock, asphyxia and death. Electricity is also a major cause of fire. Electrical wiring can also present a trip hazard.
- To ensure safe working with electricity in the office all persons should adhere to the following precautions:
- All faults concerning electrical equipment and wiring must be reported to maintenance.
- Damaged cables, sockets and plugs must be removed from service immediately.
- Under no circumstances must insulation tape be used to protect any repair or join in extension cables.
- Electrical equipment must not be pulled or lifted by the cable, the connections may become broken and create a hazard.
- The use of multi socket boxes is to be avoided wherever possible.
- The mains power supply must be disconnected before attempting to move electrical equipment.
- Where electrical wiring must run across floors it should be protected by saddles, or other safety features. Extension cables, when used, must be routed so as not to cause tripping hazards.
- Only CO<sub>2</sub> or dry powder fire extinguishers can be used to fight electrical fires
- All electrical equipment should be turned off when not is use and overnight, unless this is not possible for safety or operational reasons. Electrical sources powering equipment that cannot be turned off under normal circumstances for safety or operational reasons must be clearly signed as such at the power supply point.
- Under no circumstances must untrained employees attempt to carry out repairs to electrical equipment, please inform maintenance of requests.
- In the event of an electrocution the victim must not be touched until the power supply has been disconnected. Alternately the victim and the power supply may be separated by using an insulating rod, i.e. a wooden pole. All electric shocks, no matter how small, must be reported immediately.



## Pregnant Employees

The Regulations defines a pregnant employee as: "An employee who is pregnant, an employee who has recently given birth (during the previous 14 weeks), an employee who is breastfeeding".

These Regulations include:

Specific preventative and protective Health and Safety measures in relation to Chemical, Physical and Biological agents.

In order to secure the safety, health and welfare of the pregnant employee, their unborn child or the breastfeeding mother, a comprehensive risk assessment by the school relating to their work activities and working environment will be necessary. The pregnant employee is therefore requested to make arrangements to notify the school of their pregnancy as soon as possible. Contact can be made with the school through your medical practitioner by directly contacting the Engineering School / Human Resources Dept.