Maynooth University
National University of Ireland Maynooth

SAFETY STATEMENT FOR DEPARTMENT OF ELECTRONIC ENGINEERING

SIGNED: _____

HEAD OF DEPARTMENT

21st May 2019

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Departmental Policy

The Head of Department is fully committed to safeguarding the health, safety and welfare of staff attached to the Electronic Engineering department in accordance with the Safety, Health and Welfare at Work Act 2005 and will ensure that all reasonably practicable measures will be taken to avoid risk to staff, students and others who may be affected.

The Electronic Engineering department has considered its responsibilities to its staff and to those who frequent the Campus and has identified hazards specific to the Department.

This Safety Statement sets out the procedures and standards it wishes to uphold in providing for the safety, health and welfare of all at their place of work.

It is the responsibility of all staff within the Electronic Engineering department to assist the Head of Electronic Engineering department in this endeavour.

It is the duty of every staff member and student to take reasonable care of their own safety, health and welfare and that of any other person who may be affected by his or her own actions on Campus.

This Safety Statement should be read in conjunction with the University/College Safety Policy Statement which sets out the University's corporate arrangements.

SIGNED: _____

HEAD OF DEPARTMENT

21ST MAY 2019

Foreword

This Departmental Safety Statement should be read in conjunction with the University Safety Policy Statement. The University Safety Policy Statement details the University's Organisational Arrangements, which include the following:

1. Statement of Policy
2. Resources
3. Health and Safety Management
4. Responsibility for Safety including Procedures for Contractors
5. University Safety Committee
6. Information
7. Employee co-operation and Consultation
8. Safety Training
9. Emergency Policy
10. First Aid
11. Reporting Accidents
12. Personal Protective Equipment
13. Welfare Facilities

This Safety Statement details the organisational arrangement and the hazards specific to, and areas under the control of the Head of Department.

SECTION 1

1.1 Responsibility for Health and Safety in Maynooth University
- Organisation Chart
- Management Responsibilities and Tasks

1.2 Services
1.3 Contractors
1.4 First Aid Boxes and Medical Emergencies
1.5 Reporting of Accidents
1.6 Training
1.7 Welfare
1.8 Personal Protective Equipment to be used by Electronic Engineering department
1.9 Travel on University Business including the use of cars
1.10 Policy on the Protection of the Dignity of Staff and Students
1.11 Disability Policy
1.12 Policy on Equality
1.13 Staff Wellbeing

1.1 RESPONSIBILITY FOR HEALTH AND SAFETY

The general duties and responsibilities with respect to health and safety are set out in the University Policy document and all staff should appraise themselves of their own responsibilities.

Within the context of the Department overall responsibility rests with the Head of Department. Other responsibilities are set out for supervisory staff who have day to day control of staff and work areas, as part of the Management of Safety, Health and Welfare in the Department. These positions are listed below.

Health & Safety is discussed at regular Health and Safety committee meetings. We try to hold these meetings on a regular basis, at the start of every semester, and in addition when required.

Fire Wardens and First Aiders for the Electronic Engineering department are listed below and are to be displayed in the Departmental Office.

The Fire Wardens for Dept are:	John Maloco (Chief Technical Officer) Seamus McLoone (Senior Lecturer)
First Aiders:	John Maloco James Kinsella
VDU assessor:	John Maloco
Laser risk assessor (Where appropriate)	Bryan Hennelly
The Safety Representative for Dept:	John Maloco
Members of the Department Safety Committee are:	Ronan Farrell (HOD) John Maloco Ann Dempsey Bryan Hennelly Andrew Meehan

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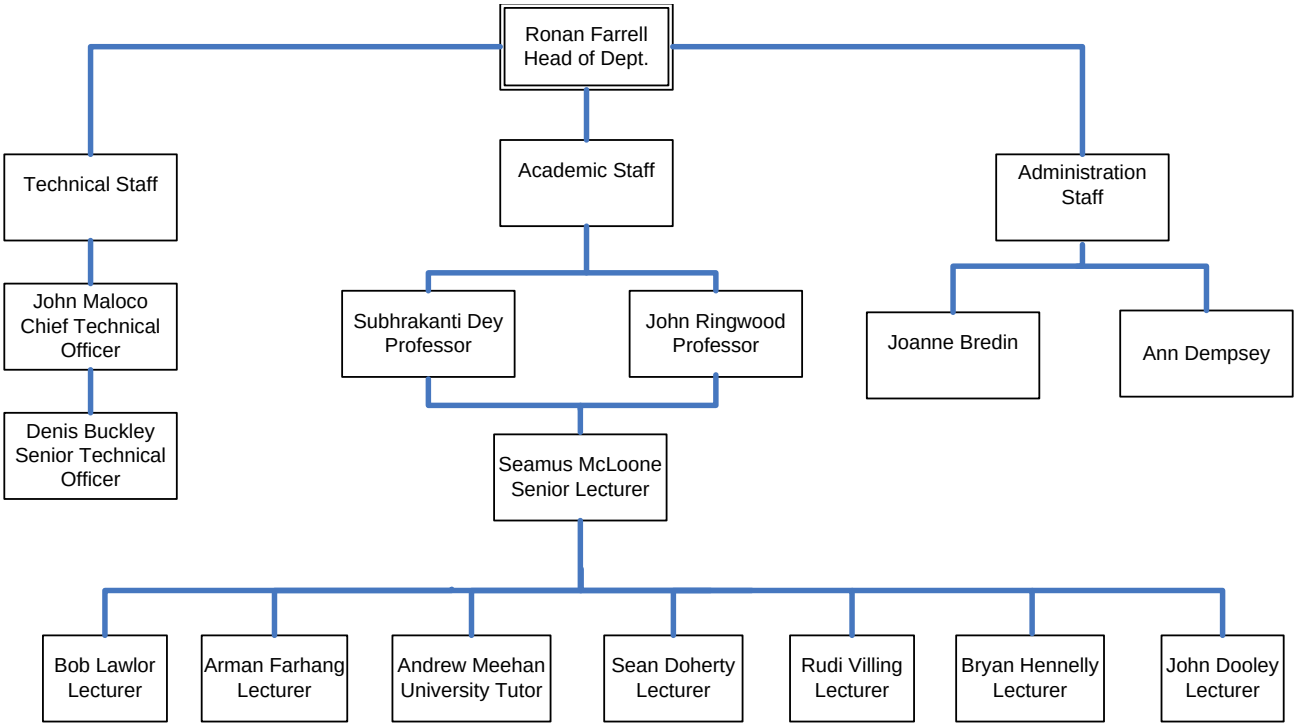
Departmental Organisational Chart

Permanent Staff



NOTE: As staff can change while the current Safety Statement is in circulation, please refer to the Department's website for the latest staff information, link below.

https://www.maynoothuniversity.ie/electronic-engineering/our-people

Management Responsibilities and Tasks

Head of Department
The Head of the Department is responsible for the day to day management of all staff in the Department. https://www.maynoothuniversity.ie/electronic-engineering/our-people

In conjunction with these responsibilities the Head of the Department will ensure that in the event of emergency staff are familiar with safe evacuation procedures. This also includes the provision of adequate numbers of Fire Wardens and First Aiders.

Academic and Teaching Staff
Academic staff are responsible for delivering the academic courses, provided by the Department, to students as per their specialist areas/fields. The Department courses include BE, ME, MEng.Sc, PhD in electronic engineering.

In conjunction with this each member of staff has a responsibility to ensure that safe procedures are implemented in the event of an emergency, such as fire or an accident. This includes the safe evacuation from lecture rooms and laboratories to a safe place outside the building.

Administrative Staff
Administrative staff are responsible for day to day administration of the Department and to comply with all fire evacuation procedures for the building.

Technical Staff
Technical staff are responsible for technical support and advice within the Department. Their duties include ensuring all test equipment, computers, printers, tools, etc. are kept in a good safe order. They are also responsible for disaster recovery and health and safety issues within the department. Their responsibilities extend to both staff and students.

All Staff Responsibilities
All the staff in the Department have a responsibility to familiarize themselves with the contents of the Departmental Safety Statement.

All staff are responsible for their own safety and must comply with all statutory provisions as appropriate and take care to protect his/her own safety, health & welfare and the safety, health & welfare of any other person who may be affected by their actions or omissions at work.

N.B. Maynooth University Safety Policy Statement is available for download from Health & Safety Office webpage.

1.2 SERVICES

University Safety Office
The role of University Safety Office is to monitor the implementation of the University Safety Statement, ensure continuous improvement of health & safety in the University, advise Heads of Departments and individuals directly on matters relating to safety, health & welfare. The Safety Office also monitors building works to ensure the safety of all persons on campus.

Campus Planning & Development Office
The Campus Planning & Development Office is responsible for the following activities

- Campus Master Planning and Project Delivery
- Design, Planning, Budget Control & Management of new building construction and refurbishment projects.
- Management of external design teams & construction projects
- Implementation of major Refurbishment projects
- Traffic Management
- Provision of physical infrastructure on campus
- Building Records

Campus Services Department
The Campus Service Department is responsible for a wide range of activities on Campus including implementation of the University's maintenance programme and general services which includes:

- Grounds Maintenance
- Postrooms
- Heating Services - Gas/Oil Fired Boilers/Air Handling Systems
- Mains Gas Services
- Electrical Services e.g. lighting, electrical panels etc.
- Fire Alarms and Equipment.
- Lifts
- Cleaning Services, Waste Disposal, Window Cleaning
- Provision of furniture and fittings
- Layout of meeting rooms, examination halls and lecture theatres and the provision and maintenance of AV systems
- Maintenance Helpdesk – staff should report any maintenance issues to the Maintenance Helpdesk at 3930 or email: maintenance@mu.ie

IT Services
The Director of IT Services is responsible for the development and implementation of the University's programme for computer services, which includes:

- Co-ordinating the purchasing of desk top computer equipment and associated peripherals in conjunction with the procurement office.
- Installations of network cabling.
- Installation and maintenance of active network components.

Security
The Head of Security is responsible for the development and implementation of the University's security programme, which includes:

- Provision and installation of intruder alarms, close circuit television and security systems,
- Provision of security services.

1.3 CONTRACTORS

Maintenance activities are essential in many areas and in some Departments. The University has a responsibility to ensure that such maintenance of services and buildings is carried out in a professional and safe manner. The following will provide guidance to those carrying out maintenance and for the staff affected in the Department.

The use of outside contractors

Where Contractors are engaged for a project, the contract may require that a Health and Safety Plan or Method Statement be prepared and provided to Campus Services Department. These documents detail the particular hazards involved and specify the arrangements to be put in place to minimise the hazards in the project. Before the commencement of work, they must contact Campus Services Department who will make them aware of the safety requirements.

The following responsibilities are allocated to Contractors operating on the Campus

- All vehicles operating on our premises must observe a speed limit of 25 Km/h.
- Contractors must comply with the University's Regulations for Safety, Health and Welfare and where appropriate, ensure that their own company's Safety Statement is complied with.
- No smoking is permitted in any Building under the control of the University.
- All "Hot Work", all "Electrical work", all "Entry into Confined Spaces", all "Work at Heights" and all "Excavations" are strictly controlled and a work permit must be obtained before commencing work from the Safety Office or Campus Services.
- All work done must be carried out in accordance with current Statutory provisions, the Contractor's own Safety Rules, and must take into account the safety of all persons on the premises.
- Appropriate personal protective clothing and equipment must be utilised.
- Scaffolding and other access equipment used by Contractors must be erected and maintained in accordance with current standards.
- All plant and equipment brought onto site by Contractors must be safe and in good working order, fitted with any necessary safety guards and safety devices. Portable power tools or electrical equipment must operate at **110 volts** and all transformers, generators, extension leads, plugs and sockets must be suitable for industrial use and in good condition. Portable equipment, other than transformers and generators exceeding 125 volts AC are not to be used in the workplace.
- Any injuries sustained by Contractors/Subcontractors must be reported immediately to the Safety Office and Campus Services Department.
- Contractors / Subcontractors must comply with any safety instruction given by the University Safety Officer.
- Insurance covers are agreed and certified prior to the commencement of the project.
- The Contractors must supply all his own tools and equipment. Under no circumstances are Contractors allowed to use University equipment without the express permission of the Power House Supervisor.
- Where work is undertaken in occupied buildings, the Contractor must ensure that dust, noise and fumes etc are minimised.

1.4 FIRST AID BOXES

Accidents do occur from time to time in all organisations. It is therefore important to have in place a management system which provides the necessary skills and materials to minimise pain and to make the person comfortable until professional assistance arrives. On that basis the following are available in each Department.

The first aid boxes are located in the following areas:

Department administrator office (second floor, E3.01)
Final Year Projects Lab. (first floor, E2.01B)
Hardware Lab. (first floor, E2.01A)
Bio Medical Lab (first floor E2.04)
PD Lab (first floor E2.08)
Makers Club (first floor E2.07)
Technician's Office (ground floor, E1.04)
Workshop (ground floor E1.05)
Computer open-access lab (ground floor, E1.01B)
Final Year Projects Lab. (ground floor, E1.07A)
Research Lab. (ground floor, E1.08)
Ground floor corridor near rear stairwell

The first aid boxes are green with a white cross and are easily accessible. A safety notice on the staff notice board details the locations of the first aid boxes and qualified First Aid persons.

First Aid persons are not authorised to dispense any form of medication. Supplies of such items must not be kept in first aid boxes. Staff who require medication are responsible for their own supplies. The appointed First Aid person shall carry out regular checks on the First Aid boxes to ensure they are properly stocked, in accordance with the following table:

TABLE 1. RECOMMENDED CONTENTS OF FIRST-AID BOXES
As set out in Safety, Health & Welfare at Work (General Application) Regulations 2007 Chapter 2 of Part 7

Materials	1 – 10 Persons	11 – 25 Persons	26 – 50 Persons
Adhesive Plasters	20	20	40
Sterile Eye Pads (Bandage attached)	2	2	4
Individually Wrapped Triangular Bandages	2	6	6
Safety Pins	6	6	6
Individually Wrapped Sterile Unmedicated Wound Dressings Medium (No. 8) (10cm x 8cm)	2	2	4
Individually Wrapped Sterile Unmedicated Wound Dressings Large (No. 9) (13cm x 9cm)	2	6	8
Individually Wrapped Sterile Unmedicated Wound Dressings Extra Large (No. 3) 28cm x 17.5cm)	2	3	4

Individually Wrapped Disinfectant Wipes	10	20	40
Paramedic Shears	1	1	1
Examination Gloves (Pairs)	5	10	10
Sterile Water where there is no clear running water. Where mains tap water is not readily available for eye irrigation, sterile water or sterile normal saline (0.9%) used be used	1x500mls	2x500mls	2x500mls

Materials (Contd)	1 – 10 Persons	11 – 25 Persons	26 – 50 Persons
Pocket Face Mask	1	1	1
Water Based Burns Dressing (Large) or Water Burns Gel	1	1	1
Crepe Bandage (7cm)	1	2	3

FIRST AID AND MEDICAL EMERGENCIES

In the event of an accident medical attention may be required. A member of the University's First Aid team should be contacted.

Each department is required to maintain a first aid box, which is adequately stocked. A list of the University first aiders must be posted beside the individual first aid box. Security staff can also be contacted to assist, particularly outside Office hours. The mobile Security Units are fitted with first aid boxes. The first aid facilities are supplemented by the medical supplies and equipment located in the Medical Centre. The University's occupational nurse is on campus during office hours, Monday – Friday: 09.30 - 16.45.

In an emergency contact the nurse through switch/security. Ext. 3333 or 3929.

Minor Injury: In the event of a minor injury, the First Aider should provide treatment. The person receiving the treatment should be advised to seek medical attention if their condition worsens.

Significant Injury: The first aider should provide initial treatment or support until the occupational nurse arrives. Contact via Security. The doctor on call can be summoned or the injured party can be brought to the Medical Centre or local surgery for immediate treatment. If there is any doubt the emergency services must be contacted.

Major Injury: The Emergency services must be contacted immediately. First aid staff and medical staff must be alerted to provide assistance to minimise the injuries pending the arrival of the emergency services.

Note: All injuries/accidents/incidents must be reported to the University Safety Office. The Report Form is available for download on Safety Office webpage.

Where injured persons are brought to the Medical Centre or doctors surgery the mobile security vehicle should be used, if on site. Where private cars are utilised a first aider must accompany the injured party.

University Doctor:

Dr. Denis Gaffney 629 1169

Doctor on Call - After Surgery Hours - If Dr. Gaffney is not on-call a recorded message gives details of the Doctor on-call and the relevant contact telephone number.

Local Doctors:

Dr. Mary Cowhey 628 9044
Dr. Christopher O'Rourke 628 5210
Dr Denise Nolan 628 5943

It is the University's policy to ensure that staff, students and persons using the premises receive medical attention if it is required. Where our first aid or medical staff refers a casualty to the doctor, the University will be invoiced.

Automatic External Defibrillators (AED's)

AED's are located at various locations on Campus. Only qualified first aiders who have completed AED training are allowed to use AED's in an emergency. An uptodate list of locations is available on the Safety Office webpage. Any Department considering purchasing an AED must consult the Safety Office to ensure that all AED's on campus are compatible and meet the required standards.

Currently AED's are located in:

South Campus

Gate Lodge
Conference & Accommodation Reception area.
St.Mary's House
John Paul II Library

North Campus

Eolas (IT Services Lobby)
Student Services Centre Lobby
Sports Centre Reception
Student Services
Arts Building
Courtyard Apartments Reception
River Apartments Reception
School of Education (foyer)
School of Business (foyer)
Between Rugby and Soccer Pitches

Further information can be found on the University Health & Safety Office website:

https://www.maynoothuniversity.ie/health-safety/first-aid-emergency-guides

1.5 REPORTING OF ACCIDENTS

All Departments have a responsibility to investigate and record all accidents that occur in their area. Staff are required to report accidents or serious incidents to their Head of Department without delay and to co-operate with the University in any subsequent investigation. The Head of Department/Supervisor must ensure that the University accident report form (available on the Safety Office webpage) is completed and forwarded to the Safety Office. See Appendix 6.

1.6 TRAINING

Responsibility
Responsibility for staff training rests with the Head of Department.

Induction Training/Supervision
All staff employed by the University must receive induction training to ensure that they fully understand the hazards of the processes and the necessary safety precautions and emergency procedures that have been put in place to ensure a safe working environment.

Job Training and Instruction
Training and instruction must be given, as necessary, to staff to ensure that they have the necessary skills and knowledge to do their job safely.

Specialist Safety Training
Training will be given, as appropriate, in first aid, safe manual handling, the use of personal protective equipment, fire fighting and prevention, evacuation procedures and the like. Specialist training will be provided as appropriate where specialist skills or competencies are required.

Training Support
The Safety Office and Staff Development Office provide advice and support in this area.

Training Records
Records of all the training provided must be maintained by the Head of Department and copied to the Safety Office.

1.7 WELFARE

Facilities
Welfare facilities provided to staff include canteen facilities, drinking water, lockers, toilets and washing facilities. These facilities are maintained in a suitable and hygienic manner. All staff are required to co-operate to use them in a respectful manner and not to intentionally damage them.

Pre-Employment Medical
Prior to taking up employment with the University all permanent staff must undergo a pre employment medical.

First Aid
Regular courses are provided for staff with Refresher training provided every 2 years.

Each Department is responsible for the provision and maintenance of first aid kits. The minimum contents of the First Aid boxes have been reviewed in conjunction with the Health and Safety Authority's guidelines. [see section 1.4]

Eye Sight Tests
All staff who work with visual display equipment are provided with an eye screening test every three years. Staff are referred to an optician where appropriate.

Pregnant Employee Regulations
Female staff are required to advise Human Resources in writing when they become aware that they are pregnant and to provide the University with written confirmation from a Doctor or Midwife, if requested.

When the University receives notification that a staff member is pregnant a risk assessment will be carried out to ensure the safety of the member of staff.

Smoking
Smoking is prohibited is all buildings on Campus in accordance with current No-Smoking legislation.

1.8 PERSONAL PROTECTIVE EQUIPMENT TO BE USED BY STAFF

Use of Personal Protective Equipment (PPE)

All University staff may from time to time be required to wear Personal Protective Equipment (PPE). This can vary from the needs of those in, for example, Biology, Chemistry, Engineering, Catering, Cleaning, Campus Services or any other Department.

Each may have special requirements such as safety glasses, face shields, noise protection, laboratory coats, overalls, safety shoes, gloves, helmets, hairnets etc.

Each Department will undertake risk assessments of their own activities and on foot of this will identify their PPE requirements. Training and advice will be given to staff as appropriate on the correct use and the necessity to use such equipment when carrying out tasks in their work area.

Students, Contractors and Visitors must comply with Departmental requirements regarding PPE.

The following general provisions apply in relation to personal protective equipment:

1. PPE is provided free of charge to the staff member.
2. PPE must comply with relevant European Community Standards
3. Only suitable equipment as described in the Hazard Assessment sheets can be used.
4. PPE must only be used for the purposes specified above and as intended by its designers and manufacturers.
5. Personal protective equipment is for the personal use of the staff member to whom it was issued.
6. Staff members must wear safety footwear as identified in the Risk Assessment for their Department.
7. Staff members who are provided with eye protection must take care of it and not wilfully misuse it.
8. Other safety devices may be identified as part of the Risk Assessment and their use must be complied with at all times.

1.9 TRAVEL ON UNIVERSITY BUSINESS INCLUDING THE USE OF CARS

Travel Abroad on University Business

Travel insurance cover is available for University Staff and Post Graduates travelling on University business outside the Republic of Ireland and Northern Ireland. A Travel Notification Form should be downloaded from the Safety Office website, completed and forwarded to Safety Office prior to travel being undertaken. This University is required to maintain records of all travel undertaken. A summary of the Travel Policy outlining the nature of the cover is also available on the Health & Safety website.

Staff on long term sabbatical leave, over six months, can also avail of this insurance, subject to prior notification to the Bursar. Travel insurance for undergraduate students is not covered under this policy and must be arranged separately. The insurance covers University Staff and Post Graduates only and does not cover family members or any other persons.

It is important to note that travel to certain countries is excluded by the Insurance Policy unless prior notification is made and approval received from the insurers. The countries excluded by the University Insurance Policy can change and all trips outside Europe and USA should be advised to the Safety Office, who will advise our insurers and ensure that cover is in place.

Use of Private Motor Vehicles for use on official University Business

Private motor vehicles should be adequately insured while being used on official University business. Staff should check with their insurance broker/company to ensure that they have Occasional Business Use cover. Staff claiming mileage on the University Travel Expenses Claim Form are required to confirm that they have made appropriate arrangements with their insurers.

The University will not accept liability for any loss or damage resulting from the use of a private motor vehicle on official University business.

Use of Mobile Phones

The use of mobile phones in cars has been the cause of a number accidents on the roads. Caution must be exercised even when using a hands free kit. Where a hands free kit is not available the driver must pull into a safe location and stop before dealing with a call.

1.10 POLICY ON THE PROTECTION OF THE DIGNITY OF STAFF AND STUDENTS

"The National University of Ireland, Maynooth is committed to the protection of dignity of men and women in the University, and to the principle that every staff member and student is entitled to work and study in an environment free from harassment, including harassment based on gender, sexual orientation, disability, race/ethnic origin (which includes membership of the Traveller community), religion, and from bullying."

1.11 DISABILITY POLICY

"The University is committed to implementation of a policy of equal opportunity for people with disabilities and, in particular, is committed to ensuring that:

- people with disabilities have access to the full range of recruitment and career development opportunities available in the University.
- people with disabilities are facilitated to give effective performance in the posts which they hold and are not disadvantaged by reason of having a disability, and
- all reasonable accommodations are made to meet the requirements to which some disabilities give rise so as to maximise access to employment in the University for people with disabilities."

1.12 POLICY ON EQUALITY

"The provision of this Policy on Equality emerge from the context of a desire on behalf of the University to foster equality of opportunity for all members of National University of Ireland, Maynooth. The Policy is adopted for a three year period, after which time it will be the subject of discussion and review. The University will strive to give effect to its provisions subject at all times to the availability of adequate financial and other resources."

The full policy documents referred to on this page are available from the Human Resources Office.

1.13 STAFF WELLBEING

Maynooth University values its staff and is committed to maintaining and enhancing a good working environment. It has in place a range of policies and services to support the well being of staff and help them to achieve their work goals and to balance their work and other roles. Information on these can be found at:

https://www.maynoothuniversity.ie/human-resources/

These policies and services include:

Policy and Procedures for the Protection of Staff Against Workplace Bullying, Harassment and Sexual Harassment.

Statement of Policy on Equality.

Quality Customer Service Charter.

Staff schemes, facilitating sabbatical, maternity, career and force majeure leave, job share and shorter year working, house loans, travel passes, and fee remission.

Training and Development – the Staff Development programme outlines the supports that are available to staff to develope their capability and skills, and further activities are available through other learning providers such as the Centre for Teaching and Learning, the Research Support Services, Computer Centre, Health and Safety Office etc.

Employee Assistance Programme – The University recognises the need to provide support for employees experiencing work related or personal difficulties.. The Employee Assistance programme enables members of staff to seek confidential help from a professional source without charge.

Staff/Student Relationships: This guidance document clarifies issues concerning staff/student relationships.

For more information on Staff Wellbeing please contact the HR Office on 01 708 3558 or visit:

https://www.maynoothuniversity.ie/human-resources/

Section 2

EMERGENCY PLANNING

2.1 Departmental Emergency Plans
2.2 Building Emergency Plan
2.3 Action in the Event of Fire
2.4 Bomb Threat Strategy & Response
2.5 Action in the event of Robbery or Intruder
2.6 Action in the event of Gas Leak of Smell of Gas in an area
2.7 Unplanned Power Outage

2.1 Departmental Emergency Plans

The University has prepared an emergency plan for all Buildings/Departments which set out the management procedures and controls that will come into effect in the event of an emergency in a department.

The emergency plan addresses the installation of appropriate warning and alarm systems which are maintained in line with approved national standards.

The plan sets out the organisation and responsibilities of named persons and how to contact emergency services.

It specifies the method of both internal and external communications in the event of a serious accident or incident

The plans will be tested at least twice a year and a review of the operations will be carried out to ensure that the plans are effective. A report will be submitted to the University Safety Committee.

All persons associated with the implementation of the emergency plan will be provided with appropriate training.

All equipment will be maintained and tested to ensure it is operational in the event of an emergency.

Records will be maintained of all equipment / maintenance checks / repairs/ fire drills and their effectiveness / assembly points and any other requirement needed to ensure an effective policy

The University Safety Committee will approve the emergency plan on the advice of the Safety Office.

Building Emergency Plan next page.

2.2 Building Emergency Plan Electronic Engineering, BioScience and Engineering Building, North Campus

Role of Head of Department:

The Head of Department is responsible for ensuring that measures are in place to deal with emergency situations in their Department.

This includes

- A list of all Departmental staff including contact details
- Ensure that staff are aware of and understand Evacuation and Emergency Procedures.
- Appointment of adequate number of trained Fire Wardens
- Appointment of adequate number of trained First Aiders
- Provision of First Aid Equipment
- Co-operation with other Departments within the same building regarding Emergency Planning.
- In high risk Departments, e.g. Chemistry, Physics, Biology, Engineering, Technical Staff are available to assist and respond in an emergency.

Building: Biosciences and Engineering Building, North Campus
3 Storey Building
Fully addressable L1 fire alarm

The fire alarm, emergency lighting, fire doors, fire extinguishers and associated equipment are inspected and tested by competent contractors in accordance with current Standards. **See Appendix 4 – Plan of Building**.

Occupancy: The building houses the following Departments:

- Electronic Engineering Department
- BioSciences

Adjoining Buildings: Consideration will be given at the time of emergency of the impact on other buildings in close proximity to the emergency situation.

Travel Distance: All offices within the building are within the required travel distance as set out in the Building Construction Regulations.

Cooperation between Users: Each Department within the building will liaise and cooperate with each other to ensure that all fire evacuation procedures are complied with.

Emergency Evacuation Plan Each member of staff has a responsibility to comply with the Emergency Plan for the building.

Fire Wardens: It is recommended that the fire wardens for the building select a lead fire warden to take immediate charge in the event of a fire emergency until Security or the fire emergency services arrive at the building.

In the event of emergency within the building Fire Wardens should ensure that the building is evacuated, if safe to do so. In the event of a major emergency a Head of Department will take charge until the professional emergency services arrive.

First Aid Persons: In the event of an emergency/accident the first aid person will render assistance until professional medical assistance arrives.

Emergency Contacts/Phone numbers

Security:	(01) 708 3929 (mobile unit)
Safety Officer:	(01) 708 4720
Gardai:	112 or 999 Maynooth: (01) 6291444
Fire Brigade	112 or 999
Medical Centre:	(01) 708 3878

(As appropriate – depending of number of Departments within Building)

Second Floor:

Head of Deapartment:	Ronan Farrell, E3.02, ext. 6197
Chief Technical Officer	John Maloco, E3.10, ext. 6056 Mobile: 0872817656

Other occupiers of the building

The building is also occupied by the Biosciences department and its various research groups and Institutes.

The building is divided into two wings. One occupied by Engineering and the other by the Biosciences and its groups. Both wings are separated by a common foyer/entrance area.

2.3 ACTION IN THE EVENT OF FIRE

ANY PERSON DISCOVERING A FIRE SHOULD:

1. Raise the Alarm by activating the break glass unit at the nearest fire point, which are found in the corridors and on the exit routes.

2. Inform the Fire Brigade
   The Fire Brigade must be notified of any fire - Emergency No. 999 or 112 (mobile). Give your address and clear directions. Switchboard or University Security Staff must also be alerted - Emergency Number: Security (01 708)3333
   Security Mobile Unit: (01 708) 3929

3. Deal with the Fire if safe to do so
   Attack the fire using the nearest suitable extinguisher or fire hose reel where appropriate. DO NOT TAKE PERSONAL RISKS OR PUT LIVES IN DANGER

4. OTHERWISE EVACUATE FROM THE PREMISES

   ON HEARING THE FIRE ALARM
   The evacuation of the building must commence immediately.

   1. Ensure that all equipment is left in a safe condition within the time available, prior to evacuating.

   2. Leave the building by the nearest safe exit, closing all doors behind you.

   3. Do not delay to collect personal belongings or for any other reason.

   4. Assemble at the prescribed assembly point(s)

DO NOT TAKE RISKS.
DO NOT RETURN TO THE BUILDING FOR ANY REASON UNLESS AUTHORIZED TO DO SO.
DO NOT USE LIFT(S)

Reference: Emergency Plan, Maynooth University Safety Policy

2.4 BOMB THREAT STRATEGY & RESPONSE

1. When informed of a bomb threat get all the information possible about the call from the person who received it. Guidelines to Telephonists/Persons receiving bomb threat call on page the next page.
2. Staff on receipt of the call must:
   - Detain the caller on the line for as long as possible, asking the questions outlined on the attached form. Record as much information as possible.
3. When the caller hangs up advise Head of Security/Security immediately. Extn. 3929
4. Head of Security/Security is to advise the following:
   - The Gardaí
   - Safety Officer
   - Head of Department
5. This may also include advising the Emergency Services, Bord Gais and ESB or any other relevant authority.
6. Gather all information needed for the Gardai i.e. plans of the building, staff lists and keys.
7. Assessing the threat is probably the most difficult aspect of the task.
   There are two options:
   (a) to search and evacuate in the event of a suspicious object being found.
   (b) to evacuate immediately without searching ensuring that staff/students/visitors/contractors are not allowed within 300 metres of the building.
8. This decision will be made with the help of the Gardai, if present, or in the absence of the Gardai with the Head of Security.
9. The Bomb Threat Report will assist in assessing the threat.
10. If a suspect object such as a bag, briefcase or parcel without an owner is found, then that area and all adjacent areas must be evacuated away from the object immediately. An assembly point must be selected at least 300 metres away from the building and its car park by those in charge.
11. The Gardai will have been contacted by Security and on arrival will take charge of the incident.

<u>IF A SUSPICIOUS OBJECT IS FOUND – FOLLOW THE GOLDEN RULE:</u>

DO NOT TOUCH
CLEAR PEOPLE AWAY FROM THE IMMEDIATE VICINITY A MINIMUM OF 300 METRES FROM THE AREA
SECURE THE AREA AND INFORM SECURITY WHO SHOULD THEN INITIATE EVACUATION, IF NOT ALREADY DONE.

Guidelines to Telephonists/Persons receiving bomb threat call

BOMB THREAT REPORT

It is important on receipt of a bomb threat that the telephonist/person receiving the call does not panic. So as to reduce confusion and assist appropriate authorities, every effort should be made to obtain and record the information as outlined below.

1. Note the exact time of the call. Start _____ Finish _____

2. Note the exact words of the threat - particularly the location of the bomb and when it is going to explode.
   _____
   _____

3. Ask:
   a. Where is the bomb now? _____
   b. What does it look like? _____
   c. When is it going to explode? _____
   d. Who planted it? _____
   e. Why was it planted? _____

4. Note whether the voice is male or female. _____

5. Note the accent of the caller. _____
   e.g. Dublin, Country, Northern Ireland, Foreign.

6. Note whether the caller sounds intoxicated. _____

7. Note any background noises - traffic, music, voices, etc. _____

1. Note if the voice is familiar - Who? _____

9. Note the time the caller hung-up. _____

10. Other comments. _____

Notify the Security and Gardai immediately on receipt of a call.

Reference: (Insert appropriate Building) Drawing attached
Emergency Plan, Maynooth University Safety Policy

2.5 ACTION IN THE EVENT OF ROBBERY/BY AN INTRUDER

In the event of an intruder in the building, do not confront the individual, contact Security immediately extn. 3929 if able to do so. Under no circumstances are you to apprehend the intruder. Move to a safe area and observe if possible.

2.6 ACTION IN THE EVENT OF GAS LEAK OR THE SMELL OF GAS IN AN AREA.

1. Do not answer or use mobile phone/radios
2. Do not switch on lights or any other electrical equipment on or off.
3. Do not use naked lights
4. Ring Security/Safety Officer and Bord Gais immediately from a safe location.
5. Check whether the gas is coming from a pilot or burner:-
   - If from a pilot or burner, turn of the burner.
   - If from elsewhere, turn off the gas supply to the area.
6. Open doors and windows and leave them open until the leak has stopped and any build-up of gas has dispersed.
7. If gas continues to escape after the supply has been isolated leave the building immediately and go upwind away from the gas leak.
8. Report the leak to your Head of Department.
9. Obey the instructions of Security/Safety Officer/Person in charge.

2.7 UNPLANNED POWER OUTAGE

In the event of an unplanned power outage in a building(s) these must be cleared as soon as practicable and at the discretion of the Safety Officer or Head of Security. The emergency lighting systems are only designed to provide lighting for a limited period to aid safe egress and to provide lighting for the emergency services. In the event of a power outage please advise Security (3929) and they will liaise with the Powerhouse.

Section 3

3.1	Electronic Laboratory Safety
3.2	Mechanical Workshop Safety
3.3	Soldering Safety
3.4	Guidance on Office Safety
3.5	Guidance on Display Screen Equipment
3.6	Guidance on Manual Handling
3.7	Guidance on Lone Working
3.8	Guidance on Use of Lecture Theatres, Classrooms and tutorial Rooms in the University
3.9	Guidance for Safe Working Practices covering Fieldwork/trips and Transport
3.10	Guidance on the safe use of Mains Electricity
3.11	General Guidance for Heads of Departments on the Management of Construction Projects carried out on Maynooth University Campus
3.12	Guidance on Chemicals/Hazardous Substances
3.13	Guidance on Major Events
3.14	Guidance on Work Equipment
3.15	Guidance on Accessing Heights
3.16	Guidance on Access and Egress
3.17	Guidance on Deliveries (External)
3.18	Guidance on Children & Young Persons
3.19	Guidance on E Working
3.20	Guidance on Noise

3.1 ELECTRONICS LABORATORY SAFETY

Please read this carefully before starting Laboratory work.

Safety Considerations
In the electronics labs there should be no dangerous voltages and currents involved with practical work, however, some of the measurement equipment are powered by mains electricity. You should use common sense when dealing with any type of electricity. The biggest hazard is the 220V AC voltage at each socket. If you see any damaged plugs, power cords, or equipment, then notify the instructor or technician immediately. Also if you see sparks, smell burning, or get an electric shock (no matter how small), notify the instructor or technician.

Safety considerations to be observed:

- Be careful inserting and removing plugs. Do not pull on the cord.
- When making connections on your circuit board, make sure the power is off. Only switch power back on when your circuit is correct. If in doubt do not guess, ask the assistance of an instructor.
- Do not touch bare wires and parts, unless the power is off.
- Do not work when your skin is wet.
- Be careful with metal jewelery since rings, wrist watches, necklaces, etc. make excellent conductors in the event of accidental contact with electric power sources.
- Do not place food or drink on your bench.
- Avoid working alone be sure there are at least three people in the laboratory; one to aid the victim and one to obtain additional help
- Be very careful to observe polarity of electrolytic capacitors as they can and do explode violently if connected the wrong way.
- Be aware that electronic components such as resistors can get very hot even at low voltages.
- Be careful with sharp objects such as ships and wire-ends.
- Soldering (see soldering safety guidelines)

ELECTRIC SHOCK
If a disabling electric shock occurs, cut the power and/or remove the victim as quickly as possible without endangering yourself. If the power switch is not readily accessible, use a length of dry wood, rope, clothing, belt, or other insulating material to pull or pry the victim loose. While one person contacts the emergency number another should examine the victim to determine if he is breathing. If not breathing CPR or artificial respiration is required. If no one is at hand to administer CPR then contact one of the emergency numbers immediately.

3.2 RADIOSPACE SAFETY

Please read this carefully before starting any work in the RadioSpace facility.

Safety Considerations

The RadioSpace is a potentially hazardous area and **only authorised people should use this facility**. Every person who works in RadioSpace has a duty to ensure that work is carried out in a safe manner without foreseeable risk to the safety of themselves or others. Great care must be exercised by all authorised personnel to avoid personal injury or injury to others nearby.

Safety considerations to be observed:

- Strict access rules apply for access to RadioSpace.
- Only qualified personnel to use this facility.
- Trip and fall hazards to be observed.
- Head height on entry.
- Eating and drinking are not permitted in RadioSpace..
- Pontential loss of light in the RadioSpace chamber.
- Radio power to be limited to max. 10W.

3.3 WORKSHOP SAFETY

Please read this carefully before starting any work in the mechanical workshop.

Safety Considerations

The mechanical workshop is a potentially hazardous area and **only authorised people should use this facility**. Every person who works in a workshop has a duty to ensure that work is carried out in a safe manner without foreseeable risk to the safety of themselves or others. Great care must be exercised by all staff using mechanical equipment to avoid personal injury or injury to others nearby.

Safety considerations to be observed:

- Do not use electrical tools when your skin is wet.
- Wear protective clothing provided when working i.e. coat, gloves and goggles.
- Do not use tools you are not trained to use.
- Avoid working alone be sure there are at least two people in the workshop.
- Eating and drinking are not permitted in any workshop.
- Long hair, jewellery, and items of clothing, MUST NOT be allowed to hang loose when machinery is operated. Rings must not be worn.
- A first aid box should always be located in the workshop.
- Workshops must be kept tidy..
- All tools, equipment, and machinery, must be visually inspected for faults before use and must be maintained in a safe, clean, and efficient working condition.
- Tools must be returned to designated storage cupboards after use.
- All tools, equipment, and machinery, must be visually inspected for faults before use and must be maintained in a safe, clean, and efficient working condition.

- Machinery must be electrically isolated prior to cleaning, maintenance, or repair.

3.4 SOLDERING SAFETY

Please read this carefully before starting any soldering work.

In order to solder successfully and safely you need to be shown how. If you have not received instruction in soldering please contact a lab technician before attempting any soldering.

Safety Considerations

- Never touch the element or tip of the soldering iron. They are very hot (about 400°C) and will give you a nasty burn.
- Always return the soldering iron to its stand when not in use. Never put it down on your workbench, even for a moment!
- Never solder on live circuits or equipment.
- Never make solder connections on equipment or circuits you are not familiar with.
- Allow joints a minute or so to cool down before you touch them.
- Work in a well-ventilated area. The smoke formed as you melt solder is mostly from the flux and quite irritating. Avoid breathing it by keeping you head to the side of, not above, your work.
- Always use a fume extractor to remove the harmful fumes. If a fume extractor is not available use a mask.
- Always wear safety goggles provided
- Ensure that the solder used is lead-free.

Treatment for minor burns

Most burns from soldering are likely to be minor and treatment is simple:

• **Immediately cool the affected area under gently running cold water.**

Keep the burn in the cold water for at least 5 minutes (15 minutes is recommended).
If ice is readily available this can be helpful too, but do not delay the initial cooling with cold water.

• **Do not apply any creams or ointments.**

The burn will heal better without them. A dry dressing may be applied if you wish to protect the area from dirt.

3.5 GUIDANCE FOR OFFICE SAFETY

1. Furniture & Fittings

Office fitments (floor coverings, electrical fittings, heating, lighting and ventilation systems) and office equipment (desks, chairs, drawers and filing cabinets) must be selected for the task for which they are intended. Careful selection reduces the risk that unsuitable fitments or equipment will be brought into use on the premises.

2. Layout of Workplace

The layout of the office area is critical for its safe use.

- Position all office equipment so as to avoid risks, falls or collisions when in use.
- Position all power cables where possible, so as to avoid risks of trips or falls. Tape or fasten all phone lines, cables and extensions under the desk or along the baseboards. A cable cover is fitted when it is absolutely necessary that a cable run across a passageway.
- Provide adequate means of access to, and exit from, the workplace including adequate means of escape in case of a fire (which must be clearly marked).

3. Office Housekeeping

The removal of hazards to safety and health in the office depends greatly on the maintenance of appropriate standards of good housekeeping.

4. Smoking

Strict restrictions and regulations are in force covering this activity. These must be complied with**.**

5. Temperature and Lighting

Temperature and lighting in an office should meet regulatory standards. There should be provisions for staff to be able to measure temperature in an office.

6. Minor repairs

Minor repairs, such as removing blockages from the photocopier, may be carried out by office staff where clear instructions exist and the action presents no hazard. Whilst machines may be fitted with interlocking systems to prevent electrocution, they still must be switched off and unplugged before gaining access to the interior. Care is needed to avoid hot surfaces. Under no circumstances should office staff use screwdrivers or any other article to tamper with the inside of machines.

7. Major faults

Major faults, including any electrical faults, frayed wires etc., must be reported to the supervisor. No attempt should be made by office staff to repair electrical faults. In such cases, isolate the machine until repaired by a qualified electrician.

8. Maintenance

Qualified maintenance personnel carry out basic maintenance of machines. Where replacement of toner involves more than cartridge replacement, rubber gloves must be worn. A First Aider is called in the event of accidental inhalation, swallowing or entry into eyes.

9. Filing Cabinets

- Do not use defective cabinets.
- Ensure cabinets are placed on even and secure supports.
- Use only one drawer at a time. Close each drawer prior to extracting another one.
- Do not overfill drawers.
- Do not leave drawers pulled out and unattended.
- Use mechanical means to move or transport empty and full cabinets.
- Store heavier items in the bottom drawer.
- Fill the bottom drawer first.
- Always use the drawer handles to open and close drawers.

10. Miscellaneous

- Do not use chairs, desks or other unsuitable means to access heights. Use stepladders or purpose built stairs or platforms.
- Avoid storing files, office supplies and other equipment on overhead open-sided shelves.
- The temporary depositing or storage of used cups and containers on or close to electrical appliances is prohibited because of the risk of electrical shock caused by spillage.
- Report any breakage's, floor obstructions, or other hazards to your supervisor immediately on becoming aware of them.
- Ensure that bulk supplies of stationery, adhesives and other combustible material are stored in an orderly way and preferably in a self-contained non-combustible area.

3.6 GUIDANCE ON THE USE OF DISPLAY SCREEN EQUIPMENT IN THE UNIVERSITY

Whilst there are no known cases of serious accidents or injuries involving the use of this equipment, it is known that in some instances their prolonged use can cause stress, pain or discomfort. In view of this, the use of display screen equipment is extensively covered by legislation

These Regulations are designed to provide safe and comfortable working conditions and they are summarised in the attached drawing which is provided by the Health and Safety Authority as part of their Guidelines on the Safe Operation of Visual Display Units. These guidelines are available from the Safety Office if required. A link to a VDU Self Assessment Programme is available on Quality Promotion Office webpage, Staff Development section.

The University is committed to complying with the legal requirements in this area to the full. If any person operating visual display units is suffering from any discomfort as a result of using this equipment, they should refer the matter immediately to their supervisor.

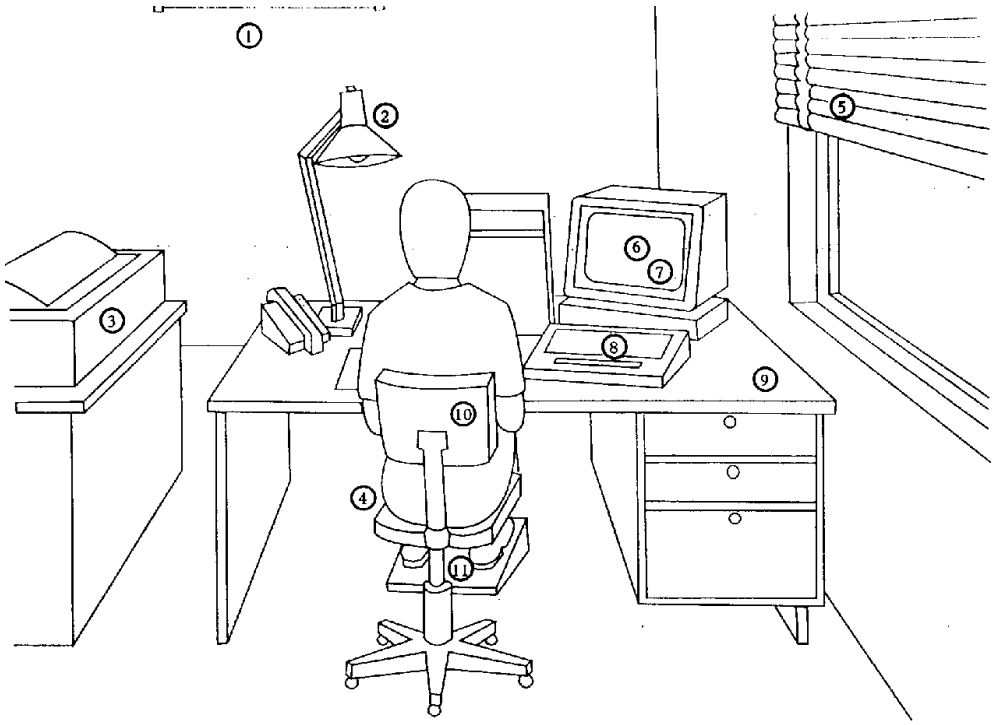


FIGURE 1:

1. ADEQUATE LIGHTING.
2. ADEQUATE CONTRAST, NO GLARE OR DISTRACTING REFLECTIONS.
3. DISTRACTING NOISE MINIMISED.
4. LEGROOM AND CLEARANCES TO ALLOW POSTURAL CHANGES.
5. WINDOW COVERING.
6. SOFTWARE: APPROPRIATE TO TASK, ADAPTED TO USER, PROVIDES FEEDBACK ON SYSTEM STATUS, NO UNDISCLOSED MONITORING.
7. SCREEN: STABLE IMAGE, ADJUSTABLE, READABLE, GLARE/REFLECTION FREE.
8. KEYBOARD: USABLE, ADJUSTABLE, DETACHABLE, AND LEGIBLE.
9. WORK SURFACE: ALLOW FLEXIBLE ARRANGEMENTS, SPACIOUS, GLARE FREE.
10. WORK CHAIR: ADJUSTABLE.
11. FOOTREST.

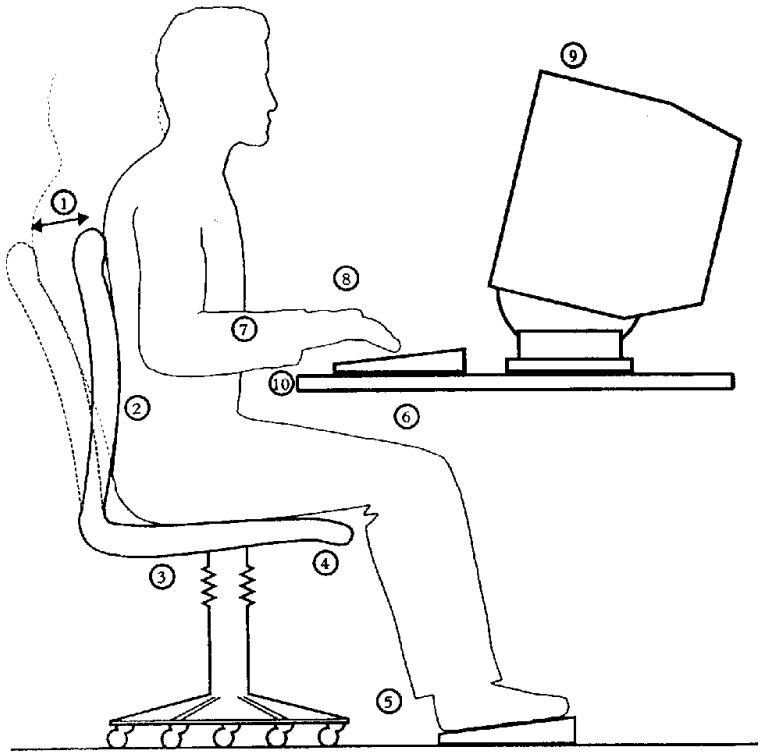


FIGURE 2

SEATING AND POSTURE FOR TYPICAL OFFICE TASKS

1. SEAT BACK ADJUSTABILITY.
2. GOOD LUMBER SUPPORT.
3. SEAT HEIGHT ADJUSTABILITY.
4. NO EXCESS PRESSURE ON UNDERSIDE OF THIGHS AND BACKS OF KNEES.
5. FOOT SUPPORT IF NEEDED.
6. SPACE FOR POSTURAL CHANGE, NO OBSTACLES UNDER DESK.
7. FOREARMS APPROXIMATELY HORIZONTAL.
8. MINIMAL EXTENSION, FLEXION OR DEVIATION OF WRISTS.
9. SCREEN HEIGHT AND ANGLE SHOULD ALLOW COMFORTABLE HEAD POSITION.
10. SPACE IN FRONT OF KEYBOARD TO SUPPORT HANDS/WRISTS DURING PAUSES IN KEYING.

3.7 GUIDANCE ON MANUAL HANDLING

It is the policy of the University that no person is expected to lift a load that would be likely to cause him/her injury. Furthermore the University minimises the risk of injury to employees by meeting legal requirements in this area.

Mechanical lifting equipment (pallet trucks, hand trucks and trolleys) are available. These must be utilised in preference to manual handling where it is practicable to do so. The wearing of safety footwear is compulsory for employees involved in activities where they are exposed to risks from heavy objects, chemical or hot substances. Safety gloves are also used as a protection against metal staples, wire and the like.

Staff who are required to carry out activities which require manual handling must be familiar with the correct lifting techniques. Training will be provided to all staff as soon as practicable, but the following information will inform you of what is required when lifting objects. The information outlined below and attached diagrams will enable the person to lift correctly.

- Lift in easy stages.
- Bend the legs to the floor
- Keep the back straight
- Hold weights close to body.
- Don't jerk, shove or twist body.
- Grip load with palms of the hands - not fingertips.
- Lift the load –keeping the back straight and carry it to its resting place
- Don't let the load obstruct your view.

.

ADDITIONAL PRECAUTIONS

1. Only manually lift loads which you know you can lift easily, comfortably and safely. If in doubt ask a colleague for assistance.
2. Examine the load before lifting for exposed and dangerous staples, wire, and other objects which could cut or puncture the skin.
3. Factors which could make manual lifting dangerous are as follows:-

4. **Characteristics of the load**

The manual handling of a load may present a risk, particularly of back injury if it is:

(a) Too heavy or too large.
(b) Unwieldy or difficult to grasp.
(c) Unstable or has contents likely to shift.
(d) Positioned in a manner requiring it to be held or manipulated at a distance from the trunk, or with a bending or twisting of the trunk, or likely, because of its contours or consistency (or both) to result in injury to employees, particularly in the event of a collision.

5. **Physical effort required**

A physical effort may present a risk particularly of back injury if it is:

6. Too strenuous.
7. Only achieved by a twisting movement of the trunk.
8. Likely to result in a sudden movement of the load.
9. Made with the body in an unstable posture.

10. **Characteristics of the Working Environment**

The characteristics of the work environment may increase a risk, particularly of back injury if:

(a) There is not enough room, in particular vertically, to carry out the activity.

(b) The floor is uneven, thus presenting tripping hazards, or is slippery in relation to the employee's footwear.

(c) The place of work or the working environment prevents the handling of loads at a safe height or with a good posture by the employee.

(d) There are variations in the level of the floor or the working surface requiring the load to be manipulated on different levels.

(e) The floor, or footrest, is unstable.

(f) The temperature, humidity or ventilation is unsuitable.

11. **Requirements of the Activity**

The activity may present a risk, particularly of back injury, if it entails one or more of the following requirements:

(a) Over-frequent or over-prolonged physical effort involving in particular the spine.

(b) An insufficient bodily rest or recovery period.

(c) Excessive lifting, lowering or carrying distances.

(d) A rate of work imposed by a process which cannot be altered by the employee.

12. **Personal Factors**

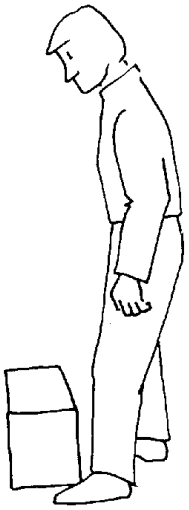
The employee may be at risk if he/she:

a) Is physically unsuited to carry out the task in question.

b) Is wearing unsuitable clothing, footwear or other personal effects.

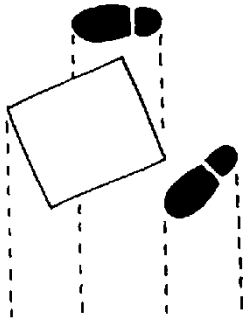
c) Does not have adequate or appropriate knowledge or training.

If you have reason to believe that any of these factors are relevant in any circumstance, refer the matter to your Head of Department/Manager/Foreman before attempting to complete a lift.

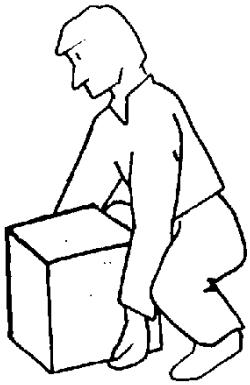


1. Stop and think. Plan the lift. Where is the load going to be placed? Use appropriate handling aids if possible. Do you need help with the load? Remove obstructions such as discarded wrapping materials. For a long lift – such as floor to shoulder height – consider resting the load mid-way on a table or bench in order to change grip.

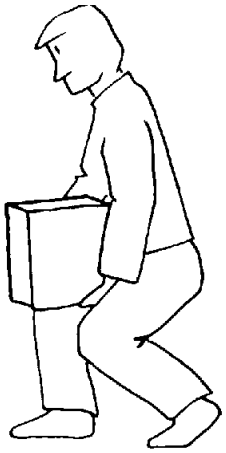
2. Place the feet. Feet apart, giving a balanced and stable base for lifting (tight skirts and unsuitable footwear made this difficult). Leaning as far forward as is comfortable.



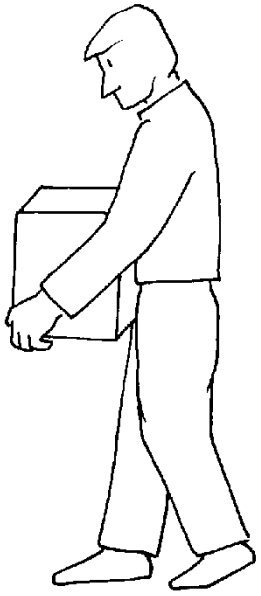
3. Adopt a good posture. Bend the knees so that the hands when grasping the load are as nearly level with the waist as possible. But do not kneel or overflex the knees. Keep the back straight (tucking in the chin helps). Lean forward a little over the load if necessary to get a good grip. Keep shoulders level and facing in the same direction as the hips.



4. Get a firm grip. Try to keep the arms within the boundary formed by the legs. The optimum position and nature of the grip depends on the circumstances and individual preference, but it must be secure. A hook grip is less fatiguing than keeping the fingers straight. If it is necessary to vary the grip as the lift proceeds, do this as smoothly as possible.

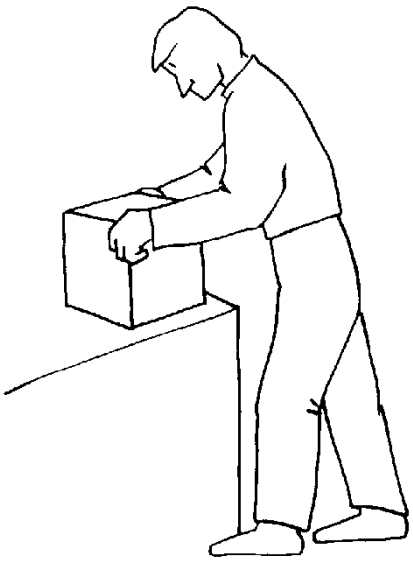


5. Don't jerk. Carry out the lifting movement smoothly, keeping control of the load.



Move the feet. Don't twist the trunk when turning to the side.

6. Keep close to the load. Keep the load close to the trunk for as long as possible. Keep the heaviest side of the load next to the trunk. If a close approach to the load is not possible try sliding it towards you before attempting to lift it.



7. Put down, <u>then</u> adjust. If precise positioning of the load is necessary, put it down first, the slide it into the desired position.

3.8 GUIDANCE ON LONE WORKING

Given the nature of the activities on Campus, University buildings may be open from early morning until 10 pm at night. The normal academic programme runs from 8am to 6pm Monday to Friday but night classes are also held in designated buildings. Staff in academic Departments may work in the evenings and non academic departments may have occasion to work late. Because Buildings are locked on a rota by Security staff and for your own personal safety, Security should be advised if you are working late or have reason to be in a building after hours. Before leaving staff should advise Security so that the building can be secured and alarmed.

With the exception of the JP Library, Arts Building and Public Access Computer Rooms Undergraduate Students should not have access to buildings unless prior arrangements are made with the Head of Security.

Electronic Engineering department staff, when working alone after normal hours, should advise Security that they are on the premises, the location and the estimated time of departure from the Campus.

The University is implementing a security programme throughout the campus which includes CCTV and access control.

3.9 GUIDANCE ON THE USE OF LECTURE THEATRES, CLASS ROOMS AND TUTORIAL ROOMS IN THE UNIVERSITY

Lecturers and other users are expected to observe the following guidance:

- Ensure the room is not over crowded.
- Ensure all students are aware of the action to take in the event of a fire alarm.
- In an emergency direct all students to evacuate the room to the designated fire assembly point**.**
- Report any defects in the room to the appropriate department i.e. broken furniture, faulty equipment, failed light tubes, electrical faults, failure of data equipment etc. to the Campus Services Department as soon as possible.
- Clean the whiteboards and chalkboards after use, bearing in mind that whiteboards become progressively more difficult to clean with the passage of time.
- Food and drink must not be consumed in lecture theatres or seminar rooms, with the exception of water.
- Students/visitors must not deface furniture or fabric of a room. Graffiti is vandalism and is subject to disciplinary action by the University.
- Do not re-arrange the furniture or remove items from the room or any another room.
- If the room is not suitable for lecturing contact the Registrars Office.
- In the event of failure of AV equipment contact can be made with AV Support Services through Campus Services Department.
- Before leaving a room, switch off all equipment, lock equipment cupboards, switch off all lighting.
- DO NOT occupy a seemingly empty room. Although empty, it may be booked by another department.
- **Trailing cables** - cables must be managed in a manner to minimise trips, slips and falls in the theatre/room.

Observing this guidance will assist your colleagues and maintains the quality of the learning environment for students of the University.

3.10 GUIDANCE FOR SAFE WORKING PRACTICE COVERING FIELDWORK/FIELDTRIPS AND TRANSPORT

The responsibility for ensuring that there are effective arrangements for the health and safety of staff and students undertaking field work/trip rests with the Head of Department. The Head of Department has a responsibility to ensure that those appointed to organise fieldwork/trips are authorised, trained and competent to carry out the task.

High Importance: Prior Approval for Fieldwork/Trips
The organiser/leader of all fieldwork/trips is responsible for carrying out a risk assessment which identifies the necessary safe arrangements for the fieldwork/trip. This risk assessment requires the prior approval of the Head of Department and notification to the Safety Office before the fieldwork/trip is undertaken.

The risk assessment must consider the following:

- The health and safety of the staff and students participating and any others who may be affected by the fieldwork activities, e.g. students, members of the public.
- A ratio of supervision of staff/students must be identified. This will take into consideration the number of participants, their experience and training.
- At the planning stage of the fieldwork/trip the organiser must be clearly defined as having full responsibility for all of the activities to be undertaken by the group.
- General safety rules should be laid out for all those taking part in fieldwork/trip, preferably through written procedures, supplemented by verbal briefings or advice.
- The protocols should include contingency plans for foreseeable emergencies.
- The organiser/leader of the fieldwork/trip is responsible for ensuring that all safety precautions are observed for the duration of the fieldwork/trip.
- The Departmental Office should be given details of any fieldwork trips, including a list of all those involved, itinerary, expected return time.
- **Special precautions must be put in place where staff/students will be working alone.**

Each individual field worker also has a responsibility for conducting fieldwork activities in a safe manner both for his/herself and for others. He/she must comply with the procedures and any safety information provided. He/she must report any matters (e.g. health conditions) which may affect their ability and hence their safety in carrying out the fieldwork/trip. Where there are particular health issues these will be treated on a confidential basis.

EQUIPMENT AND TRAINING
Instruction and training must be provided to field workers to enable them to carry out the activities safely. Field workers should be advised on appropriate clothing and equipment needed for the field. They should be given training in the safe use of any equipment provided. Any high risk activities, e.g. mountaineering, caving, diving, potholing are strictly prohibited.

WORKING ALONE ON FIELDWORK
Whenever possible, fieldwork should be organised for groups and working alone on field work is to be discouraged as far as possible. However, it is recognised that in some situations it is not reasonably practicable to avoid working alone and particular care should be taken to establish safe procedures with respect to the working environment, with the staff member/student involved directly in the risk assessment.

General

Where people will be working unaccompanied/out of sight/earshot, this must be justified and any additional precautions specified. Clear guidelines for the type of activity, which the lone worker may carry out, should be given. The risk assessment must take into account the environment. The organiser/leader is ultimately responsible for the lone worker and should know the lone worker's location and itinerary. The use of mobile telephones is advised. The frequency and nature of monitoring/reporting on lone workers depends on the nature of the work. This should be defined prior to commencement of the fieldwork.

HEALTH ISSUES

The organiser/leader of fieldwork should be aware of any staff/students individual health problems which may affect his/her safety in carrying out the fieldwork e.g. medical condition.

Procedures must be put in place to ensure the individual's safety. Exclusion on health and safety grounds from part or all of the activities may ultimately be the only course of action. Other health matters to consider are the fitness of participants, immunisations, first aid provision, emergency contacts.

FIRST AID PROVISION AND ACCIDENT REPORTING

First Aid training is recommended for groups working in isolated areas and an adequate number of qualified First Aiders should be available in the field. Where fieldwork is being carried out in remote locations, a first aid kit should be brought on the trip. In addition, a member of staff should carry a mobile phone.

All accidents during fieldwork activities must be reported as soon as possible after occurrence to the Safety Office.

TRANSPORT

The provision and use by Maynooth University of transport services for field trips.

Staff organising field trips, which due to the numbers involved require the availability of a special bus/buses or the use of private cars, must identify the requirements for the outgoing and return journeys.

The issues that must be addressed are as follows:

Is a special bus or number of buses required to take the participants on the field trip the only way of getting to the location
or
Can private cars be used to transport the group to the location
or
Can public transport be used by the group.

Where it is decided by the organisers that a special bus or buses are required, the organiser must ensure that appropriate insurance cover is available, that the bus has a Certificate of Roadworthiness and is fitted with safety belts.

In the case of using a private car/cars similar arrangements must be in place.

In the case of provision by Maynooth University of a special bus/buses, a designated person must be in charge of the bus on its outward and return journey.

The designated person must account for the numbers/names of those going on the outward journey and similarly on the return trip.

Only the designated person in charge of the bus has the authority to grant permission for a person to leave the bus and avail of alternative arrangements to get home or back to where the bus departed from.

It is advisable that special bus/car transport arrangements are brought to the attention of the Safety Office well in advance of the trip being undertaken by the group.

SEE APPENDIX 5 – RISK ASSESSMENT FOR FIELD TRIPS

3.11 GUIDANCE ON THE SAFE USE OF MAINS ELECTRICITY

The electrical installations are inspected and maintained by the Campus Services Department/Power House. Under no circumstances are any repairs, modifications or work allowed on the electrical systems without prior authorisation of the Powerhouse or Campus Services Department. All work must be undertaken by competent personnel in accordance with current regulations.

Ensure the following guidelines are adhered to:

1. Access to electrical panels is prevented - covers are kept closed and locked.

2. The main switches are readily accessible and clearly identified.

3. Electrical installations are checked periodically and repairs carried out by competent electricians. Residual current circuit breakers are checked at regular intervals.
   Ensure electrical equipment is suitable for its working environment.

4. All portable electrical tools/equipment in Departments must be inspected on an annual basis by competent persons.

5. Suspect or faulty apparatus must be taken out of use, secured and labelled "DO NOT USE" until repaired by a competent person.

   Where possible tools and power socket-outlets are switched off before plugging in or unplugging

6. Appliances are unplugged before cleaning or making adjustments.

7. Immediately report any smoke/fire/sparks/noise in electrical equipment to your Head of Department or supervisor.

8. Never overload an electrical circuit - provide enough socket outlets. Where adapter boards are used ensure the circuit is not overloaded. Overloading socket outlets by using adapters can cause fires.

3.12 GENERAL GUIDANCE FOR HEADS OF DEPARTMENTS ON THE MANAGEMENT OF CONSTRUCTION PROJECTS CARRIED OUT ON MU/COLLEGE CAMPUS

Recent detailed Regulations for construction projects have focussed on the way construction projects are planned, designed and managed for the duration of the project.

The management of safety with regard to construction projects is based on sound and proven principals. These principals are laid down in current safety legislation and they must be complied with at all times prior to any future extensions, alterations or renovations, the following criteria must be complied with:-

- A summary of the proposed work shall be prepared by the Project Engineer, Architect or the designated person.
- A Safety Assessment of the areas affected by the proposed work by a competent person.
- The Hazards highlighted or identified by the Assessment shall be addressed in accordance with the General Principals of Prevention as set out below.
- The avoidance of risk where practicable.
- The evaluation of unavoidable risks.
- The combating of risks at source.
- The adaptation of the work to the individual.
- The adaptation of the place of work to technical progress.
- The replacement of dangerous articles, substances or systems of work with safe ones.
- The development of an adequate prevention policy which takes account of technology, organisation of work, working conditions, social factors and the influence of factors relating to the working environment.
- The giving of priority to collective protective measures over individual protective measures.
- The giving of appropriate training and instruction to employees.
- To liaise with the appropriate persons before carrying out the work.
- To identify any special requirements before carrying out the task.
- To identify any special training, such as having SafePass Certificate.
- Access to any particular Risk Assessment.
- To identify any specific high risk prior to any activity being undertaken.

3.13 GUIDANCE ON THE SAFE USE OF CHEMICALS OR HAZARDOUS SUBSTANCES (where applicable)

Controlling chemical hazards primarily depends on the nature of the actual hazard. The following are general guidelines for those using chemicals, where appropriate.

1. Use the safest chemical possible for the job to be done. Compare potential hazards of the various chemical options available.

2. Read the label and the safety data sheet before opening the packaging. Note any hazard symbols and if necessary seek clarification.

3. Take the special measure prescribed before starting to use the chemical and know the emergency measures in case of accidents. Handle all chemicals with care especially those classified as hazardous.

4. Avoid the inhalation of vapours and dusts by using ventilation or extraction equipment or by working outdoors. This is especially important for toxic, harmful or irritant chemicals. The vapours of flammable chemicals must also be contained.

5. Prevent contact with eyes, where there is any risk of eye contact wear protective goggles. This is especially important for corrosive or irritant chemicals.

6. Prevent contact with the skin and use suitable protective gloves. This is especially important for corrosive, toxic, harmful or irritant chemicals. Solvents may penetrate protective gloves following prolongs contact.

7. Do not eat, drink or smoke when working with chemicals and do not let chemicals come into contact with food. This is especially important for explosive, oxidising, flammable, toxic or harmful chemicals.

8. Avoid contact with chemicals and clean yourself and your working clothing. Good hygiene is always recommended especially with toxic or harmful chemicals.

9. Do not dump chemicals on the soil or into a sewer. All chemicals must be disposed of according to the manufacturer's recommendations.

10. Store all chemicals in closed, labelled containers in cool ventilated conditions or as prescribed by the manufacturer. Segregate all incompatible chemicals to avoid hazardous consequences in case of accidental spillage.

11. NOTE: The use of chemicals is subject to a written Risk Assessment as required by current legislation.

3.14 GUIDANCE ON MAJOR EVENTS

A number of major events are held in the University each year and include Conferring, the Carol Service, the Choral Concert, Science Week and Open Days. Prior to each event a planning meeting is held between the Department concerned, the Safety Office, the Security Office, the Campus Services Department and the Planning & Development Office. Matters addressed include:

- The number of persons in attendance,
- The layout of the venue and special equipment,
- Set up and cleaning,
- Traffic control, parking and signage,
- Security and liaison with the Gardai and Emergency Services,
- Provisions for persons with disabilities,
- Fire, first aid and emergency procedures,
- Catering arrangements,
- Liaison with Departments who may be affected by the event,
- Liaison with media.

The Maynooth Campus Conference and Accommodation Office manage other events and they liaise closely with the University in this regard.

Should a major event be planned by a Department it is important to ensure that the University and the Maynooth Campus Conference and Accommodation Office is made aware of the proposed event. A Department should also advise the University where dignitaries are visiting the University. This is primarily to ensure that protocol and security matters are addressed.

3.15 GUIDANCE ON WORK EQUIPMENT (where applicable)

Work equipment includes any machinery, appliance, apparatus, tool or installations for use at work. It ranges from kettles to complex machinery.

All plant, equipment and appliances purchased must comply with Maynooth University Purchasing Policy, current E.U. standards and regulations. CE marking posted on a piece of equipment indicates that the manufacturer certifies that the equipment is in compliance, at its date of manufacture, but due care should always be exercised and the equipment must be assessed. The manufacturer must provide a written risk assessment, which is normally contained in the manufacturer's manual/documentation, in order to comply with current legislative requirements. This written risk assessment must be maintained on file and be incorporated into the Safety Statement documentation for a Department where appropriate.

Where plant, equipment and appliances are imported for use within a Department from outside the E.U. it is incumbent on the person who imports the equipment to ensure that it complies with C.E. marking.

Certain items of equipment are subject to Statutory Inspection in accordance with current legislation. This includes:

- Lifting equipment, (including lifts, chains, pulley blocks etc.)
- pressure vessels (including autoclaves and air compressors)
- boilers and steam vessels

Where equipment of this nature is installed or purchased ensure that the Safety Office is informed and they will ensure the Statutory Inspections are carried out, as appropriate.

Where any item of plant or equipment is purchased the following must be complied with at all times:

- All equipment must be installed and commissioned by competent persons,
- Staff must be trained in its use and records of this training maintained on file,
- It must be inspected and maintained in accordance with the manufacturers guidelines,
- Inspection and maintenance records must be maintained on file.

3.16 GUIDANCE ON ACCESSING HEIGHTS

Accessing materials at heights in any area, if not carried out correctly, has the potential risk of an accident causing serious injury or death.

- Using unsuitable equipment to access materials/items from areas above head height.
- Overstretching when using ladders.
- Using hop ups/kick stools which are unsuitable.
- Standing on chairs or other unsuitable items.
- Staff under the influence of intoxicants.

All Departments will ensure that activities involving access to high shelves – top of tall cupboards are carried out by using appropriate equipment for the task.

Where such equipment is provided, it must be used as the only safe means of access to such heights.

In more general terms and where appropriate, heavy items must not be stored above head height, and if possible, no items should be stored more than 2 metres off the floor.

At all times staff must ensure that the equipment they use to reach the required height is stable and safe to use.

3.17 GUIDANCE ON ACCESS AND EGRESS

Access and Egress covers vehicles, cyclists and pedestrians accessing the grounds of the University. Failure to adhere to the designated speed limits, parking guidelines and cycling restrictions could result in serious accidents. For example,

- Speeding on campus could result in death or serious injury.
- Blocking the access routes could hamper the response of the Emergency Services.
- Inadequate lighting or slippery surfaces can result in slips, trips and falls.
- Poor road surfaces can result in damage to vehicles or slips, trips and falls.

All Campus users should observe the following on both campuses.

North Campus

- The North Campus has designated vehicle, pedestrian and cycle routes on the Campus.

South Campus

- The Main Entrance to the front of the College is a listed feature and due care must be taken by motorists, pedestrians and cyclists when entering the Main Gateway.

- Pedestrians should utilise the pedestrian entrance adjacent to the Gate Lodge on the South Campus.

- Speed Limit on Campus is 25km per hour.

- Ramps are in place to regulate the speed of all vehicles.

- Car Parking is provided on both campuses. Car parks should be used to their full extent. Overflow parking is allowed on one side of the access road from the Riverstown Carpark to Logic House and on the Ring Road on the North Campus from the All Weather Pitch to the Carpark by the Playing Fields.

- External lighting is provided and maintained on both campuses.

- The roadways and Carparks are inspected and maintained at regular intervals.

- Designated walkways and pathways are provided on both campuses.

- Cycle lanes are provided on the North Campus and cycling is permitted in designated areas of the South Campus. No cycling is permitted in St. Joseph's Square and on the pedestrian route from St. Josephs Square to the JPII Library. Cycling is prohibited on the Footbridge. Safety Notices are in place in these areas to advise of this restriction.

- In the event of adverse weather conditions personnel are assigned to treat the roadways and pathways. In the event of stormy conditions sections of the grounds may be closed at the rear of the College.

3.18 GUIDANCE ON DELIVERIES (EXTERNAL)

Particular care must be exercised by all delivery vehicles operating on Campus. This is of particular importance when vehicles are reversing. During term deliveries should not be undertaken between 5 minutes to the hour to 5 minutes past the hour due to the ending/commencing of lectures.

3.19 GUIDANCE ON CHILDREN AND YOUNG PERSONS

Under the Protection of Young Persons Employment Act 1996 a child is defined as being under 16 years of age and a young person is between 16 to 18 years of age. Given the nature of University activities it is the policy of the University not to employ children under the age of 16.

All staff dealing with children e.g. TY work experience, should be Garda vetted.

https://www.maynoothuniversity.ie/human-resources/garda-vetting-evetting

The employment of a young person is subject to legislation and a risk assessment which covers the following must be undertaken:

- Physical and psychological aspects,
- Exposure to harmful agents,
- Exposure to radiation,
- Involves the risk of accidents due to lack of maturity, experience or training,
- Prevents a risk from exposure to extremes of heat or cold or to noise or vibration,
- Supervision.

3.20 GUIDANCE E WORKING

It is the policy of the University to facilitate E Working for certain grades of staff. E Working must be sanctioned by the Human Resources Department and a risk assessment of the work station must be carried out by a competent person to ensure compliance with current health and safety legislation.

3.21 GUIDANCE ON NOISE

Maynooth University recognises that it has a responsibility to comply with current noise legislation and protect employees from noise related risks while at work. If there are reasonable grounds for concern, a noise risk assessment will be undertaken to identify the potential noise levels.

Any concern over noise levels should be raised through the Head of Department who can liaise directly with the Safety Office on the issue.

Section 4

4.1 Introduction to Risk Assessment

In this section Hazard Identification and Risks Assessment is examined against the requirements of the legislation. In particular buildings, equipment, systems of work are examined against the following background:

- The design, provision and maintenance of a place of work in a condition that in so far is reasonably practicable, is safe and without risks to health.

- The design, provision and maintenance of safe means of access and egress from a place of work under our control.

- The design, provision and maintenance of plant, equipment and machinery that is safe and without risks to health.

- The provision of systems of work that are planned, organised, performed, maintained and revised as appropriate so as to be, so far as is reasonably practicable, safe and without risk to health.

- The provision of information, instruction, training and supervision as is necessary to ensure the safety, health and welfare at work of our staff

- The provision and maintenance of suitable protective clothing or equipment that is necessary to ensure the safety, health and welfare of staff in circumstances where it is not reasonable for other measures to controls or totally eliminate the Hazards in the place of work.

- The preparation and revision as necessary of adequate plans to be followed in emergencies.

- To ensure as far as practicable the safety and the prevention of risks to health at work in connection with the use of any article or substance.

- The provision and maintenance of facilities and arrangements for the Welfare of staff at work.

4.1.1 Definitions

Definition of a Subject, Hazard(s), Risk assessment and Control(s)

A subject is any substance, operation, machine or a process in a place of work.

A hazard is the resulting action of using the subject, i.e. the chemical substance, operation, machine or a process with its potential to cause harm.

A risk assessment is an analysis to evaluate the likelihood of injury caused during the use of a substance, machine or process at the place of work.

Control(s) - The work practices, work procedures, systems of work to maintain the subject in a safe and original working condition.

In ranking hazards the following system can be used.

High: Probability of death, serious and or irreversible injury. Significant damage to property and or loss of process.

Medium Probability of significant injury, damage to property and or loss of process.

Low Probability of minor injury, minor damage to property, loss of process.

4.1.2 Management Responsibilities

It is incumbent on Heads of Departments who are responsible for managing their areas of work, at all levels, not merely to observe the arrangements, but to assess their applicability within their area of authority and where necessary to refine and extend them to deal with particular situations.

4.1.3 Commitment

The University is committed to continuously auditing hazards in the workplace, assessing the risks these present and implementing appropriate arrangements to deal with them.

Staff involvement in hazard identification and risk assessment.

All Staff are encouraged to identify hazards in their departments and to report them to their Heads of Department.

All Staff must report near misses, dangerous occurrences to their immediate supervisor/manager, safety officer and ensure that such incidents are recorded.

The following section lists the hazards identified in the department, assesses the risks associated with them and states the arrangements made to ensure the safety, health and welfare of all persons who may be affected by the activities.

Risk Assessment Flow Chart – See Appendix 2

4.2 Risk Assessment by Room

Room	Usage	Activities	Risk	Section Reference
E1.01A	Computer Lab	Computer Usage	Low	4.3.11;4.3.12
E1.01B	Computer Lab	Computer Usage	Low	4.3.11;4.3.12
E1.02	Tech Office	Computer Usage	Low	4.3.11;4.3.12
E1.03	Laser Lab	Laser Experiments	Medium	Separate Doc
E1.04	Laser Lab	Laser Experiments	Medium	Separate Doc
E1.05	Tech Mechanical Workshop	Mechanical Tools, Pillar Drill/Milling Machine, Lathe, PCB Etching, Light Mechanical Work. Chemical Storage	Medium	4.3.5;4.3.6;4.3.7; 4.3.8
E1.06	Server Room	Unattended Computer servers with Battery Backups	Low	
E1.07A	FYP Lab	Electronic Circuit Design, Testing and building. Soldering	Low	4.3.4
E1.07B	Research lab	Electronic Circuit Design, Testing and building. Soldering	Low	4.3.4
E1.08	Post Grad Room	Computer Usage	Low	4.3.11;4.3.12
E2.01A	Project Lab	Electronic Circuit Design, Testing and building. Soldering	Low	4.3.4
E2.01B	Hardware Lab	Hardware Teaching. Soldering	Low	4.3.4
E2.02	Tech Office	Computer Usage	Low	4.3.11;4.3.12
E2.03	Post Grad Room	Computer Usage	Low	4.3.11;4.3.12
E2.04	Research Lab	Low voltage electronics	Low	
E2.05	Tech Workshop	PC and Electronic Repair	Low	
E2.06	Switch Room	Computer Switch Room and telephone PABX	Low	
E2.07	Teaching Lab	Makers Club. Electronic Circuit Design	Low	4.3.4
E2.08	Teaching Lab	Computer Usage	Low	
E3.01	Admin Office	Computer Usage	Low	4.3.11;4.3.12;4.3.13
E3.02 to E3.15	Staff Offices	Computer Usage	Low	4.3.11;4.3.12
E3.16	Photocopier	Photocopying and printing facility	Low	4.3.11
E3.17	Post Grad Room	Computer Usage	Low	4.3.11;4.3.12
E3.18	Post Grad Room	Computer Usage	Low	4.3.11;4.3.12
E3.19	Seminar Room	Meetings	Low	
E3.19a	Kitchenette	Tea/Coffee/Microwave Facilities	Low	4.3.19;4.3.20
Stairwell	Access to Roof	Use of ladder to access roof	Low/ Medium	4.3.2;4.3.3

4.3 Risk Assessments

4.3.1 Fire Safety

HAZARDS

There is always a risk of fire occurring. Common fire hazards include improperly stored combustible or flammable materials, use of naked flames, faulty electrical equipment and smoking.

- Serious bodily injury or fatality
- Damaged property and equipment
- Disruption of work

RISK ASSESSMENT: High

CONTROLS:

- The University in conjunction with the Safety Office and the Electronic Engineering department has developed a Fire Management Programme.
- Documentary procedures have been developed which cater for fire and other emergencies. These must be adhered to at all times.
- Emergency and exit lighting is provided and maintained throughout the premises in accordance with current standards.
- Fire safety notices indicating the action to be taken in the event of a fire are located through out the premises.
- Fire fighting equipment is provided and maintained in accordance with current standards.
- Regular checks of the electrical installations are undertaken by competent electricians / engineers.
- A "Hot Work Permit" System is in place and must be strictly adhered to.
- The emergency exit routes are protected by fire doors, which are inspected and maintained at regular intervals.
- Fire drills are undertaken at regular intervals.
- Fire safety training is provided to all staff.
- A Fire Register is provided and maintained.
- Smoking is strictly prohibited in the premises.

RESOURCES:

Campus Services Department provides the necessary resources to inspect and maintain fire equipment and services.

RESPONSIBILITY:

Campus Services Department - Maintenance
Head of Department – Management
Staff and Students should ensure equipment is not interfered with.

4.3.2 USE OF LADDERS

HAZARDS

- The misuse of ladders by staff and inadequate maintenance of ladders. Ladders not being properly tied during use by the user, over reaching and over balancing while using ladders.
- The painting of wooden ladders (covering up cracks).
- The use of aluminium ladders for carrying out electrical work.
- Standing on the top rungs of A frame ladders.

RISKS High

CONTROLS

- All ladders are to be inspected prior to use by the user.
- Ladders with missing or defective rungs or supported solely by nails or screws are not to be used and must be taken out of service and destroyed.
- Paint is not to be used as a preservative on timber ladders (a timber preservative which will not conceal defects can be used, such as clear varnish).
- Portable timber ladders are not to be left permanently out of doors, or used as a permanent means of access to positions out of doors.
- All ladders must be kept clean and free of debris.
- All timber ladders are to stored flat to avoid twisting and warping.
- At the end of each day, ladders must be secured to prevent unauthorised persons accessing them.
- Ladders must be secured from slipping by tying them securely at the top of the ladder.
- All ladders must extend 1 metre above the landing place or the highest rung in use, unless there is a suitable hand hold to provide support.
- Ladders must not be placed against or on fragile surfaces.
- Ladders must be set at an angle of about 70-75 degrees or a ratio of 1:4 from the wall.
- Extension ladders must have an overlap of at least three units (rungs).
- Ladders must not be placed on drum blocks or any other objects to manoeuvre their height.
- Ladders must be moved to the exact work area and staff should not over reach to access the task.
- Step ladders must be opened completely. The top two steps must not be used to work from.

RESPONSIBILITY

The Head of Department and staff will ensure that the use of portable and fixed ladders satisfy the requirements set by the University.

4.3.3 WORK AT HEIGHTS

This includes restricted roof areas, attics, fragile roofs, asbestos roofs, glass, plastic and tiled roofs, work on gutters, the external facades of buildings and interiors of buildings.

Work at height means working in a place (except a staircase in a permanent workplace) where a person could be injured by falling from it, through it, even if it is over or above ground level.

HAZARDS

- Falls from height can result in serious injury or death.
- Failure to observe warning notices such as a "Fragile Roof" sign.
- Injury from falling objects.
- Using unsuitable equipment to reach to height.
- Unsuitable equipment for working at heights.
- Failure to carry out competent risk assessments.
- Overstretching when using ladders.
- Failure to take into account weather conditions when the task is being carried out at height.
- Staff under the influence of intoxicants when working at height.
- Failure to ensure that competent staff/employees work at height.

RISK High

- **CONTROLS**
- A Permit to Work at Heights must be obtained before the work is undertaken
- Any person who carries out Work at Height must obtain a Permit to Work from either the Campus Buildings Co-ordinator and/or the Powerhouse Supervisor.
- Before issuing a Permit to Work the task/job must be examined to identify if the task/job can be carried out by any other means.
- If working at height is the only means of carrying out the work then the following controls must be applied.
    - All work at height must be risk assessed before the work is carried out.
    - All activities must be planned and organised.
    - All equipment must be appropriate to the work and be maintained.
    - All persons must be competent to use the equipment and to carry out the task.
    - All equipment to be inspected on a regular basis while the task is being carried out.
    - The warning signs on roofs, attics, fragile roofs, power cables are observed at all times and the necessary precautions are put in place to ensure the safety of the workplace and the person carrying out the task.
    - The appropriate fall arrest equipment and PPE should be worn.

RESOURCES

MU/SPCM will provide the resources necessary for those carrying out work at height to carry out the work without risk to themselves or others.

RESPONSIBILITY

Responsibility for the issuing of the Permit to Work and ensuring that the work/task is carried out safely rests with the officer issuing the Permit.

Ref:
Permit to Work at Height Appendix 7 Guidance Document on Safe Management of Work at Height on MU/SPCM Appendix 7 Safety, Health & Welfare at Work Act 2005 (General Application) Regulations 2007 Part 4. www.hsa.ie

4.3.4 SOLDERING

HAZARDS

- Careless use causing burns
- Risk to eyes by failing to wear goggles
- Fume inhalation
- Fire

RISK ASSESSMENT: Medium

CONTROLS:

- Use of low voltage soldering irons
- Proper training before use
- Use of fume extractor or filter when soldering
- Use of non-lead solder only
- Safety goggles to be worn
- Always return the soldering iron to its stand when not in use
- Never solder on live circuits or equipment
- Solder equipment is inspected regularly and maintained to a safe standard

RESOURCES

The Head of Department will provide the necessary resources for the safe use and operation of soldering equipment.

RESPONSIBILTY

The Head of Department and staff will ensure that training in the safe use of soldering equipment is provided anyone who requires it, and that the soldering equipment is kept in good working order.

4.3.5 DUAL WHEEL BENCH GRINDER

HAZARDS

- Failing to wear Eye/face protection
- Injury from burst wheels
- Hands/fingers being cut if guards are not properly set or in place
- Failing to secure safe materials
- Failing to adjust materials rest correctly
- Grinding inappropriate materials on wheel

RISK Medium

CONTROLS

- All grinding wheels are used in line with the abrasive wheel regulations.
- The work piece rest is adjusted to ensure proper distance from the wheel.
- Eye protection is worn by all staff when grinding materials.
- Non-ferrous metal must not be ground on the grinding wheels.
- All wheels must be properly mounted and balanced before use.
- The abrasive wheel regulations must be observed by all staff.
- Training is provided for all staff on the use of abrasive wheels to ensure an adequate knowledge of the process and the need for safe use of the equipment.
- A noise assessment is carried out to determine the level of noise in the workshop/laboratory.

RESOURCES

The Head of Department will provide the necessary resources for the safe use and operation of the Bench Grinder.

RESPONSIBILTY

The Head of Department and staff will ensure that the Bench Grinder is operated and maintained at all times when it is in operation.

4.3.6 LATHE – Model SIEG Super C3 Mini Lathe

HAZARDS

- Materials falling from table
- Rotating parts i.e. drill chucks, items not properly clamped or held with suitable grips
- Swarf; cuts to hands
- Flying debris from cut material.
- Dermatitis - coolants, hands cloths, pockets, dirty rags
- Untidy table/bench/floor area
- Bad housekeeping

RISK Medium

CONTROLS

- Proper training for use of this equipment.
- All guards are fitted on belts/drives on machine
- A guards is fitted on chucks/drill bits when in use
- Suitable vice/clamps/vice grips for small items are provided when drilling
- Drills and cutting tools are properly sharpened for use
- Eye protection is worn and available
- Hair is tied back
- No ties are worn, or if worn to be inside the persons overalls/protective clothing
- Barrier creams are provided for hands if required.
- Suitable gloves are provided.
- All areas are kept clean and tidy at all times in the laboratory/workshop.
- Suitable supports for long lengths of materials are provided.
- Use of less hazardous coolants are provided were necessary.
- Trays are provided to prevent coolant draining on to the bench of the laboratory/workshop
- Equipment is kept clean and tidy at all times
- Proper maintenance is provided by competent person
- Correct drill speeds are used when drilling different materials

RESOURCES

The Head of Department will provide the necessary resources for the safe use and operation of the Lathe.

RESPONSIBILTY

The Head of Department and staff will ensure that the Lathe is operated and maintained at all times when it is in operation.

4.3.7 BENCH DRILL (Clarke CDP5DD)
MANUAL MILLING MACHINE (Optimum BF20 Vario)

HAZARDS

- Materials falling from table
- Rotating parts i.e. drill chucks, items not properly clamped or held with suitable grips flying out
- Swarf; cuts to hands
- Dermatitis - coolants, hands cloths, pockets, dirty rags
- Untidy table/bench/floor area
- Bad housekeeping

RISK Medium

CONTROLS

- All guards are fitted on belts/drives on machine
- A guards is fitted on chucks/drill bits when in use
- Suitable vice/clamps/vice grips for small items are provided when drilling
- Drills are properly sharpened for use
- Eye protection is worn and available
- Hair is tied back
- No ties are worn, or if worn to be inside the persons overalls/protective clothing
- Barrier creams are provided for hands if required.
- Suitable gloves are provided.
- All areas are kept clean and tidy at all times in the laboratory/workshop.
- Suitable supports for long lengths of materials are provided.
- Use of less hazardous coolants are provided were necessary.
- Trays are provided to prevent coolant draining on to the bench of the laboratory/workshop
- Equipment is kept clean and tidy at all times
- Proper maintenance is provided by competent person
- Correct drill speeds are used when drilling different materials

RESOURCES

The Head of Department will provide the necessary resources for the safe use and operation of the Bench/Pedestal Drill.

RESPONSIBILTY

The Head of Department and staff will ensure that the Bench/Pedestal Drill is operated and maintained at all times when it is in operation.

4.3.8 HAZARDOUS SUBSTANCES (where applicable)

HAZARDS

The hazards associated with exposure, use and handling of Chemical Substances may include:

- Absorption through the skin, ingestion into the body, inhalation through the nose and mouth.

RISK ASSESSMENT: Medium

CONTROL MEASURES

The Head of Department will ensure that relevant staff are aware of the hazards of associated with specific materials and are trained in how to use and handle these materials properly. It is the policy of the University to:

- Obtain Material Safety Data Sheets for all substances in use
- Identify all potential hazards
- Review the existing controls and methods of use
- Assess the degree of risk and decide on whether or not protective measures are needed and the nature of those measures.
- A written Risk Assessment must be prepared and maintained on file in accordance with current legislative requirements.
- Store all chemicals in closed, labelled containers in cool ventilated conditions or as prescribed by the manufacturer.
- Segregate all incompatible chemicals to avoid hazardous consequences in case of accidental spillage
- Wear the personal protective clothing and equipment specified by the manufacturer when handling or using the chemical.

RESOURCES:

The Head of Department will provide the necessary resources for the safe use of chemicals.

RESPONSIBILITY:

Head of Department must ensure control measures are in place and utilised.

4.3.9 HOUSEKEEPING

HAZARDS

Poor housekeeping can pose a wide variety of risks to health and safety including slips, trips and falls as well as fire.

RISK ASSESSMENT: Medium

CONTROLS:

- Ensure all workplaces, passageways, and stairways are adequately lit and free from shadows. Defects in flooring, stair treads, handrails and lighting must be reported immediately to your Supervisor or Head of Department.
- All areas must be kept clean and tidy at all times.
- All light fittings, windows and roof lights are cleaned regularly. Defective light bulbs must be replaced immediately.
- All access ways and passageways must be free from obstruction at all times.
- Floors are cleaned and dried frequently and kept in good condition - firm and level. When floors are being washed warning signs must be erected.
- All workplaces are kept clean and tidy. All spillage's of oils, grease, or other material, which can cause slips or falls must be cleaned up at once.
- Electric cables must be carefully located in order to avoid causing hazards.
- Small tools and implements are not permitted to lie around where they may present a slipping or tripping hazard.
- Storage and stacking of goods must be done in specifically designated places and located in such a manner as to minimise the hazards of goods falling. Frequently used heavy items (>1kg) must not be stored above head height (unless access is provided) or below waist height.
- Articles should not be placed in overhead locations, such as on top of presses and ledges over doors where they can fall and strike persons below.
- Adequate trash or waste receptacles are provided at all times.
- All refuse bins are emptied at regular intervals to prevent the build up of rubbish.
- Any signs of vermin, (droppings, actual sightings etc) should be reported at once to Campus Services Department for appropriate action to be taken.
- Building Maintenance:
    - Stairs: Report any defects which include faulty treads, damaged or missing handrails, slippery steps, inadequate lighting etc.
    - Doors: Report any defects which effect the integrity of fire doors, i.e. doors that do not close fully, damaged self-closing devices, etc.
- Public toilets are high risk areas and extra vigilance must be taken to ensure an inspection system is in place and that records are maintained. Broken tiles and other defects must be reported immediately for fast remedial action.
- Cleaning staff are appointed who implement a cleaning schedule.

RESOURCES:

Campus Services Department will provide the necessary resources to ensure good housekeeping standards

RESPONSIBILITY: Day to day responsibility rests with Head of Department/All Staff

4.3.10 MANUAL HANDLING

HAZARDS

- Incorrect method of lifting
- Attempting to lift something which is too heavy
- Lifting sharp/awkward shapes

The main injuries associated with incorrect manual handling and lifting are:
Back strain, slipped disc, lacerations, crushing of hands or fingers, bruised or broken toes or feet, various sprains, strains including repetitive strain injuries. (RSI).

RISK ASSESSMENT: Medium

CONTROLS:

- All staff involved in manual handling must receive specific training in safe manual handling techniques by a competent manual handling instructor.
- Manual handling activities must be assessed by a competent manual handling instructor.
- Where possible, measures shall be taken to reduce the amount of manual handling to a minimum.
- Mechanical and material handling equipment including hand trucks and trolleys are provided and should be utilised.
- Never attempt to lift a load likely to cause you an injury. Always obtain assistance or refer the matter to your Head of Department.
- Portable step platforms are supplied and must be used to access loads at high levels.
- Adequate lighting is supplied to ensure that visibility is sufficient at all times.
- Comply with the separate Guidance Document covering manual handling.

RESOURCES:

The Head of Department will ensure all staff are trained in manual handling techniques

RESPONSIBILITY:

Head of Department/staff.

4.3.11 OFFICE SAFETY AND PHOTOCOPIERS

HAZARDS
While office work may not be considered as a high risk activity, unsafe work systems and layout may result in injury or illness.

- Slips/trips and falls
- Fire
- R.S.I. (Repetitive Strain Injury)

RISK ASSESSMENT: Low

CONTROLS:

- An adequate level of lighting is provided. The lighting system is inspected and maintained at regular intervals.
- Ensure adequate space is provided for each staff member.
- Ensure all furniture, fittings and equipment are positioned to minimise potential hazards.
- Ensure sufficient ventilation is provided particularly in the vicinity of photocopying
- Electric or telephone cables must not trail unprotected across the floor. Cable covers are supplied and must be used.
- Chairs, desks or drawers should never be used to access higher areas. Step ladders shall be used.
- All items stored above head level shall be stored properly to prevent falling.
- The mains power supply shall be disconnected before attempting to move electrical equipment.
- All damaged floor coverings, furniture, equipment or machinery must be replaced or repaired.
- Comply with the separate Guidance Document covering Office Safety.

PHOTOCOPIERS

HAZARDS
The principle hazards associated with photocopiers are:

- Burns from hot surfaces when releasing paper jams
- Exposure to toner
- Build up of ozone in enclosed unventilated places.

RISK ASSESSMENT: Low

CONTROL MEASURES
All photocopiers are serviced regularly.
Only trained members of staff are authorised to release paper jams, fit toner cartridges etc.
Caution notices indicating the above rule are posted in the vicinity of the photocopiers.
Photocopiers are operated in well-ventilated areas.

RESOURCES
Staff are responsible for keeping their work area clean and tidy.
All photocopiers will be maintained by competent persons.

RESPONSIBILITY Head of Department/Staff

4.3.12 DISPLAY SCREEN EQUIPMENT (VDUS)

HAZARDS

The main problems associated with VDU's are as follows:

- Visual Discomfort
- Posture
- Stress

RISK ASSESSMENT Low

CONTROL MEASURES

The main duties of the University are to;

(a) Carry out a workstation assessment

(b) To ensure staff and managers plan work activities in such a way that daily work on display screens is periodically interrupted by breaks or changes of activity which reduce stress and discomfort. (Breaks are defined as allowing the person to cease working at the VDU for 4-5 minutes to rest the eyes and shoulders, other activities can be carried out)

(c) Ensure an appropriate eyesight tests are provided to staff who use display screen equipment

- Before commencing display screen work
- At regular intervals there after (Recommended at least once every two years)
- If an employee experiences visual difficulties which may be due to display screen work

(d) If the results of a test under (c) show that it is necessary, then an ophthalmologic examination should be carried out on the staff member concerned.

(e) Where the results under (d) show that it is necessary and if normal corrective lenses cannot be used, then provide the staff member concerned with special corrective lenses appropriate to his/her work.

The workstation must comply with the following criteria;

- The machine should be kept in a good state of repair and cleanliness.
- The image to the operator must be both clear and stable.
- The equipment and space provided should give the operator sufficient room to locate their work materials conveniently and to adopt a comfortable posture.
- The seating should be adjustable for both height and angle of back support.

Staff/Computer Interface

- All software shall be suitable for the task.
- It shall be easy to use and where appropriate, adaptable to the employees level of the knowledge or experience.
- The principles of software ergonomics shall be applied in particular to human data processing.

RESOURCES:

The Head of Department provides the necessary resources to maintain Display Screen Equipment.

RESPONSIBILITY: Head of Department/Staff

4.3.13 PAPER SHREDDERS AND GUILLOTINES

PAPER SHREDDER.

HAZARDS

- Contact with moving parts.
- Entanglement.

RISK ASSESSMENT: MEDIUM

PERSONS AFFECTED BY HAZARD: Staff

CONTROL MEASURES

- The use of the equipment is restricted to staff.
- The shredder is guarded in accordance with current standards.
- Ensure loose clothing is secured i.e. ties, loose sleeves, etc.
- The start and stop controls are clearly marked.

RESPONSIBILITY: Head of Department/Staff

GUILLOTINES

HAZARDS

- Contact with cutting blade.

RISK ASSESSMENT: MEDIUM

PERSONS AFFECTED BY HAZARD: Staff

CONTROL MEASURES

- The use of the equipment is restricted to staff.
- The Guillotines are guarded in accordance with current standards.
- Ensure the interlocked guards are utilised, where appropriate.
- Ensure the material being cut is secured.
- Keep your fingers and hands clear of the cutting blade/area.

RESOURCES:
The Head of Department provides the necessary resources to maintain equipment.

RESPONSIBILITY: Head of Department/Staff

4.3.14 STEPLADDERS AND MOBILE STEPS IN AN OFFICE ENVIRONMENT

HAZARDS

A fall from a step ladder can result in very serious injuries. Problems arise when;

- Step ladders are not sufficiently high enough
- Unsafe use of ladder (over-reaching)
- Missing or worn non-slip feet
- Missing or loose screws or rivets
- Wear which causes excessive side to side movement
- Distortion which prevents all four feet contacting the floor when the step ladder is in use
- Defective chain stays.

RISK ASSESSMENT: Medium

PERSONS AFFECTED BY HAZARD: Staff

CONTROL MEASURES:

- Always use a stepladder which is high enough for you to reach comfortably the books/files/areas you want without stretching or over reaching.
- **Faulty stepladders must not be used**. If you notice that a stepladder is faulty, do not use it, take it out of use and report it to your supervisor.
- Make sure the stepladders are opened up fully and the struts or top platform are locked in position.
- Do not climb up stepladders whilst they are leaning against fixtures.
- Make sure the stepladder is not standing on loose paper or cardboard.
- Avoid using stepladders near a closed door.
- Do not carry more materials up or down a stepladder than you can control in one hand, so you can hold the handrail with your free hand.
- Always ensure the wheels are retracted and the break applied when using a mobile platform.

RESOURCES:
The Head of Department provides the necessary resources to maintain equipment..

RESPONSIBILITY: Head of Department/Staff

4.3.15 LONE WORKING

HAZARDS

- MU staff may be required to work alone outside normal hours. Long periods may elapse before other staff members or Security may visit the area.

RISK ASSESSMENT: Medium

CONTROL MEASURES.

1. All staff must advise Security of their presence on /in the University on arrival outside normal working hours
2. Staff must not engage in any hazardous activities when they are working alone and must seek assistance.
3. Staff are advised to report immediately to Security any suspicious activities or person in their areas
4. Security staff are on the premises 24 hours a day throughout the year.
5 Hazardous work is not permitted outside normal working hours.

RESPONSIBILY: Head of Department/Staff

4.3.16 ACCESS AND EGRESS to all places of work

HAZARDS

Access and Egress to all areas covers the use of vehicles, cyclists and pedestrians accessing the grounds of the University. Failure to adhere to the designated speed limits, parking guidelines and cycling restrictions could result in serious accidents. For example,

- Speeding on campus can result in death or serious injury.
- Blocking access routes can hamper the response of the Emergency Services.
- Inadequate lighting or slippery surfaces can result in slips, trips and falls.
- Poor road surfaces can result in damage to vehicles or slips, trips and falls.
- Failing to take responsibility for any of the above can result in personal injuries or injuries to others.

RISK Medium

CONTROLS

North Campus

- The North Campus has designated vehicle, pedestrian and cycle routes to all buildings on Campus.

South Campus

- The South Campus has designated vehicle, pedestrian and cycle routes to all buildings on campus.
- The Main Entrance to the front of the College is a listed feature and due care must be taken by motorists, pedestrians and cyclists not to cause damage to the property.
- Pedestrians must utilise the pedestrian entrance adjacent at the Gate Lodge.
- The Speed Limit on Campus is 25km per hour and must be observed by vehicles entering and driving through the campus.
- Ramps have been put in place to reduce speeding of vehicles.
- Car Parking Provisions are provided on both campuses. Car parks must be used to their full extent. Overflow parking is allowed on one side of the access road from the Riverstown car park to Logic House and on the Ring Road on the North Campus from the All Weather Pitch to the car park by the Playing Fields.
- External lighting is provided and maintained on both campuses.
- The roadways and car parks are inspected and maintained at regular intervals.
- There are some designated walkways and pathways provided on both campuses for all pedestrians.
- Cycle lanes are provided on the North Campus and cycling is permitted in designated areas of the South Campus only. No cycling is permitted in St. Joseph's Square and on the pedestrian route from St. Josephs Square to the JPII Library. Cycling is prohibited on the Footbridge. Safety Notices are in place in these areas to advise those using the bridge of this restriction.
- In the event of adverse weather conditions, personnel are assigned to treat the roadways and pathways. In the event of stormy conditions sections of the grounds may be closed at the rear of the College to all persons

- Access and egress to any place of work, corridor, passageway, stairs, landing, steps to a building, ramps, must not be obstructed by any materials or objects or vehicles blocking pedestrian routes. Materials must not be stored on stair landings, reception or foyer areas.

RESOURCES:

The University provides resources to maintain Campus infrastructure.

RESPONSIBILITY:

Campus Services Department are responsible for the maintenance of the grounds.
Heads of Department are responsible for ensuring good housekeeping standards in their work areas.
Staff/Students and Visitors are required to comply with University procedures.

4.3.17 VIOLENCE

HAZARDS

Given the size of the Campus and its population there is a potential risk of being a victim of crime. This can result in loss or damage to property and assault of the person. The hazards have been assessed and the following control measures are in place.

RISK: Low

CONTROLS

The University and College have put the following procedures in place to minimise risk of assault, loss of property and malicious damage to property.

- Security staff are provided on Campus 24 hours a day
- Security staff can be contacted by radio
- The utilisation of CCTV and ACCESS control
- Campus Watch involving the Gardai, Staff and Students
- The upgrading of lighting system on both campuses
- The provision of emergency phones in key locations (North Campus only)
- Anti theft measures for computers are in place
- Security Alarms are monitored by a central station
- Counselling and support for victims of assault or crime are available
- The provision of a Campus Watch booklet which outlines a wide range of precautions to be taken to prevent loss or assault

RESOURCES:

The University/College will provide resources in this area.

RESPONSIBILITY:

Head of Security

4.3.18 LIFTS

HAZARDS

The hazards associated with the use of lifts and the lift equipment in the operations room.

The hazards with lifts include:
- Passage sides
- Slips, trips or falls
- Wet/Slippy floors
- Trapping of fingers or other parts of the body by the moving doors
- Breakdowns while people are in the lift.

Operations Room:
- Manual handling
- Electricity
- Access to equipment
- Motors – moving parts
- Failing to isolate the equipment safely
- Lift being out of synchronisation with floor levels

RISK: Low

CONTROLS

- All lifts are given a thorough examination every 12 months and a certificate issued by the person carrying out the statutory inspection, is maintained on file.
- All lifts are inspected and maintained on a regular basis.
- A maintenance contract is in place for all lifts on campus.
- Where people are trapped in a lift, the emergency release procedure must only be undertaken by authorised persons who are trained in the lift procedures or by the lift service company engineer.
- Designated staff receive training in the emergency hand winding procedures. While guidance notes are located in the lift plant rooms, on control panels or in the lift shaft, if in any doubt reassure the occupants in the lift that assistance is on the way.
- Exercise particular care when opening the landing doors to the lift shaft - the lift could be above the landing.
- Signs are in place at all lift doors warning that the lift must not be used in case of a fire/emergency.
- If a lift develops a fault, it must be isolated electrically, taken out of use and a sign located at each landing level indicating that the lift is not to be used, until it is repaired.
- Ensure no person attempts to use the lift when it is being serviced.
- During maintenance, if a lift landing door is open exposing a lift shaft, a secure barrier must be put in position at all times and supervised by a responsible person.
- Lift door release keys are held by Security and Power House staff. Additional keys may be located in the lift motor rooms or by the lift control panels.
- Ensure defects in any lift are reported to the Campus Services Department.

Maintenance and Inspection by Lift Contractors/Surveyors

Where Contractors are required to work in lift wells, they must comply with the Safety procedures set down in their own Safety Statement. This is to ensure that they are protected in the event of movement of the lift or the lift collapsing on them.

It is also recommended that solid supporting choks are put in place as a secondary precaution to prevent the lift from moving downwards, thereby crushing them while working.

RESOURCES:

NUI and College will provide the necessary resources to the Campus Services Department to enable the office to carry out its responsibilities.

RESPONSIBILITY: Campus Services Department

4.3.19 TEA STATIONS

A range of equipment is provided for use of tea/coffee stations. This includes kettles, water boilers, toasters and microwave ovens.

HAZARDS

Burns and scalds,
Risk of Fire,
Poor hygiene resulting in food poisoning,
Risk of electrical shock.

RISK Low

CONTROLS

All staff who use the tea/coffee stations must ensure that the area is kept clean and must tidy up and clean equipment after use.

Electric Kettles

- Exercise caution when using a kettle as the kettle can be hot and cause burns,
- Never over fill the kettle,
- Exercise care when pouring hot water,
- Do not over fill a cup or beaker,
- Ensure the kettle is located at a safe distance away from water and sink units and the edge of the counter.
- Ensure the kettle is inspected and maintained at regular intervals.

Water Boilers

- All water boiler units are fitted with low water level cut off devices.
- The water boiler units are expansion boilers, providing boiling water at low pressure.
- The units are positioned where they can be easily operated.
- Before turning on a unit, ensure there is an adequate water level in the unit.
- Never interfere with the water supply or heat control settings.
- Always place a receiving vessel right up under the dispensing tap. Keep a drip
    - tray under the dispensing tap at all times.
- Clean up spillages immediately.
- Turn off and electrically isolate the boiler prior to cleaning.

Toasters

- Never put hands into the toaster
- Never poke at the elements inside.
- Do not move it while in operation,.
- Never use a metal object i.e. a knife to remove an item.
- Never attempt to clean until power supply has been disconnected from the socket.
- Use damp cloth with detergent and wipe out thoroughly when disconnected.

RESOURCES;

NUI and College will provide the necessary resources to the Head of Department to enable the office to carry out its responsibilities.

RESPONSIBILITY: Head of Department/Staff.

4.3.20 PORTABLE APPLIANCE TEST (P.A.T.)

HAZARDS

- Potential Electrical Shock
- Burns
- Loose conductors
- Poor plug condition
- Broken cables
- Leads too long

RISK: Low to Medium

CONTROLS:
All portable electrical appliances must be tested in line with the Portable Appliances Regulations. This includes equipment in laboratories, student accommodation and offices.

RESOURCES: Campus Services Department will provide the necessary resources to carry out PAT testing.

RESPONSIBILITY: Campus Services Department, Powerhouse Supervisor.

4.3.21 RadioSpace

HAZARDS

- Fall/Trip Hazzard
- Loss of all lights/Blackout
- Head Height on Entry

RISK: Low to Medium

CONTROLS:

- Very strict access control to RadioSpace facility.
- All work supervised by RadioSpace Manager/Engineer.
- Emergency Lighting to illuminate RadioSpace chamber in case of power failure (TBD).
- Clear signage for potential dangers (TBD).
- Radio Power limited to Max. 10W.
- Chamber door to remain open when chamber occupied.

RESOURCES: Dedicated Manager/Engineer. Support provided by Department of Electronic Engineering.

RESPONSIBILITY: Head of Department, Prof. Ronan Farrell, RadioSpace Manager/Engineer.

APPENDICES

Appendix 1 - Project Risk Assessment Forms – General and FYP
Appendix 2 - Chemical Data Sheets and Risk Assessment Sheet
Appendix 3 - Risk Assessment Flowchart
Appendix 4 - Plan of Building
Appendix 5 - Risk Assessment for Field Trips
Appendix 6 - Accident Report Form

APPENDIX 1 – PROJECT RISK ASSESSMENT FORMS - GENERAL, PBL AND FYP

GENERAL RISK ASSESSMENT

NAME:	**LOCATION:**
ACTIVITY:	**PERSONS AT RISK:**
POTENTIAL HAZARDS:	
EXISTING CONTROLS:	
RISK RATING WITH EXISTING CONTROLS:	
HIGH: / **MEDIUM:** / **LOW:**	
NEW CONTROLS REQUIRED:	
RISK RATING WITH NEW CONTROLS:	
HIGH: / **MEDIUM:** / **LOW:**	
ASSESSOR NAME: _____ JOB TITLE: _____ SIGNATURE: _____ DATE: _____	

PROJECT BASED LEARNING (PBL) PROJECTS – HEALTH AND SAFETY RISK ASSESSMENT AND GUIDELINES.

EVERY STUDENT MUST PERFORM A HEALTH AND SAFETY RISK ASSESSMENT OF THEIR FYP BEFORE COMMENCING ANY WORK. THIS SHOULD BE DONE IN CONSULTATION WITH THEIR PROJECT SUPERVISOR. THE FYP RISK ASSESSMENT FORM MUST BE ASSESSED, ALONG WITH ANY REQUIRED MATERIAL SUCH AS MATERIAL SAFETY DATA SHEETS, AND SIGNED OFF BY A MEMBER OF THE HEALTH AND SAFETY COMMITTEE.

THE FORM IS DESIGNED TO IDENTIFY ANY HAZARDS THAT THE PROPOSED PROJECT MIGHT PRESENT TO THE STUDENT OR PEOPLE THAT MAY COME INTO CONTACT WITH THE PROJECT.

ISSUES TO CONSIDER INCLUDE

- HAZARDOUS MATERIALS, FOR EXAMPLE FLAMMABLE MATERIALS, EPOXIES, CEMENTS, PAINTS, AEROSOLS, CARCINOGENS, POISONS, TOXINS…
- WORKING ALONE, AT HEIGHT, IN CONFINED SPACE, IN A DANGEROUS AREAS
- WORKING WITH ELECTRICITY
- WORKING WITH MACHINES AND TOOLS
- WORKING WITH BIO MATERIALS
- WORKING WITH HEAT OR FLAME (E.G. SOLDERING OR HOT AIR GUNS)
- WORKING WITH LASERS
- WORKING WITH HEAVY OR LARGE ITEMS
- WORKING WITH FAST SPINNING OBJECTS (E.G. FANS OR PROPELLERS)

Where risks are identified, the student must discuss how the risk will be managed by listing what controls are in place and what further controls may be required.

The Risk Assessment Form should be included in your final year project report.

PBL PROJECT RISK ASSESSMENT FORM

NAME AND STUDENT NUMBER: Group 2 A. Nother, B. Nother, C. Nother, d. Nother	PROJECT NAME: An Automatic Predetermined Path Delivery System
SUPERVISOR: Mr. Andrew Meehan	PROJECT LOCATION: Various labs, see the PBL schedule for details.

BRIEF DESCRIPTION OF PROJECT: to build a device that is capable of automatously delivering a package by following a pre-laid out path. It should be able to avoid any unforeseen obstacle and reacts appropriately.

Hazards, Risk [High(H) Medium (M) Low (L)], and Control Measures

HAZARD	Risk	Controls
Electrical work	L	Isolated PSU will be used, max voltage 18VDC. Most work will be on breadboards.
Soldering	L	Training will be given on correct solder methods. Suitable PPE will be used. Use of solder station with fume extractor. Use of Non-Pb solder only.
Mechanical work	L	Light mechanical work may be required, ie bolting of metal segments, some bending of metal to shape. If needed access to the workshop will be done under the workshop guidelines.

Identified risks should be discussed with your supervisor and a safe system of work agreed. A more in depth risk assessment may be required after initial review. **Do not proceed until form is signed off.**

Further Controls Required

None

Note: that this is not currently and exhaustive list of potential risks. As risks are identified they will be added to this document and assessed.

SIGNATURE OF STUDENT: _____ DATE: _____

SIGNATURE OF SUPERVISOR: _____ DATE: _____

DEPT HEALTH AND SAFTY OFFICER: _____ DATE: _____

FINAL YEAR (4TH AND 5TH YEAR) PROJECTS – HEALTH AND SAFETY RISK ASSESSMENT AND GUIDELINES.

EVERY STUDENT MUST PERFORM A HEALTH AND SAFETY RISK ASSESSMENT OF THEIR FYP BEFORE COMMENCING ANY WORK. THIS SHOULD BE DONE IN CONSULTATION WITH THEIR PROJECT SUPERVISOR. THE FYP RISK ASSESSMENT FORM MUST BE ASSESSED, ALONG WITH ANY REQUIRED MATERIAL SUCH AS MATERIAL SAFETY DATA SHEETS, AND SIGNED OFF BY A MEMBER OF THE HEALTH AND SAFETY COMMITTEE.

THE FORM IS DESIGNED TO IDENTIFY ANY HAZARDS THAT THE PROPOSED PROJECT MIGHT PRESENT TO THE STUDENT OR PEOPLE THAT MAY COME INTO CONTACT WITH THE PROJECT.

ISSUES TO CONSIDER INCLUDE

- HAZARDOUS MATERIALS, FOR EXAMPLE FLAMMABLE MATERIALS, EPOXIES, CEMENTS, PAINTS, AEROSOLS, CARCINOGENS, POISONS, TOXINS…
- WORKING ALONE, AT HEIGHT, IN CONFINED SPACE, IN A DANGEROUS AREAS
- WORKING WITH ELECTRICITY
- WORKING WITH MACHINES AND TOOLS
- WORKING WITH BIO MATERIALS
- WORKING WITH HEAT OR FLAME (E.G. SOLDERING OR HOT AIR GUNS)
- WORKING WITH LASERS
- WORKING WITH HEAVY OR LARGE ITEMS
- WORKING WITH FAST SPINNING OBJECTS (E.G. FANS OR PROPELLERS)

Where risks are identified, the student must discuss how the risk will be managed by listing what controls are in place and what further controls may be required.

The Risk Assessment Form should be included in your final year project report.

4th/5th YEAR PROJECT RISK ASSESSMENT FORM

NAME AND STUDENT NUMBER:	PROJECT NAME:
SUPERVISOR:	PROJECT LOCATION:

BRIEF DESCRIPTION OF PROJECT:

Hazards, Risk [High(H) Medium (M) Low (L)], and Control Measures

HAZARD	Risk	Controls

Identified risks should be discussed with your supervisor and a safe system of work agreed. A more in depth risk assessment may be required after initial review. Do not proceed until form is signed off.

Further Controls Required

SIGNATURE OF STUDENT: _____ DATE: _____

SIGNATURE OF SUPERVISOR: _____ DATE: _____

DEPT HEALTH AND SAFTY OFFICER: _____ DATE: _____

APPENDIX 2 – CHEMICAL DATASHEETS AND RISK ASSESSMENT

Chemical Substances Identification and Safety Data Sheets

The following is a list of chemicals identified as been used in the Department of Electronic Engineering. These chemicals are used in the fabrication of Printed Circuit Boards (PCBs).

1. Tin Plating Crystals
2. IPA Solvent Cleaner
3. Seno Fine Etch Crystals
4. Liquid Developer Concentrate

Tin Plating Crystals

RS CHIP3 MSDS Date 01/04/03

Safety Data Sheet

CP0170 v2.0 RS 567-812

According to EC Directive 91/155/EEC CHIP 3

Date of issue: 18.10.2002

1. Identification of the substance/preparation and of the company/undertaking

Identification of the product

Supplied by:
RS Components Ltd, Birchington Road, Corby, Northants, NN17 9RS.
Tel: (01536) 402888

Catalogue No.: 567-812

Product name: TIN PLATING CRYSTALS

Manufacturer/supplier identification

Company:Mega Electronics Ltd * Mega Hs, Grip Ind. Estate * Linton, Cambridge* Tel: +44 (0) 1223 893900

Emergency telephone No.: As above

2. Composition/information on ingredients

THIOUREA 27%

CAS-No.:	62-56-6	EC-Index-No.:	612-082-00-0
M:	76.12 g/mol	EC-No.:	200-543-5
Formula Hill:	CH_4N_2S		
Chemical formula:	H_2NCSNH_2		

3. Hazards identification

Harmful if swallowed. Limited evidence of a carcinogenic effect. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.

4. First aid measures

After inhalation: fresh air. Consult doctor if feeling unwell.
After skin contact: wash off with plenty of water. Remove contaminated clothing.
After eye contact: rinse out with plenty of water with the eyelid held wide open.
After swallowing: make victim drink plenty of water, induce vomiting, summon doctor.

5. Fire-fighting measures

Suitable extinguishing media:
water, foam, powder.

Special risks:
Combustible. Formation of hazardous combustion gases or vapours possible in event of fire. The following may develop in event of fire: sulfur oxides, nitrogen oxides.

Special protective equipment for fire fighting:
Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.

Other information:
Contain escaping vapours with water. Prevent fire-fighting water from entering surface water or groundwater.

CP0170 v2.0 RS 567-812

MEGA ELECTRONICS Safety Data Sheet

Catalogue No.: 567-812
Product name: TIN PLATING CRYSTALS

6. Accidental release measures

Person-related precautionary measures:
Avoid generation of dusts; do not inhale dusts. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.

Environmental-protection measures:
Do not allow to enter sewerage system.

Procedures for cleaning / absorption:
Take up dry. Forward for disposal. Clean up affected area.

7. Handling and storage

Handling:

Notes for safe handling:
Do not inhale substance.

Storage:

Tightly closed. Dry. Storage temperature: no restrictions.

8. Exposure controls/personal protection

Specific control parameter

EC

Name	Thiourea
Carcinogenic	C 3:owing possible carcinogenic effects for man
Embryotoxic	R(E) 3:cause concern to humans owing to possible developmental toxic effects

Personal protective equipment:

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Respiratory protection:	required when dusts are generated.
Eye protection:	required
Hand protection:	required

Industrial hygiene:
Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

9. Physical and chemical properties

Form:	solid
Colour:	colourless
Odour:	odourless

CP0170 v2.0 RS 567-812

MEGA ELECTRONICS Safety Data Sheet

Catalogue No.: 567-812
Product name: TIN PLATING CRYSTALS

pH value				
at 50 g/l H_2O		(20 °C)	5-7	
Melting point			171-184	°C
Boiling point			not available	
Ignition temperature			440	°C (dust)
Flash point			not applicable	
Explosion limits	lower		not available	
	upper		not available	
Density		(20 °C)	1.405	g/cm^3
Bulk density			640	kg/m^3
Solubility in				
water		(20 °C)	137	g/l
ethanol		(20 °C)	37	g/l
log Pow:			-0.92	

10. Stability and reactivity

Conditions to be avoided

Heating.

Substances to be avoided

oxidizing agent, acryl aldehyde, nitric acid, hydrogen peroxide.

Hazardous decomposition products

in the event of fire: See chapter 5.

11. Toxicological information

Acute toxicity

LD_{50} (oral, rat): 1750 mg/kg.
LD_{50} (dermal, rabbit): >2800 mg/kg.

Subacute to chronic toxicity

The carcinogenic potential requires further clarification.
The possibility of an embryotoxic effect has not yet been fully assessed.

Ames-Test: No indication of mutagenic activity.
Mikronucleus-Test: No indication of mutagenic activity.
Chronic intoxication: changes in the blood picture.

Further toxicological information

After eye contact: mucosal irritations.
Ingestion may result in: nausea, vomiting, diarrhoea.
After absorption of large quantities: pulmonary oedema.
Sensitization possible in predisposed persons. Risk of photosensitization.

Systemic effects: Damage of: thyroid.

Further data

The product should be handled with the care usual when dealing with chemicals.

CP0170 v2.0 RS 567-812

MEGA ELECTRONICS Safety Data Sheet

Catalogue No.: 567-812
Product name: TIN PLATING CRYSTALS

12. Ecological information

Biologic degradation:
Biologically not readily degradable.

Behavior in environmental compartments:
Distribution: log p(o/w): -0.92.
No bioaccumulation is to be expected (log P(o/w <1).

Ecotoxic effects:
Biological effects:
Toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Fish toxicity: Br.rerio LC_{50}: 10000 mg/l /96 h. L.idus LC_{50}: >10000 mg/l /48 h.
Daphnia toxicity: Daphnia EC_{50}: 110 mg/l /24 h.
Algeal toxicity: Desmodesmus subspicatus IC_{50}: 6.8 mg/l /96 h.

The literature data available to us do not conform with the labelling prescribed by the EC. The EC has dossiers which have not been published.

Further ecologic data:
Degradability:
BOD: 0.013 g/g.
COD: 0.84 g/g.
TOD: 2.42 g/g.
Do not allow to enter waters, waste water, or soil!

13. Disposal considerations

Product:

Chemicals must be disposed of in compliance with the respective national regulations.

Packaging:

Product packaging must be disposed of in compliance with the country-specific regulations.

CP0170 v2.0 RS 567-812

MEGA ELECTRONICS Safety Data Sheet

Catalogue No.: 567-812
Product name: TIN PLATING CRYSTALS

14. Transport information

Land transport	GGVS, GGVE, ADR, RID
Classification	9/12c
Name	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. THIOUREA
Transport by river	ADN, ADNR
Classification	not tested
Transport by sea	IMDG, GGVSee
Classification	9/UN 3077/PG III
Ems	
MFAG	
Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (THIOUREA)
Transport by air	ICAO, IATA
Classification	9/UN 3077/PG III
Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (THIOUREA)

Transport regulations are cited according to international regulations

15. Regulatory information

Labelling according to EC Directives

Symbol:	Xn	Harmful
	N	Dangerous for the environment
R-phrases:	22-40-51/53-63	Harmful if swallowed. Limited evidence of a carcinogenic effect. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Possible risk of harm to the unborn child.
S-phrases:	36/37-61	Wear suitable protective clothing and gloves. Avoid release to the environment. Refer to special instructions/Safety data sheets.
EC-No.:	200-543-5	EC label

16. Other information

Change in labelling.
Change in the chapter on first aid measures.
Change in the chapter on toxicology.

General update. CHIP 3 COMPLIANCE

Regional representation:

This information is given on the authorised Safety Data Sheet for your country.

CP0170 v2.0 RS 567-812

MEGA ELECTRONICS Safety Data Sheet

Catalogue No.: 567-812
Product name: TIN PLATING CRYSTALS

The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.

IPA Solvent Cleaner

REVISION DATE: SEPTEMBER 2005 **CP0010 v3.3 RS 227-4427, 227-4433, 567-890**

SAFETY DATA SHEET
IPA SOLVENT CLEANER

RS CHIP3 MSDS Date 01/03/07

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY/UNDERTAKING

PRODUCT NAME IPA SOLVENT CLEANER

PRODUCT NO. RS 227-4427

SUPPLIER RS COMPONENTS
BIRCHINGTON ROAD
CORBY
NORTHANTS NN17 9RS UK
+44 (0) 1536 402888
+44(0) 1536 401588

2 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content	Classification
PROPAN-2-OL	200-661-7	67-63-0	60-100%	F;R11 Xi;R36 R67

The Full Text for all R-Phrases are Displayed in Section 16

COMPOSITION COMMENTS

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels

3 HAZARDS IDENTIFICATION

Highly flammable. Irritating to eyes. Vapours may cause drowsiness and dizziness.

CLASSIFICATION Xi;R36. F;R11. R67.

4 FIRST-AID MEASURES

INHALATION

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

INGESTION

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Get medical attention.

SKIN CONTACT

Promptly wash contaminated skin with soap or mild detergent and water. Promptly remove clothing if soaked through and wash as above. Get medical attention if irritation persists after washing.

EYE CONTACT

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Use: Alcohol resistant foam. Powder. Dry chemicals, sand, dolomite etc.

SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk. Use water to keep fire exposed containers cool and disperse vapours.

6 ACCIDENTAL RELEASE MEASURES

SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Wear necessary protective equipment. Absorb in vermiculite, dry sand or earth and place into containers.

7 HANDLING AND STORAGE

USAGE PRECAUTIONS

Keep away from heat, sparks and open flame. Avoid spilling, skin and eye contact.

STORAGE PRECAUTIONS

Flammable/combustible - Keep away from oxidisers, heat and flames. Store in tightly closed original container in a cool, dry well-ventilated place. Keep in original container.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

REVISION DATE: SEPTEMBER 2005 **CP0010 v3.3 RS 227-4427, 227-4433, 567-890**

IPA SOLVENT CLEANER

Name	Std	LT - ppm	LT - mg/m3	ST - ppm	ST - mg/m3
PROPAN-2-OL	WEL	400 ppm	999 mg/m3	500 ppm	1250 mg/m3

INGREDIENT COMMENTS

WEL = Workplace Exposure Limits

PROTECTIVE EQUIPMENT

ENGINEERING MEASURES

All handling to take place in well-ventilated area.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit.

HAND PROTECTION

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

EYE PROTECTION

Wear approved, tight fitting safety glasses where splashing is probable.

OTHER PROTECTION

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

HYGIENE MEASURES

DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
BOILING POINT (°C)	82	RELATIVE DENSITY	0.790 @ 20 °c
VAPOUR DENSITY (air=1)	2.8	VAPOUR PRESSURE	4.16 kPa @ 20 °c
EVAPORATION RATE	2.93	VISCOSITY	3.06 cSt @ 20 °c
FLASH POINT (°C)	0 OC (Open cup).	AUTO IGNITION TEMPERATURE (°C)	399
FLAMMABILITY LIMIT - LOWER(%)	2.50	FLAMMABILITY LIMIT - UPPER(%)	12.70

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions.

CONDITIONS TO AVOID

Avoid heat, flames and other sources of ignition.

MATERIALS TO AVOID

Strong oxidising substances.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50	1 4700 mg/kg (oral rat)
TOXIC CONC. - LC 50	46.5 mg/l/4h (inh-rat)

INHALATION

May cause irritation to the respiratory system.

INGESTION

May cause stomach pain or vomiting.

SKIN CONTACT

Prolonged contact may cause dryness of the skin. Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

EYE CONTACT

Irritating to eyes.

REVISION DATE: SEPTEMBER 2005 **CP0010 v3.3 RS 227-4427, 227-4433, 567-890**

IPA SOLVENT CLEANER

ROUTE OF ENTRY

Skin absorption. Ingestion. Skin and/or eye contact.

TARGET ORGANS

Central nervous system. Eyes. Respiratory system, lungs. Skin.

MEDICAL SYMPTOMS

Irritation of eyes and mucous membranes. Dilated pupils. Rhinitis (inflammation of the nasal mucous membranes). Upper respiratory irritation. General respiratory distress, unproductive cough. Skin irritation. Central nervous system depression. Drowsiness, dizziness, disorientation, vertigo.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

Not regarded as dangerous for the environment.

LC 50, 96 Hrs, FISH mg/l	9600
IC 50, 72 Hrs, ALGAE, mg/l	1800

13 DISPOSAL CONSIDERATIONS

DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements. Absorb in vermiculite or dry sand, dispose in licensed special waste.

14 TRANSPORT INFORMATION

UK ROAD CLASS	3		
PROPER SHIPPING NAME	ISOPROPANOL (ISOPROPYL ALCOHOL)		
UN NO. ROAD	1219	UK ROAD PACK GR.	II
ADR CLASS NO.	3	ADR CLASS	Class 3: Flammable liquids.
ADR PACK GROUP	II	HAZARD No. (ADR)	33
ADR LABEL NO.	3	HAZCHEM CODE	2YE
CEFIC TEC(R) NO.	30GF1-I+II	RID CLASS NO.	3
RID PACK GROUP	II	UN NO. SEA	1219
IMDG CLASS	3	IMDG PAGE NO.	3
IMDG PACK GR.	II	EMS	F-E, S-D
MFAG	See Guide	MARINE POLLUTANT	No.
UN NO. AIR	1219	AIR CLASS	3
AIR PACK GR.	II		

15 REGULATORY INFORMATION

LABELLING

Irritant

Highly Flammable

RISK PHRASES

R11	Highly flammable.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

SAFETY PHRASES

S16	Keep away from sources of ignition - No smoking.

S25	Avoid contact with eyes.
S51	Use only in well-ventilated areas.

UK REGULATORY REFERENCES

Chemicals (Hazard Information & Packaging) Regulations.

ENVIRONMENTAL LISTING

Rivers (Prevention of Pollution) Act 1961. Control of Pollution (Special Waste Regulations) Act 1980. Control of Pollution Act 1974.

EU DIRECTIVES

System of specific information relating to Dangerous Preparations. 2001/58/EEC. Dangerous Substance Directive 67/548/EEC. Dangerous Preparations Directive 1999/45/EEC.

APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

GUIDANCE NOTES

Workplace Exposure Limits EH40.

16 OTHER INFORMATION

GENERAL INFORMATION

CN No 38140090

REVISION COMMENTS

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

ISSUED BY

Helen O'Reilly

REVISION DATE SEPTEMBER 2005

REV. NO./REPL. SDS GENERATED 2

RISK PHRASES IN FULL

R11	Highly flammable.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

Seno Fine Etch Crystals

THE INFORMATION AND RECOMMENDATIONS CONTAINED HEREIN ARE BELIEVED TO BE ACCURATE - HOWEVER NO GUARANTEE OR WARRANTY EXPRESSED OR IMPLIED IS GIVEN

SECTION 1 PRODUCT IDENTIFICATION & MANUFACTURE

NAME: SENO 3207 FINE ETCH CRYSTALS. PART Nos.: 600-014 – 5 LITRES
600-033 – 2 LITRES

MANUFACTURER'S/SUPPLIERS NAME, REGISTERED ADDRESS AND EMERGENCY TEL NO:

MEGA ELECTRONICS LTD., TELEPHONE: +0044 01223 893900
THE GRIP INDUSTRIAL ESTATE,
LINTON, CAMBRIDGE.
ENGLAND, CB1 6NR.

ORGANISATIONS NAME & ADDRESS AT WHICH MANUFACTURED

KEPETS GMBH. TEL: 0049 6445 5810
NORDSTRASSE 24
D-35641 SCHÖFFENGRUND
LAUFDORF.
GERMANY.

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT	%BY WT	CAS & EEC Nos.:	HAZARD	R PHRASE NOS:
di-SODIUM PEROXODISULPHATE HEXAHYDRATE		7775-27-1 231-892-1	Xn O.	8 22 36/37/38

SECTION 3 HAZARDS IDENTIFICATION

HAZARDOUS IF SWALLOWED. IRRITATING TO EYES AND SKIN.
DANGER OF DECOMPOSITION IN EXTREME HEAT.

SECTION 4 FIRST AID MEASURES

INHALATION:
MOVE TO FRESH AIR AND KEEP AT REST. IF SYMPTOMS OF COUGHING AND IRRITATED MUCOUS MEMBRANE PERSIST SEEK MEDICAL ATTENTION.

SKIN CONTACT:
REMOVE CONTAMINATED CLOTHING. WASH AFFECTED AREA WITH SOAP AND WATER. IF IRRITATION OCCURS AND PERSISTS, SEEK MEDICAL ATTENTION.

EYE CONTACT:
FLUSH WITH WATER FOR 15 MINUTES. SEEK MEDICAL ATTENTION

INGESTION:
RINSE MOUTH OUT WITH WATER. DO NOT INDUCE VOMITING. SEEK MEDICAL ATTENTION.

MEDICAL NOTES: IF USED SOLUTION CONTAINING COPPER HAS BEEN INGESTED, CHECK KIDNEY FUNCTION.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
WATER, FOAM, POWDER

COMBUSTION PRODUCTS
N/A

FIRE/EXPLOSION SCENARIOS
PRODUCT IS AN OXIDISING AGENT
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS
SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN.

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION
REFER TO SECTION 8; PERSONAL PROTECTION

ENVIRONMENTAL PRECAUTIONS
AVOID ENTRY INTO DRAINS & WATERWAYS.

WORKPLACE PRECAUTIONS N/A

METHODS FOR CLEARING UP: SWEEP AND GATHER PRODUCT; AVOID GENERATION OF DUST.

SECTION 7 HANDLING AND STORAGE

HANDLING PRECAUTIONS
STORE IN COOL DRY PLACE, AVOID DAMP AND EXTREME HEAT. AVOID DUST CREATION WHEN MIXING.

STORAGE INCLUDING ANY SPECIAL REQUIREMENTS (TEMPERATURE, VENTILATION, ETC)
AVOID COMBUSTIBLES. KEEP AWAY FROM ALKALINE

SECTION 8 EXPOSURE CONTROL/PERSONAL PROTECTION

ENGINEERING CONTROLS/ VENTILATION
ENSURE ADEQUATE VENTILATION WHEN USING.

RESPIRATORY PROTECTION
WEAR MASK WHEN MIXING. RECOMMENDED TYPE EN149 2001 FFP2

EYE PROTECTION
RECOMMENDED: PROTECTIVE GOGGLES

HAND PROTECTION
RECOMMENDED IMPERVIOUS GLOVES e.g. NITRILE.

SKIN PROTECTION
WEAR SUITABLE PROTECTIVE CLOTHING

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: POWDER **COLOUR:** WHITE

ODOUR: WEAK OF OXYGENE/ OZONE **ACIDITY/ALKALINITY pH:** 4.3 (Molar aqueous solution)

BOILING POINT lm1-°C:
MELTING POINT °C: 180°C

FLASH POINT °C (Open/Closed Cup): N.A.
AUTOIGNITION TEMP °C: N.A.

THERMAL DECOMPOSITION TEMP °C:
OXIDISING PROPERTIES:

EXPLOSIVE PROPERTIES: NON FLAMMABLE
EXPLOSIVE LIMITS AT 25°C (% VOL IN AIR)

LOWER: **UPPER:**

RELATIVE DENSITY: 2.59gr / ccm AT 20°C **SOLID CONTENT %:**

SOLUBILITY IN WATER: 556g / L IN WATER AT 20°C
ph VALUE: 4.3 AT 20°C MIXED 250g / 1 litre WATER

VOLATILE CONTENT

VAPOUR PRESSURE mmHg at 20°C
RELATIVE VAPOUR DENSITY (air = 1):
(of principle component and name):

EVAPORATION RATE **CONDUCTIVITY:**
(n-butyl acetate = 1):

SECTION 10 STABILITY AND REACTIVITY PROPERTIES

CONDITIONS TO AVOID: AVOID EXTREME HEAT AND DAMPNESS

MATERIALS TO AVOID:

HAZARDOUS DECOMPOSITION PRODUCTS:
INCLUDE SULPHUR DIOXIDE AND TRIOXIDE

SECTION 11 TOXICOLOGICAL INFORMATION

EFFECT OF EYE CONTACT:
IRRITATION.
EFFECT OF SKIN CONTACT:
SLIGHT IRRITATION WHEN IN REPEATED CONTACT WITH SKIN, REPEATED CONTACT CAN CAUSE DEGREASING AND LEAD TO DERMATITIS
EFFECT OF INHALATION:
HIGH CONCENTRATIONS MAY LEAD TO LOSS OF CONSCIOUSNESS
EFFECT OF INGESTION: HARMFUL – SEEK IMMEDIATE MEDICAL ATTENTION

SECTION 12 ECOLOGICAL INFORMATION

Possible environmental effects and behaviour/ODP/aquatic toxicity.

EC50	357 mg /L
LC50	323 mg / L

SECTION 13 DISPOSAL CONSIDERATIONS

Safe disposal of product, its residues and packaging materials:
In accordance with local regulations via licensed contractor.
See also Sections 7 & 8 for handling precautions and personal protection where applicable.

SECTION 14 TRANSPORT INFORMATION

UN Nr: 1505 PACKING GROUP III
HAZARD CATEGORY: 5.1

SECTION 15 REGULATORY INFORMATION

HAZARD SYMBOL: Xn – HARMFUL.
O – OXIDISING
CONTAINS: SODIUMPERSULPHATE)
RISK PHRASE Nos. & WORDS:

8	Contact with combustible materials may cause fire.
22	Harmful if swallowed.
36/37/38	Irritating to eyes respiratory system and skin.
42/43	May cause sensitisation by inhalation and skin contact

SAFETY PHRASE Nos. & WORDS:

S17	Keep away from combustible material.
S22	Do not breathe dust
S26	In case of contact with eyes / rinse immediately with plenty of water and seek medical advice
S37	Wear suitable gloves

OTHER INFORMATION

EEC Guideline 91/155/EEC refers
Publication refs: Compiled in accordance with CHIP Regulation 2002. HSC approved Code of Practice, Document L37

SECTION 16 OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

Revised Version 12/04.

Liquid Developer Concentrate

The information and recommendations contained herein are believed to be accurate - however no guarantee or warranty expressed or implied is given.

Section 1 **Product identification and manufacture**
Name: Liquid developer concentrate 4006
Order Code: 34-0790 ~ 1 litre (10 litre)

Suppliers name, registered address and Tel no:
Rapid Electronics Ltd., Tel: +0044 (0)1206 751166
Severalls Lane,
Colchester, Essex.
CO4 5JS England.

Manufacturers name, address and Tel no:
Kepets GMBH. Tel: 0049 6445 5810
Nordstrasse 24
D-35641 Schöffengrund
Laufdorf.
Germany.

Section 2 **Composition/information on ingredients**

COMPONENT	%BY WT	CAS & EEC NOS.	HAZARD	R PHRASE NOS.
Sodium Metasilicate	33	NCC (22)	Xn	(36, 37, 38)

Section 3 **Hazards identification**
Harmful. Harmful by inhalation and if swallowed. Inorganic substance, avoid entry into drainage system.

Section 4 **First aid measures**
Inhalation: Remove from exposure to fresh air.
Skin contact: Irrigate thoroughly with soap and water. Remove contaminated clothing.
Eye contact: Irrigate thoroughly with water. Obtain medical attention.
Ingestion: Rinse mouth out with water. Do not induce vomiting. Seek medical attention.
Medical notes: N/A

Section 5 **Fire fighting measures**
Extinguishing media: Water spray, foam, dry powder, CO2
Combustion products:N/A
Fire/explosion scenarios:
Special protective equipment for fire fighters:

Section 6 **Accidental release measures**
Personal protection: Wear respiratory protection. Avoid contact with skin and eyes.

Environmental precautions: Avoid entry into drainage system and earth.
Workplace precautions: Do not eat, drink or smoke.
Methods for clearing up:
Dry: Collect and put into suitable container for disposal.
Liquid: Absorb in sand or other inert material and put into suitable container for disposal.

Section 7 **Handling and storage**

Handling precautions:
Harmful if swallowed. Always wear suitable protective clothing (sec. 8) no local exhaust ventilation is required if used according to instructions.

Storage including any special requirements (temperature, ventilation, etc):
Store only in suitable polyethylene containers ensuring they are tightly closed. Store at room temperature. Keep from freezing when mixed. No local exhaust ventilation required if used according to instructions.

Section 8 **Exposure control/personal protection**

Engineering controls/ ventilation:
No local exhaust ventilation required if used according to instructions.

Respiratory protection:
Protective mask required when mixing.

Eye protection:
Wear protective glasses.

Hand protection:
Wear protective rubber gloves

Skin protection:
Always observe all usual precautions when handling chemicals. Do not eat, drink or smoke when handling.

Section 9 **Physical and chemical properties**

Appearance: Liquid
Colour: Clear
Odour: none
Acidity/alkalinity ph: 13.5 (molar aqueous solution)
Boiling point: 90°C
Melting point:
Flash point °C (open/closed cup): N/A

Auto ignition temp °C: N/A
Thermal decomposition temp °C: N/A

Oxidising properties: Strong oxidiser.

Explosive properties: N/A
Explosive limits at 25°C (% vol. in air)
Lower:
Upper:

Relative density: 1.50g / cm^3
Solid content %:
Solubility in water: unlimited
Solubility in organic solvents:
Volatile content:
Vapour pressure mmhg at 20°C
Relative vapour density (air = 1):
(of principle component and name):
Evaporation rate:
Conductivity:
(n-butyl acetate = 1):

Section 10 **Stability and reactivity properties**

Conditions to avoid: Observe usual precautions when handling chemicals.

Materials to avoid: Avoid contact with concentrated acids.
Hazardous decomposition products: N/A
Hazardous polymerisation will not occur

Section 11 **Toxicological information**

Effect of eye contact: Irritating effect, no acute toxicity.
Effect of skin contact: Irritating effect, no acute toxicity.
Effect of inhalation: N/A
Effect of ingestion: ld50 (oral rat): 1490mg / 1 kg.
Any known data on sensitisation carcinogenicity, mutagenicity, teratogenicity, or narcosis: No evidence

Section 12 **Ecological Information**
No acute toxicity, but avoid entry into drainage system. Inorganic preparation.

Section 13 **Disposal considerations**
Always dispose of according to local government regulations.

Neutralisation of spent solution: Neutralise to ph of 8.5 ~ 9.0 by addition of acidic solution. Solids will separate out. Decant / filter the liquid. Solids may be incinerated. Before putting liquid to drain neutralise to ph of 6.5 – 8 by addition of acidic solution.

Section 14 **Transport Information**
Not restricted

Section 15 **Regulatory Information**
Product trade name / designation: Liquid developer concentrate.
Contains: Sodium metasilicate
Hazard symbol: xn
Risk phrase nos & words:
36, 37 & 38 Irritating to eyes. Irritating to respiratory system. Irritating to skin. Harmful if swallowed.

Safety phrase nos & words:
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin wash immediately with plenty of soap and water.
S/36/37 Wear suitable protective clothing and gloves.

Section 16 Other Information

Recommended uses and restrictions: Use only as directed.

National University of Ireland Maynooth – Chemistry Department

CHEMICAL AGENT RISK ASSESSMENT SHEET

TITLE OF ACTIVITY:_____

ACADEMIC / PROJECT SUPERVISOR: _____ **LOCATION:**_____ **(Room No.)** **MODULE CODE:**_____ **(if relevant)**

ASSESSMENT UNDERTAKEN BY:_____ **ASSESSMENT DATE:**_____ **ASSESSMENT REVIEW DATE:**_____

(USE LABELS, SAFETY DATA SHEETS (SDS) & CHEM. AGENT COP TO COMPLETE THIS TABLE.)	**HEALTH HAZARD CLASSIFICATION (See Section 15 MSDS)**									PHYSICAL/ CHEMICAL/ ENVIRONMENTAL CLASSIFICATION (Section 15)				ROUTES OFEXPOSURE								
LIST CHEMICAL NAMES	**Very Toxic (T+)**	**Toxic (T)**	**Harmful (Xn)**	**Irritant (Xi)**	**Corrosive (C)**	**Sensitising (Xi)**	**Carcinogenic (C1) or (C2)**	**Mutagenic (Mut 1) or (Mut 2)**	**Toxic Reproduction Repro 1 or Repro 2**	**Highly Flammable (F) Extremely Flammable (F^+)**	**Oxidising (O)**	**Explosive (E)**	**Danger to environment (N)**	**Inhalation (Sen)**	**Skin (Sk)**	**Eyes**	**Ingestion**	**Amount Used (L or Kg)**	**Dustiness or Volatility (high, medium or low)**	**Duration of Contact (Hr/Day)**	**Number of people exposed**	**OELV / BLV/TLV or Equivalent**

NOTE OTHER SIGNIFICANT SAFETY CONCERNS:

PERSONS CARRYING OUT & DESCRIPTION OF THE ACTIVITY	CURRENT PREVENTATIVE & PROTECTIVE MEASURES	ADDITIONAL PREVENTATIVE MEASURES REQUIRED
PERSONS CARRYING OUT ACTIVITY (LECTURER, TECHNICIAN, POSTGRADUATE OR UNDERGRADUATE STUDENT, MAINTENANCE, GROUNDS, ETC.):	STANDARDS & PROCEDURES (NAME OF RELEVANT DEPARTMENTAL SAFETY CONTROL PROCEDURES AS OUTLINED IN DEPARTMENTAL SAFETY BOOKLET AND/OR OTHER REFERENCE THAT CONTROLS THE USE OF CHEMICALS IN THIS EXPERIMENT OR PROJECT): SAFETY DATA SHEETS (ARE SDS'S AVAILABLE FOR EACH CHEMICAL?): YES ☐ NO ☐	**(If needed to ensure that risks are kept at acceptable levels, list additional preventative measures to be used):**
BRIEF DESCRIPTION OF THE ACTIVITY AND SIGNIFICANT CHEMICAL HAZARDS AND RISKS INVOLVED:	**CONTAINMENT FACILITIES (i.e. engineering controls, fume cupboards, etc.):**	
	PERSONAL PROTECTIVE EQUIPMENT (I.E. PROTECTIVE CLOTHING, GLOVES, EYE PROTECTION, ETC.):	
	TRAINING **Have the supervisors being instructed in the Departmental Safety Procedures?** YES ☐ NO ☐	
	LIST OTHER PREVENTATIVES AND PROTECTIVE MEASURES:	

RISK DECISION	
ACCEPTABLE: ☐ **UNACCEPTABLE:** ☐	IF, AS A RESULT OF THIS RISK ASSESSMENT, THE RISK DECISION IS FOUND TO BE ACCEPTABLE, THEN PROGRESS TO THE NEXT PAGE. IF THE RISK DECISION IS FOUND TO BE UNACCEPTABLE THEN THE CHEMICAL AGENT / AGENTS MAY NOT BE USED IN THE WORKPLACE. IT MAY THEN BE NECESSARY TO CARRY OUT A MORE DETAILED RISK ASSESSMENT.

FIRST AID ARE YOU AWARE OF THE LOCATION OF SHOWERS, FIRST AID ARRANGEMENTS, ANTIDOTES, STUDENT MEDICAL CENTRE CONTACT DETAILS? YES □ NO □	SPILLS & OTHER EMERGENCY PROCEDURES ARE YOU AWARE OF THE LOCATION OF CLEAN-UP MATERIALS, EMERGENCY CONTACTS & PHONE NUMBERS, AND THE DEPARTMENTAL EMERGENCY PLAN (SEE SAFETY BOOKLET)? YES □ NO □
WASTE **(Specify if any special precautions should be taken when handling wastes and state the method of disposal):**	STORAGE (STATE THE CORRECT STORAGE CONDITIONS FOR THE VARIOUS CHEMICAL CATEGORIES BEING ASSESSED.):

I have completed this risk assessment and I am fully aware of the hazards involved in the above activity and of the essential safety precautions to be taken. I acknowledge with my signature here that I will comply with the safety precautions that this work requires.

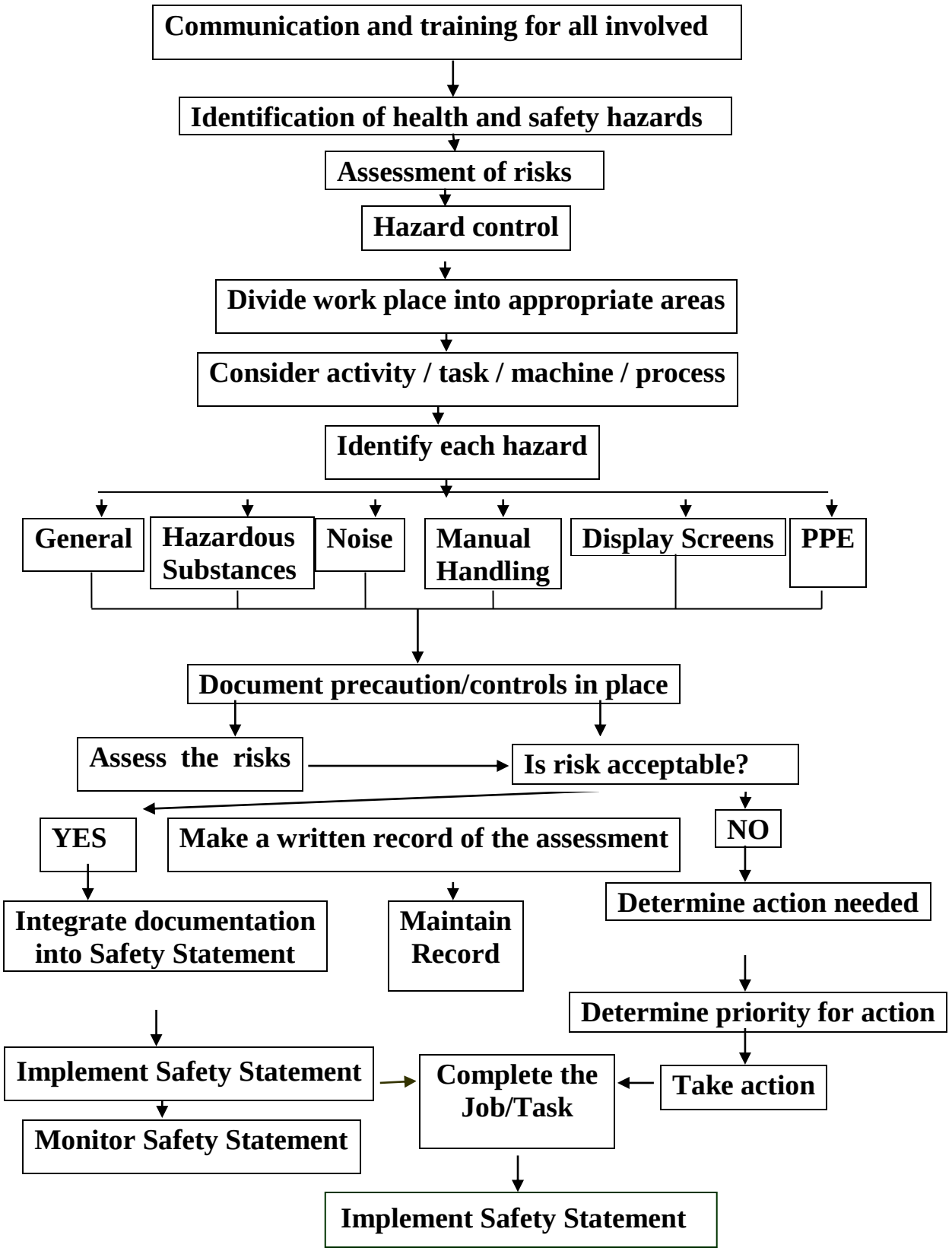
Signature of Assessor_____Date_____
Researcher/Staff

I have personally ascertained that the Assessor is aware of the hazards involved in the above activity and the precautions to be taken. I am satisfied that any hazards that were identified are adequately controlled and these controls will be regularly checked. This activity is deemed to be safe and has my approval.

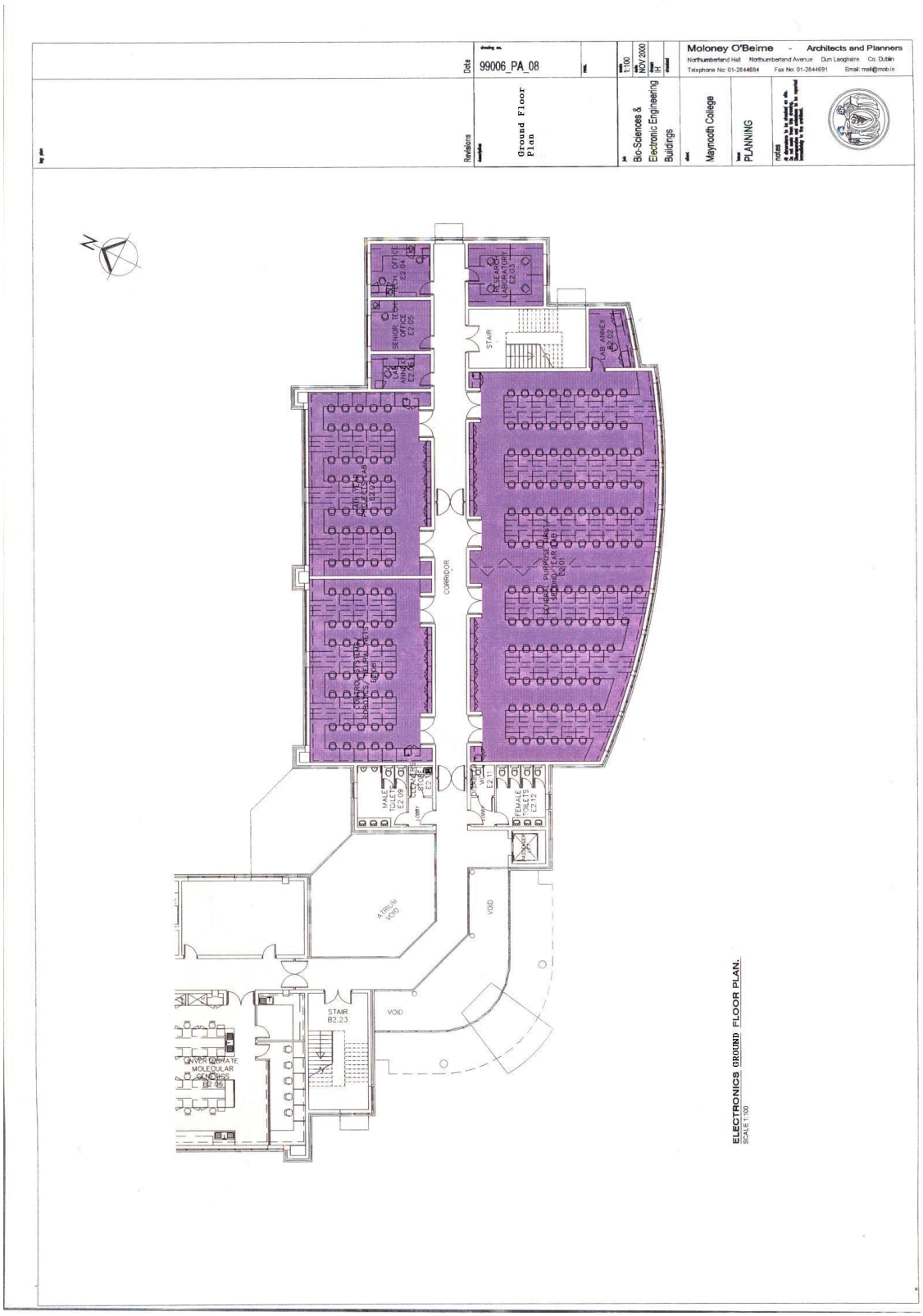
Signature of Supervisor: _____Date_____
Technician / Academic Staff / Head of Department

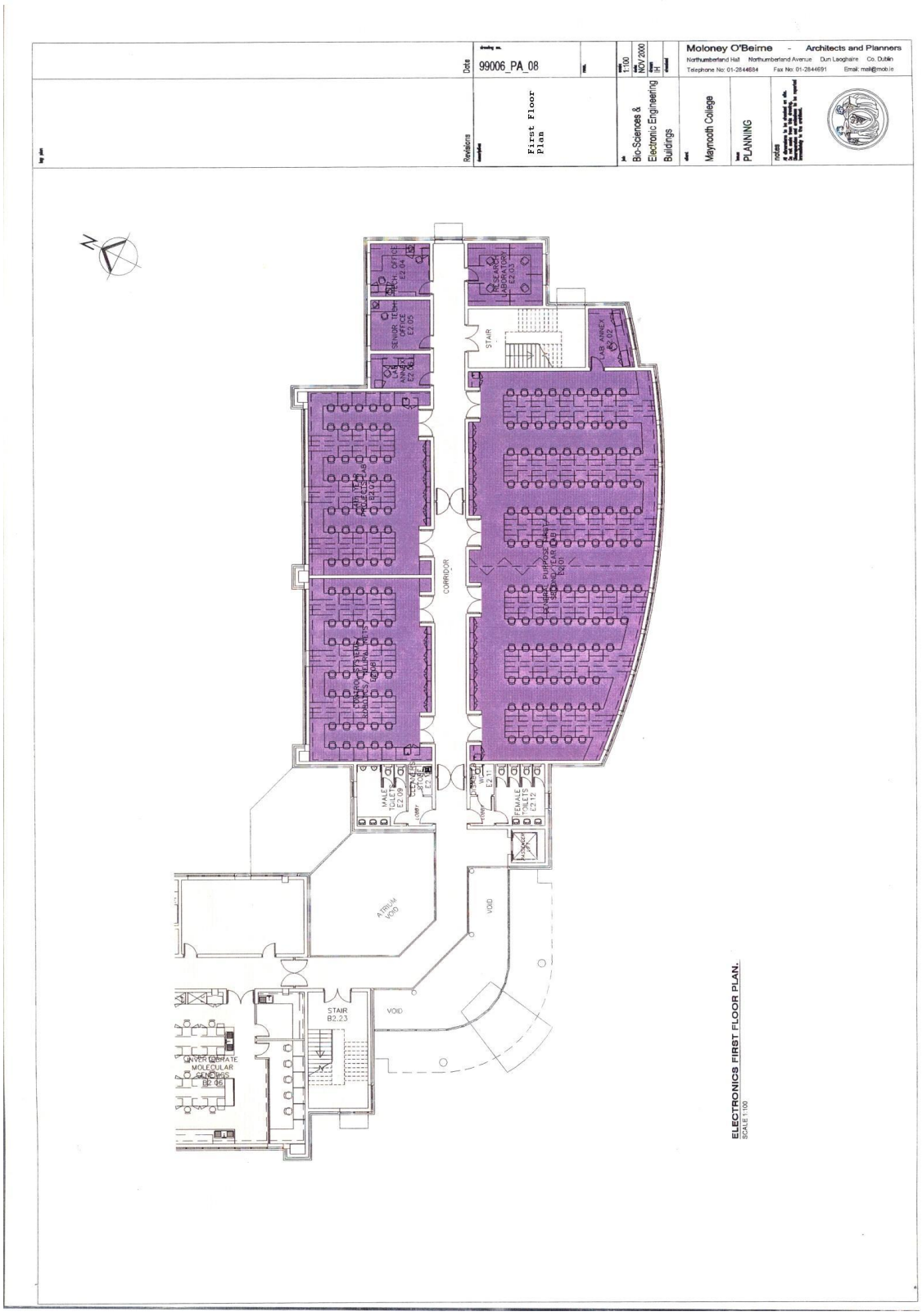
APPRENDIX 3 – RISK ASSESSMENT FLOW CHART

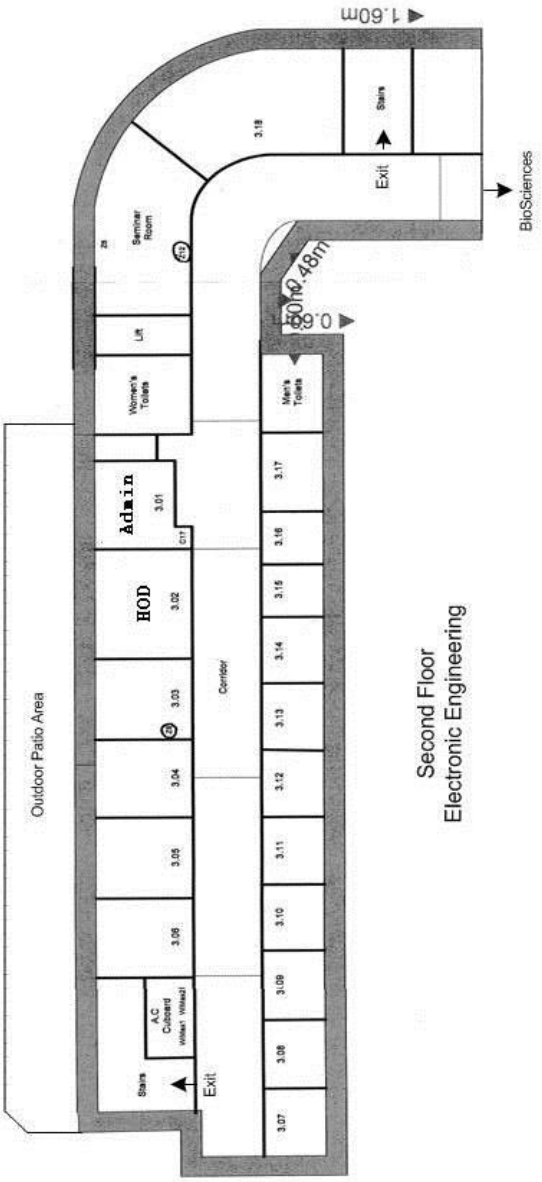
RISK ASSESSMENT FLOW CHART



APPENDIX 4 – PLAN OF BUILDING


Moloney O'Beirne - Architects and Planners
Northumberland Hall Northumberland Avenue Dun Laoghaire Co. Dublin
Telephone No: 01-2844684 Fax No: 01-2844691 Email: mail@mob.ie
99006_PA_08
Date
NOV 2000
Ground Floor Plan
Revisions
Bio-Sciences & Electronic Engineering Buildings
Maynooth College
PLANNING
CORRIDOR
STAIR
VOID
ATRIUM VOID
LAB. ANNEX B2.02
RESEARCH LABORATORY B2.03
SENIOR TECH. OFFICE B2.04
SENIOR TECH. OFFICE B2.05
LAB. ANNEX B2.01
MALE TOILETS B2.09
FEMALE TOILETS B2.10
STAIR B2.23
ELECTRONICS GROUND FLOOR PLAN.
SCALE 1:100


Moloney O'Beirne – Architects and Planners
Northumberland Hall Northumberland Avenue Dun Laoghaire Co. Dublin
Telephone No: 01-2844684 Fax No: 01-2844691 Email: mail@mob.ie
Date
99006_PA_08
NOV 2000
First Floor Plan
Bio-Sciences & Electronic Engineering Buildings
Maynooth College
PLANNING
CORRIDOR
STAIR
VOID
ATRIUM VOID
STAIR B2.23
ELECTRONICS FIRST FLOOR PLAN.
SCALE 1:100


1.60m
Stairs
3.18
Exit
BioSciences
Seminar Room
Lift
Women's Toilets
Admin
3.01
HOD
3.02
3.03
3.04
3.05
3.06
A.C Cupboard
Stairs
Exit
Outdoor Patio Area
Corridor
Men's Toilets
3.17
3.16
3.15
3.14
3.13
3.12
3.11
3.10
3.09
3.08
3.07
0.48m
0.69
Second Floor
Electronic Engineering

APPENIDIX 5 – RISK ASSESSMENT FOR FIELD TRIPS

National University Ireland Maynooth
RISK ASSESSMENT FOR FIELD TRIPS

A Separate Risk Assessment MUST be completed for each trip

PLEASE NOTE INCOMPLETE RISK ASSESSMENTS WILL BE RETURNED

PLEASE COMPLETE ALL SECTIONS IN BLOCK LETTERS

SECTION 1: ORGANISER INFORMATION					
NAME OF ORGANISER/LEADER:					
CONTACT DETAILS:					
NAME OF CO-ORGANISER/CO-LEADER:					
CONTACT DETAILS:					
DEPARTMENT:	**HEAD OF DEPARTMENT:**				
E-MAIL ADDRESS FOR CORRESPONDENCE:		**PHONE NUMBER:**			

SECTION 2: TRIP DETAILS						
TITLE OF TRIP:	**DATE OF TRIP:**		**DURATION OF TRIP:**			
LOCATION OF TRIP:						
AGE PROFILE OF PARTICIPANTS:	**16-18**		**18+**			
APPROX. NUMBER OF PARTICIPANTS:		**LEADER/STUDENT RATIO:**				
LEVEL OF COMPETENCIES OF PARTICIPANTS:	**JUNIOR**		**INTERMEDIATE**		**ADVANCED**	
NUMBER PARTICIPANTS PER LEVEL:	**JUNIOR**		**INTERMEDIATE**		**ADVANCED**	
TYPE OF TRANSPORT REQUIRED:						
ACCOMMODATION REQUIREMENTS:		**ADDRESS:**		**PHONE NO.**		

SECTION 3: INSURANCE ACTIVITY				
TRAVEL INSURANCE REQUIRED:	**YES**		**NO**	
TRANSPORT INSURANCE REQUIRED, E.G. COACH, USE OF CAR ON UNIVERSITY BUSINESS ETC.	**YES**		**NO**	
VERIFICATION OF INSURANCE:	**Attach confirmation of insurance cover**			

SECTION 5: HAZARDS/RISKS AND MANAGEMENT CONTROLS						
Hazards identified with the trip:						
Risks:	**High** ☐		**Medium**	☐	**Low**	☐
Management Controls including specialised training/any special equipment required for the trip:						

SECTION 6: FIRST AID REQUIREMENTS	
NUMBER OF QUALIFIED FIRST AIDERS:	

SECTION 7: AUTHORISATION					
TRIP ORGANISER/CO-TRIP ORGANISER:					
PRINT NAME:	_____	**SIGNATURE:**	_____	**DATE :**	_ _/ _ _/ _ _ _ _
PRINT NAME:	_____	**SIGNATURE:**	_____	**DATE :**	_ _/ _ _/ _ _ _ _
HEAD OF DEPARTMENT :					
PRINT NAME:	_____	**SIGNATURE:**	_____	**DATE :**	_ _/ _ _/ _ _ _ _

REVIEW DATE OF RISK ASSESSMENT **PLEASE ATTACH LIST OF PARTICIPANTS WITH CONTACT DETAILS IN CASE OF EMERGENCY**

(If applicable) _ _/ _ _ /_ _ _

Further advice and guidance available in Departmental Safety Statement, Section 3.6

APPENDIX 6 – ACCIDENT REPORT FORM

Accident - Incident Report

All incidents resulting in personal injury, a dangerous occurrence, damage to property or a near miss which could have resulted in injury must be reported within 24 hours, by completing this form and returning it to the University Safety Office.
Report Completed by: _____ Date: _____

Date of incident	Time	Campus	Exact Location

Name of Injured Party. _____

Address _____

_____

_____

Occupation_____

Staff/Student/Other

Details_____

Facility_____

Describe the nature and extent of injuries suffered.

_____

_____

_____

First Aid Treatment Y/N? ☐

_____

_____

Referred to Doctor Y/N? ☐

Describe the circumstances and nature of the accident/incident.

_____

_____

_____

Doctors Name & Address

_____

_____

_____

What was the person doing at the time of the incident Work/

Other Activity, Describe: _____

_____

_____

_____

Taken to Hospital Y/N? ☐

By_____

Hospital_____

Admitted or Discharged after Treatment. Specify

_____

What protective clothing was worn at the time of the incident?

_____

Was any machinery or vehicle involved? Give Details:

_____

Witness to incident? Y/N ☐

Name_____

Phone No._____

Address: _____

Comments or additional information

_____

_____

Reported By: _____

Phone No. _____

Department/Address_____

_____

OFFICE USE ONLY

Classification	Action	Reported Ins./ HSA	Acknowledged	Date Recorded
F/A T/L Other				