



جامعة العلوم والتقنية في الفجيرة
UNIVERSITY OF SCIENCE & TECHNOLOGY OF FUJAIRAH

USTF



Environmental Health and Safety Manual

2021-2022



صَاحِبُ السَّمَوَاتِ وَالْأَرْضِ
رئيس دولة الإمارات العربية المتحدة

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1 | Introduction

The University of Science and Technology of Fujairah (USTF) is committed to good environmental health and safety as well as the establishment of a uniform system that helps individuals, departments, and units meet their health and safety responsibilities. This commitment runs through the Supervisors, Managers, Directors, Deans up to USTF Higher Administration. The policies and procedures included in this Manual are intended to help prevent accidents, illnesses, and injuries; increase safety awareness; meet requirements of environmental, occupational health, and safety laws and regulations; institutional liability; and establish safety responsibilities for members of the university community and visitors.

This Safety Manual is applicable to Administrative Offices, Colleges, Labs and Clinics, classrooms, and students' common areas. The Manual outline safety responsibilities and training requirements to ensure individual and institutional compliance with relevant environmental health and safety laws, regulations, policies, and guidelines.

The Environmental Health and Safety Committee (EHSC) shall work closely with colleges, safety officers, employees, and students throughout the university to ensure compliance with this Manual. This Manual or parts of it shall be revised on an annual basis or as necessary to reflect changes in operations or regulatory requirements.

2 | Target Population

At USTF, safety is everyone's responsibility. All members of the university community are expected to be thoroughly familiar with their safety responsibilities, strive to always follow safety practices, act proactively to prevent accidents and injuries, communicate hazards to supervisors, and be prepared for emergencies that may occur in the workplace. This includes permanent/part time administrative and academic staff, students, visitors, people of determination, contractors, and ancillary workers.

3 | USTF Environmental Health and Safety Policy

USTF strives to maintain a safe living, learning, and working environment. Faculty, staff, students, and other members of the university community must conduct university operations in compliance with applicable UAE regulations, university policies and Environmental Health and Safety (EHS) requirements.

Policy statement

USTF is committed to safeguarding the health, safety, and welfare at work of all its employees, students, visitors, contractors and ancillary workers. To ensure a safe and healthy work environment, USTF shall:

- Consider safety an essential component of all activities within the university.
- Be responsible for ratifying policy on safety matters, acting on advice from the EHSC, which is also charged with implementing this policy.
- Ensure that the measures contained within this manual have already led to a safer working environment for all.
- Continually review and develop this policy as we strive for progressively higher standards of health and safety in the university.

- Observe the legal responsibility of all employees and students to play their own part in the maintenance of USTF safety standards and to act in a responsible manner when working in the university.
- Ensure that anyone with a supervisory role takes on some of the responsibilities of employer in relation to safety of those in their charge.
- Ensure that all university employees and students are encouraged to have input into safety policy by raising issues with their supervisors, EHSC representatives or directly with the Department Heads or Direct supervisor.
- Make available this comprehensive Safety Manual to all employees and students within the university.

4 | USTF Environmental Health and Safety Committee

USTF has established the EHSC as a University Operational Committee with the authority to oversee university compliance with the Health and Safety Policies and Procedures. The EHSC was set up in accordance with university guidelines to maintain appropriate standards of safety throughout the university. The EHSC takes direction from and reports back to the Vice CFAFA on a regular basis. Minutes from its meetings are circulated to all committee members and are available for inspection by any interested parties.

4.1 EHSC members

- EHS Officer
- EHS Coordinator representing each College
- Office of Medical Services
- Supervisor of the Office of University Facilities and Services
- One rotational membership representing administrative offices

4.2 EHSC Terms of Reference

The EHSC shall:

- Monitor the effectiveness of Health, Safety and Welfare arrangements in the University and make recommendations to the VCAFA and to other Committees as appropriate.
- Consider, and act as appropriate on reports from Colleges, Departments, units, and EHSO.
- To review health and safety processes and procedures, including appropriate risk management measures, to ensure that they comply with relevant legislation and meet current university requirements
- Monitor the adequacy of health and safety training across the Colleges, Departments and Units.
- Monitor Health and Safety communication within and outside the university.
- Consider reports from external authorizing bodies and act as appropriate.
- Set up and monitor working parties as appropriate to address specific issues.
- Consider and approve amendments to the USTF Health and Safety manual.

4.3 EHSC Roles and Responsibilities

The following are the specified roles and responsibilities of the EHSC.

EHS Officer

- Ensure that the Environmental Health and Safety Management (EHDM) processes are implemented and maintained in compliance with the framework of the Ministry of Higher Education and other regulatory authorities.
- Report to VCAFA on the performance of the EHSM.
- Monitor, measure, and analyze the performance of the implemented management system and identify the need for further improvements.
- Liaise with external parties on matters relating to the EHSM.
- Plan and manage Environmental Health and Safety internal audits.
- Maintain and update the EHSMS Manual in coordination with the Environmental Health and Safety committee.
- Identify EHSMS training needs of employees and laboratory supervisors.
- Conduct trainings for health and safety best practices.
- Coordinate evacuation exercises to ensure that all stakeholders become familiar with these procedures.
- Assist with the formulation of emergency/contingency plans.
- Post appropriate warning signs and notices.

EHS Coordinator

- Coordinate with the EHSO to:
 - Supervise employees to ensure hazards are managed.
 - Carry out inspections twice per year.
 - Supervise visitors and contractors.
 - Train employees in induction on the safe work procedures.
 - Ensure that any hazardous condition, deficiencies, interruptions, or injuries are reported immediately and well controlled.
 - Complete Incident Register.
 - Assist with accident investigations if required.

Office of Medical Services Supervisor

- Provide medical services to employees and students as far as are reasonably practicable, during accidents and emergencies.
- Arrange for medical surveillance of employees and students who are working under hazardous conditions, where this is deemed necessary.

5 | General Information for All USTF Employees and Students

- All USTF employees and students will have access to a copy of this manual (website)
- In addition, they will receive as appropriate additional safety documentation relevant to their particular needs e.g., microbiological hazards.
- All safety documentation will be supplied by their Lab Supervisors or Department Heads.

- Training courses in Out of Hours, Fire Training, Manual Handling, First Aid Training, Equipment Training,etc, as well as the places, presenters and timing will be announced in due time.
- The following is a tentative schedule for training:

Name of Course	Place	For Whom	How Often
Out of Hours	University online course	Faculty, staff, and students	Once every 2 years
Fire Training	On campus	All personnel	Once each year
Manual Handling Training	On campus	All personnel	Once every 2 years
First Aid Training	On campus	Approved volunteers	Once each year
Equipment Training	Within the Department	Named person responsible for equipment	Once only for each item of equipment and as required

6 | Information for New Employees and Students

It is the responsibility of supervisors to make sure that all new employees are familiar with guidelines in place throughout the University to promote a safe working environment. All new employees and students must be made aware of the following points. All new employees and students must be made aware of the following points:

- Location of fire exits, fire call points and assembly point
- Emergency phone numbers

Service	Police	Ambulance	Fire	Electricity	Water
Phone Number	999	998	997	991	922

- USTF Health and Safety Manual and any specialized codes of practice that are relevant, read and understood
- University identification card
- Introduction to key members of staff
- Hours of work
- Procedure for reporting holiday/sick leave
- First Aid box location
- Incident Report Book Location

In addition to the above-mentioned areas, **Laboratory workers** must also be made familiar with the following points:

- Health and Safety education.
- Waste disposal training.
- General risk assessments (e.g. compressed gases, solvents)
- Laboratory coat: when and where it is to be worn, cleaning and collection.
- Location of all safety equipment: gloves, goggles, masks etc.
- General running of the laboratory (ordering; autoclaving; clean/dirty glassware; disposal/waste routes)
- Use of relevant laboratory procedures and equipment.

7 | Fire and Other Emergencies

- All USTF employees and students must familiarize themselves with the Fire and Emergency Procedures for the building in which they are working.
- Please see your department head, lab supervisor, or unit coordinator for local information.

7.1 Fire safety Training

- All employees must complete general fire safety training at least once per year.
- Fire Training courses are specific to site.
- These are held at various times during the year and details are circulated in advance.
- At these fire training sessions, the nature of the portable fire extinguishers will be explained to employees.
- You must attend the fire training course conducted in the University.

7.2 Access for fire pump

- Unimpeded access to premises for fire appliances and ambulances must be maintained at all times.
- In the event of fire, it is essential that fire appliances and ambulances can gain access to the university buildings.
- Parking cars outside of marked spaces could seriously impede emergency access.
- Persistent offenders will have their parking privileges withdrawn!

7.3 Smoking policy

- Smoking is the single most significant cause of ill health and premature death, and research has shown that passive smoking carries the risk of lung cancer to non-smokers sharing the same room as smokers.
- In addition, smoking is a significant fire hazard, particularly in buildings containing laboratories.
- Smoking is strictly forbidden on university property.

7.4 Corridors, stairwells and lobby areas

- Circulation spaces are vital escape routes in the event of fire or other emergencies.
- These areas must be free of furniture, equipment, cardboard boxes or anything else that would impede the escape route and access in an emergency.
- It is particularly important that flammable materials are not placed in these areas as thick smoke from e.g. foam upholstery on chairs, would soon fill the corridors and render visibility a major problem.
- Nothing should be stored in any of the building's corridors, stairwells or lobby areas.

7.5 People of Determination

- In the event of an emergency, any person of determination may require additional help.
- A Personal Emergency Evacuation Plan will be agreed upon between the facilities team leader and any new employee or student of determination during the training period.

7.6 Other Emergencies

- The fire alarm system may also be activated in the event of emergency situations other than fire when it is necessary to evacuate the building.
- The exception to this is a gas leak when the activation of the fire alarm may itself present an ignition hazard and should therefore be avoided.

8 | Accidents, Incidences, and Injuries

8.1 In the event of accident

8.1.1. Make the situation safe

- If it is possible to safely remove the source of an ongoing hazard (electric current, broken glass, leaking gas etc.) then do so first.

8.1.2. Render immediate first aid

- Make sure casualties are safe, then administer immediate first aid if appropriate, following the guidelines covered in your "out of hours" training.
- If you have not had out of hours basic first aid training, or separate first aid training you should seek the help of a First Aider or someone who has.
- First aid boxes can be found in all laboratories, clinics and some offices.
- They contain the name and contact numbers of trained First Aiders. You may also seek the assistance of any clinically trained colleague.

8.1.3. Summon assistance

- If emergency assistance is required (e.g. ambulance, fire brigade etc.,) ring the specified number stated in appendix-1 to report the details of the incidence and ask for the service required.

8.2. Incident reporting

- All incidents should be reported within 24 hours, to the Office of University Facilities and Services using the incident report form (Appendix 1).
- Incident reports should be completed, and details passed to the EHSO through the designated Accident Book located at the main entrances.
- If a casualty requires hospital attention, then the university emergency must be informed immediately by phone on 092023735 (24 hr).

8.3. Near-misses

- If you have encountered a 'near-miss' or something that you think constitutes a safety hazard, then please inform your supervisor or Department Head.
- You may also contact any member of the EHSC informally or, if you prefer, make anonymous use of the Near-miss record book adjacent to the USTF main entrances.
- Please also use this box for any suggestions you might have regarding safety matters.
- All safety suggestions are taken seriously.

8.4. First Aid training

- The University holds regular first aid training courses.
- It is suggested that all staff familiarized themselves with at least a basic level of first aid training to gain the confidence to act sensibly in the event of an accident.
- Details of courses will be circulated to all employees.

9 | General Laboratory and Clinics Conduct

- Everyone has a legal responsibility to work safely and to not do or fail to do anything that might make things unsafe for others.
- Everyone working in a laboratory, or a clinic is responsible for his or her own general conduct and for the safety of the area where they are working.
- Importantly all members of staff should set a high standard of safety by personal example so that students and employees develop a responsible attitude to safety at work.
- Everyone should abide by the following general rules:
 - All laboratory and clinic areas should be kept clean and tidy.
 - Lab coats and other personal protective equipment (PPE) must be always worn in all laboratories and clinics as appropriate and kept fastened. They must not be worn in offices, lecture theatres, refreshment areas or lavatories.
 - PPEs (Gloves, eye protection, masks etc.) are provided when and where required.
 - Avoid breathing chemical fumes or dust – USE FUME HOODS CORRECTLY.
 - Vessels into which chemicals and reagents are transferred and stored must be LABELLED with the name of the chemical and specific hazards relating to it as indicated on the original vessel.
 - Gloves should not be worn when opening and closing doors, answering telephones or using keyboards, in corridors, refreshment areas, lavatories or lifts because of possible contamination risk to door handles, lift buttons etc. A single glove may be used to carry items between rooms.
 - Spillages must be cleaned immediately. Material Safety Data Sheet (MSDS) and risk-assessments should be consulted prior to clean-up if necessary.
 - When experiments/procedures are completed chemicals, reagents and containers etc. should be returned to cupboards or refrigerators as appropriate and glass and plastic-ware decontaminated and deposited for cleaning.
 - Waste should be disposed of by appropriate routes (see waste disposal).
 - Wash your hands before leaving the laboratory/clinic.
 - Children under the age of 16 are not allowed in laboratories or clinics.
 - Food and drink must not be consumed in a laboratory/clinic or stored in any refrigerator that is also used for storing laboratory samples, reagents or specimens.
 - Personal stereos are not permitted in laboratory/clinic areas. Volume of music from other sources should be kept to a minimum. Fire regulations discourage the use of personal earphones as the fire alarm cannot be heard.
 - Appropriate shoes should be worn in laboratories/clinics; sandals where toes are exposed are unsuitable in terms of protection.

10 | Working Out of Hours

Normal Working Hours

Generally, this will be from no earlier than 7:30 am until not later than 3:30 pm Monday to Thursday, and on Friday from 07:30 am to 12 pm.

10.1. What is considered out of hours?

- Outside these times (including weekends and times when the University is officially closed).

10.2. The following requirements must be observed

- All employees should have completed the appropriate 'Out of Hours Training' course and have attended up to date Fire training.
- Between the hours of 6pm and 9pm, employees and students should have the approval of their line manager or academic supervisor
- Anyone wishing to work should speak with their direct supervisor to establish local policies and procedures
- A risk assessment must have been completed for any work performed out of hours.
- No practical or experimental work should be performed where there is risk of personal accident or injury.
- Normally, work out-of-hours should be restricted to library work, computing, writing reports and making non-risk observations.
- Any experimental work must be approved in advance by their supervisor.
- Heads of Department may permit untrained staff to work outside normal hours alongside other trained staff in low-risk areas on an infrequent basis, but only when there is adequate trained supervision and first aid cover. This exception is designed to permit some flexibility for Heads of Department, not to circumvent the Policy.
- Anyone who regularly works out-of-hours must understand the emergency system and know what to do in the case of Fire, Accident or other foreseeable emergency, including the importance of accident reporting. They must undertake fire training annually and an elementary general safety session (to fulfil first aid requirements), unless exempt, every three years. Anyone who wishes to work out of hours must have sufficient competency in the Arabic language to be able to communicate in an emergency.
- Students must not work alone and must, as a minimum, be within shouting distance of a colleague. Except for work in a library or a designated computer multi-terminal room, students are not allowed to work out-of-hours unless under the direct supervision of a member of staff. If, in exceptional circumstances, a Head of Department sanctions other out-of-hours working for a particular group of students, he/she must ensure that a risk assessment of the activities has been made and appropriate supervisory and safety measures are in place.
- Apparatus left running overnight must include fail-safe features. Permission must be obtained from the person in charge of the laboratory before equipment is allowed to run through the night or unattended at weekends. An approved card indicating that the equipment is to be left running should be clearly visible on or beside the apparatus concerned. It should bear the names of person(s) to be contacted in an emergency, at least one of whom should be on the telephone. The university will ensure that the

University Enquiry has the name(s) of persons to be contacted in the event of mains failure or other malfunction to services.

- Heads of Department, or nominated officers, must give permission for accompanied visitors to enter the department outside normal hours. Permission must be sought in advance during the normal working day.
- Visitors must sign their names in the "Out of Hours" register and signify their status as "Visitor".
- Employees or students authorized to work outside normal working hours and who take visitors into school facilities, must supervise their visitors closely throughout the period of the visit. Heads of Department may require a declaration to this effect. Failure to comply with these requirements may result in withdrawal of authorization to work outside normal working hours.

11 | Safety Inspections

11.1. Format of inspection

- All areas of the university are inspected by the EHSO three times a year for laboratories and annually for offices.
- Advanced warning is not given.
- A full report of the findings will be submitted to the concerned department.
- Serious breaches of safety policy or recurrent failure to adhere to good safety practice will result in disciplinary action.

11.2. Inspection checklist

Any aspect of safety may be covered by the inspection, but the following list itemizes points that the inspectors will be particularly looking out for:

A: Laboratories

1. Fire Safety

- Do any aspects of the area constitute a fire safety risk?
- Does equipment/mess prevent escape from a room?
- Are there any untidy heaps of paper?
- Are there any inappropriate use/storage of organic solvents and flammable gases?
- Is electrical equipment not tested?
- Are there any trailing electric leads?

2. Biological Hazards

- Do any aspects of this room pose a biological hazard? E.g., contamination of floor, benches, or clothing.
- Is there any evidence of eating and drinking in the laboratory?
- Storage of outdoor clothes/personal belongings where they are likely to become contaminated?
- Failure to wear laboratory coats in the laboratory.
- Failure to use gloves where appropriate.
- Evidence of food and drink stored in fridges and freezers
- Evidence of blood spillages
- Evidence of inappropriate disposal of syringes, needles, scalpel blades

- Poor hygiene practices
 - Absence of relevant risk assessments
- 3. First Aid and safety equipment**
- Are there sufficient items of protective equipment such as goggles, face shield, face masks, first aid box, sterile eye wash apparatus, accident book, thermal gloves and disposable gloves?
 - Do staff know where they are kept?
 - Are lab coats etc. being used by workers in the lab?
 - Evidence of lab coats, gloves etc. being worn outside of the laboratory area.
 - Are the first aid kit contents checked and trained people list posted on the box lid?
- 4. Labelling of chemicals/solutions etc in the laboratory**
- Are all chemicals on shelves, in fridges/freezers and currently in use?
 - Is appropriately stored and labelled?
 - Are lids or caps on?
- 5. Equipment Maintenance and Training in Equipment Use**
- All items of equipment which constitute a safety risk will be inspected by the Committee in terms of risk to the operator and all such items should be clearly labelled:
'DO NOT USE THIS EQUIPMENT UNTIL YOU HAVE BEEN TRAINED IN ITS USE'
and
'THE PERSON RESPONSIBLE FOR THIS EQUIPMENT IS "....."'
- 6. Communal Areas**
- Communal areas of usage are often neglected e.g. balance areas, centrifuge areas etc.
 - It is the responsibility of the person charged with looking after these areas to ensure that these areas and equipment in them are kept tidy - not necessarily by cleaning these items of equipment themselves but by ensuring that others who have used them do so.
- 7. Emergency Procedures**
- All staff may be expected to state the emergency telephone number and the procedures to be adopted in case of fire or other emergencies.
 - They should be familiar with the nearest emergency exits and assembly points to be used in the event of a fire.
- 8. Poison Cabinet**
- A 'Poisons Cabinet', which can be simply a secure lockable cupboard, is necessary for any substance classified as a Schedule 1 Poison.
 - If in doubt about any particular chemical this information can be obtained from the Merck catalogue.
 - Any other particularly toxic material can be placed in the Poisons Cabinet at the discretion of the users but on no account should a Schedule 1 Poison be left on the laboratory bench or open shelves.
- 9. Others**
- This check list is not meant to be a completely comprehensive list of everything that could be a potential safety hazard.
 - Please also look for anything else which, in your opinion, might constitute a safety hazard to anyone working in the area being inspected. E.g. Poor housekeeping, broken furniture, inappropriate storage or clutter.

B: Offices

- The basic raw material in most offices is paper.
- It is flammable and single sheets in particular are easily ignited.
- It is heavy in bulk, yet stacks of paper can slide apart, knocking over other items as they collapse.
- Safety consciousness is as important in an office as in a laboratory.

11.3. Health and Safety Inspection Check List for office-based areas

General Environment

- Sufficient space (a minimum of 11m³ per person)
- Room thermometer reasonably available – comfortable temperature
- Adequate ventilation or air-conditioning
- Humidity (does the air feel dry or do you need some more plants?)
- Lighting
- Staff work areas should be kept clear, e.g. no boxes left in walkways, deliveries stored immediately, etc.

Floor Surfaces

- Worn or missing stair-treads
- Worn floor covering causing a tripping hazard
- Slippery floor surface
- Trailing cables should be moved or protected
- Boxes, coats, cases etc on floor
- Wetness (eg from drinks, weather or cleaners (unless signed) – staff should be encouraged to mop or report spillages

Furniture

- Sharp edges or corners
- Filing cabinets without interlocks (not essential but otherwise should be wedged back or screwed to adjacent ones)
- Unstable cupboards or shelves
- Heavy storage above head-height
- Availability of steps/kicks tools in good condition (if necessary)

Electrical Equipment

- All inspected within the prescribed date
- Any damaged plugs, cables or worn insulation?
- Any internal colored wires visible at the plug head?
- No cube adapters – use fused distribution boards
- “Overloaded” sockets

First Aid

- First aid boxes properly stocked.
- Updated list of qualified personnel posted on the box lid.
- At least 2 fully qualified first aiders certificated within the last 3 years

Kitchens and Tea Rooms

- Furniture in reasonable condition
- Fridge (if provided) for food only
- Reasonable state of hygiene
- Dishcloths and tea-towels (if any) kept clean

C: Circulation Areas

- Should be kept clean and tidy at all times.
- Access should be kept clear.
- No white laboratory coats should be worn in general circulation areas at anytime.
- Spillages should be wiped up immediately.
- Any problems with circulation areas should be reported to your direct supervisor.

12 | Safety Actions

- When a safety problem is identified, the member of staff concerned will be informally approached by one person from the EHSC to discuss the problem in the first instance. It is envisaged that most safety issues will be dealt with at this stage.
- More difficult problems may be referred to the EHSC for discussion or further, possibly outside, advice may be sought. In the event of the safety problem requiring immediate attention, any member of the EHSC is authorized to make on the spot decisions to deal with the situation. It is envisaged that other problems will be referred to the next meeting of the EHSC.
- Persistent safety issues relating to individual members of staff (i.e. someone who, through their actions (or lack thereof) is causing safety problems) will be dealt with by the EHSO, who will notify that individual in writing with a clear statement of the problem and the changes which need to be made. This letter will usually set a time limit for a solution to the problem and correspondence will be copied to the relevant supervisor.
- If a letter from the EHSO does not bring about a resolution, then a second letter will be sent to the individual's Supervisor and Head of Unit requesting that they take measures to bring about an immediate resolution of the problem. At all stages, advice and help on the issues will be available from the EHSC
- If in the EHSC's opinion these actions have not resulted in the desired response with respect to staff safety, then the problem at this stage will be brought to the attention of the VCAFA with a request for pressure to be brought to bear on the individual concerned. It is anticipated that this will be a rare event but if it occurs then it may be dealt with by application of sanctions.
- If all else fails, then official written warnings from the University will be issued followed by University disciplinary procedures which can result in suspension for varying periods of time.

13 | Equipment Training

- Much of the equipment in the University should not be used until the relevant instructions have been read and understood.
- Some items of equipment should not be used unless you have been instructed in the use of these items of equipment by the person responsible.
- For training in the use of equipment, please see the individual responsible - their name will be given on the equipment in question.

- Problems concerning equipment use, cleaning, damage or breakdown should be referred to the person responsible and if there is any doubt about this, refer the matter to the direct supervisor.

13.1. Equipment for which specific training is required

DO NOT USE THE FOLLOWING EQUIPMENT UNLESS YOU HAVE RECEIVED PROPER TRAINING:

Item of Equipment	Major Risk in Misuse of Equipment
Autoclave	Exposure to high pressure steam, risk of exploding glass bottles and exposure to hot surfaces
Centrifuge	Unbalanced rotors at high speed can break through the centrifuge bench and cause injury to operator
Rotary Vacuum Evaporator	Exposure to hot water in the water bath, Solvents, which can form peroxide and other explosive gases, Solvents with low ignition, flame, and/or explosion temperatures and Combustible gases or solvent vapor in the immediate vicinity of the rotary evaporator
Laser	Damage to eyes and skin
X-ray machines	Radiation exposure

13.2. Equipment which should not be used until you have read and understood the instructions

THE FOLLOWING ITEMS OF EQUIPMENT HAVE RISKS ASSOCIATED WITH THEM. PLEASE READ THE INSTRUCTIONS ON THEIR USE AND DO NOT USE THE EQUIPMENT UNTIL YOU KNOW WHAT YOU ARE DOING - IF IN DOUBT, ASK AND GET SOMEONE TO SHOW YOU.

Item of Equipment	Risk in Misuse of Equipment
Centrifuges	Contamination, Mechanical Injury, equipment damage
Ultrasound Equipment	Hearing Damage
UV Light Ultraviolet	Skin/Eye Damage
Cell Culture Cabinets	Risk of infection if used incorrectly
Electrically-driven homogenisers	Aerosolization of material, Production of High Velocity Glass Shards
Microwave Ovens	Electric Arcs, explosion if Stoppard bottles are heated, burns
Ultra Low Freezers	Freezer Burns
Gas Cylinders	Asphyxiation, mechanical injury, back injury
Stills	Risks associated with cleaning including electrical shock and exposure to corrosive cleaning agents
Fume Cupboards	Exposure to noxious fumes if used incorrectly or if airflow is disturbed. Fume cupboards must be examined and serviced annually and must not be cluttered. Perchloric acid should not be used as it vaporizes and condenses in the ducts.
Pressure Cookers	Risk of explosion and burns
Bunsen Burners	Risk of explosion and burns to exposed skin. Loose clothing or long hair may be a fire hazard.

14 | Environmental Health and Safety Risk Management

14.1. Definitions:

Hazard: Anything (e.g. condition, situation, practice, behaviour) that has the potential to cause harm, including injury, disease, death, environmental, property and equipment damage. A hazard can be a thing or a situation.

Hazard Identification: This is the process of examining each work area and work task for the purpose of identifying all the hazards which are “inherent in the job”. Work areas include but are not limited to machine workshops, laboratories, office areas, agricultural and horticultural environments, stores and transport, maintenance and grounds, and lecture theatres and teaching spaces. Tasks can include (but may not be limited to) using screen based equipment, audio and visual equipment, industrial equipment, hazardous substances and/or teaching/dealing with people, driving a vehicle, dealing with emergency situations, construction. This process is about finding what could cause harm in work task or area.

Risk: The likelihood, or possibility, that harm (injury, illness, death, damage etc) may occur from exposure to a hazard.

Risk Assessment: Is defined as the process of assessing the risks associated with each of the hazards identified so the nature of the risk can be understood. This includes the nature of the harm that may result from the hazard, the severity of that harm and the likelihood of this occurring.

Risk Control: Taking actions to eliminate health and safety risks so far as is reasonably practicable. Where risks cannot be eliminated, then implementation of control measures is required, to minimise risks so far as is reasonably practicable.

Monitoring and Review: This involves ongoing monitoring of the hazards identified, risks assessed and risk control processes and reviewing them to make sure they are working effectively.

14.2 Risk assessment and Control of Substances Harmful to Health (CoSHH)

14.2.1. What is Risk Assessment?

- Risk assessment must be undertaken on all operations or processes exposing employees to significant risk.
- The purpose of risk assessment is to identify anything associated with working practices that might cause harm (i.e. hazards) and to assess the likelihood of harm actually being done.
- The worst possible result of performing a hazardous procedure, the probability of an incident actually happening and the number of people potentially at risk should all be identified.
- Adequate and practical control measures to minimize risk should then be recommended and implemented.
- Those using such processes must familiarize themselves with the risk assessment before starting work.

14.2.2.CoSHH Assessment

- CoSHH assessment is a legal requirement to comply with the Control of Substances Hazardous to Health (CoSHH) regulations.
- It is the responsibility of research workers supervising research projects to ensure a relevant CoSHH form is completed (Appendix 2).
- Before undertaking experimental procedures, all members of staff must read and sign the relevant CoSHH assessments.
- Potential hazards must be identified, and an assessment made of the risks posed by use of these chemicals/biochemical hazards in the intended protocol/procedure.
- Many chemicals are potentially extremely hazardous but in practice are used at such low concentrations that their risk of causing harm is very low. Conversely, many chemicals of low hazard may, in practice constitute a high risk, because of the way they are used or because they are used in combination with other substances.

This CoSHH serves several purposes.

- It ensures that you complete risk assessments in order to obtain relevant substances.
- It makes you think about your work from a Safety standpoint
- It allows us to audit individuals' exposure to hazardous chemicals and procedure.

14.2.3.Hazards identified

For many of the substances and equipment used there will be no hazards identified and nothing further need be entered on the form for them once this is indicated. However, many chemicals and some pieces of equipment have hazards associated with them (irrespective of how they will be used in the procedure to be described). Only significant hazards need to be itemized. The following is a list of hazards to be considered:

- Are you using chemicals which are themselves potentially hazardous, e.g, by virtue of their toxicity?
- Are you using radioisotopes which are potentially hazardous?
- Are you using substances which may constitute a flammable hazard?
- Does your procedure involve using extremes of pressure which may be hazardous to you or others?
- Does your procedure involve using extremes of temperature which may be hazardous to you or others?
- Biological agents?

14.2.4.Workplace Exposure Limit

- If a substance has a WORKER EXPOSURE LIMIT (WEL), please quote it and ensure that the exposures anticipated in your procedure are well below these limits.

14.2.5.Disposal routes for waste materials

- It is worth considering disposal before starting an experiment.
- What category of waste does everything fit into?

- If it is all itemized here, life will be simpler later and we will ensure that dangerous items do not end up in the wrong place such as needles in clinical waste bags and solvents down the sinks.

14.2.6. Disposal of Reagents

- The disposal of all waste should be undertaken in accordance with the laboratory disposal code of practice.
- In general, small amounts of non-infectious solutions may be placed down the drains if accompanied by a large volume of running water.

14.3. Risk Assessment Procedure

14.3.1. Identify Hazards

USTF in consultation with workers identify all potentially hazardous things or situations that may cause harm. In general, hazards are likely to be found in the following;

- Physical work environment,
- Equipment, materials or substances used,
- Work tasks and how they are performed,
- Work design and management

In order to identify hazards the following are recommended:

- a) Past incidents/accidents are examined to see what happened and whether the incident/accident could occur again.
- b) Employees be consulted to find out what they consider are safety issues, i.e. ask workers about hazards near misses they have encountered as part of their work. Sometimes a survey or questionnaire can assist workers to provide information about workplace hazards.
- c) Work areas or work sites be inspected or examined to find out what is happening now. Identified hazards should be documented to allow further action. The work environment, tool and equipment as well as tasks and procedures should be examined for risks to USTF.
- d) Information about equipment (e.g. plant, operating instructions) and Material Safety Data Sheets be reviewed to determine relevant safety precautions.

At the University, any hazard which is identified by this process should be recorded on the Risk Assessment Form (Appendix 3) and further action taken to assess and then control the risks from this hazard.

14.3.2. Assess Risks

Risk assessment involves considering the possible results of someone being exposed to a hazard and the likelihood of this occurring. (Appendix 4) A risk assessment assists in determining:

- How severe a risk is
- Whether existing control measures are effective
- What action should be taken to control a risk
- How urgently action needs to be taken.

A risk assessment should include:

- a) Identify factors that may be contributing to the risk,
- b) Review health and safety information that is reasonably available from an authoritative source and is relevant to the particular hazard,
- c) **Evaluation of how severe the harm could be.** This includes looking at the types of injuries/illnesses/harm/damage that can result from the hazard, the number of people exposed, possible chain effects from exposure to this hazard.
- d) **Evaluation of how a hazard may cause harm.** This includes examining how work is completed, whether existing control measures are in place and whether they control the harm, looking at infrequent/abnormal situations as well as standard operating situations. A chain of events related to a risk may need to be considered.
- e) **Determining the likelihood of harm occurring.** The level of risk will increase as the likelihood of harm and its severity increases. The likelihood of harm occurring may be affected by how often the task is completed, in what conditions, how many people are exposed to the hazard and for what duration.
- f) Identify the actions necessary to eliminate or control the risk; and
- g) Identify records that it is necessary to keep to ensure that the risks are eliminated or controlled.

The process of assessing the risk is undertaken by reviewing any available information about the hazard and by using your personal work experience about what sort of harm the hazard could create and how likely this would be to happen. When determining how likely it is that a person could be exposed to a hazard, consideration needs to be given to these “exposure factors”:

- a) Whether there are any other risk factors that increase the likelihood of exposure?
- b) How often is the person exposed (frequency)?
- c) or how long is the person exposed (duration)?
- d) How many people are exposed?
- e) the likely extent to which the person is exposed?
- f) any legislative or recommended exposure levels required by statutory authorities.

14.3.3. Controlling Risks

Once a risk rating is determined, the Hierarchy of Controls ranks, control options from highest level of protection and reliability to lowest. (Figure 1: Hierarchy of controls)

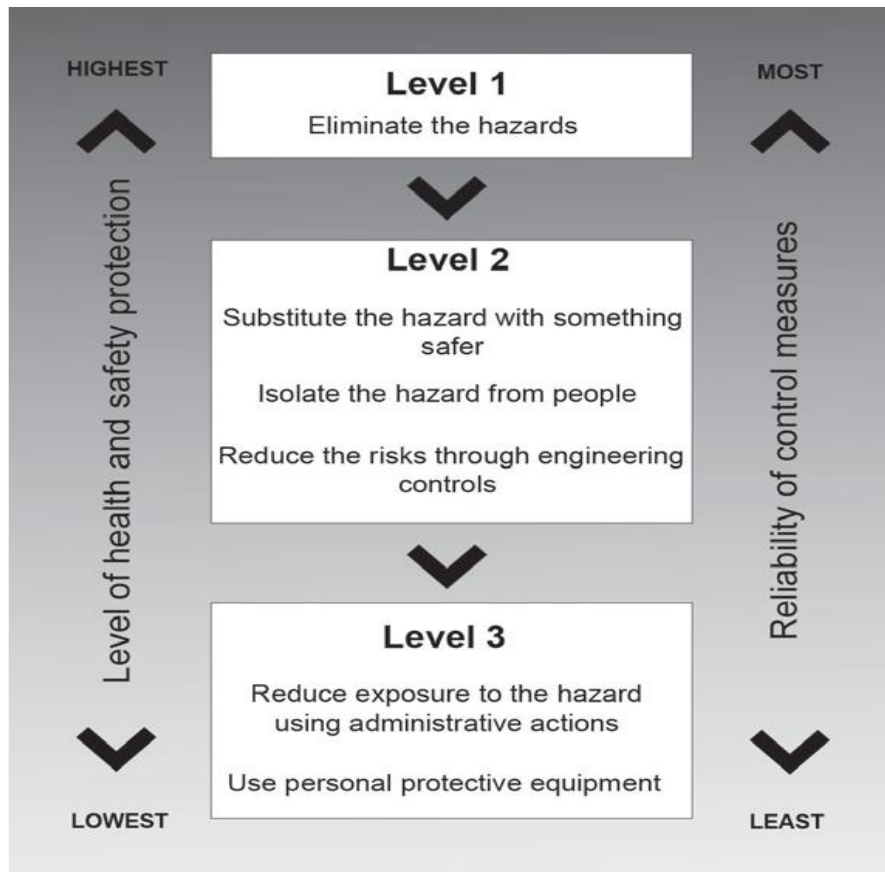


Figure 1: Hierarchy of controls

This should be used to determine the most effective control/s.

Level 1 Control Measures – Eliminate the Hazard

The most effective control measures eliminate the hazard and associated risks. This can be achieved through removing the hazard or selecting alternate products or equipment to eliminate the risk. If a hazard cannot be eliminated then risks can be minimised by lower control measures

Level 2 Control Measures

These are used to minimise the risks and involve on or a combination of the following;

- Substitute the hazard:** substitute a substance, method or material to reduce the risk or the hazard
- Isolate the hazard:** separate the hazard from the workplace or people, For example;
 - Chemical store room, or a laboratory kept locked except to an authorised person.
 - Lock out procedures on faulty equipment.
 - Appropriate guarding for machinery.
- Use engineering controls:** modify existing machinery or plant or purchase different machinery or plant to provide a physical solution. For example; Trolleys, hoists etc.

Level 3 Control Measures

These are control options which should be considered last as they do not control the source of the hazard but rely on human behaviour or supervision and are therefore less effective.

They include;

- Administrative Procedures:** develop work methods or procedures to reduce the conditions of risk, for example:
 - Written Safe Operating Procedures

- Job rotation to restrict hours worked on difficult jobs.
- Staff trained in the correct operating procedures.

b) Use Personal Protective Equipment (PPE) and training in its use:

offer the lowest level of protection and should only be used as a last resort to deal with the hazard, where the hazard cannot be removed or reduced by any other means, for example:

- Handling of chemicals – gloves, safety glasses, aprons.
- Protecting eyes from flying particles.
- Protecting feet – safety shoes.

Consultation with workers is required in the selection and implementation of control measure in the workplace. Controls may need to be trialled to determine effectiveness and workers should be involved in the feedback process.

14.4. Risk Reporting

- Problems with the structure or general running of the university should be reported direct to your Department head or direct supervisor.
- Alternatively, Accidents and incidence reporting books are available university entrances [Eg., Accident book, Near-Miss record book, Fire safety Logbook etc.,]
- If you believe that the actions of a co-worker are jeopardizing the safety of themselves or others, we recommend that you discuss your concerns with your direct supervisor, Department head or Unit coordinator in the first instance. They will be able to offer guidance on whether practices being used are safe or not and will ideally be able to resolve most issues by speaking informally to those involved.
- A comprehensive report on EHS risk management shall be submitted by the EHSC following each planned or unplanned meeting.
- The report shall be submitted by the EHS Officer to the VCAFA.
- The report should include, but not limited to, the following key components:
 - An updated version of the Risk Register that shows different risk sources with a clear description, assessment and recommended control measures.
 - A detailed clarification of any newly identified risk sources/factors, as well as any irrelevant/discontinued risk factors as deemed to be removed from the risk register, along with full explanation and reasoning of each.
 - Explanation of any newly recommended control measures that aim to mitigate any of the identified risk sources, including concrete action plans to address such measures with a clear timeframe.
 - Any additional resources needed to conduct such actions and control measures.
 - Parties and/or individuals responsible to achieve the plans.

15 | Emergency preparedness and responses

15.1. Emergency preparedness

- An emergency can be reported from any source – a faculty or staff member on the job, student, an outside agency, or the public.
- All emergency situations must be reported.

- Any emergency which takes place in the campus shall be handled by the EHS Officer and Office of University Facilities and Services Team.
- EHS Officer in coordination with the respective EHS Coordinators shall identify areas for preparedness in case of emergencies.
- Emergency Response programs shall be prepared by the EHS Officer and shall be approved by the VCAFA.
- The Emergency Response Programs shall identify the following areas:
 - Method of notification
 - Method of reporting
 - Relevant equipment, materials and transportation that will be used
 - Review and revision of emergency response plans (ERP) in particular after occurrence of accidents of emergency situation
 - Communication with Emergency Services
 - Emergency preparedness training and awareness
 - Scheduled Mock Drills and mock drill reports

15.2. Emergency Response Plan

- The EHS Officer along with the nominated First Aiders are in charge of the emergency response plan.
- It is their task to ensure that:
 - Everyone clearly understands their roles and responsibilities within the emergency response plan.
 - Emergency resources, whether people or equipment, are kept at adequate levels across the university campus.
 - The emergency plan is reviewed on a regular basis (annually) and especially after an emergency has occurred.
- The emergency response plan covers the following list of potential events:
 - Fire
 - Chemical contamination
 - Radiological contamination
 - Natural disasters such as earthquakes, cyclones, and storms
 - Medical emergency
 - Electric Shock.

15.3. Emergency Resources

- It is important to identify which resources are available and have contingency plans in place to make up for any deficiencies.

15.3.1. Emergency Response Team

- EHS Officer
- Supervisor of Medical Services Office
- EHS Coordinators
- First Aiders
- Designated Security Guards

15.3.2. Evacuation Routes Maps

- Emergency exits
- Primary and secondary evacuation routes
- Locations of fire extinguishers
- Fire alarm pull stations' location
- Assembly points
- First Aid Boxes

15.3.3. Fire Fighting Equipment

- Carbon dioxide fire extinguishers
- Dry chemical powder fire extinguishers
- Fire alarm systems
- Fire alarm control panel zone No
- Smoke detector
- Heat detector
- Break glass
- Bell
- Horn
- Flasher
- Fire cable, Tracking and PVC pipes (All fire resistance)
- Fire Water Hoses.

15.3.4. First Aid Equipment

- First Aid Kit

15.4. Emergency Evacuation Procedures for People of Determination

- During an emergency, all members of the university community have a moral responsibility to assist in the evacuation of people of determination.
- Examples of disabilities are:
 - visual impairments (reduced vision or blindness)
 - hearing impairments (some degree of hearing loss or deafness)
 - mobility impairments (those who use walkers, crutches, motorized scooters, wheelchairs, canes – may be short or long term)
 - other medical conditions that pose a functional limitation
- People of determination, who are able to use the stairs with or without assistance, shall evacuate according to the emergency evacuation plan.
- People of determination, who are unable to use the stairs should:
 - If located on the ground floor, use the nearest safe and appropriate exit (ground level, wheelchair ramp etc.).
 - If the alarm bells are ringing in a building you are located in the upperfloors, proceed to the nearest collection point or safe exit.
 - Report your location and wait at that location or inside the stairwell for assistance from the fire emergency personnel.

16 | Storage and Handling of Chemicals and Hazardous Materials

- All volatile liquids should be stored in fireproof solvent storage cupboards, labelled 'Solvents Only'.
- Corrosive liquids should NEVER be stored in the solvents bin as this constitute a major fire hazard.
- The maximum amount of flammable liquids permitted by law in a workroom or laboratory is 50 liters although our aim is to remain well below this.
- Large stocks of solvents should be stored in the external solvent store.
- Solvents that need to be stored below room temperature.
- Volatile liquids should be handled according to the stated procedure.
- Generally, all volatile or corrosive liquids should be handled in a fume cupboard and care should always be taken to remove any potential sources of ignition from the vicinity of the experiment.

17 | Waste Disposal Management

17.1. Disposal of volatile liquids

- Small volumes of volatile liquids or very dilute samples may be flushed down the sink with copious amounts of water.
- Larger volumes of all concentrated volatile liquids must be stored after use ready for collection and disposal by Safety Services.
- Temporary storage of small volumes of waste in laboratories is permitted, but such stores should be emptied on at least a biweekly basis.
- Laboratory stored waste should be categorized and stored in appropriately labelled Winchester bottles according to the list below.
- Bottles should be labelled according to category and not according to solvent name (all original labels should be removed and replaced with official category labels).
- Waste drums are stored in waste disposal room and are labelled as described below.
- Laboratory stored waste is decanted into the appropriate drum.
- All staff and students handling solvents must be familiar with the associated CoSHH form.

Category X - Halogenated solvents or mixtures containing halogenated solvents

Halogens – bromine, chlorine, fluorine, iodine, astatine

Category Y - non-Halogenated solvents

Category Z - Oils

- If your procedure requires mixture of acids and solvents, then the resultant waste should be stored separately in a metal cupboard away from other solvent waste in glass Winchesters until waste solvents are collected by safety services.
- Questions regarding solvent handling, storage and disposal should be referred to the EHSO.

17.2. Other waste disposal

17.2.1. Solid waste disposal

Solid waste falls into several categories as described below:

Household waste

- This is disposed of in black polythene bags or clear bags.
- These are for waste with no associated hazards such as paper towels, paper, empty containers, etc.
- Do not put aerosol cans in these bags.
- Uncontaminated plastics can also be treated as household waste and disposed of in black bags

Laboratory and clinic waste (contaminated materials)

- Plastics and materials contaminated with potentially biohazardous material is disposed of in **Yellow Boxes (Yellow Bags)**.
- These then go to medical waste store for weekly disposal by a company approved by the Fujairah Municipality.

Laboratory and clinic waste (uncontaminated materials)

- This is disposed of in Green/Red Boxes (Black Bags).
- When the boxes are full, they need to be sealed with a red security tag attached.

Sharps waste

- Small plastic yellow boxes are used for the disposal of all clinical and laboratory sharps i.e. needles, syringes, yellow pipette tips, scalpel blades, etc. but not aerosol cans.

Disposal of Equipment

- Legislation requires the University to separate (waste electrical and electronic equipment) WEEE from other waste.
- The materials such as un-used computers, accessories, electronic devices, damaged furniture, and accessories are collected at USTF stores.
- An ad hoc committee is formed from time to time, headed by the Office of Finance, and members from the Office of procurement, Office of University Facilities, and Office of IT to inventor these materials and obtain offers to sell to scrap companies.
- If decontamination is required, it must be carried out using a suitable disinfecting or sterilizing agent.
- Make equipment safe before disposal by removing plugs, securing glass shelving/doors with tape and removing hazard /warning signs.
- Please contact the department head or direct supervisor for guidance.
- For disposal of IT equipment please seek advice from the IT team to ensure that sensitive information has been removed before disposal.

Batteries

- Batteries are classified as hazardous waste as they may contain heavy metals.
- They should be collected in designated special local containers and when these are full contact the Office of University Facilities.

Microbiological waste

- All microbiological waste must be inactivated by autoclaving or chemical inactivation (i.e. Virkon, bleach etc) before it leaves the building.
- Once inactivated waste is disposed of via the non-hazardous waste route.

- Microbiological waste for autoclaving is first placed in an autoclavable waste bag and placed within a metal autoclaving tin.
- When full, fasten the lid with autoclavetape.
- Write your name, lab number and nature of biological agent on the lid.
- DO NOT leave tins of contaminated material by the autoclaves overnight.

Glassware and aerosol can waste

- All glassware (broken or not) and aerosol cans should be placed in thick brown paper sacks.
- Never mix household waste with glass and aerosol cans.
- Solvent and reagent bottles should be rinsed out with all original labels removed/scrubbed out prior to disposal.

18 | Manual Handling

18.1. The problem with manual handling

- We all lift, carry and move objects as part of our daily routine and often do so without serious consideration of the potential for personal injury.
- Injuries related to manual handling account for more than a third of all injuries reported each year and thus represent a significant hazard in the workplace.
- Most of the reported accidents cause back injury, although hands, arms and feet are also vulnerable.
- Any lifting involving a weight more than 5Kg and/or lifting an object of large size or difficult shape should be the subject of a suitable risk assessment.

18.2. Responsibilities

The employer (in many cases the supervisor of the project for which the task is required) has the following responsibilities:

- Avoid the need for hazardous manual handling, as far as reasonably practicable.
- Assess the risk of injury from any hazardous manual handling that can't be avoided.
- Reduce the risk of injury from hazardous manual handling, as far as reasonably practicable.

The employee should:

- Follow appropriate systems of work laid down for their safety
- Make proper use of equipment provided for their safety
- Co-operate with their employer on health and safety matters
- Inform the employer if they identify hazardous handling activities
- Take care to ensure that their activities do not put others at risk

18.3. Points to consider

- All manual handling tasks exposing those involved to significant risks or harm should be assessed by a suitably competent person before the task commences.
- Any reasonably practicable measures, which can be taken to reduce the risk, should be implemented.

- Mechanical aids must be used wherever practicable.
- Do not attempt to lift or move anything if you have doubts regarding your ability to do so.
- Anyone engaged in manual handling as part of their job should undergo training at an appropriate level.
- Being big and strong doesn't render you immune to back injury.
- If you are the big strong person in the group that everyone gets to help with lifting, then you are a good candidate for manual handling training.
- Do not attempt to lift a load that is unduly heavy or bulky. In such circumstances, help should always be sought. Consider the following:
 - Can the task be redesigned to avoid manual handling?
 - Get help
 - Use mechanical aids (e.g. a trolley), but only if you have appropriate training.
- In team lifting, it should be made clear from the outset who is acting leader and the lift should be planned carefully before any action is taken as.
- Consider what you are lifting. Is it inherently hazardous (sharp, hot, cold, infectious, corrosive etc?) Check all packaging (hazard labels) and articles for sharp edges and projections before lifting.
- Ensure that there are no obstructions in your path before moving any article.
- Ensure that you can see around a load when lifting it.
- Ensure that there is adequate room to put down a load when you have moved it. Repetitive low intensity operations can be more damaging than occasional heavy lifts.

19 | Patients, Volunteers, Visitor, Contractors, and Ancillary Workers

- Clearly, visitors will be less familiar with the hazards associated with our work environment than we are.
- Ancillary workers are not expected to have detailed knowledge of hazards contained within specific laboratories.
- For this reason, it is strongly recommended that you do not leave visitors unattended in laboratory areas unless unavoidable.
- Where visitors do have access to laboratories it is your responsibility to bring all hazards associated with those areas to their attention and inform them of any relevant emergency procedures.
- If visitors engage in laboratory work, then they must read, understand, and sign appropriate COSHH forms which must be undersigned by the academic supervisor.
- The need for a tidy work area, appropriate labelling, handling and storage of hazardous material, appropriate labelling of hazardous machinery and appropriate handling/disposal of waste are all extremely important in areas where visitors or ancillary workers may have access

20 | Working With Corona Virous (COVID-19) Pandemic

20.1. Role of USTF Health and Safety Committee

- To ensure the smooth and safe running of the university during the pandemic, USTF Health and Safty Committee developed and updated two manuals; “USTF COVID-19 health and Safety manual” (https://www.ustf.ac.ae/upload/files/USTF_COVID-19_Safety_Manual_Sept_2020-updated.pdf) and “USTF Operational plan during Covid-19 pandemic-Protocols & Procedures” (https://ustf.ac.ae/upload/files/USTF_COVID-19_Protocol_Sept_2021.pdf) in accordance with the requirements of the UAE Ministry of Education and Ministry of Health and Prevention.
- The committee performs the following tasks:
 - Make sure that the instructions for COVID-19 precautionary measures are sign posted all around the university
 - Follow the implementation of COVID-19 health and safety precautionary measures among university community and visitors
 - Work to prevent or limit COVID-19 transmission among all university members and visitors
 - Ask individuals to undertake regular testing for COVID-19 to identify people who are asymptomatic.
 - Identify COVID-19 infected individuals and those in contact with infected people, follow a tracing process and take the necessary actions.
 - Prepare periodic reports on COVID-19 health and safety at the university

20.2. Risk assessment during Corona Virus (COVID-19) Pandemic

- USTF is committed to protecting its community from harm.
- This includes doing a risk assessment to decide what reasonable steps are needed to take to protect USTF community and others from coronavirus (COVID-19).
- A generic risk assessment is unlikely to be specific or detailed enough. For example, it might not identify adequate ventilation requirements or sufficient cleaning controls for particular areas and circumstances.
- USTF COVID-19 risk assessment is followed to reflect UAE public health regulations and guidelines.

20.2.1.Steps needed to manage COVID-19 risk

The EHSC together with Health and Safety committee Shall:

- Identify what work activity or situations might cause transmission of coronavirus (COVID-19).
- Think about who could be at risk. This could include employees, students, visitors, contractors and ancillary workers.
- Decide how likely it is that someone could be exposed.
- Identify the controls needed to reduce the risk.

- Decide how likely it is that someone could be harmed and how seriously.
- Take action to eliminate the hazard, or if this isn't possible, control the risk.
- Consider the risk to groups of workers who are particularly vulnerable to coronavirus (COVID-19).
- Communicate with USTF community about the measures USTF is considering through USTF announcements. They can provide valuable information on how we could reduce risks.
- Put monitoring and supervision in place to make sure the controls you have are working as expected.

20.2.2. Controlling Risks

- USTF Health and Safety Committee has produced COVID-19 Safety Manual and the “USTF Operational plan during Covid-19 pandemic: Protocols and Procedures” to help its employees and students to continue working safely and manage the risks associated with running the university.
- This includes practical measures you should take, including:
 - Sufficient cleaning
 - Good hygiene
 - Adequate ventilation
 - Keeping a distance
- USTF shall regularly consult its workforce on health and safety matters to help reduce COVID-19 risks.
- USTF shall also make sure that any controls you identify do not increase other risks.
- None of these control measures can help manage the transmission of COVID-19 on their own. our risk assessment should identify a package of measures.

20.3. Cleaning, hygiene, and hand washing

- USTF always strive to protect its community from harm by providing the right facilities to control the risk from coronavirus (COVID-19).
- Coronavirus can transfer from people to surfaces. It can be passed on to others who touch the same surfaces.
- Wash your hands frequently using soap and water or use hand sanitiser. Try not to touch your face.
- Keeping USTF workplace clean and frequent handwashing reduces the potential for coronavirus to spread and is a critical part of making and keeping the university working safely.
- All needs for hand washing, sanitizers and signages about how to wash your hands are available all around the university.
- Increase how often and how thoroughly your workplace is cleaned, including:
 - frequently touched surfaces
 - surfaces that are not normally cleaned
- Employees shall organize their work and workplaces, so hygiene is maintained, surfaces are clean, and people are safe.
- Standard cleaning products and services for workplaces are available.

20.4. Ventilation and air conditioning

- Good ventilation (including air conditioning) can help reduce the risk of spreading coronavirus.
- Make sure there is good ventilation in the work area. Open windows if it is safe to do so. Keep doors open if you can.
- USTF shall always make sure there's an adequate supply of fresh air in enclosed areas of the workplace and during the pandemic.
- This can be done by using:
 - Natural ventilation: fresh air comes in through open windows, doors or air vents. This is also known as 'passive airflow', or
 - Mechanical ventilation: fans and ducts bring in fresh air from outside
- Other control measures you can also identify by your risk assessment.
- This guidance will help you and your workers:
 - identify poorly ventilated areas
 - assess the risk from breathing in small particles of the virus (aerosol transmission) in enclosed areas
 - decide on the steps you can take to improve ventilation
- Adequate ventilation reduces how much virus is in the air. It helps reduce the risk from aerosol transmission.
- Aerosol transmission can happen when someone breathes in small particles in the air (aerosols) after a person with the virus has been in the same enclosed area.
- The risk from aerosols is greater in areas that are poorly ventilated.
- Although ventilation reduces the risk from aerosols, it has minimal impact on:
 - droplet transmission (from people being in close contact)
 - contact transmission (touching surfaces)
- USTF ventilation is adequate to minimise the risk of COVID-19 aerosol transmission since the rooms or spaces in the university are used within the occupancy limits specified in the USTF building design and have a sufficient fresh air supply to meet the current minimum building standard.
- As a precautionary approach, USTF system are allowed to operate on the maximum air flow rate.
- USTF also reduce the risk of aerosol transmission by:
 - making sure infected workers (or anyone with COVID-19 symptoms) do not come into the workplace
 - providing adequate ventilation with fresh air
- Deciding what adequate ventilation looks like in USTF workplace shall be part of COVID-19 a risk assessment.
- EHSO shall take steps to monitor and improve any poorly ventilated areas in the university.

20.5 Keeping a distance

- Make sure there is an adequate distance between you and others.
- Signages showing the required distance are posted all through the university

20.6 Talking to USTF community and provide information

USTF administration shall consult and involve people about health and safety matters, such as reducing transmission of COVID-19. USTF shall make time to talk to its community about the university plans for working safely.

- Talking to USTF community means we can:
 - explain changes we've made to keep working safely
 - continue to run the university safely
- Talking to USTF community also means they can:
 - tell us if they're worried about any workplace risks
 - influence decisions about health and safety
- USTF administration can consult its community:
 - by talking to them directly
 - through announcements
 - through another representative
- USTF shall always:
 - listen to what individuals say
 - take account of what they say before making decisions or taking action.

20.7 Working from home

For people working from home the USTF shall:

- Provide the equipment they need, e.g. a computer and video conference facilities
- Keep in regular contact with them, making sure to discuss their wellbeing.
- Provide a summary of duties to protect home workers
- Include home workers in risk assessment
- Manage the risks of stress from working at home
- Ensure home workers use computers and laptops safely

20.8 Vulnerable and high-risk individuals

- As an employer, USTF have a legal duty to protect its community from harm.
- USTF shall make sure to consider the risk to individuals who are particularly vulnerable to coronavirus (COVID-19) and put controls in place to reduce that risk.
- USTF shall support individuals in high-risk groups e.g., the elderly, those with health conditions such as diabetes...etc. since they may be at more risk of being infected and/or an adverse outcome if infected.

Appendix 1: Incident Report Form



Incident Report Form

Use this form to report accidents, injuries, medical situations, or student behavior incidents. (Incidents involving a crime or traffic incident should be reported directly to the EHSO) If possible, the report should be completed within 24 hours of the event. Submit completed forms to the VCAFA.

INFORMATION ABOUT PERSON INVOLVED IN THE INCIDENT			
Full Name			
Home Address			
<input type="checkbox"/> Student	<input type="checkbox"/> Employee	<input type="checkbox"/> Visitor	<input type="checkbox"/> Ancillary Worker
Phone Numbers	Home	Mobile	Work
INFORMATION ABOUT THE INCIDENT			
Date of Incident	Time	Police Notified <input type="checkbox"/> Yes <input type="checkbox"/> No	
Location of Incident			
Description of Incident (what happened, how it happened, factors leading to the event, etc.) Be as specific as possible (attached additional sheets if necessary)			
Were there any witnesses to the incident? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, attach separate sheet with names, addresses, and phone numbers			
Was the individual injured? If so, describe the injury (laceration, sprain, etc.), the part of body injured, and any other information known about the resulting injury(ies).			
Was medical treatment provided? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Refused			
If yes, where was treatment provided: <input type="checkbox"/> On site <input type="checkbox"/> Urgent Care <input type="checkbox"/> Emergency Room <input type="checkbox"/> Others			
REPORTER INFORMATION			
Individual Submitting Report (print name)			
Signature			
Date Report Completed			

FOR OFFICE USE ONLY

Report Received by ----- Date -----

FOR OFFICE USE ONLY

Document any follow-up action taken after receipt of the incident report

Date	Action Taken	By whom

Appendix 2: CoSHH Risk Assessment Form



CoSHH Risk Assessment Form


A COSHH risk assessment is required for work with hazardous substances including source materials, products, known intermediates and by-products. The form should be completed and signed by the principal investigator or responsible person.

Title of project or activity	
Principal investigator/Responsible person	
College/Department	
Date of assessment	
Location of work (Buildings and room numbers)	

Section 1 Project or Activity

1.1: Brief description of project activity

Section 2 Hazards

2.1: Classification of Hazardous substances used and generated			
Hazard type  <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Hazardous substance	Risk identified	Workplace exposure limit (WEL) http://www.hse.gov.uk/coshh/basics/exposurelimits.htm
Chemicals	(Enter details here)	[ENTER DETAILS HERE]	
Carcinogens, mutagens or reproductive toxins	(Enter details here)	[ENTER DETAILS HERE]	
Dusts or fumes	(Enter details here)	[ENTER DETAILS HERE]	
Asphyxiants	(Enter details here)	[ENTER DETAILS HERE]	
Other substances hazardous to health	(Enter details here)	[ENTER DETAILS HERE]	
2.2: Human diseases, illnesses or conditions associated with hazardous substances			
[ENTER DETAILS HERE]			
2.4: Potential routes of exposure			
Inhalation <input type="checkbox"/> Ingestion <input type="checkbox"/> Injection <input type="checkbox"/> Absorption <input type="checkbox"/> Other <input type="checkbox"/>	Select all that apply		

Section 3 Risks

3.1: Quantity of hazardous substances to be used
ENTER DETAILS HERE in measurement unit e.g. Liter, gram]
3.2: Frequency of use
Daily <input type="checkbox"/> Week <input type="checkbox"/> Monthly <input type="checkbox"/> Other <input type="checkbox"/>
3.5: Who might be at risk (*Contact EHSO)
Staff <input type="checkbox"/> Students <input type="checkbox"/> Visitors <input type="checkbox"/> Public <input type="checkbox"/> Young people (< 18 yrs) <input type="checkbox"/> *New and expectant mothers <input type="checkbox"/> Other <input type="checkbox"/>
[NUMBERS OF ABOVE POTENTIALLY AT RISK]

Section 4 Controls

4.1: Containment Required	
Laboratory <input type="checkbox"/> Room <input type="checkbox"/> Controlled area <input type="checkbox"/> Total containment <input type="checkbox"/> Glove box <input type="checkbox"/> Fume cupboard <input type="checkbox"/> Local exhaust ventilation (LEV) <input type="checkbox"/> Access control <input type="checkbox"/> Other <input type="checkbox"/>	Select all the apply
[ENTER DETAILS HERE]	
4.2: Other controls	
[ENTER DETAILS HERE]	
4.3: Storage requirements of hazardous substances	
[ENTER DETAILS HERE]	
4.5: Personal protective equipment (PPE) for glove selection see: http://www.ansellpro.com/download/Ansell_8thEditionChemicalResistanceGuide.pdf	
Lab coat <input type="checkbox"/> Overalls <input type="checkbox"/> Special headwear <input type="checkbox"/> Special footwear <input type="checkbox"/> Apron <input type="checkbox"/> Face shield <input type="checkbox"/> Respiratory equipment <input type="checkbox"/> Gloves <input type="checkbox"/> Protective eyewear <input type="checkbox"/> Other <input type="checkbox"/>	Select all the apply
[ENTER DETAILS HERE]	
4.7: Waste management and disposal	
Liquid <input type="checkbox"/> Solid <input type="checkbox"/> gas <input type="checkbox"/> Inorganic <input type="checkbox"/> Organic <input type="checkbox"/> Aqueous <input type="checkbox"/> Mixed <input type="checkbox"/> Other <input type="checkbox"/>	
[ENTER DETAILS HERE]	
4.8: Monitoring exposure and or Health surveillance (If you need advice contact the EHSO)	
[ENTER DETAILS HERE]	

Section 5 Emergency procedures

5.1: Emergency contact		
Name	Position	Telephone
[ENTER DETAILS HERE]	Principal Investigator/Responsible person	[ENTER DETAILS HERE]
[ENTER DETAILS HERE]		
5.2: Spillage or release		
Specify procedure	[ENTER DETAILS HERE]	
Other actions (if required)	Inform competent person (e.g. principal investigator / EHSO etc.).	Yes <input type="checkbox"/>
	Evacuate and secure laboratory	Yes <input type="checkbox"/>
	Evacuate building by fire alarm	Yes <input type="checkbox"/>
	Evacuate WITHOUT fire alarm (e.g. where there is a risk of explosion)	Yes <input type="checkbox"/>
	Call security (0507765619 on campus) to alert fire brigade	Yes <input type="checkbox"/>
5.3: First aid		
[ENTER DETAILS HERE]		
5.4: Actions in the event of failure of services (water, electricity, LEV etc.)		
[ENTER DETAILS HERE]		

Section 6 Approval

6.1: Instruction, training and supervision			
Special instructions are required to safely carry out the work (If yes enter details below)			Yes <input type="checkbox"/>
[ENTER DETAILS HERE]			
Special training is required to safely carry out the work (If yes enter details below)			Yes <input type="checkbox"/>
[ENTER DETAILS HERE]			
A: Work may not be carried out without direct personal supervision (If yes enter details below)			Yes <input type="checkbox"/>
B: Work may not be started without the advice and approval of supervisor (If yes enter details below)			Yes <input type="checkbox"/>
C: Work can be carried out without direct supervision			Yes <input type="checkbox"/>
Supervisor(s)	[ENTER DETAILS HERE]		
6.2: Principal investigator/ Responsible person			
Name	Signature	Date	
[ENTER DETAILS HERE]	[ENTER DETAILS HERE]	[ENTER DETAILS HERE]	
6.3: Personnel involved			
Role	Print name	Signature	Date

Appendix 3: Risk Assessment



Risk Assessment

Who has conducted the Risk Assessment
Risk Assessment completed by:
Signature:
Date:

Identify the activity		
College/Unit:	Location:	Who may be at risk by the activity?
Describe the activity:	Describe the location	A number of people may be at risk from any activity. This may affect the risk controls needed. These people may include fellow workers, visitors, contractors and the public. The location of the activity may affect the number of people at risk

Identify the Hazards and Risk		
Tasks	Hazards	Associated risks
Describe the task:	Describe the hazards	

Appendix 4: Risk Rating Matrix and actions required



Risk Rating Matrix and actions required

Consequences (C)	Likelihood (L)				
	Rare	Unlikely	Possible	Very Likely	Certain to Occur
Catastrophic	moderate	moderate	high	critical	critical
Major	Low	moderate	moderate	high	critical
Moderate	Low	moderate	moderate	moderate	high
Minor	very low	low	moderate	moderate	moderate
Insignificant	very low	very low	low	low	moderate

Consequences (C)	How Severely Could Someone be Hurt?
Catastrophic	Death or permanent disability
Major	Serious injury, hospital treatment required
Moderate	Injury requiring medical treatment and some lost time
Minor	Minor injury, first aid only required
Insignificant	Injuries requiring no treatment or first aid
Likelihood (L)	How Likely are the Consequences?
Certain to Occur	Expected to occur in most circumstances
Very Likely	Will probably occur in most circumstances
Possible	Might occur occasionally
Unlikely	Could happen some time
Rare	May happen only in exceptional circumstances

Actions Required

Risk Level Rating	Required Action
Critical	Immediate action needed. Access to the hazard should be restricted until the risk can be lowered to an acceptable level. Short term action may be required to lower the risk level and then medium- and long-term plans to control the risk to as low as reasonably practicable using the Hierarchy of Controls.
High	Action needed quickly (within 1-2 days). The task should not proceed unless the risk is assessed, and control options selected based on the Hierarchy of Controls.
Moderate	Action required this week to eliminate or minimise the risk using the Hierarchy of Controls.
Low	Action required within a reasonable timeframe (2-4 weeks) to eliminate or minimise the risk using the Hierarchy of Controls.
Very Low	Risk to be eliminated or lowered when possible, using the Hierarchy of Controls.