جامعة نزوى
University of Nizwa

Document Reference Number
UoN/DPQM-HSO- MA-001/V1/2021

University of Nizwa Laboratory Health and Safety Manual

Prof. Ahmed bin Khalfan Al Rawahi
Chancellor of the University

جامعة نزوى
مكتب الرئيس
Chancellor Office
UNIVERSITY OF NIZWA

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UoN/DPQM-HSO- MA-001/V1/2021

University of Nizwa
Laboratory Health and Safety Manual

1. Introduction

The laboratory environment contains several sources of risks and hazards that could be pose a potential threat to the safety of an individual or a group. Laboratories usually contain hazards such as chemicals, radioactive materials, lasers, electrical circuits, microbes and virus samples, etc… based on the laboratory's specialization domain. It is crucial to be aware of the potential risks and protocols on how to deal with them. Therefore, to promote a safe health and safety environment in laboratories, and building on the College Laboratory Health and Safety Manuals that have been in place from early on, the University of Nizwa (UoN) established this Laboratory Safety Manual which encompasses safe work procedures, chemical and biological safety information, laboratory equipment safety information, emergency management protocols, compound storage and disposal protocols besides general ethics to be followed in all laboratories.

2. Purpose

The purpose of this manual is to make sure that all students, faculty, staff and visitors are aware of the importance of:

1. Health and safety in teaching and learning areas
2. Foreseeing potential hazards in laboratories and understand their controlling measures
3. Reducing risks and manage them safely
4. Getting acquainted with necessary health and safety procedures
5. Acquiring practical skills to solve any problems related with laboratory safety
6. Maintenance and safety of laboratory resources periodically
7. Promoting a health and safety culture among the UoN laboratory users
8. Keeping track of the latest health and safety procedures to be observed in laboratories.

3. Scope

The contents of this Laboratory Health and Safety Manual are applicable to all

University of Nizwa laboratory users including students, staff, faculty, contractors and visitors who are authorized to carry out the various teaching, learning and maintenance activities in laboratories. The stakeholders are required to work in accordance with this Manual and any other approved or associated system of working. In particular, they should:

- Adhere to all the procedures included in this Laboratory Manual.
- Ensure that appropriate steps are taken to promote the safety of staff, students, and other stakeholders on campus.

4. Laboratory Health and Safety Guidelines

4.1. General Safety Guidelines

The following are the general laboratory health and safety guidelines:

1. Laboratory users are responsible for their self-safety and the safety of their work partners and recognition of any possible hazards associated with conducting experiments and use of laboratory materials and facilities
2. An induction session should be conducted for all new laboratory users, including faculty, visiting faculty, technicians, researchers, visiting researchers, and all students (undergraduate and graduate)
3. All experiments should be conducted in accordance with the approved/ratified experimental guidelines and procedures
4. High risk experiments shall be conducted with proper planning and necessary safety precautions
5. Students should be supervised at all times by a faculty or technician
6. No chemical, biological, or any sort of hazardous materials should be carried in/out of the laboratory without the formal authorization of the laboratory supervisor
7. Laboratory users (technicians/students) should adhere to the allotted time for conducting experiments; and in case more time is required, permission from the laboratory supervisor should be obtained to ensure assistance in case of an emergency
8. Any unauthorized experiments should be avoided before obtaining necessary approvals.
9. Eating, drinking and gum chewing in the laboratory is prohibited
10. Laboratory refrigerators, cabinets and/or other possible contamination areas should not be used for food storage

11. Availability of appropriate safety equipment should be checked before commencing any experiment. Eye goggles, gloves, and gowns should be inspected for any damage prior to using them
12. Relevant Material Safety Data Sheet (MSDS) should be available and used before using any laboratory materials or compounds. (MSDS can be stored electronically)
13. Appropriate and relevant Personal Protective Equipment (PPE) should be worn throughout a laboratory session
14. Proper ventilation shall be ensured while dealing with dangerous gases and materials by using lab fume hood
15. The Health and Safety Office (HSO) shall be contacted for any assistance in regard to availability of safety equipment or any guidance for dealing with hazardous material(s) or situation(s)
16. Emergency equipment such as emergency shower panel, eyewash, hand wash and first aid kit etc. must be readily available, regularly inspected and restocked
17. Firefighting equipment such as portable fire extinguisher, fire blankets, smoke detectors, gas detectors, fixed water hoses, water pumping stations and fire alarm control panels must be readily available, functional, well maintained and regularly inspected
18. Lab users should be trained on the use of emergency equipment and administering first aid
19. The location and proper localization of the emergency equipment (emergency eye washing station, emergency showers, fire extinguisher, first aid kit, fire blanket, fire alarm switch) should be made visible and accessible with the help of appropriate signage
20. Lab users must be alerted of any work-related risks and hazards
21. Individuals experiencing symptoms of allergies should inform the laboratory supervisor instantly
22. Incidents, injuries, and accidents must be reported immediately and in accordance with the incident reporting procedures
23. Unauthorized individuals should be prohibited from entering the laboratory premises
24. All hazardous waste must be disposed of according to the determined regulatory measures
25. Suggestions and observations shall be submitted to the laboratory supervisor based on the provided formats to enhance the lab environment and avoid unseen hazards
26. Emergency electrical generator and uninterruptible power supply (UPS) should be made available to ensure safe shutdown and the continuity of an experiment in case of an unpredictable electrical shutdown.

4.2. Preventing accidents:

1. All objects blocking access to exit points and emergency equipment such as furniture, display boards/frames, specimens must be removed
2. Emergency escape plans and electric panel firefighting legislation shall be followed
3. Cupboards and lockers should be kept closed when not in use
4. All used hazardous materials should be properly labelled (including manufacturing, expiring & opening dates and the safe handling precautions) and stored in appropriate storage cabinets
5. Any hazardous material being imported/exported should be dated, labeled correctly, and should clearly specify the full name of the material, the name of the factory, the level of danger and any other necessary warnings
6. Storage containers must be clean and free of particles
7. Containers that contain biological materials should be kept closed when not in use
8. All materials and equipment must be returned to their designated storage areas after they have been used
9. The instruction leaflets pertinent to chemicals should always be read
10. All the containers and bottles should be placed at least 2 inches from the edge of tables.
11. Laboratory floors should be cleaned and well maintained
12. Dry cleaning of laboratory coats and safe sterilization of laboratory equipment must be practiced to avoid infection and contamination through aerosol formation
13. A rubber sheet should be placed at the bottom of the glassware to avoid the possibility of breakage
14. Broken glass, spilled chemicals and any remaining residue must be disposed of in accordance with the University of Nizwa Waste Disposal Procedure
15. Broken glass fragments must be disposed of in containers
16. Broken glass containing dangerous substances must be treated as hazardous material
17. Sharp objects such as needles and razor blades should be disposed of in the specified containers as per the UoN Waste Disposal Procedure
18. Any broken equipment, glassware with cracks must be reported immediately to the laboratory supervisor
19. Leaving glass wares dirty inside the laboratory is prohibited. They should be washed and stored carefully after finishing an experiment.

4.3. Personal Protective Equipment (PPE)

Laboratory users must wear Personal Protective Equipment (PPE) when necessary:

1. Personal Protective Equipment (PPE) are tools used to improve the health and safety conditions at the laboratories by protecting individuals against direct risks and at the same time long-term effects produced during daily research and experiments
2. Necessary PPE shall be provided for all lab users considering the work nature and the potential hazards, the lab users are responsible for using the provided PPE, they have to take care of the PPE and to report any damaged or loosed PPE. Not wearing the appropriate PPE will result in denial of entry to the lab, a poster shall be placed in the lab entry in this regard
3. PPE shall be stored properly in plastic bags, lockers or drawers to avoid any contamination and should be cleaned separately (for example, lab coats to avoid transferring contamination to other clothes)
4. Body PPE such as lab coats shall be used for potential contamination or injury to other parts of the body
5. Eye PPE shall be used when exposed to the potential of causing eye injuries such as safety goggles or splash goggles
6. Face PPE shall be used when exposed to risk causing facial injury from physical, chemical or radiation agents
7. Hand PPE shall be used when handling materials causing hand injury from physical, chemical, or biological hazards
8. Foot PPE shall be used when exposed to hazards that have potential to cause injury to the foot such as sharp objects, falling objects, crushing or rolling objects.
9. Hearing PPE is used when the noise level is above accepted ranges when using machinery/power tools
10. Respiratory PPE shall be used when inhalation hazards such as uncontained chemicals, highly toxic chemicals or a dusty environment are present.

4.4. Laboratory Risk Management

Laboratory supervisors and faculty are requested to follow the UoN Risk Management Manual, Policy and Plan (DOC COD). Risk Management Officers should regularly assess, review, and mitigate accordingly, any possible risks that may occur in the laboratories.

4.5. Reducing Exposure to Hazardous Materials

Adequate precautions and control should be used to avoid exposure to hazardous materials in laboratories. The following should be considered to reduce any possible exposure to hazardous materials and avoid common laboratory accidents:

1. Replace hazardous chemical with less hazardous compound alternatives
2. PPE must be worn all the time while dealing with chemicals
3. Review laboratory procedures and experiment manuals to identify any possible health risks.
4. Hands must be protected by wearing suitable gloves.

5. Management of Chemical Materials and Hazards

5.1. Precautionary Measures to Reduce Exposure to Highly Toxic Chemicals

The following precautionary measures determine how to deal with highly toxic chemicals:

1. Experiments involving high-touch chemicals should be conducted in areas intended for any emergency disposal of spilled and volatile chemicals
2. Before starting the chemical experiment, all information on the toxicity of such chemicals and how to deal with them in direct emergencies, must be displayed outside the test site (laboratory) to promote user awareness on how to deal with an emergency
3. Laboratory staff and supervisors dealing with highly toxic chemicals should be professionally trained on how to deal with the hazards posed by chemical substances
4. Chemical experiments involving highly toxic chemicals resulting in dust, gases or aerosols should be carried out in gas suction rooms or other, more appropriate containment
5. It is necessary to examine the tool covers used in the experiment before starting the experiment to ensure that they are not contaminated and fit for safe testing
6. If the experiment continues for a long period of time, covers must be re-examined once every three months and must be equipped with flow tracking devices where the performance of these devices is clear through audio or sound effects
7. Laboratory Glove Box must be operated under negative pressure if highly toxic chemicals are used

8. The efficiency and suitability of the Laboratory Glove Box should be examined before use
9. The results of highly toxic chemical compounds should be monitored during an experiment
10. Hand gloves should be worn while handling highly toxic chemicals.
11. Appropriate hand gloves of suitable thickness must be worn to prevent chemical penetration or contact with skin
12. Face shields, ventilators, eye protectors should be worn to prevent inhalation and absorption of any toxic substances
13. The laboratory should be ventilated with suction pumps that pull out the substances emitted by high-risk chemicals
14. Hands, faces, necks, and arms must be washed after dealing with highly toxic chemicals
15. A safe transport plan must be made available for all toxic chemicals beyond the designated range. People transporting toxic chemicals and materials must wear appropriate personal protective clothing and use suitable shipping containers.

5.2. Chemical Storage and handling

1. Chemicals must be managed and handled carefully including transportation, labeling, storage, and waste disposal
2. Chemical quantities within laboratories must be limited to only the required amount for experiments, whereas bulk quantities must be stored in a separate designated storing facility
3. Materials safety data sheets (MSDS) soft or hard copy must be used and placed on a visible area to all the laboratory users
4. Chemicals should only be handled and used by the authorized personnel
5. To avoid any possible risks and accidents, chemicals must not be placed on laboratory benchtops
6. Fume hoods must be kept free of obstruction by containers
7. Chemicals should not be stored on the floor even temporarily for a moment
8. Chemicals must be stored in a suitable and controlled room temperature
9. Chemicals should be stored away from direct sunlight, heat sources and spark generated sources

10. Proper labeling and recording systems should be used to track the chemicals details including its name, toxicity level, date of manufacturing and expiry
11. Regular chemicals inspection should be maintained for:
    - Damaged bottle/container
    - Chemical splatter signs outside the bottle/container
    - Presence of liquids in solids or solids in liquids
    - Pressure build-up within bottle/container
    - Discoloration signs
    - Cloudiness signs
12. Expired chemicals or those that are no longer in use should be disposed of properly or shifted to other research or academic facilities
13. No chemicals, biologics, or other hazardous materials should be moved outside the laboratory premises without proper authorization
14. Only **explosion-proof** or **flammable material refrigerators** should be used to store flammable materials within laboratory
15. All materials inside refrigerators should be properly labeled. A chart should be placed on the refrigerator door listing necessary details of all materials inside the fridge
16. Regular inspection on available materials inside refrigerators should be maintained to avoid materials overcrowding and ensure the removal of overdue materials
17. Ensure proper refrigerator temperature is maintained
    - A list of flammable retardant oils, gasses and flame-retardant compressed gases should be made visible to all the laboratory users
    - Fire tanks must be identified to determine the maximum storage of flammable materials inside the laboratory
    - Refrigerators used to store flammable chemicals must be compatible with safety measures
    - Avoid using chemical storage refrigerators to store food items.

5.3. Chemicals Leakage

In the event of a sudden leakage of hazardous chemicals, the following should be considered:

1. Laboratory staff must be notified instantly
2. Seek help for injured individuals

3. If necessary, evacuate the place of the accident
4. Take necessary measures to contain and reduce the spilled material in all cases; especially if working with hazardous chemicals
5. Discard contaminated materials properly as instructed
6. Use relevant and appropriate chemical tools to contain the spilled chemicals:
    - Neutralizing agents that help absorb spilled acids such as sodium bicarbonate and sodium carbonate
    - Neutralizing agents that help absorb spilled alkaline substances such as sodium by sulfite and citric acid
    - Appropriate personal protective fluids, alarms, and protection against slipping and/or falling on wet floors.
7. Spilled chemicals must be cleaned by concerned staff wearing personal protective clothing, e.g., gloves, fire safe glasses, and shoe covers, besides other relevant equipment
8. In the case of spilled flammable solvents, all laboratory staff must be notified and sources of burning flames, ignition source, and power supply must be shut down. If the spilled chemical is not contained, the laboratory should be evacuated immediately, and the emergency number displayed in laboratory should be contacted
9. In case of a highly toxic chemical spill, similar steps should be followed, and the UoN Health and Safety Office should be notified to assess any potential risks
10. The remaining spilled chemical waste must be treated as hazardous chemical waste.
11. Use Chemical Spillage Leakage Form to register the spillage details
12. Before starting the experiment, make sure that all emergency means and tools are readily available (safety sprinklers, eye washing units and fire extinguishers, PPE, breathing apparatus etc...).

5.4. Spilled Mercury

Mercury fluid can leak under the ceramic floors and even between the walls. Exposure to mercury fluid can cause chronic health diseases. Therefore, the following guidelines should be considered when mercury spills occur in a laboratory:

1. Mercury liquid waste should be treated as a hazardous substance
2. Isolate the contaminated area and alert the laboratory users to be cautious
3. Protective gloves and shoes should be worn when cleaning the spilled mercury

4. Use a mercury vacuum cleaner, wet towel or sponge to clean the droplets of the spilled mercury
5. Use a scraper to clean the remaining droplets
6. Report the incident using the appropriate form(s)
7. In the case of chemical contamination or injury resulting from hazardous chemicals, the following should be ensured:
   a. Aid of the injured person
   b. Contact emergency staff
   c. Submit a copy of the Material Safety Data Sheet (MSDS) to the paramedic.

6. Management of Biological Materials and Hazards

Biological agents and substances can be contagious if exposed to, hence the appropriate procedures must be considered to ensure protection of laboratory users as follows:

1. Biological safety cabinets should be used while dealing with aerosols (liquid or dry substances)
2. PPE should be worn while performing biological laboratory experiments or any inoculation work. Use pipetting devices whenever pipetting work is required
3. Wash hands with water and soap after performing laboratory work
4. Avoid touching eyes, nose and mouth while performing laboratory work
5. Avoid eating or drinking inside the biology laboratory
6. Avoid storing food or drinks inside the laboratory or in laboratory refrigerators that contain biological agents
7. Extreme caution should be taken when handling inoculation needles
8. After using a needle, do not recap, bend, break or remove from its syringe
9. Needles and any other sharp items should be disposed of into a sharp items disposal container
10. Use alternative methods when and wherever possible, in order to minimize needle usage.

7. Tools and Equipment

7.1. Gas Cylinders

1. Gas cylinders should be checked, maintained and safely refilled periodically

2. Gas cylinders' store should be located outside the laboratories, in a safe and sunlight-proof enclosure
3. Gas cylinders' store should be kept dry, well-ventilated, and away from electrical circuits
4. Full gas cylinders should be separated from empty cylinders in a well designated safe storage area
5. Avoid storing or stacking objects on top of gas cylinders
6. Standard safety signage should be placed at all gas storing facilities
7. A gas leak detector should be installed and maintained at all gas storage facilities
8. Transporting or handling gas cylinders should be carried out with maximum caution to avoid injury or accidents
9. In the event of a gas leakage, appropriate personal protective clothing that contains ventilators should be worn. Flammable materials or cylinders of oxidized gases-should be moved to a secluded location free of combustible substances
10. Toxic gases: In case of leakage, evacuate the entire proximity and warn others.

7.2. Glass Materials

1. Glassware should be handled carefully
2. Glass materials should be checked for damages, cracks and maintained periodically
3. Fragments of broken glass should be removed instantly using a special brush and vacuum cleaner
4. Hands should be protected by wearing protective gloves when collecting and cleaning the shrapnel (remnants of glassware)

7.3. Ventilation System

The laboratory ventilation systems are designed and installed to suit the safety requirements of the laboratory and its environment.

There are several types of ventilation means, such as:

1. **Natural ventilation** via doors or windows
2. **Ventilation or exhaust fans** used as basic but low performance laboratory ventilation
3. **Fume cupboards and safety cabinets** used to discharge the contaminated or toxic gases from laboratory fume cupboards to the external atmosphere via recirculation filters.

The fume cupboards and safety cabinets have several benefits some of which are listed below:

a. Protects the laboratory users from inhaling fumes or vapors occurs from hazardous or noxious substances that form during the laboratory experiments
b. Protect the experiment/product from getting ruined by reaction with generated gases
c. Protects the laboratory environment by using air filters to capture contamination substances before they spread into the natural air (of the internal laboratory atmosphere)
d. The laboratory users should report any deficiency or contamination in the laboratory fume cupboards to the maintenance department to carry out necessary inspections and repair.

7.4. Heating Equipment

1.1.Ovens are playing an important role in laboratories, canteens and kitchens; therefore, they need to be treated with caution to avoid fire and explosion. Some safety precautions to be aware of are listed below:

1. When working with ovens and furnaces, appropriate heat protective gloves must be used.
2. Regular inspection and maintenance of ovens, stoves and furnaces must be carried out.
3. Failed thermostat controller can cause fire or explosion, hence secondary (over/high) temperature protection device needs to be installed to work as a safeguarding system
4. Never leave the furnace, stove and oven unattended, turn off the oven/stove/furnace if you must leave its premises
5. An explosion proof oven shall be used if the treated materials release flammable vapors, or fumes
6. If the treated materials are generating toxic vapors or fumes, they must have direct ventilation, unless the quantities involved are very small and can treated by the laboratory ventilation
7. Some ovens and furnaces have exposed heating elements; electrical protection needs to be installed to isolate the power supply when the oven door is open

8. Clear operating instructions, precautions and emergency shutdown procedures need to be displayed next to the oven/stove and furnaces
9. Only use microwave safe and furnace resistant containers
10. Do not use metallic, paper or steel utensils in ovens to avoid short circuits, blasts and fire
11. Always remove any aluminum foil from food items before heating them in the microwave
12. Examine the oven for microwave radiation leakage. Regularly inspect the oven, door hinges, latches, or seals for damage
13. Do not cover or place any things on the vent on top of the microwave when it is in use
14. If food items or materials inside the oven catch fire, immediately turn off the power, unplug the device and keep oven door closed
15. Laboratory microwave ovens should not be used to heat food or drinks to avoid contamination transfer
16. Proper hand gloves should be used when removing the containers from the microwave oven
17. Thermal resistance glassware/containers shall be used to avoid breakage and material spillage
18. Avoid using the hotplate to heat ignited combustible materials
19. Appropriate heat resistant hand gloves should be used when removing glassware/ containers from the hotplate.

8. Transporting Hazardous Materials

1. Break-resistant containers should be used when moving toxic materials outside the laboratory or between the warehouses and the laboratory
2. Containers that are resistant to breakage must be rubber, metal or plastic and must contain sufficient handles to carry the containers in the event of an accident
3. Cylinders containing compressed gases should be safely secured when moved in cylinder transport vehicles and gas valve must be covered with a tight cover

9. Laboratory Electrical Safety

1. Ensure that all laboratory equipment and instruments (e.g. laptops, soldering device, multi-meter, voltmeter, LCR etc..) is checked and labelled
2. Switch off all electrical devices when not in use
3. Do not attempt to do any electrical repairs or investigations; refer your issue to the trained personnel or laboratory supervisor
4. If the computer is left ON for a particular purpose; place a 'leave on' sign with the name, date and session time(s) to secure it. The sign should be labeled on the device.
5. All equipment should undergo routine electrical checks
6. Report any dysfunctions to the laboratory technician for appropriate maintenance
7. Ensure wire lines and patch cords are isolated sufficiently while electrical circuits are being built
8. Prevent the use of high current (above 75A) in any procedure or device that is not intended for a high current
9. Only electricians and experts should deal with electric experiments.
10. Students must only work with a trained supervisor
11. Do not wear dresses with loose sleeves that might get tangled in electrical devices
12. Abstain from wearing metallic jewelry and accessories; these may conduct with the electricity and cause electrocution
13. Around the working area(s), remove metallic and magnetic equipment surrounding the device(s)
14. Use a flat, non-reflective object like a wooden item to block the beam in a space beyond the farthest point of interest
15. Never allow unauthorized individuals to handle lasers
16. Keep power cables, adaptors and wires away from places of movement
17. Encase the tangled wires on the floor with protective insulators to avoid accidents
18. Do not use water in electrical laboratories unless it is authorized for an experiment under the supervisor of an expert. Keep all electronic devices away from water
19. Prior to performing an experiment, students, supervisors, and faculty should familiarize themselves with the user manual(s).

10. Waste Management

1. Improve the waste recycling culture at the University by promoting recycling of general waste (plastic, food waste and paper) and solvents (xylene and alcohol can be distilled and reused)
2. Avoid generating waste as much as possible by improving the operations in productivity and efficiency
3. Reduce waste wherever possible by using:
    - Reusable bottles and glasses
    - Rechargeable batteries instead of ordinary disposal batteries
    - Durable equipment that can repaired instead of replaced
    - Solar powered lights (electricity)
    - Plant compost (fertilizer) from food waste
4. Chemical supplies should be limited to the only required amount
5. Reuse waste materials where appropriate
6. Disposal of hazardous and biological waste in accordance with the approved national policies.

11. Fire Hazards

1. Laboratory staff should be trained to use appropriate fire extinguishers
2. Laboratory staff should be aware of the nearest fire alarm, emergency numbers, nearest assembly point location of safety sprinklers, emergency blanket and evacuation routes
3. In the event of a fire, the emergency warden should be contacted and the fire alarm must be activated
4. Fire should not be dealt with except in the case of high-level training on how to use manual fire extinguishers
5. Try putting out small-sized flaming fires including reactive substances and flammable chemical compounds such as magnesium, potassium and sodium using appropriate extinguishers or covering the fire with dry sand
6. If the fire contains solvents or explosive materials, special firefighting techniques should be used by specialists
7. In the event of a large, uncontrollable fire, the building must be evacuated quickly and the nearest alarm is activated

8. When the fire fighting team arrives, please inform them of the chemicals and dangerous substances in the laboratory and also the potential cause of fire
9. In the event of a fire in the clothes worn by laboratory staff, the affected person should be taken to safety sprinklers or use fire-resistant blankets as a last option
10. Clothing contaminated with chemicals and burn-infected wolf after using blanket safety sprays should quickly be used to avoid trauma and the injured person must receive medical attention quickly.

12. Laboratory Tags

Safety signs and posters should be placed at the main entrances and in all laboratories at key locations.

The following safety details should be provided for:

1. Emergency Exits signs
2. Fire extinguishers and fire blankets
3. Eye wash and emergency shower stations
4. Material storage and procurement areas
5. Gas lines and gas storage facilities precautions
6. Special deposits (e.g. bio-dangerous waste, glass, chemical waste, waste);
7. Signs that differentiate between drinking and non-drinking water
8. The Emergency Plan, including emergency contact details.

13. Roles and Responsibilities

13.1. Individual Responsibility

Positive and responsible personal behavior is the basis for promoting health and safety culture. The laboratory attendant must be aware of the size of the risks that might occur within the laboratory and must deal with their colleagues and students professionally. Listed below are general traits that need to be adhered to by all users:

1. Be vigilant in laboratory
2. Be courteous and patient
3. Avoid using mobile phones and other personal electronic devices inside the laboratory
4. Dress appropriate in laboratory. Wear a laboratory coat and other appropriate PPEs
5. Do not wear loose or flammable kinds of clothing
6. Tie back your long hair away from face

7. Never bring food and drinks inside the laboratory

13.2. Superintendent /Supervisor

1. The laboratory supervisors are responsible for the management, preparation, professional advice, and instructions for laboratory staff. This involves maintaining a healthy and safe atmosphere for all the laboratory attendants and students
2. The Supervisor must ensure that students and staff act professionally in accordance with the regulatory guidelines, in case of any possible emergency. Special attention and cautious supervision must be carried out for students with disabilities and students who are new to the laboratory environment
3. Laboratory supervisors should train laboratory staff on how to make students aware of any possible hazard. Additionally, he/she should work to reduce or eliminate any possible hazards.

13.3. Technicians

1. Laboratory technicians are responsible for providing sufficient written instructions prior to the beginning of any laboratory operation that is reliable, relevant to the circumstance, environment and maturity of the audience
2. The laboratory technician should discuss the probable hazards, define and describe any particular risks involved, explain the correct protocols to be followed, and include guidance on appropriate/inappropriate conduct in the laboratory
3. The laboratory technician should ensure that laboratory equipment is in working and hygienic condition; and he/she must document any faulty equipment, unsafe conditions and resources. The documented report must be placed in the laboratory for safety awareness by laboratory users and must also be filed with the Supervisor for further action on its maintenance
4. The laboratory technician should also develop routine inspection schedules and procedures for the monitoring of safety and first aid equipment and obey all safety standards for the proper marking, storage and disposal of chemicals. Through correctly maintaining records of all danger notices and maintenance assessments, the responsibility of the technician shall be taken into account in the event of the incident.

13.4. Health and Safety Officer

1. Health and Safety Officer (HSO) should work in alignment with the all the investigators (laboratory supervisors) and users of UoN laboratories to identify any potential hazards, address them and provide a healthy and safe work environment
2. The HSO must review all laboratories risk registers and incident reports to deploy and follow-up mitigation plans in close coordination with the relevant lab supervisor and maintenance personnel

   The HSO shall conduct regular audits of laboratories and campus facilities to ensure a sound and safe environment for all stakeholders.

13.5. Students

The University receives, for training purposes, various categories of students including postgraduate and visiting students, who spend more time using the labs for either training or research experiments. Prior to using lab facilities, all students shall undergo health and safety induction training to ensure their familiarity with the laboratory's health and safety measures. The induction session should include: labs health and safety regulations and procedures, emergency response and evacuation procedures, basic first aid training and the necessary PPE depending on their lab use and their research/s nature. They must also be aware of the materials handling procedures and to promote reporting of all near misses, incidents and observations during the use of the labs.

Students and researchers are expected to strictly adhere to the safety laboratory instructions as follows:

1. Never work alone in a laboratory. Always work under the supervision of the laboratory staff and/or supervisor
2. Follow the experiment instructions as per the experiment manual
3. Wear appropriate personal protective equipment (PPE) prior to commencing any laboratory experiment/procedure
4. Always follow the instructor's instructions
5. Do not leave the laboratory premises without instructor's permission
6. Report any safety issues that are observed to the instructor
7. Maintain clean and tidy laboratory premises at all times

8. Avoid using unsafe materials, substances without proper supervision and authorization
9. Store laboratory items/resources in their designated storage areas
10. Follow and adhere to all the laboratory safety protocols and guidelines
11. Behave in a professional manner in accordance with the student code of conduct policy.

14. First Aid Manual (Appendix 1)

The First Aid Manual in appendix one is to assist in providing first aid interventions for cases with different medical emergencies.

15. Health and Safety Forms (Appendix 2)

All the relevant health and safety forms that are referred to in this document and that can be used are outlined in appendix 2.

Appendix 1
First Aid Manual

جامعة نزوى
University of Nizwa

Document Reference Number
UoN/DPQM-RM-001/MA/2021

First Aid Guide for Medical Emergencies

Acknowledgement

The UoN First Aid Manual is the result of continuous collaborative efforts of the College of Nursing and the Risk Management Office. A team headed by Dr. Zabidah Bint Putit refined and guided the development of the First Aid Manual. The First Aid Manual was developed with intention of educating the community and thereby promoting a culture of health and safety.

This manual is dedicated to the **UoN First Aid Manual Development Team** who contributed their knowledge, time, and experience towards helping the community acquire life-saving skills to effectively respond in emergency situations.

This manual is also dedicated to all its readers who are motivated and prepared to take action when an emergency strikes.

The team would like to express its sincere thanks to the Chancellor (UoN), Dr. Ahmed bin Khalfan Al Rawahi and the Health & Safety Officer, Mr. Nasser Zahran Al Kindi for their constant encouragement and support.

Last but not the least; the manual is dedicated to the UoN Sick Bay staff (*Campus Medical Service Staff*) for their prompt, professional and tireless efforts in addressing medical emergencies on campus.

UoN First Aid Manual Development Team Members:

Dr. Zabidah Bint Putit , Dean of College of Pharmacy and Nursing (in 2018)

Mr. Lohani Adeeb Khan , Risk Management Officer *(Editor of the Manual)*

Dr. Oscar Maramag Turringan , Associate Dean CPN

Ms. Lumar Casibang Binondo , Nursing Skills Lab Coordinator

Ms. Alma Francisca Quequegan , Nursing Skills Lab Coordinator

Ms. Alida Lacambra Marallag , Nursing Instructor

Preface

The purpose of the First Aid Manual is to guide the staff, students and community on the primary skill set and procedures to deal with different types of medical emergencies.

Every individual encounters injury, illness or emergency situations at some point of time in their life. It is essential for us to recognize such medical emergency scenarios and to possess the basic knowledge and skills to summon the required help; and to perpetuate basic care until the help arrives. The Manual encompasses all possible medical scenarios that we encounter in our daily lives and gives us a step by step insight on the required first aid procedures with illustrations to help you understand the problem at hand.

Although the manual is designed to provide you with a good knowledge and skills set, it is advised that you also take a formal first aid course from community organizations (HEIs, PACDA, Companies etc.) or recognized medical centers (Local hospitals and rehabilitation centers) that provide such training. We also recommend you to refresh your first aid skills on a regular basis based on the contemporary trends. It is advised to stay informed of any changes in emergency care procedure.

We hope that you will enjoy learning about medical emergency response and care; and enhance your knowledge and skills as you proceed through the manual.

Should there be any comments or recommendations for improving this manual then please write to us on lohani@unizwa.edu.om. To request any first aid skills training workshop, please contact the UoN Health and Safety Officer nasserkindi@unizwa.edu.om

Thank you for being part of this noble initiative – Together, We can make a difference!

Disclaimer

This manual is not intended to establish any policy/ procedure, or a standard of care. It is advised that all first aiders obtain training from a qualified trainer and recognize the limits of their competence. The UoN is not responsible for, and expressly disclaims all liability for, damages of any kind arising out of use, reference to, reliance on, or performance of such information.

EMERGENCY C ONTACT NUMBERS

External Support Services (OFF CAMPUS)

1	AMBULANCE	**9999, 25449361, 25447776**
2	HOSPITAL	9999 25449361 (Nizwa Hospital) 25447776 (Badr Al Sama Hospital) 24563625 (Khawla Hospital)
3	POLICE	9999, 25425222, 25425559
4	FIRE DEPARTMENT	9999
5	WEATHER FORECAST	24519113
6	ELECTRICITY AND WATER	1442, 431310 , 153 (Water) , 154 (Electricity)
8	THREATS/ BLACKMAIL HARRASMENT	2456 9701
9	MUNICIPALITY	150

Internal Emergency Contacts (ON CAMPUS)

1	**HEALTH CARE UNIT (Sick Bay/Ambulance)**	988
2	**GANA POLY CLINIC**	194
3	**HEALTH AND SAFETY OFFICE**	636
4	**RISK MANAGEMENT OFFICE**	973
5	**ELECTRICITY /AIR CONDITIONER**	888, 604
6	**TELECOMMUNICATION AND INTERNET**	373, 626
7	**CAMPUS SECURITY**	305
8	**TRANSPORTATION OFFICE**	347, 342
9	**WATER**	244, 374
10	**PUBLIC RELATIONS**	226, 267

1. What is First Aid ?

First aid is the initial medical care assistance or treatment given to a casualty or a sick person for any injury or sudden illness before the arrival of ambulance or qualified paramedics. The person who provides this initial treatment is known as the first aider.

Goal of the First Aider	Considerations of First Aider
• To preserve life. • To alleviate suffering. • To prevent further illness or injury. • To promote recovery. • To summon Emergency Services if necessary	• To assess the severity of the situation • To stay safe and calm at all times. • To be aware of ones' own abilities and limitations. • To assist the casualty with the help of others if possible. • Prevent cross-contamination between yourself and the casualty.

First Aid Kit

What are the contents of a standard First Aid Kit?

1. **Plasters/adhesive Band-Aid:** Used for small cuts and grazes
2. **Sterile Dressings:** Used to apply pressure to larger wounds and help to stop bleeding
3. **Bandages/ tourniquets/Splints:** Used to support joints, hold dressings in place, put pressure on wounds and to stop swelling
4. **Cold compresses:** Used to treat insect bites and stings. To cool thermal burns and reduce swelling from sprains.
5. **Disposable gloves:** Used to reduce the risk of infection
6. **Face shields or pocket masks:** Used to prevent infection when you give rescue breaths during CPR.
7. **Cleansing wipes/ alcohol free wipes:** Used to clean the skin around the wound.
8. **General Adhesive Tape:** Used to hold dressings or the loose end of bandages in place
9. **Pins and clips:** Used to fasten the loose end of bandages.
10. **Scissors or tweezers:** Used to cut bandages or someone's clothing if you need to get to a wound. Tweezers can also remove ticks, bee stingers, or pieces of glass
11. **Thermometer:** To check the body temperature.

12. **Antiseptic/rash Cream:** To reduce septic in the wound, burns and stings.
13. **Blankets**
14. **Medicines:** painkillers like paracetamol or ibuprofen. (infant paracetamol for children) , Antihistamine for allergy and aspirin to possibly save the life of someone with a heart condition. Besides the mentioned medicines, you can customize your first aid kit to contain additional prescribed medications if needed.
15. eye wash and eye bath

2. Heat Related Emergencies

Heat exhaustion happens when people work /play or are continuously exposed to a hot and humid environment causing loss of their body fluids through excessive sweating, thereby causing their body to overheat and become dehydrated. The body temperature may be rise as high as 104° F (i.e., 40° C) but doesn't exceed that limit. It can happen suddenly or gradually over a course of few minutes.

Heatstroke also known as **sun stroke** may develop following an untreated heat exhaustion. It occurs when the body's temperature rises above 40° C (105° F) and the body's immune cooling system stops working. Heat stroke develops rapidly, and can be fatal if medical attention is not sought immediately.

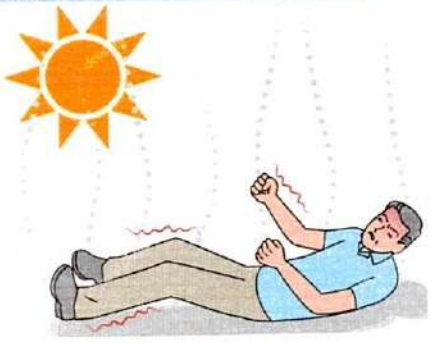
Signs and Symptoms	
Heat Exhaustion	**Heat Stroke**
• Confusion • Dark-colored urine (*A sign of dehydration*) • Fatigue and dizziness • Cool, moist skin with goose bumps or goose flesh (hairs of the skin stand up) when exposed to heat fatigue, • Headache • Muscle or abdominal cramps, • Nausea, vomiting, or diarrhea, • Pale skin • Profuse sweating, • Rapid heartbeat, • Fainting	• Throbbing headache • Dizziness and light-headedness • Lack of sweating • Red skin, hot and dry skin, • Muscle weakness or cramps, • Rapid shallow breathing • Seizures and unconsciousness. • Body temperature get higher than 40°C (>105 F) ***Note:*** *The External body temperature might seem almost normal however the internal temperature might be higher.*

How to Manage?

Heat Exhaustion – What to do?

1. Move the person out of heat/sun and bring into a shady or cool place.
2. Lay the person down and elevate the legs and feet.
3. Remove tight or heavy clothing.
4. Have the person drink cool water or other non-alcoholic beverages without caffeine. Do not give fizzy drinks as they contain caffeine.
5. Cool the person by fanning or spraying/sponging with cool water.
6. Monitor the person's condition
7. **Call 9999 or the local emergency number** if signs or symptoms worsen

Heat Stroke – What to do?



1. Call 9999 or the local emergency number.
2. Immediately move the person out of the heat to indoors or cool shady place.
3. Remove excess clothing.
4. Cool the person by whatever means available:
   - Soaking in cool water in a bath tub.(if available)
   - Sponging with cool water.
   - Fanning while misting with cool water
   - Placing ice packs or cool wet towels on the neck, armpits and groin.
   - Covering with cool damp sheets.
5. Let the person drink cool water/ fresh fruit juice to rehydrate, only if conscious.
6. Do not give sugary, caffeinated or alcoholic beverages.
7. Avoid giving extremely cold drinks, as these can cause stomach cramps.
8. Begin CPR if the person loses consciousness and shows no signs of circulation and breathing.

Precautions

During summer/ sunny hot weather, it is advisable to:

- Slow down and avoid arduous activity and eat healthy snacks at short intervals.
- Avoid excessive exposure to sun.
- Avoid/defer outdoor games and activities.
- Remain indoors as much as possible.
- Use coolers and air conditioners indoors and in vehicles
- Conserve electricity not needed to keep you cool.
- Wear loose-fitting, light color, lightweight clothing
- Wear wide brimmed hat, head scarf or cap.
- Drink plenty of fluids, even if you do not feel thirsty (*Lime juice and detox water keeps you hydrated for long*)

- Take frequent breaks if you work outdoors.
- Avoid caffeinated drinks like coffee, tea and aerated drinks.
- Eat fruits and yoghurt to balance your body temperature.

- NEVER forget or leave the children or pets alone in vehicles. A few minutes can be proving to be deadly even if the windows are partially open.
- The temperature in a parked car is usually hotter than the outside temperature. (*The temperature inside a car parked in hot sun can elevate between 5°-15° C from the actual outside temperature*)
- If you witness any children or pet unattended in parked car, then call 9999.

3. Heart Attack and Cardiac Arrest

Heart Attack occurs when the blood flow to a section heart muscle is reduced due to blood clot caused by plague in the artery. Reduced/lack of blood flow causes the tissues of heart muscle to die, causing severe pain in chest. The longer the person goes without treatment, the greater the damage.

Cardiac arrest happens due to electrical malfunctioning of the heart disrupting its pumping causing the heart to stop beating completely or too ineffectively, constricting the blood flow (oxygen) to the brain, lungs and other vital organs. Within seconds, the person loses consciousness and has no pulse. Death might occur within minutes if the victim does not receive treatment.

Signs and Symptoms of Heart Attack	Signs and Symptoms of Cardiac Arrest
• Difficulty or trouble in breathing • Chest pain, discomfort and pressure • Radiating pain to the jaw and shoulders • Pallor or ashen grey color of the face • Cold sweats • Dizziness, nausea and vomiting • Epigastric pain • Loss of consciousness	Cardiac arrest happens without warning. Although some of these symptoms might occur prior to a cardiac arrest • Fatigue or weakness. • Shortness of breath. • Fainting. • Dizziness or light headedness. • Heart palpitations. (irregular beats) • Chest pain.

How to Manage?

What to do before the Paramedics arrive?

- **In case of Heart Attack,** if the person is not allergic to aspirin; give him/her a 325mg of aspirin (for adult) and 81 mg aspirin (for child). If the person stops breathing, then perform CPR.
- **Perform Cardiopulmonary Resuscitation (CPR) for Cardiac Arrest Patient.**

The **main purpose** of CPR is to partially restore the flow of oxygenated blood to the brain and heart. The **objective** is to delay tissue death and to buy some time for the patient for a successful resuscitation without any permanent damage to the brain. Performing immediate CPR increases the victim's chances of survival during cardiac arrest. CPR is administered only if when there is no pulse. ALWAYS activate EMS (call 9999) before starting CPR.

- **How to Perform CPR?** *Detailed Steps:*
  1. Ensure that the patient is lying on his back in a straight position
  2. Open the airway tilting the head back slightly so as to lift the chin up.
  3. Kneel and sit down besides the patient.

4. Keeping your arms straight, place the heel of your hand at the center of the patient's chest. (between the nipples)
5. Keep your arms straight and cover the first hand with the heel of your other hand interlocking the fingers together. Ensure that the fingers of your hand over the chest are raised slightly upwards, so they do not touch and damage the patient's chest or rib cage.
6. Lean forward so that the position of your shoulders is directly over the patient's chest.
7. Use your upper body weight as you start compressions by pressing down on the chest *(approximately 2 inch down and NOT greater than 2.4 inches)* delivered at a rate of at least 100 compressions per minute. *(which is 2 compressions per second)* Release the pressure but don't release your hand. The rescuer's hands must stay in contact with the patient's chest during compressions.
8. If you get exhausted ask a by-stander to continue compressions while you restore your strength to continue.
9. If you aren't a trained/skillful in CPR, continue chest compressions until there are signs of movement or until emergency medical personnel take over
10. If you are trained/ skilled in CPR then deliver 2 rescue breaths after every 30 compressions.
11. To deliver rescue breaths open the patient's airway by tilting his head and lifting up his chin, then pinch the patient's nose shut and place your mouth over the patient's mouth covering completely. Now blow in the patient's mouth making his chest rise. Do not breath/blow in with extreme force.
12. Release your mouth and do it again for the second time. (*i.e, 2 breaths after every 30 compressions*) Note that the rescue breaths must last one/two second only and not more than that. Thirty chest compressions followed by two rescue breaths is considered one cycle. Check pulse after every 5 cycles of CPR. Continue the compressions and ventilating breaths until the patient regains pulse/breathing, or an AED becomes available, or the medical responder arrives at the scene.


1.Chest Compressions


2.Open Airway


3.Give Rescue Breaths


4. Repeat CPR Cycle

4. HYPOGLYCEMIA

Hypoglycemia occurs when the person has low blood sugar (Glucose) levels due to hunger and over-exercising without eating enough.

Possible Causes	Signs and Symptoms
• Not eating on time • Prolonged strenuous exercise • Certain medications: insulin and oral hypoglycemic agents (OHA), some antibiotics (Bactrim), anti-hypertensive drugs (beta-blockers) • Alcohol use • Prolonged fasting • Missing meals • Severe malnutrition • Diseases of the liver, kidneys, pancreas • Early pregnancy • Stomach surgery	***1. Mild hypoglycemia*** • Feeling of hunger/fatigue • Nausea • Jittery or nervousness • Sweating • Cold clammy skin • Irritability ***2. Moderate Hypoglycemia*** • Short –temperedness • Trembling • Fast heart beat • Nervousness, fear ,confusion • Blurred vision /faintness • Unsteady gait and pale skin ***3. Severe Hypoglycemia*** • Seizure • Coma • Death Blood sugar less than 70 mg/dL.

BLOOD GLUCOSE CHART

Mg/DL	Fasting	After Eating	2-3 hours After Eating
Normal	80-100	170-200	120-140
Impaired Glucose	101-125	190-230	140-160
Diabetic	126+	220-300	200 plus

How to Manage?

- Assist the person to sit down and give them something sugary (sweet) like fruit juice / a fizzy drink/ three teaspoons of sugar/or a chocolate candy.
- If the person begins to feel better, offer food, particularly carbs like bread to sustain their blood sugar – a jam sandwich is great.
- If the person is diabetic and has her/his own glucose testing kit, then help them to check the glucose level.
- If the person does not improve quickly or lose consciousness, then put them in recovery position and call 9999.
- While waiting for medical assistance, keep checking responsiveness, breathing and pulse of the patient. If they stop breathing, perform a CPR.

*P.S. Do not attempt to give an unconscious casualty anything to eat or drink. And **never** give them insulin as this will further lower their blood sugar and could kill them.*

5. HYPERGLYCEMIA

Hyperglycemia occurs when the person has a very high amount of blood sugar (Glucose) levels in their bloodstream.

Possible Causes	Signs and Symptoms
• High consumption of carbohydrates • Stress / worry • Sedentary lifestyle/lack of exercise • Prolonged Illness • Chronic infections • Fever/vomiting • Skip or forget your insulin or oral glucose-lowering medicine. • Consuming alcohol/ fruit juices on an empty stomach • Dehydration • Certain medications, such as steroids. • Fruity-smelling breath	• Increased thirst. • Frequent urge to urinate. • Dry mouth. • Stomach pain. • Weight loss. • Headaches. • Bacterial/fungal infections (*Skin conditions*) • Poor healing of wounds. • Trouble concentrating. • Blurred vision /decreased eye sight • Fatigue (weak, tired feeling) • Blood sugar more than 180 mg/dL. • Frequent bed wetting

How to Manage?

- Call 9999 for cases of hyperglycemia.
- If the person is conscious and cooperative, ask when the last time they ate/took the insulin dose.
- Check their blood sugar using the glucose meter and accordingly medicate them using their prescribed insulin meds.
- If the person is unconscious, do not give insulin as it might cause an insulin shock and kill the person. Just wait for medical help.
- Follow any instructions from the dispatcher as much as possible.
- If the person does not improve quickly or lose consciousness, then put them in recovery position.
- While waiting for medical assistance, keep checking responsiveness, breathing and pulse of the patient. If they stop breathing, perform a CPR.

Preventive Measures:

- Drink excess water. Water helps remove excess sugar from your blood through urine.
- Regular exercise can help lower your blood sugar. However it's better to consult the doctor before doing so.

6. FAINTING

Fainting also known as syncope or "passing out" is the temporary loss of consciousness usually related to insufficient blood flow to the brain, but the victim eventually regains complete consciousness within a few minutes.

Possible Causes	Signs and Symptoms
• Low blood sugar • Heart problems • Chronic anemia • Anxiety • Extreme pain • Intense emotional stress • Use of alcohol or drugs • Seizures • Extreme fear	***Before fainting spell:*** • A floating feeling • Dizziness • Confusion • Nausea • Light headedness • Shortness of breath • Palpitation (fast heart beat) • Loss of balance leading to falls • Face may appear pale • Sweating • Vomiting • Yawning

How to Manage?

If the individual is about to faint:

- Have him/her sit down with head between knees.
- Assist him/her to lie down and elevate the legs.

If the individual has fainted:

- Make the person safe.
- Lay the person down flat on his/her back.
- Check the airway for signs of breathing.
- Elevate the person's legs to restore blood flow to the brain.
- Loosen tight clothes around neck, chest and abdomen.
- If not breathing and without pulse, start CPR.
- **DO NOT** move the person, if he/she has sustained any obvious neck or back injuries while fainting.

Call the ambulance if the person:

- Does not regain consciousness within 1-2 minutes
- Is not breathing or moving
- Has problem talking or seeing
- Is experiencing a chest pain?
- Has sustained serious injuries while fainting

7. CHOKING

Choking occurs when a foreign object lodges in the throat or windpipe, blocking the flow of air.

Signs of Mild Choking	Signs of Severe Choking
• There is good air exchange. • Person can cough forcefully. • Person may wheeze between coughs.	• Clutching the neck • Inability to speak • Difficulty in breathing • Weak, ineffective cough or no cough at all • High pitched noise while inhaling / no noise at all • Possible cyanosis *(De-oxygenation / Turning Blue)*

How to Manage?

Administering Mild Choking:

- Stay with the person
- Ask him/her not to panic. Panicking will only increase the heart rate and need for air, making it more worse.
- Ask the person to cough forcefully to clear the airway.
- If Chocking persists activate 9999 and perform a Heimlich Mane

Administering Severe Choking:

In case of Severe Choking, a first aid procedure called **Heimlich maneuver** is deployed for dislodging the obstruction from the person's windpipe. The steps for performing **Heimlich maneuver** depend on who you're aiding:

1. Another person who isn't pregnant/ A child (>2 years).
2. A pregnant woman.
3. An infant.
4. Yourself.
5. A person who is unconscious.

1. Standard Heimlich maneuver for another person/Child:

1.1. Stand behind the person. Place one foot slightly in front of the other for balance. Wrap your arms around the waist. Tip the person forward slightly. If a child is choking, kneel down behind the child *(Abdominal Thrust)*

1.2. Make a fist with one hand. Position it slightly above the person's navel.

1.3. Grasp the fist with the other hand. Press hard into the abdomen with a quick, upward thrust — as if trying to lift the person up.

1.4 Perform between six and 10 abdominal thrusts until the blockage is dislodged

2. Heimlich maneuver on a pregnant woman/an obese person:

2.1. Position hand at the base of the breast, just above the joining of lower ribs bone. *(Chest Thrust)*

2.2. Proceed as with standard Heimlich maneuver pressing hard into the chest with quick thrust until the foreign object is expelled.

P.S: *Ask the victim if she is pregnant, unless it is obvious. Using the standard Heimlich maneuver might harm the fetus even in early stages of pregnancy.*

3. Heimlich maneuver on an infant:

3.1. Place the infant face down across your forearm (resting your forearm on your leg) and support the infant's head with your hand.

3.2 Give five forceful blows to the back with the heel of your hand. You may have to repeat this several times until the obstructing object is coughed out.

3.3 Turn the baby over. With two fingers one finger width below an imaginary line connecting the nipples, give four forceful thrusts to the chest.

3.4 Give five forceful blows to the back with the heel of your hand. You may have to repeat this several times until the obstructing object is coughed out.

3.5 You may have to repeat this several times until the obstructing object is coughed out.

4. Heimlich maneuver on one's own-self:

If you are alone and cannot get to cough out the stuck foreign object and are struggling for air then you should perform self-Heimlich maneuver before you fall unconscious.

4.1 Make a fist with one hand. Place your thumb side of the fist below your rib cage and above your navel. 4.2 Grasp your fist with your other hand.

4.3 Proceed as with the Heimlich maneuver, pressing hard into the chest, with a quick thrust.

4.4 You can forward lean on chair to increase/support your thrust pressure. Repeat until the foreign object is dislodged.

5. To clear the airway of an unconscious person:

5.1 Position the person on his or her back, arms by side.

5.2 Call 9999 for help.

5.3 Check responsiveness, breathing and pulse.

5.4 If the person is unresponsive, not breathing, and with absent pulse, then proceed with CPR.

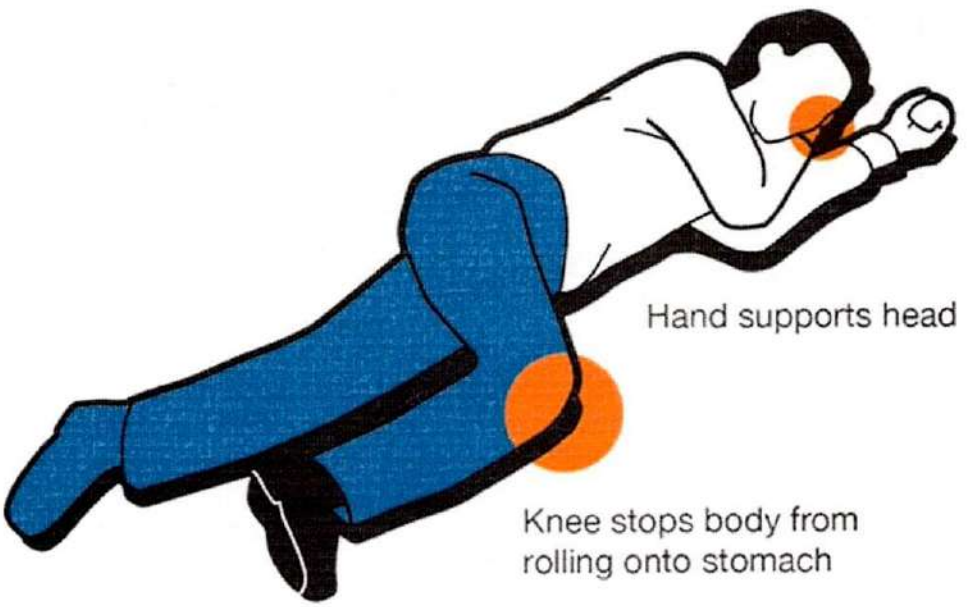
5.5 Before giving each breath, check the mouth for the foreign body.

5.6 If the foreign body is seen, turn the victim on his/her side and perform a finger sweep trying to remove the foreign body from the mouth. Only remove the foreign body if seen, do not attempt to remove if not seen.

5.7 Once the foreign body is removed and the person is conscious, place in recovery position and continue to monitor until EMS (Emergency Medical Service) arrives.

The Recovery Position

Keep the Airway Clear



Stay with person. If you must leave them alone at any point, or if they are unconscious, put them in this position to keep airway clear and prevent choking.

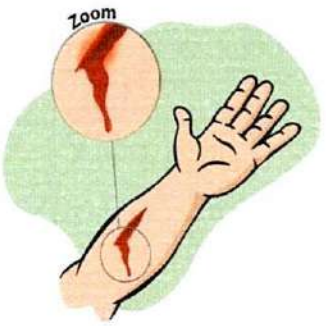
8. BLEEDING

Bleeding also known also known as a hemorrhage is the loss of blood due to an injury, wound, bites or cut. Bleeding can happen outside and inside the body.

Signs and Symptoms	
External Bleeding (Outside)	**Internal Bleeding (Inside)**
Blood is an evident sign of external bleeding. Severe external bleeding can lead to the following symptoms • Pale, cool, clammy skin • Fast heart rate • Low blood pressure • Light-headedness • Unconsciousness	• Pain, tenderness or swelling over or around the affected area • Appearance of blood from the natural body opening, e.g. *bright red blood coughed up from the lungs* • Vomited blood which may appear bright red or as dark brown "coffee grounds" • Blood-stained urine • Bleeding from excretory organs.

How to Manage?

Mild External Bleeding



1. Wash your hands before cleaning and dressing the wound.
2. Wear gloves if available to avoid infection.
3. Wash the wound with warm water. Don't use hydrogen peroxide or iodine to clean, it can damage tissue.
4. Apply antibiotic cream to reduce risk of infection
5. Cover the wound with a clean cloth or sterile dressing
6. Apply pressure to stop bleeding.
7. If blood soaks through the material, don't remove it. Put more cloth or gauze on top of it and continue to apply pressure.
8. Secure the wound with a bandage.
9. If the wound is on the arm or leg, raise the limb above the level of heart, so as to help slow the bleeding.
10. Wash your hands after giving first aid and before cleaning and dressing the wound.
11. Do not apply a tourniquet unless the bleeding is severe and not stopped with direct pressure.

P.S. *If there is bruising to a limb and no external bleeding, use cold pack and transport to the hospital.*

Severe External Bleeding

Severe bleeding cannot be controlled by a simple bandage or by applying pressure. It is managed with *TOURNIQUETS* and *HEMOSTATIC DRESSINGS*

1. *TOURNIQUETS*

Tourniquets are constricting or compressing devices *(belts, bands etc)* used to control blood flow to a limb for a short period of time to prevent bleeding. Tourniquets are used only when the direct pressure fails to stop the blood.

2. *HEMOSTATIC DRESSINGS*

Hemostatic dressings refer to commercially prepared gauze or material made up of powder, granules or other formulations that stop or prevent bleeding. Hemostatic dressing is to be used in life threatening situation for open wound(s) where bleeding is not controlled by applying pressure.

Nose Bleed (Epistaxis)

1. Sit upright and lean forward so as to reduce the blood pressure in the veins of your nose discouraging further bleeding. Sitting forward will prevent you from swallowing the blood, which can irritate your stomach.
2. Pinch your nose. Use your thumb and index finger to gently pinch your nostrils shut. Breathe through your mouth and continue to pinch for 10 to 15 minutes.
3. If the bleeding continues, repeat holding pressure for another 10 to 15 minutes. Keep your fingernails short and avoid picking/blowing your nose as this can re-initiate bleeding.

4. Keep your head higher than the level of your heart.
5. Apply some petroleum jelly to the inside of your nose using a cotton swab or your finger.
6. If bleeding stills continues after 30 minutes or you have frequent nose bleeds, then seek medical care immediately.

Internal Bleeding

Internal Bleeding is one of the most serious consequences of trauma which can be caused by accidents, physical assaults, falls, gunshot and stabbing. Any of the aforementioned signs of internal bleeding after a trauma should be treated as a medical emergency.

9. BURNS

A burn is defined as the injury caused to the skin, its tissues and/or underlying muscles. Most burns are caused by fire, heat, electricity, chemicals, or radiation.

CLASSIFICATION OF BURNS		
Superficial burns (First Degree Burns)	**Partial-thickness burns (Second Degree Burns)**	**Full-thickness burns (Third Degree Burns)**
• Involve only the top layer of skin(epidermis) • Cause skin to become red and dry (no blisters) • Usually painful and the area may swell • Usually heal within a week without permanent scarring 	• Involve the epidermis and part of the lower layer of skin, the dermis. • Skin becomes red and painful • Have blisters that may open and ooze clear fluid, making the skin appear wet • Skin may appear mottled and often swells • Usually heal in 3 to 4 weeks and may scar 	• All layers of skin and/or all the underlying structures (fat, muscles, bones and nerves) are destroyed. • The skin may be brown or black (charred), with the tissue underneath sometimes appearing white. • Can either be extremely painful or relatively painless. • Scars the skin. 

How to Manage?

First Degree Burns

1. Remove the person from the source of the burn.
2. Check for life-threatening conditions.
3. Minimize shock. Keep the person from getting chilled or overheated.
4. Cool the burn with large amounts of cool running water, at least until pain is relieved.
5. Pat dry the burn with a clean soft cotton cloth.
6. Dress the burn with a topical antibiotic ointment like Bacitracin or Neosporin.
7. Do not use cold water/Ice as it might further damage the tissue.
8. Comfort and reassure the person.

NOTE:

- In case of **chemical burn**, remove the chemical from the skin using a towel and hand gloves and repeat step 4, 5 and 6. If the burn is severe call 9999.
- In case of **electric burn**, make sure to turn off the power source before helping/touching the victim. Using a dry wooden object, such as a broom handle, try to push the person away from the electrical source. Do not use anything wet or made of metal. Check and manage any life-threatening conditions. Call 999 and perform CPR if the person is not breathing or is unconscious.
- For cosmetic /minor lab **radiation burns**, apply aloe Vera gel. If you feel nauseous, or begin to vomit shortly after radiation exposure, then seek medical attention immediately.
- For **sunburns** it's better to take precautions by using a sun screen lotion having a SPF>40. However if exposed to a burn, take a cool shower and apply aloe Vera gel all over the affected area. Check for symptoms of heat exhaustion/ heat stroke.

Second Degree Burns

1. Wash your hands before cleaning a burn, as dirty hands can easily infect the open blisters
2. Burns can swell quickly, so take off accessories like jewelry, belts, and tight clothing. Do not prick the blisters.
3. Rinse the burn with cool water.
4. Pat the area dry with a clean soft cloth or gauze.
5. Do not apply sprays or butter on burns, because this traps the heat inside the burn.
6. If the burned skin or blisters have broken open, a bandage is needed to prevent infection. Apply a clean bandage loosely on the burn. Whenever your bandage gets wet or soiled.
7. Don't use a blanket or towel, because loose fibers can stick to the burns.
8. If a bandage is stuck to a burn, wet the bandage with warm water making it easier to remove the bandage.
9. If the burn is on a leg or an arm, keep the limb raised as much as possible for to decrease swelling.
10. Move the burned limb(s) normally to keep the burned skin from healing too tightly, which can limit movement.

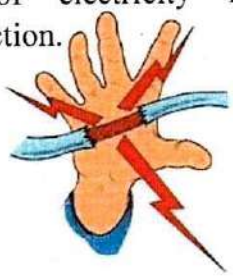
Third Degree Burns

1. Remove the victim from the source of fire.
2. Don't remove burned clothing, as it might be sticking to the inner tissues.
3. Call 9999 or activate the emergency response system.
4. Evaluate the person for breathing and a pulse. Perform CPR if needed.
5. Do not use any kind of ointment/water to clean a third-degree burn. Wait for medical services to take over.

10. Electric Shock

An **electric shock** happens when a person comes in contact with an **electrical source of** energy (a live electric appliance). Electrical current flows through the contacted body part causing a shock and burning sensation. Exposure to **electrical** energy may result in no injury at all or may result in devastating damage or death, depending on the voltage level of the live electrical medium.

Possible Causes	Signs and Symptoms
• Mischievous / careless exploration/ exposure to electrical appliances • Faulty appliances. • Damaged or worn out cords/extension leads. • Electrical devices and cords coming in contact with water. • Improper grounding of electricity in buildings during construction. • Downed power lines. • Lightning strikes. • Using landlines during lightning /thunder storms	• Brief blackout followed by a period of confusion. (Vertigo) • Drooling or frothing at the mouth (seizures) • Eye movements (Eyes rolled-up) • Flashing bright lights, spots, or wavy lines before the eyes • Grunting and snorting. • Shaking of the entire body • Teeth clenching • Numbness and tingling • Unconsciousness • Breathing problem. • cataract



How to Manage?

1. Don't touch the person under electrocution or any of the surrounding surfaces. Ensure that there is no water around on the floor.
2. Disconnect the electric medium or turn off the power at the control panel.
3. If you are unable to turn off the power source, then use a piece of wood for example, a broom handle, dry rope or dry clothing, to isolate the victim from the electric source. Just make sure you don't use anything that's wet or metal based.
4. If the victim is not breathing and has no pulse, begin (CPR).
5. Activate 9999
6. If the victim is awake and has sustained burns, then follow the first aid procedure prescribed for burns.
7. Keep the victim warm. Avoid use of any electrical device near water.

11. SEIZURES

A Seizure also known as convulsion is a brief episode of sudden abnormal electrical discharges in the brain which causes uncontrolled body movements, minor/full loss of consciousness, changes in behaviour and sensations. It is a disorder of the nervous system. Recurrent/frequent seizures are medically termed as Epilepsy.

Possible Causes	Signs and Symptoms
• High fever (in infants and young children) • Injuries to the brain • Brain infections • Brain tumors • Lack of oxygen to the brain • Stroke • Low blood sugar levels (hypoglycemia) • Deficiency of sodium, calcium or magnesium • Withdrawal from alcohol and illicit drugs 	• Brief blackout followed by a period of confusion. (Vertigo) • Drooling or frothing at the mouth • Eye movements (Eyes rolled-up) • Flashing bright lights, spots, or wavy lines before the eyes • Grunting and snorting. • Lack of control on bladder /bowel • Mood changes, such as sudden anger, unexplainable fear, panic, joy, or laughter • Shaking of the entire body • Tasting a bitter or metallic flavor • Teeth clenching • Temporary stop in breathing • Uncontrollable muscle spasms with twitching and jerking limbs

How to Manage?

1. Stay calm and do not restrain the person/interrupt th seizure. If unskilled then Call 9999.
2. Loosen tight clothing around the neck and waist.
3. Help the person lie down on a flat surface. Place something soft under the head.
4. Turn the person gently onto one side. This will help the person drain the saliva and prevent the tongue from blocking the airways.
5. Remove sharp objects and items from the scene to prevent injury.
6. Time the duration of the seizure. (Start and end time)
7. If the seizure lasts longer than 5 minutes/ reoccurs/ there is no consciousness or breathing after the seizure then activate EMS. (9999)
8. Do not overcrowd or splash waster on the person's face or attempt CPR.
9. Do not give food or fluid until the person is fully awake and oriented.

12. ALLERGY

Allergy occurs when a person's body over-reacts to substance(s) called allergens in the environment that are harmless for most people. It is the hypersensitivity of the immune system to typically harmless environmental substance.

Common Allergens	Signs and Symptoms
• Dust mites. • Pets. • Plants /Flowers. • Insect bites. • Molds. • Medicines. • Food.   	• Sneezing and an itchy, runny or blocked nose. • Coughing. • Wheezing. • Red, itchy watering eyes. • Itchiness across body parts. • Swollen lips, tongue, eyes/face • Sudden appearance of rashes • Dry red cracked skin. • Diarrhea. • Stomach upset/Stomach cramps. • Shortness of breath (Difficulty in breathing) 

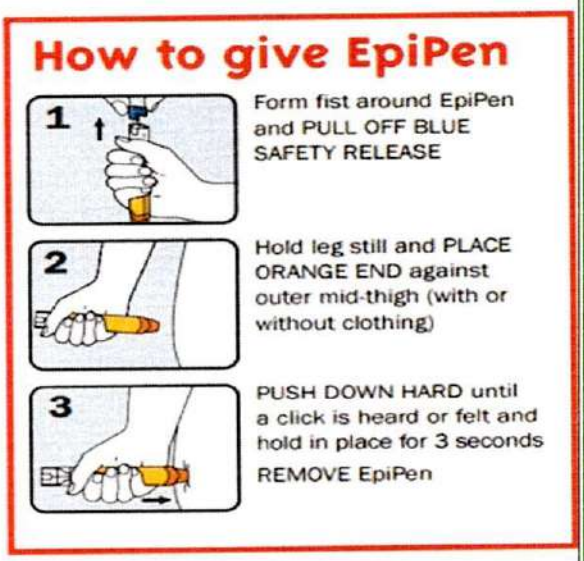
How to Manage?

1. Avoid further exposure of the person to the triggering allergen or cause.
2. If rashes appear, apply cold soft compresses on the skin to sooth itchiness.
3. In case of mild symptoms, give a dose of **antihistamine** by mouth.
4. If symptoms are worse activate EMS.(9999) and use/administer an injectable epinephrine (such as EpiPen).*(Only if you are skilled to use it/ it's been prescribed)*
5. Take the person to the nearest health care facility for further evaluation.

What is EPINEPHRINE PEN ?

Epinephrine, also known as adrenaline is used to quickly to improve breathing, stimulate the heart, elevate dropping blood pressure, reverse hives, and reduce swelling of the face, lips, and throat. An epinephrine auto injector is a medical device for injecting a measured dose of epinephrine by means of auto injector technology.

Note: A prescription is usually required to buy an Epipen. Do not use epipen if you are hypertensive.



13. Anaphylaxis and Asthma

Anaphylaxis is a severe allergic reaction life-threatening and an emergency situation. A person can have anaphylactic reactions to foods, insect stings, medications etc.

Asthma is the chronic inflammation of the bronchial airway causing difficulty to breath. This swelling or inflammation makes the airways extremely sensitive to irritations and increases their susceptibility to an allergic reaction.

Signs and Symptoms	
Anaphylaxis	**Asthma**
• Difficulty in breathing • Noisy breathing or "wheezing" • Swelling of the face, mouth and tongue • Tightness in the throat (difficulty talking or sudden hoarseness of the voice) • Person collapses (loss of consciousness) • Pallor and lifelessness in children	• Shortness of breath • Frequent cough • Chest tightness or pain • A whistling or wheezing sound when exhaling (wheezing) • cold or allergies (sneezing, runny nose, cough, nasal congestion, sore throat, and headache)

How to Manage?

ANAPHYLAXIS

1. Stay with the person.
2. Immediately call 9999 for help.
3. Keep the airway open.
4. Have the person lie still on his or her back and elevate the legs. If unconscious, place in recovery position. If breathing is difficult allow them to sit
5. Don't give the person anything to drink.
6. In case the person has an epipen, help the person to inject on his/her thigh.
7. Begin CPR if person loses consciousness until professional help arrives.

ASTHMA

1. Sit the person upright comfortably and loosen tight clothing.
2. Get the person away from the trigger (if any)
3. If the person has asthma medication, such as an inhaler, assist in using it. Always shake the inhaler before administering the puff.
4. Let the person to take four breaths of each puff through (Give a total of four puffs)

Remember: shake, one puff, four breaths.

5. After four puffs, wait four minutes. If the person still has trouble breathing, give another set of two puffs.
6. If there is still no improvement, call 9999 for an ambulance
7. If the person DOES NOT has an inhaler then seeks medical help immediately.
8. In the meanwhile, try to calm the person and guide the person to take deep slow breaths (*breathing out through the mouth*). This helps to normalize breathing and prevent hyperventilation.

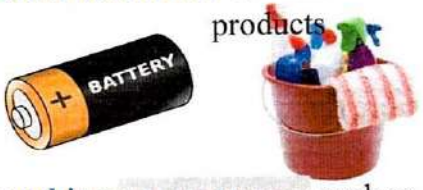
9. Place a few drops of eucalyptus oil in a bowl of warm water. Make the person inhale these vapors. Eucalyptus oil has anti-inflammatory effects and opens the inflamed bronchial airway.
10. Drinks like coffee can help to open up the airways to a certain extent as its Caffeine is very similar to the asthma drug called theophylline. However it's not recommended in extreme wheezing cases as the person might choke on it.
11. Or boil three cloves in water and sip the  tea slowly.
12. Massage a mixture of warm mustard oil and salt onto the chest until the symptoms subside.
13. Stay and observe the person until professional help arrives or until the person is transported to the nearest health care facility.

Prevention is better than Cure –*Stay away from triggers*

- Don't smoke, and stay away from people who do. Cigarette smoke irritates the airways.
- Don't huddle around a fireplace or wood-burning stove.
- In cold weather, wrap a scarf around your nose and mouth to help warm frigid air before you inhale it.
- Be alert for unusual asthma triggers, such as strong-scented foods or the intensely perfumed sample strips bound into magazines, and do what you can to avoid them.
- Try eating smaller, more frequent meals, and don't eat before you go to bed. The upward migration of stomach acids that cause heartburn can also trigger asthma attacks.

14. Poisoning

Poison is any substance that causes injury, illness or death if it enters the body. Poisoning occurs when a toxic substance is swallowed, inhaled, or comes in contact with the skin, eyes, or mucous membranes, such as those of the mouth or nose.

Possible Sources of Poisoning	Symptoms
➢ **Poisoning through Foods** such as certain types of: • Mushrooms • Shellfish 	➢ **Neurologic** • Changes in consciousness • Irregular pupil size • Seizures • Headache • Dizziness • Seizure
➢ **Poisoning through Drugs** and **medications** of high quantity such as • Sleeping pills • Tranquilizers • Alcohol • Aspirin • Cosmetics 	➢ **Cardiovascular/Respiratory** • Chest or abdominal pain • Difficulty of breathing • Weakness • Uncontrollably restless and agitated
➢ **Poisoning through Household items** such as • Cleaning products • Pesticides • Batteries 	➢ **Gastrointestinal** • Nausea and vomiting • Diarrhea
➢ **Poisoning through touching** (Absorbed Poisons) such as • Certain plants such as Poison Ivy, Poison Oak, Poison Sumac and Black Henna. • Certain frogs and animals. 	➢ **Others** • Sweating • Burning /teary eyes/ blindness • Abnormal skin color • Burns around the lips, tongue or on the skin 
➢ **Poisoning through inhalation** of toxic fumes such as • Certain carbon monoxide from an engine or car exhaust • Strong paints and Glues • High content of chlorine in water • Drugs (crack cocaine) 	
➢ **Poisoning through bites and stings** of venomous creatures like • Insects like wasps, honeybee, fire ants, spiders, ticks, jelly fish and other marine creature	
➢ **Poisoning through injection** of drugs or medications injected with a hypodermic needle	

How to Manage?

If you suspect a person is poisoned, do the following

1. Check for scene safety and look out for the possible source of poisoning. Look out for odors, pills, venomous creature, any food items and drugs. This will help in administering the treatment more efficiently.
2. Check the person's level of consciousness and breathing. If conscious ask them about the kind of poisoning source.
3. If the poison / drug were consumed by the victim ask him/her about the type of drug, the quantity consumed and the time when it was consumed.
4. If the ingested poison is unknown and the person vomits, save some for analysis.
5. If the suspected poison is a household cleaner / medicine, read the container's label and follow instructions for accidental poisoning.
6. Have somebody gather all the pill bottles / containers with labels, and any other information about the poison to send along with the ambulance team
7. In case of poisoning through inhalation, do **not** try to rescue an unconscious person, where a highly toxic or unknown gas is involved, without a breathing apparatus / covering your nose and mouth. You may become a victim yourself. Avoid breathing the fumes.
8. If the victim is restless and gasping for breath then move him/her into fresh air as soon as possible. Try to calm the person and loosen any tight clothing around the neck.
9. Begin CPR if the person shows no signs of breathing.
10. In case of poisoning by touch, carefully remove contaminate clothing of the victim and wash the exposed areas with copious amounts of room temperature water.
11. Call the National Poison Control Center -Oman Hotline:

142- Consultation on Management of Poisoning

21- Information Request from Authorities

12. Follow the directions of the Poison Control Center.

Note:

- *The small, flat batteries used in watches and other electronic devices are dangerous to young children. A battery stuck in the esophagus can cause severe burns in as little as 2 hours. If you suspect that a child has swallowed a battery, immediately take him or her for an emergency X-ray to determine its location and to get it expelled from the body.*
- *Don't give syrup/tea of ipecac to induce vomiting as it can do more harm than good.*

15. Drowning

Drowning is a process resulting in primary respiratory impairment due to submersion/immersion in a liquid medium. A liquid interface is present at the entrance of the victim's airway, preventing the victim from breathing.

How to Manage?

1. **DO NOT** attempt to rescue a drowning person if you do not know how to swim or if the waters are strong and rough. Just call 9999 for help instead.
2. Alert someone else on the shore if you are swimming out to rescue the victim. Have them call 9999
3. Do not attempt a swimming rescue without a rescue buoy on hand; a drowning victim's first reaction will be to climb on top of you, so you'll need a flotation device to keep both of you safe and perform the rescue effectively.
4. If you are skillful in swimming, do the following:

- Approach the person from behind and grab him/her with one hand *(wrap your one arm under his armpit from behind in way that the victims head is above the water and rests over your shoulder).* If you have a rescue buoy instruct the victim to grab the buoy.
- Use your other hand to swim. Use the freestyle stroke.
- If you have special training, you can start rescue breathing while the victim is still in the water providing that it does not delay removing the victim from the water.
- Once out of the water, assess the victim's alertness and consciousness. Start CPR if victim becomes unconscious

- If alone, give 5 cycles of CPR (2 min), compressions and ventilations before activating emergency number 9999.
- Keep the person warm by removing wet clothing. Cover with warm blankets to prevent hypothermia.
- Stay with the person until professional help arrives.

5. If you're unable to reach the victim then, use a rope/ a long stick/ rod to pull the victim out from water.
6. If the victim fails to grab onto the rope, tie it around your waist and then head out to the victim with a rescue buoy. But remember to tie the rope to a firm surface/object and then proceed towards the victim.
7. Keep checking breathing, pulse and level of response until help arrives.

16. FRACTURE AND SPRAINS

Fracture refers to complete break or partial cracking of the bone due to falls, blow of an accident and forced twisting movement of limbs.

Sprains refer to internal tear of tissue (*ligaments*) that connect bones at a joint due to fall, twisting, or experiencing trauma to the joint.

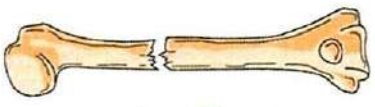
Strain is usually caused as the result of overstretching or overuse of muscles and tendons *(tissue attaching a muscle to a bone)*

Signs and Symptoms		
Fracture	**Sprain**	**Strain**
• Swelling or bruising over a bone • Deformity of an arm or leg • Pain in the injured area that gets worse with movement or when pressure is applied. • Bone grating. • Loss of function in the injured area. • Bone protruding from the skin	• Pain. • Swelling. • Bruising and swelling. • Difficulty of movement. • Coldness, numbness and tingling sensation in the injured area. • Feeling/hearing a "pop" in the joint at the time of injury.	• Sudden onset of pain • Stiffness • Soreness • Limited range of movement • bruising or discoloration • swelling • muscle spasms

Types of Fractures

- **Complete/Comminuted Fracture** -the bone snaps into two or more parts.
- **Incomplete/ Greenstick Fracture** - the bone cracks but does not break all the way through
- **Open/Compound Fracture** – the bone breaks through the skin bleeding it.
- **Closed/Simple Fracture** - the bone breaks/cracks but there is no open wound in the skin

Incomplete Fracture



Complete Fracture

Open Fracture

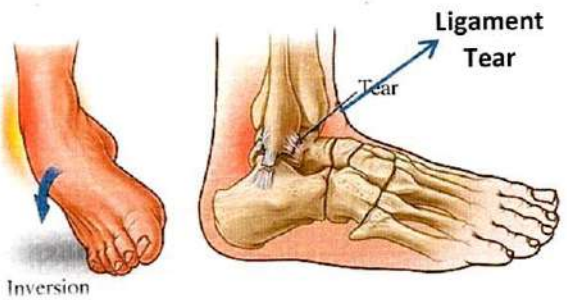
Closed Fracture

How to Manage?

FRACTURES

1. Assess the person's general condition including responsiveness and airway.
2. Calm the person. If the injury involves the head, neck or spine calls 9999 immediately.
3. If there is any bleeding, then contain it by applying pressure to the wound with a sterile bandage or a clean cloth.
4. Do not move or try to straighten the injured extremity to prevent further injury.
5. Immobilize the injured area by using splint or sling, limiting the pain and swelling.
6. Wrap ice pack (ice cubes in a piece of cloth) and apply it to the injured area for at least10 minutes at a time.
7. If an injured extremity becomes blue (cyanotic) or extremely pale, call 9999.
8. Facilitate safe and prompt transport.

SPRAINS AND STRAINS



1. Think P.R.I.C.E. for the first 48 hours after the injury.
2. **Protect:** Protect the injury from further damage using a sling or splint.
3. **Rest**: Rest and do not move the injured part until it's less painful.
4. **Ice:** Wrap an icepack or cold compress in a towel and place over the injured part immediately. Continue for no more than 20 minutes at a time, four to eight times a day.
5. **Compression:** Support the injured part with an elastic compression bandage for at least 2 days to help limit swelling and movement. However, it's recommended to take off your bandage when you sleep.
6. **Elevation:** Raise the injured part above heart level to decrease swelling.
7. Administer ibuprofen or acetaminophen for pain and swelling, provided that the patient is not allergic to it or has any contraindications with other medicines. *However it is recommended to consult a doctor for pain killers.*
8. Contact 9999 if:

- You're unable to bear weight on the injured limb, the joint(s) feels unstable or numb, or you can't move the limb. This might mean that a ligament might have completely torn off.
- You witness any redness, red or cyanotic streaks that spread out from the injured area.
- You experience pain directly over the bones of an injured joint.

Remember *that inadequate or delayed treatment might contribute to long-term joint instability and chronic pain.*

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Initial Campus at Birkat Al Mouz
P.O.Box 33, Postal Code 616
Nizwa,Sultanat of Oman
Tel.: 25446392-25446294, Fax.: 25446400

Health and Safety Office| hso@unizwa.edu.om, office extn: 636
Risk Management Office| rmo@unizwa.edu.om, office extn: 973

Appendix 2
Health and Safety Forms

Health & Safety Induction Workshop Checklist
(Visitors/ New Staff / Students For)
قائمة الورشة التعريفية للصحة والسلامة
(للزوار والطلاب والموظفين الجدد)

College/Center: المركز/الكلية:	**Laboratory/ Room No:** رقم المختبر/القاعة:		**Building No:** رقم المبنى:		
Inducted by: عمل بواسطة:	**Title:** الوظيفة:	**ID:**	**Sign:** التوقيع:		
Name: الاسم:	**Title:** الوظيفة:	**ID:**	**Sign:** التوقيع:		
Induction Workshop Date: تاريخ الورشة التعريفية:	**Induction workshop reason:** سبب الورشة التعريفية:				

For Students Only
للطلاب فقط

Course: المساق:	**Academic Supervisor:** المشرف الأكاديمي:

The induction workshop should be completed prior the commencement of visitor, staff or student at laboratory work. Tick off each action and sign when the induction workshop is completed.
يجب الانتهاء من ورشة العمل التعريفي قبل بدء الزائر أو الموظف أو الطالب في العمل المخبري. ضع علامة على كل إجراء ووقع عند الانتهاء من ورشة العمل التعريفي.

No	Description الوصف	Y نعم	N لا	N/A لا ينطبق	Remarks ملاحظات
1	**The University's Health and Safety Policies have been explained** تم شرح سياسات الصحة والسلامة بالجامعة				
2	**The procedures to follow on the vent of discovering a fire or hearing the fire alarm, including where the fire escape routes, fire exits are in the building & assembly point location have been explained** تم شرح الإجراءات التي يجب اتباعها عند اكتشاف حريق أو سماع إنذار الحريق، بما في ذلك أماكن طرق النجاة من الحريق ومخارج الحريق في المبنى وموقع نقطة التجمع؟				
3	**The location of nearest first aid box, eye wash, emergency shower, fire blanket and fire extinguishers have been explained** تم شرح مواقع أقرب صندوق إسعافات أولية، غسول العين، دش الطوارئ، بطانية الحريق وطفايات حريق				

4		**The procedure to report any or potential hazards have been explained** تم شرح إجراءات الإبلاغ عن أي حادث أو مخاطر محتملة				
5		**Dealing with hazardous substances and materials safety data sheets have been explained** تم شرح التعامل مع المواد الخطرة وبيانات سلامة المواد				
6		**Personal protective equipment (PPE) or other safety equipment types, use and storing have been explained** تم شرح انواع معدات الحماية الشخصية (PPE) أو أي معدات سلامة أخرى وكيفية استخدامها وتخزينها				
7		**The necessary personal protective equipment (PPE) has been provided** هل تم توفير معدات الحماية الشخصية الضرورية				
9		**The chemical waste disposal procedure and its potential hazards has been explained** تم شرح إجراءات التخلص من النفايات وخاطرها المحتملة				

General Laboratory Inspection Checklist
القائمة العامة لفحص المختبرات

General Information معلومات عامة			
Location/building number: رقم الموقع/المبنى:		**Inspection Date/Time:** تاريخ/وقت المعاينة:	
Floor Number: رقم الطابق:		**Room/Lab Number:** رقم القاعة/المختبر:	
Faculty/Office: الموظف/المكتب:		**Department/Unit:** القسم/الوحدة:	
Inspection Carried out by تم الفحص من قبل:			
Health and Safety Office مكتب الصحة والسلامة:		**Others** آخرين:	
Lab Superintendent/Technician مشرف/فني المختبر:		**Others** آخرين:	

No	Inspection Item: بنود الفحص:	✓ / × / NA	Observations and recommendations الملاحظات والتوصيات
	Procedures and forms الإجراءات والاستمارات		
1.	**Laboratory Health and Safety Manual** دليل الصحة والسلامة للمختبرات		
2.	**Equipment / apparatus handling procedures** إجراءات التعامل مع المعدات / الأجهزة		
3.	**Equipment, apparatus and materials borrowing procedures** إجراءات استعارة المعدات والأجهزة والمواد		
4.	**Chemicals inventory handling procedures** إجراءات التعامل مع مخزون المواد الكيميائية		
5.	**Lab technicians are aware of hazardous materials handling procedures** فنيي المختبرات على دراية تامة بإجراءات التعامل مع المواد الخطرة		
6.	**Machines and instruments emergency shutdown procedures** إجراءات إغلاق اللآلات والأجهزة في الحالات الطارئة		
7.	**Students / staff health and safety induction training** تعريف الطلاب / الموظفين عن إجراءات الصحة والسلامة		
8.	**Gas cylinders handling, transporting and storing procedure** إجراءات التعامل ونقل وتخزين أسطوانات الغاز		
9.	**Chemicals inventory list** قائمة مخزون المواد الكيميائية		
10.	**Equipment / apparatus inventory lists** قائمة مخزون المعدات والأجهزة		
11.	**Chemicals receiving form** استمارة استلام المواد الكيميائية		
12.	**Equipment / apparatus information form** استمارة بيانات المعدات والأجهزة		
13.	**Chemical spillage form** استمارة التسرب الكيميائي		

14.	**Calibration / maintenance form** استمارة المعايرة/الصيانة		
15.	**Breakage logbook form / logbook** استمارة /دفتر تسجيل الأدوات المكسورة		
16.	**Equipment / apparatus logbook** سجل المعدات والأجهزة		
17.	**Necessary Personal Protective Equipment logbook** سجل معدات الحماية الشخصية الضرورية		
18.	**Machines and instruments maintenance and repairs logbook** سجل صيانة وإصلاحات الآلات والاجهزة		
19.	**Laboratory personnel are trained to use the appropriate PPE** موظفو المختبر مدربون على استخدام معدات الوقاية الشخصية المناسبة		

	Laboratory Facilities مرافق المختبر		
20.	**Adequate lighting is available and regular inspection and maintenance is carried out** الإضاءة المناسبة متوفرة ويتم معاينتها وصيانتها بشكل منتظم		
21.	**Adequate air conditioning is available and regular inspection and maintenance is carried out** تكييف هواء المناسب متوفر ويتم معاينته وصيانته بشكل منتظم		
22.	**Adequate ventilation is available and regular inspection and maintenance is carried out** التهوية المناسبة متوفرة ويتم معاينتها وصيانتها بشكل منتظم		
23.	**Adequate housekeeping is ensured and regularly carried out** يتم إجراء التنظيف المناسب بانتظام		
24.	**Floors kept clean, dry, even and free from slip & trip hazards** الأرضيات نظيفة وجافة وخالية من مخاطر الانزلاق والتعثر		
25.	**Power points, light fittings and switches are in a safe place and free of defects?** جميع مآخذ الطاقة وتركيبات ومفاتيح الإضاءة في مكان آمن وخالية من العيوب		
26.	**Microwave ovens have warning "remove lids from containers?** أفران الميكروويف عليها علامة تحذير "يرجى إزالة الأغطية من الحاويات"		
27.	**Ovens have a warning sign about hot surface and not to touch** لأفران عليها علامة تحذير حول الاسطح الساخنة وعدم لمسها		
28.	**Hot plates have warning sign about hot surface and not to touch** اطباق التسخين الكهربية عليها علامة تحذير حول الاسطح الساخنة وعدم لمسها		
29.	**Noise levels are within acceptable limits** مستويات الضوضاء في الحدود المقبولة		
30.	**Equipment, power tools, extension leads, and power boards maintained in a safe operating condition (records kept)** يتم الاحتفاظ بالمعدات والأدوات الكهربائية وأسلاك التمديد ولوحات الطاقة في حالة تشغيل آمنة (يتم الاحتفاظ بالسجلات)		
31.	**There are adequate power outlets, the use of extension cords and power boards is controlled** توجد مآخذ طاقة مناسبة ويتم التحكم في استخدام أسلاك التمديد ولوحات الطاقة		

32.	**Adequate fume Hoods are available and regular inspection and maintenance is carried out** تتوفر أغطية دخان المواد الخطرة المناسبة ويتم إجراء الفحص والصيانة الدورية		
33.	**Lab washing basins connected to a designated sewage system** أحواض الغسيل في المختبر موصولة بنظام صرف صحي خاص		
34.	**PPE are available, in good condition and stored appropriately** معدات الحماية الشخصية متوفرة وفي حالة جيدة ومخزنة بشكل مناسب		
35.	**Outdoor gas cylinders are stored /secured properly and clearly labeled identifying their contents and risks** يتم تخزين/تأمين أسطوانات الغاز الخارجية بشكل صحيح ومعلمه ببيانات واضحة تحدد محتوياتها ومخاطرها		
36.	**Indoor Gas cylinders are stored /secured properly and clearly labeled identifying their contents** يتم تخزين/تأمين أسطوانات الغاز في داخل المبني بشكل صحيح ومعلمه ببيانات واضحة تحدد محتوياتها ومخاطرها		
37.	**Safety guards used on mechanical equipment where required** يتم استخدام شبك حماية للمعدات الميكانيكية عند الحاجة		
38.	**Emergency shutdown buttons are clearly visible and operational** مفاتيح الإيقاف الطارئ للمعدات واضحة وتعمل بشكل صحيح		
39.	**Workbench chairs are of appropriate height where sitting/standing work is performed** كراسي طاولات العمل ذات ارتفاع مناسب حيث يتم الجلوس / الوقوف		
40.	**No exposed wiring or damaged electrical cords** لا توجد أسلاك مكشوفة أو أسلاك كهربائية تالفة		
41.	**Lab UPS (uninterrupted power supply) units are will secured, cooled and ventilated** يتم تأمين وحدات UPS (إمداد الطاقة غير المنقطع) وتبريدها وتهويتها بشكل مناسب		
42.	**Emergency generators are will secured, cooled and ventilated** يتم تأمين مولدات الطوارئ وتبريدها وتهويتها بشكل مناسب		
43.	**Food and drinks stored and kept away from toxic and infectious materials** الأغذية والمشروبات مخزنه بعيدا عن المواد السامة والمعدية		

44.	**Refrigerators/freezers labeled either "Food & Drink Only" or "No Food & Drink** الثلاجات/المجمدات عليها عبارة "أطعمة ومشروبات فقط" أو عبارة "ليست للأطعمة والمشروبات"		
45.	**Availability of proper place for having food and rest** توفر مكان مناسب لتناول الطعام والراحة		
46.	**Appropriate radiation safety monitoring equipment is available and appropriate monitoring procedure in place** تتوفر معدات وإجراءات مناسبة لمراقبة السلامة الإشعاعية		
47.	**Adequate and sufficient radiation shielding & signage is provided** يتم توفير حماية ولافتات إشعاعية مناسبة		
48.	**Radioactive waste/storage procedures in place and adhered to** النفايات الاشعاعية المنتجة في المختبر تخزن وفقا للإجراءات المناسبة ويتم الالتزام بها		
49.	**All work surfaces cleaned & monitored after use of radioisotopes** يتم تنظيف جميع أسطح العمل ويتم مراقبتها بعد استخدام النظائر المشعة		

	Emergency facilities مرافق الطوارئ		
50.	**Emergency procedures are available & properly posted in the lab** إجراءات الطوارئ متوفرة وملصقة بشكل مناسب في المختبر		
51.	**Emergency exits are available and clearly marked and access available while lab is in use** مخارج الطوارئ متوفرة ومعلمه بشكل واضح والوصول إليها متاح أثناء استخدام المختبر		
52.	**Emergency evacuation path is properly labeled** مسار الإخلاء في حالات الطوارئ معلمه بشكل مناسب		
53.	**Lab technicians are aware of emergency evacuation procedure** فنيي المختبرات على دراية تامه بإجراءات الإخلاء في حالة الطوارئ		
54.	**Lab technicians are aware of designated assembly points location** فنيي المختبرات على دراية تامه بمكان نقاط التجمع الخاصة بالمبنى		
55.	**Fire alarm is attached with building drawing showing the fire alarm zones** إنذار الحريق مرفق مع رسم المبنى الذي يوضح مناطق إنذار الحريق في المبنى		
56.	**Emergency procedures for hazardous materials accidents are available and properly posted in the lab** إجراءات الطوارئ لحوادث المواد الخطرة متوفرة ومنشوره بشكل مناسب في المختبر		
57.	**Lab technicians are aware of emergency procedures for hazardous materials accidents** فني المختبر على دراية بإجراءات الطوارئ في حوادث المواد الخطرة		
58.	**Fire extinguishers, call points, emergency showers, eyewash, first aid kits and electrical panels are kept clear and accessible all time.** محيط طفايات الحريق ونقاط الاتصال ومسابح الطوارئ وغسول العيون وصناديق الإسعافات الاولية ومجمعات الكهرباء خالية من أي معوقات ويمكن الوصول اليها في آي وقت		
59.	**Proper assembly point available in case of emergency evacuation** وجود نقطة تجمع مناسبة في حالة الاخلاء الطارئ		

60.	**Firefighting system regularly tested, and report shared with HSO.** يتم فحص أنظمة مكافحة الحريق بشكل دوري ويتم مشاركة التقارير مع مكتب الصحة والسلامة		
61.	**Emergency showers and eye wash stations are regularly inspected** يتم معاينة مسابح الطوارئ وغسول العيون بشكل دوري		
62.	**Smoke and gas detecting devices and sprinkler systems are available and tested regularly** أجهزة تحسس الغازات والدخان ورشاشات المياه متوفره ويتم فحصها بشكل منتظم		
63.	**First Aid kit is available and regularly checked** صندوق الإسعافات الأولية متوفر ويتم فحصه بشكل دوري		
64.	**Fire extinguishers and fire blankets types list is available** قائمة بأنواع وعدد طفايات وبطانيات الحريق متوفرة		

	Lab chemical handling and storing التعامل مع المواد الكيميائية وتخزينها في المختبر		
65.	Safety manual for chemicals transportation, storing and handling is available. يتوفر دليل السلامة لنقل المواد الكيميائية وتخزينها ومناولتها		
66.	Chemicals Safety Data sheets are available for all chemicals (soft or hard copy) تتوفر أوراق بيانات سلامة المواد الكيميائية لجميع المواد الكيميائية (نسخة مطبوعة أو الكترونية)		
67.	A current inventory of chemicals used or stored in the lab is available يتوفر جرد حالي للمواد الكيميائية المستخدمة أو المخزنة في المختبر		
68.	Chemicals containers condition is acceptable and storing the right chemical حالة الحاويات الكيميائية مقبول ويتم تخزين الماد الكيميائية المناسبة فيها		
69.	Chemicals are dated upon receipt and opening المواد الكيميائية معلمه وفقا لتاريخ الاستلام وتاريخ الفتح		
70.	Chemicals are not used / stored beyond its expiration date المواد الكيميائية غير مستخدمه أو مخزنه بعد تاريخ انتهائها		
71.	Chemicals are segregated by compatibility in storing cabinets يتم فصل المواد الكيميائية حسب النوعية في أماكن التخزين		
72.	Empty containers are being properly disposed يتم التخلص من الحاويات الفارغة بشكل مناسب		
73.	Waste containers properly labeled with the words “Hazardous Waste” حاويات المخلفات الكيميائية معلمه بشكل مناسب بكلمة "مخلفات خطرة"		
74.	Waste storage areas are well designed as per standards مناطق تخزين المخلفات مصممه بشكل جيد وفقا للمعايير		
75.	Waste containers are free from damage, rust or leakage and labelled with accumulation start dates حاويات المخلفات خالية من الضرر والصدأ والتسرب ومعلمه بتاريخ بدأ التعبئة		
76.	Hazardous waste management system is available and revised periodically نظام إدارة المخلفات الخطرة متوفر ويتم مراجعته بشكل دوري		

77.	**Hazardous waste management system is clear and apply by all laboratory users** نظام إدارة المخلفات الخطرة واضح ويطبقه جميع مستخدمي المختبر		
78.	**Hazardous wastes are segregated at storing areas** يتم فصل النفايات الخطرة في مناطق التخزين		
79.	**Chemicals are kept at a storage area meeting the standards and regulations** المواد الكيميائية محفوظة في أماكن التخزين بشكل يراعي القوانين والانظمة		
80.	**Chemicals containers are labelled properly showing all necessary data** الحاويات الكيميائية مصنفة بشكل مناسب وتظهر كل المعلومات الضرورية		

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Personal Protective Equipment (PPE) Record List
سجل معدات الحماية الشخصية

Staff / Student Name: اسم الموظف/الطالب:	Title: الوظيفة:	College/ Center: الكلية/المركز:

Completion of this form will enable maintaining proper PPE record
إكمال هذه الاستمارة سوف يمكن من الاحتفاظ بسجل مناسب لمعدات الحماية الشخصية

Item of PPE معدات الحماية الشخصية	Type النوع	Date التاريخ	Sign التوقيع	Date التاريخ	Sign التوقيع	Date التاريخ	Sign التوقيع	Date التاريخ	Sign التوقيع
Coverall لباس كامل									
Lab coat معطف المختبر									
Gloves القفازات									
Safety Boot حذاء قدم									
Head Protection حماية الرأس									
Hearing Protection حماية السمع									
Eye Protection حماية العينين									
Mask الكمام									
Respiratory Protective Equipment حماية الجهاز التنفسى									
Other (Specify) أخرى (يرجى التحديد)									

The PPE user is responsible for its proper use, cleaning and storing, the PPE shall be returned if damaged for replacement/ repair
يتحمل مستخدم معدات الحماية الشخصية المسؤولية عن استخدامها وتنظيفها وتخزينها بشكل صحيح، ويجب إعادة معدات الحماية الشخصية في حالة تلفها للاستبدال / الإصلاح

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Chemical Inventory Form
استمارة جرد كميات المواد الكيميائية

College/Center: الكلية/المركز:	Department: القسم:	Laboratory/Room No.: رقم المختبر/الغرفة:	Building No.: رقم المبنى:

Chemical(s) Information
معلومات المواد الكيميائية

No.	Chemical Name اسم المادة الكيميائية	Qty. العدد	Unit الوحدة	Hazard Class نوع الخطر	Date Received تاريخ الاستلام	Date Expired تاريخ الانتهاء	Location الموقع	Responsible Person الشخص المسؤول	Supplier المزود
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Researcher / Technician Name / Signature: اسم وتوقيع الباحث/الفني:	Supervisor Name / Signature: اسم وتوقيع المشرف:

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Hazardous Waste Disposal Form
استمارة التخلص من النفايات الخطرة

College/ Center: الكلية/المركز:	Date: التاريخ:	Time: الوقت:	Laboratory/ Room No.: رقم المختبر:	Building No.: رقم المبنى:
Researcher / Technician Name: اسم الباحث/الفني:			Title: الوظيفة:	Mobile No.: هاتف:
Supervisor name: اسم المشرف:			Title: الوظيفة:	Mobile No.: هاتف:

Chemical(s) Information
معلومات المواد الكيميائية

No.	Contents المحتويات	Container Type نوع الحاوية				Qty. العدد	Unit الوحدة	Physical State الحالة الفيزيائية				Hazards Identity ماهية المخاطر							
		Plastic بلاستيكية	Glass زجاج	Metal معدنيه	Others أخرى			Solid صلب	Liquid سائل	Gas غاز	Others أخرى	Flammable قابل للاشتعال	Corrosive ماده أكله	Oxidizer مؤكسد	Toxic سام	Air/ Water reactive يتفاعل مع الماء/ الهواء	Biohazard خطر حيوي	Radioactive ماده مشعه	Other أخرى
1																			
2																			
3																			
4																			

Special handling instructions: تعليمات خاصه للمعالجة:

Researcher / Technician Sign.: توقيع الباحث/الفني:	Supervisor Sign.: توقيع المشرف:

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Chemical Spillage Form
استمارة تسرب كيميائي

Name/ Title: الاسم/الوظيفة:	ID No.: الرقم الجامعي:	Mobile No.: هاتف:	Sign.: توقيع:
College/ Center: الكلية/المركز:	Exact incident location: موقع الحادث بالتحديد:		
Supervisor Name/Title: اسم المشرف/الوظيفة:	ID No.: الرقم الجامعي:	Mobile No.: هاتف:	Sign.: توقيع:
Incident Date and time: تاريخ ووقت الحادث:		Reporting date and time: تاريخ ووقت التقرير:	
Reported by: كتب التقرير بواسطة:		Reported by: كتب التقرير بواسطة:	

Incident details: تفاصيل الحادث:

Is the incident work related: ☐ Y ☐ N هل الحادث مرتبط بالعمل ☐نعم ☐لا	Is medical attendance required: ☐Y ☐N provide details if yes: هل الحضور الطبي ضروري ☐نعم ☐لا، أكتب التفاصيل إذا كانت الإجابة نعم:

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Effects type
نوع التأثيرات

Contact with chemical ملامسة مواد كيميائية	Allergen exposure التعرض لمسببات الحساسية	Slip/Trip /Fall انزلاق/ تعثر/ سقوط	Eyes affected تأثر العين	Face affected تأثر الوجه	Hands affected تأثر اليدين	Feet affected تأثر الأقدام	Others أخرى

Chemicals involved in the incident
المواد الكيميائية المرتبطة بالحادث

No. رقم	Name/ Description: الاسم/الوصف:	Classification/ Type: التصنيف/النوع:	Quantity : الكمية:
1			
2			
3			

Precautions taken after the accidents: الاحتياطات التي تم اتخاذها بعد الحوادث:

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Emergency Shower and Eyewash Inspection Weekly Checklist
استمارة الفحص الاسبوعي الدش وغسل العين في الحالات الطارئة

College / Center: الكلية / المركز	Location: الموقع:

To be filled during inspection يتم ملؤها أثناء الفحص

Emergency shower دش الطوارئ				Eyewash غسل العين			
Date التاريخ	Inspected by تم الفحص بواسطة	Date التاريخ	Inspected by تم الفحص بواسطة	Date التاريخ	Inspected by تم الفحص بواسطة	Date التاريخ	Inspected by تم الفحص بواسطة

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Breakage Logbook Form
استمارة تسجيل الأدوات المكسورة

College/Center: الكلية/المركز:	Building No: رقم المبنى:	Laboratory/ Room No: رقم المختبر/القاعة:

SN الرقم	Item Broken الأدوات المكسورة	Broken By كسرت بواسطة	Title الوظيفة	Quantity Broken عدد الأدوات المكسورة	Incident Description وصف الحادث	Date التاريخ	Sign. التوقيع	Remarks ملاحظات
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

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Chemicals / Materials / Tools Borrowing Form
استمارة استعارة مواد كيميائية/مواد أخرى/أدوات

Borrowing College/ Center: كلية/مركز الاستعارة:			
Borrowing Name / Title: اسم المعير/الوظيفة:	**ID No.:** الرقم الوظيفي:	**Mobile No.:** هاتف:	**Sign.:** التوقيع:
Borrower College/ Center: كلية/مركز المستعير:			
Borrower Name / Title: اسم المعير/الوظيفة:	**ID No:** الرقم الوظيفي :	**Mobile No.:** هاتف:	**Sign.:** التوقيع:
Purpose of Borrowing: الغرض من الاستعارة:			
Borrowing Date: تاريخ	**Borrowing Time:** وقت	**Expected Return Date:** تاريخ الارجاع المتوقع:	

Chemicals / Materials / Tools Description
وصف المواد الكيميائية/المواد الأخرى/الأدوات

No	Description الوصف	Qty العدد	Unit الوحدة	Any special precautions أي احتياطات خاصه	Remarks الملاحظات
1					
2					
3					

Special handling instructions: تعليمات خاصه:

Returned by: أرجع بواسطة:	Condition: الحالة:	Received by: أستلم بواسطة:	Date: التاريخ:

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Minutes of Meeting
محضر اجتماع

Chaired by: برئاسة:	Attendees: الحضور:	
	1	
	2	
	3	
Meeting Agenda: جدول الأعمال:	4	
	5	
	6	
	7	

SN	Description الوصف	Action by بواسطة	Remarks الملاحظات
1			
2			
3			
4			
5			
6			
7			
8			

Prepared by: أعدت بواسطة:	Name الاسم	Title الوظيفة	Date التاريخ

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Buildings Health and Safety Inspection Form
استمارة صحة وسلامة المباني

Building Details
معلومات المبنى

Visit date: تاريخ الزيارة:		**Visit time:** وقت الزيارة:	
Building Type: نوع المبنى:	Temporary ☐ Fixed ☐ مؤقت ☐ دائم ☐	Owned by UoN: Y ☐ N ☐ ملك لجامعة نزوى: نعم ☐ لا ☐	
Building's Main Purpose Use: الغرض الأساسي من استخدام المبنى:	Acadimic ☐ أكاديمي Admin ☐ إداري Residential ☐ سكني Industrial ☐ صناعي Health Services ☐ خدمات صحية Commercial ☐ تجاري Warehouse ☐ مخازن Others ☐ أخرى		
Building No.: رقم المبنى:		**No. of Floors:** عددالطوابق:	**Building age:** عمر المبنى:
In-charge Department: الدائرة المسؤلة عن المبنى:			
Mobile No.: الهاتف:		**E-mail:** البريد الالكتروني:	

General Observations:

ملاحظات عامة:

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Description الوصف	Y نعم	N لا	N/A لا ينطبق	Remarks ملاحظات
Workplace مكان العمل				
Workplace not crowded مكان العمل غير مزدحم				
Employees working safely الموظفين يعملون بأمان				
Workplace clean and tidy مكان العمل نظيف ومرتب				
Air purity and ventilation is accepted نقاء الهواء والتهوية مقبولة				
There is no noise at the workplace لا يوجد ازعاج في مكان العمل				
There is no effect of smoking at Workplace لا يوجد أثر للتدخين في مكان العمل				
The floor is not slippery الأرضية ليست زلقه				
Adequate lighting at the workplace الإضاءة كافية في مكان العمل				
Hygiene items reserved securely مواد النظافة محفوظة بشكل آمن				
Health and Safety posters are available and adequate ملصقات الصحة والسلامة متوفرة وكافية				
Gas cylinders in a safe and secure place outside the building أسطوانات الغاز في مكان آمن خارج المبنى				

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Gas leak detecting and blocking devices available أجهزة كشف ومنع تسرب الغاز متوفرة				
First Aid box is available and staff aware of how to be used. حقيبة الإسعافات الأولية متوفرة ولدى الموظفين إدراك في كيفية استخدامها				
The offices spaces is as per health and safety standards				
The chairs and tables quality / design is according to the health and safety standards جودة وتصميم الكراسي والطاولات وفقا لمعايير الصحة والسلامة				
Is there a proper tool to take down materials from top surfaces? هل توجد أداة مناسبة لإنزال المواد من الأسطح المرتفعة؟				

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Emergency exits مخارج الطوارئ				
Enough Emergency Exits are available مخارج طوارئ متوفرة كافية				
Emergency Exits are illustrated with proper guidance. مخارج الطوارئ موضحه مع إرشادات مناسبة				
Emergency Exits Lights are available and work properly إضاءات مخارج الطوارئ متوفرة وتعمل بشكل مناسب				
Emergency Exits are not blocked مخارج الطوارئ غير مسدودة				
Exits overlooking to open area outside the building المخارج تطل علي أماكن مفتوحه خارج المبنى				
Assembly point is clear appropriately during emergencies نقطة التجمع واضحة بشكل مناسب أثناء حالات الطوارئ				
Evacuation area is clear and appropriate منطقة الإخلاء واضحة ومناسبة				
Fire Warden is available at the building and aware how to respond during emergency situations مشرف الطوارئ موجود في المبنى وعلى علم ودراية بأساليب الاستجابة في حالات الطوارئ				

Emergency warning System أنظمة الطوارئ				
Fire alarm system is available and frequently checked نظام انذار الحريق متوقر ويتم تفقده بشكل متكرر				
Building zones drawing is available near the fire alarm system مخطط المبنى متوفر بالقرب من نظام انذار الحريق				
Smoke / Heat detectors are available and functioning properly كواشف الدخان والحريق متوفرة وتعمل بشكل مناسب				
Evacuation plan is clear and published خطة الإخلاء واضحه ومنشوره				
Employees are familiar with the evacuation plan and know their responsibilities in case of emergency الموظفين على دراية بخطة الإخلاء ومسؤولياتهم في حالة الطوارئ				

Firefighting system أنظمة مكافحة الحريق				
Fire extinguishers are properly displayed and easily accessed. طفايات الحريق مركبة في مكان مناسب ويسهل الوصول إليها				
Fire extinguishers are periodically checked يتم فحص طفايات الحريق بشكل دوري				
Number and type of fire extinguishers is adequate عدد ونوع طفايات الحريق كافية				
Number of fire blankets is adequate عدد بطانيات الحريق كافية				
Number and type of sand-buckets is adequate عدد ونوع سطل الرمل كافية				
Number and type of smoke detectors is adequate عدد ونوع كواشف الدخان كافية				
Firefighting network has independent power source / Diesel pump نظام مكافحة الحريق موصول بمصدر طاقه مستقل/مضخة ديزل				
Firefighting network has its own water tanks that filled with water نظام مكافحة الحريق موصوله بخزانات مياه خاصه ومملوءة بالمياه				
Firefighting network periodically checked يتم فحص شبكات مكافحة الحريق بشكل دوري				
Firefighting network working efficiency and start automatically during emergency تعمل شبكات مكافحة الحريق بشكل فعال وتبدأ تلقائيا أثناء الطوارئ				
There is an automated sprinkler system يوجد نظام رش تلقائي				

Electrical safety **السلامة الكهربائية**				
Electrical appliances and network are frequently inspected and maintained يتم فحص وصيانة الأجهزة والشبكات الكهربائية بشكل منتظم				
Electrical outlets are not overloaded المآخذ الكهربائية غير محملة بشكل زائد				
Wires and cable are well secured and not placed in walking passages الاسلاك والوصلات الكهربائية مركبة بشكل آمن وغير موضوعه علي الممرات				
Earthing is applied properly to all electrical appliances. التأريض مركب في جميع الأجهزة الكهربائية				
Is switching off appliance not in use policy practiced هل يتم تطبيق سياسة إطفاء الأجهزة الكهربائية الغير مستخدمه؟				
Building structure condition **حالة هيكل المبنى**				
Cracks / damage in the walls and columns شقوق/أضرار في الجدران والأعمدة				
Cracks / damage in the ceiling شقوق/أضرار في السقف				
Water leakage inside the building تسرب مياه داخل المبنى				
Water leakage in building ceiling تسرب مياه داخل سقف المبنى				
Water leakage in surrounding area to the building تسرب مياه في المناطق المحيطة بالمبنى				
The building surrounding is regularly cleaned and tidy يتم تنظيف محيط المبنى بشكل مستمر				

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Reported by: كتب بواسطة:	**Title:** الوظيفة:	**Sign.** التوقيع:	**Date:** التاريخ:
Attended by: بحضور:	**Title:** الوظيفة:	**Sign.** التوقيع:	**Date:** التاريخ:
Attended by: بحضور:	**Title:** الوظيفة:	**Sign.** التوقيع:	**Date:** التاريخ:
HSO representative: ممثل مكتب الصحة والسلامة:	**Title:** الوظيفة:	**Sign.** التوقيع:	**Date:** التاريخ:

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Emergency / Fire Evacuation Mock Drill Report
تقرير تمرين الإخلاء في حالات الطوارئ/الحريق

Date of Report: تاريخ التقرير:	**Reported By:** كتب التقرير بواسطة:
Date of evacuation Drill: تاريخ التدريب:	**Time:** الوقت:
Building/s No.: رقم المبنى / المباني:	**Department:** الدائرة:

Personnel who participated: الأشخاص المشاركين:

1.
2.
3.
4.
5.

Was an alarm sounded for the drill? هل تم إطلاق انذار الحريق؟ Y نعم / N لا	**Was an evacuation of these areas completed?** هل تم إخلاء المكان بالكامل؟ Y نعم / N لا
Which areas of the facility were affected? أي مناطق المنشأة تأثرت؟	**If an evacuation was not completed, explain why.** إذا لم يتم الإخلاء، اشرح لماذا

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Effectiveness of the Drill فعالية التمرين	Satisfactory مقبول	Unsatisfactory غير مقبول	Explain why لماذا
1. Personnel response ١. إستجابة المشاركين في التمرين			
2. Occupant/visitor response ٢. إستجابة الموظفين والزائرين			
3. Personnel familiar with duties ٣. دراية المشاركين بالواجبات			
4. Effectiveness of procedures ٤. فعالية الإجراءات			
5. Speed of Evacuation ٥. سرعة الاستجابة للإخلاء			
6. Communication during drill ٦. التواصل أثناء الإخلاء			
7. Personnel familiarity with protection systems ٧.دراية المشاركين بأنظمة الحماية			

	Mock drill supervised by: التمرين تحت اشراف:	Position الوظيفة:	Signature التوقيع:
1			
2			
3			
4			
5			
6			

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For Health and safety office use

لاستخدام مكتب الصحة والسلامة فقط

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First Aid Kit Quarterly Inspection Form
استمارة الفحص الربع سنوي لصندوقك الإسعافات الأولية

Location:	الموقع:	**First Aid Kit Size:**			حجم حقيبة الإسعافات الأولية:
Managed by:	تدار من قبل :	**Title:**	الوظيفة:	**Mobile No.:**	الهاتف:
Inspection Date/Time: / /	تاريخ/وقت الفحص:	**Inspected by:**	تم الفحص بواسطة:	**Sign.:**	التوقيع:
Name/Title:					الاسم/الوظيفة:

Description (to be filled during inspection)
الوصف (يتم ملؤها أثناء الفحص)

No	Description الوصف	Q -1	Q -2	Q -3	Q-4	Remarks الملاحظات
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						

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Health and Safety Incident Report Form

استمارة الإبلاغ عن حوادث الصحة والسلامة

About the Incident عن الحادث						
Name of person reporting the incident: اسم الشخص المبلغ عن الحادث:						
Department: القسم:		**Contact details:** تفاصيل التواصل:	**E-mail:** البريد الإلكتروني:			
			Mobile: الهاتف:			
Date incident reported: تاريخ البلاغ عن الحادث:			**Time reported:** وقت البلاغ:		**AM / PM**	
Date of incident took place: تاريخ وقوع الحادث:			**Time of Incident:** وقت وقوع الحادث:		**AM / PM**	
Location: الموقع:						
What was being done at the time of the incident: نوع العمل أثناء وقوع الحادث:						

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What happened: Continue on a separate sheet if necessary. Include anything that may have contributed to the incident. **تفاصيل الحادث: "كتابة كل التفاصيل وايمكن لاستمرار في ورقة أخرى عند الحاجة**	
Injuries / illness/ damages details: **تفاصيل الإصابات/المرض /التلف:**	

About the person/s affected

تفاصيل الشخص / الأشخاص المصاب أو المتاثر

Full Name: **الاسم الكامل:**				
Address: **العنوان:**				
Contact details: **تفاصيل التواصل:**	**E-mail:** **البريد الإلكتروني:**		**Mobile:** **الهاتف:**	
Department: **القسم:**			**Position:** **الوظيفة:**	
Age: **العمر:**			**Gender:** **الجنس:**	☐ Male ☐ Female
Status: **الوضع الحالي:**	☐ Student طالب	☐ Staff موظف	☐ Contractor متعاقد	☐ Visitor زائر
If contractor: Employer's name: **إذا كنت متعاقد، اسم الشركة:**				

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Witness details تفاصيل الشهود		
	Name: **الاسم:**	**Contact details:** **تفاصيل التواصل:**
1		
2		
3		
4		
5		

First Aid details (Attended First Aider should complete this section) معلومات الإسعافات الأولية (لاستخدام المسعفين)			
First aid provided: **هل تم توفير الإسعافات الأولية:**	Yes ☐ No ☐ نعم لا	**Time of attendance:** **وقت الحضور:**	
Details: **التفاصيل:**			
Name of First Aider: **اسم المسعف:**		**Sign.:** **التوقيع:**	

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Post incident action الإجراءات بعد الحادث				
What happened to the injured person afterwards: ماذا حدث للمصاب بعد وقوع الحادث:				
Went home	Taken directly to hospital ☐	Returned back to work/study ☐ عاد إلى الدراسة/العمل	ذهب للمنزل	أخذ للمستشفى ☐
Actions taken to avoid similar incidents in the future **الإجراءات المتخذة لتجنب حوادث مشابهه في المستقبل**				
Report written By **كتب التقرير بواسطة**				
Name: **الاسم:**				
Department: **القسم:**		**Title:** **الوظيفة:**		
mail:-E **البريد الالكتروني:**		**Mobile:** **الهاتف:**		
Sign.: **التوقيع:**		**Date:** **التاريخ:**		

Observations and Recommendations الملاحظات والتوصيات

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Office of Health and Safety

Health and Safety Suggestions Form
استمارة اقتراحات الصحة والسلامة

To submit a safety suggestion or report unsafe acts or condition at workplace, please complete this form and forward it to the Health and Safety Office and copy your direct supervisor (if necessary).

لتقديم اقتراح أو الإبلاغ عن أفعال أو ظروف غير آمنة في مكان العمل ، يرجى إكمال هذا النموذج وإرساله إلى مكتب الصحة والسلامة ونسخه إلى مشرفك المباشر (إذا لزم الأمر).

Name: الاسم:			Title: الوظيفة:		
College/Centre: الكلية/المركز:		Contact التواصل	E-mail: البريد الإلكتروني:		
Department: القسم:			Mobile: الهاتف:		
Date Reported: تاريخ التقرير:		Time reported: وقت التقرير:			AM / PM
Location: الموقع:					
Suggestion / Observation Statement: الاقتراحات/الملاحظات:					

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Recommendations:				التوصيات:
Has the direct supervisor been copied هل تم إبلاغ المشرف المباشر	☐ **Yes** نعم ☐ **No** لا	**If yes,** إذا كانت الإجابة نعم	**Supervisor's name:**	اسم المشرف:
			Supervisor's Designation:	معاينة المشرف:

For Health and Safety Office

لاستعمال مكتب الصحة والسلامة

Received by: استلم بواسطة:			**Date:**	التاريخ:
Contact details: معلومات التواصل:	**E-mail:** البريد الإلكتروني:		**Mobile:** رقم الهاتف:	
Title: الوظيفة:			**Sign.:** التوقيع:	

Action to be taken to implement the suggestion or correct the unsafe condition/ action: الإجراء المتخذ لتنفيذ الاقتراح او تصحيح الوضع / التصرف الغير آمن:

Involved Departments: الأقسام المعنية:

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Office of Health and Safety

Health and Safety Training Request Form
استمارة طلب ورشة تدريبية في مجال الصحة والسلامة

(To submit health and safety training request, please complete this form and forward it to the health and safety office and copy your direct supervisor (if necessary
لتقديم طلب تدريب في مجال الصحة والسلامة، يرجى ملء هذا النموذج وإرساله إلى مكتب الصحة والسلامة ونسخة إلى مشرفك المباشر (إذا لزم الأمر)

Name: الاسم:			**Title:** الوظيفة:		
College/Centre: الكلية/المركز:			**E-mail:** البريد الإلكتروني:		
Department: القسم:			**Signature:** التوقيع:		
Training subject: موضوع التدريب:		**Proposed training date** تاريخ التدريب المقترح		**Participants number** عدد المشتركين	
Training workshop objectives: أهداف ورشة التدريب:					

For Health and Safety Office Use لاستخدام مكتب الصحة والسلامة			
Training resources and instructor are available تتوفر موارد التدريب والمدرب	☐ Yes نعم ☐ No لا	**If yes,** إذا كانت الإجابة نعم	**Instructor name:** اسم المدرب : **College / Center :** الكلية / المركز :
Training resources and instructor are outsourced يتم الاستعانة بمصادر خارجية للتدريب	☐ Yes نعم ☐ No لا	**If yes,** إذا كانت الإجابة نعم	**Instructor name:** معهد التريب : **Training Institute:**
Training charges: رسوم التدريب:			
Future Observations and Recommendations الملاحظات والتوصيات المستقبلية			