



**British Applied College**  
الكلية التطبيقية البريطانية

# Laboratory and Workshop Safety Manual

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# 1. Introduction to BACU Laboratories

## 1.1 Workshops and Laboratories

BACU provides a wide range of workshops and laboratories to support hands-on learning, research, and innovation. These facilities are equipped with state-of-the-art equipment, adhering to strict safety standards and operational guidelines to ensure a safe and effective learning environment for students, staff, and visitors.

### Safety Features and Protocols in Workshops and Laboratories

#### 1. General Safety

- Mandatory induction and periodic training for all users.
- Displayed safety instructions and operating manuals.
- Emergency exits and fire extinguishers readily accessible.

#### 2. Personal Protective Equipment (PPE)

- Availability of gloves, goggles, helmets, and lab coats.
- Strict enforcement of PPE usage during operations.

#### 3. Hazardous Material Management

- Separate storage areas for flammable and reactive materials.
- Regular inspections and updates to Material Safety Data Sheets (MSDS).

#### 4. Emergency Equipment

- Eyewash stations and safety showers in labs handling chemicals.
- First aid kits and emergency stop systems for equipment.

#### 5. Environmental Controls

- Ventilation systems in labs handling fumes or dust.
- Noise control measures in workshops like machine shops and welding labs.

#### 6. Regular Maintenance and Inspections

- Scheduled maintenance for all equipment to ensure operational safety.
- Documentation of inspection reports and maintenance logs.

**Below is an overview of the laboratories available at BACU:**

## 1.2 Machine Shop

A fully equipped workshop providing students the opportunity to work on manufacturing processes such as turning, milling, drilling, and grinding. The machine shop emphasizes safety, precision, and skill development in handling mechanical tools. Students get the training in various aspects including :

- Skills Development: Mastery of manufacturing techniques such as turning, milling, drilling, and grinding.
- Safety Awareness: Understanding of machine safety protocols, proper tool handling, and emergency procedures.
- Precision Engineering: Techniques for achieving high precision in machining processes.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.

- Hazard identification and risk assessment to ensure a safe working environment.

Figure 01: Machine shop facility at BACU

### 1.3 Strength of Materials Lab

This lab allows students to analyze and test material properties like tensile strength, elasticity, and hardness. The experiments focus on understanding material behavior under various loads and stresses. v Students get the training in various aspects including :

- Material Testing: Analyze mechanical properties like tensile strength, elasticity, and fracture toughness.
- Load Behavior: Understanding how materials react under various loads and stresses.
- Failure Analysis: Identifying material failure points and their causes

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

Figure 02: Strength of materials facility at BACU

### 1.4 Soil Mechanics Lab

Dedicated to geotechnical studies, this lab enables students to evaluate soil properties such as permeability, shear strength, and compaction. It supports practical learning in civil engineering applications.

### 1.5 Geotechnical Lab

Complementing the Soil Mechanics Lab, this facility focuses on advanced testing of soil and rock behavior for construction and infrastructure projects, including triaxial testing and consolidation tests. Students get the training in various aspects including :

- Soil Evaluation: Learn to assess soil properties such as permeability, shear strength, and compaction.
- Foundation Design: Practical understanding of soil behavior for construction applications.
- Safety Protocols: Ensuring safe handling of equipment and samples during experiments.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.

- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

Figure 03: Geotech facility at BACU

## 1.6 Fluid Machinery and Hydraulics Lab

This lab is designed to demonstrate the principles of fluid mechanics and hydraulic machinery. Students can work with pumps, turbines, and flow measurement devices to understand fluid dynamics in engineering systems. Students get the training in various aspects including :

- Fluid Dynamics: Understanding fluid flow properties and their applications in engineering.
- Machinery Testing: Hands-on experience with pumps, turbines, and flow measurement devices.
- Risk Mitigation: Identifying potential hazards in hydraulic systems and implementing control measures.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

Figure 04 : Fluid Machineries testing facility at BACU

## 1.7 Applied Thermodynamics Lab

Equipped with heat exchangers, boilers, and air-conditioning systems, this lab provides practical exposure to thermodynamic principles and energy systems in mechanical engineering. Students get the training in various aspects including :

- Energy Systems: Study of heat transfer, energy conversion, and thermodynamic cycles.
- Efficiency Analysis: Evaluating the efficiency of thermodynamic systems.
- Safety Measures: Adhering to safety standards when working with high-temperature and pressurized systems.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

Figure 05 : Applied thermodynamics facility at BACU

## 1.8 Additive Manufacturing Lab (3D Printing)

This cutting-edge facility introduces students to modern manufacturing techniques using 3D printers. The lab focuses on rapid prototyping and innovative design solutions. Students get the training in various aspects including :

- Innovative Design: Creating complex geometries using 3D modeling software.
- Material Usage: Learning about different materials used in 3D printing, including hazardous ones like resins.
- Safety Precautions: Handling equipment safely and understanding proper ventilation requirements.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

## 1.9 Nondestructive Testing (NDT) Lab

The NDT Lab trains students in evaluating material integrity using methods like ultrasonic testing, radiography, and magnetic particle inspection, ensuring quality control without damaging components. Students get the training in various aspects including :

- Inspection Techniques: Training in methods like visual inspections, rebound hammer test, ultrasonic, magnetic particle testing and Dye penetration test.
- Safety Protocols: Managing exposure risks when using radiographic equipment.
- Quality Assurance: Identifying defects without damaging materials.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

## 1.10 Robotics and Control Systems Lab

This lab provides students with the opportunity to work on cutting-edge robotic systems and control mechanisms. The facility is equipped with robotic arms, sensors, actuators, and control boards to help students develop skills in automation, kinematics, and dynamic control systems. Students get the training in various aspects including :

- Automation Skills: Programming and controlling robotic systems.
- Sensor Integration: Learning about sensors and actuators in robotic applications.



- Safety in Automation: Implementing fail-safes and ensuring safe operation of robots and machinery.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

### 1.11 Electrical and Electronics Lab

A versatile lab designed for students to understand the principles of electrical and electronic systems. It is equipped with oscilloscopes, multimeters, circuit boards, and testing equipment, allowing practical learning in circuit design, microcontrollers, and electrical systems analysis. Students get the training in various aspects including :

- Circuit Design: Building and testing electrical circuits.
- Equipment Safety: Learning safe practices when working with high-voltage systems.
- Troubleshooting: Diagnosing and fixing electrical and electronic malfunctions.

Students will also develop an understanding of:

- Proper use of Personal Protective Equipment (PPE) such as gloves, goggles, and aprons.
- Emergency protocols, including handling chemical spills, fire, and equipment malfunctions.
- Hazard identification and risk assessment to ensure a safe working environment.

### 1.12 Computer Lab

A fully functional lab equipped with high-performance computers and software tools for engineering analysis, simulations, and design, supporting courses in CAD, computational mechanics, and programming. Students get the training in various aspects including :

- Mastery of programming languages such as Python, Java, C++, or other relevant languages.
- Hands-on coding experience for solving real-world problems and building software applications.
- Understanding the software development lifecycle (SDLC), including design, implementation, testing, and deployment.
- Working with integrated development environments (IDEs) and debugging tools.
- Designing, querying, and managing databases using tools like SQL and NoSQL systems.
- **Electrical Safety:** Handling lab equipment such as computers, routers, and servers safely to avoid electrical hazards.
- **Data Security:** Understanding ethical practices in data management and cybersecurity.
- Ergonomics: Maintaining proper posture and using ergonomic tools to prevent strain and injury during long lab sessions.
- **Hardware Safety:** Handling sensitive hardware components (e.g., CPUs, motherboards) with care to prevent damage or accidents.

## 1.13 Highway and Surveying Lab

The Highway and Surveying Lab at BACU provides a practical learning environment for students to understand the principles of road construction, traffic management, and land surveying. Equipped with state-of-the-art instruments such as total stations, theodolites, GPS devices, and testing equipment for pavement and soil analysis, this lab bridges the gap between theoretical knowledge and real-world applications.

## 2. Legal Requirements as per UAE Regulations for Health and Safety

The UAE has established stringent health and safety laws to ensure the well-being of individuals in workplaces, educational institutions, and public spaces. The regulations are governed by several federal and local entities, including the Ministry of Human Resources and Emiratisation (MOHRE) and the Abu Dhabi Occupational Safety and Health Center (OSHAD). Key legal requirements include:

### **Federal Law No. 8 of 1980 (Labour Law):**

- Mandates employers to ensure the safety of employees at the workplace by implementing risk mitigation measures.
- Requires provision of safety equipment and training to prevent workplace accidents.

### **OSHAD-SF (Abu Dhabi Occupational Safety and Health System Framework):**

- Applies to all public and private organizations in Abu Dhabi.
- Focuses on the implementation of occupational health and safety management systems.

- Includes detailed guidelines for hazard identification, risk management, and emergency response planning.

#### **UAE Fire and Life Safety Code of Practice:**

- Specifies fire safety requirements for buildings, including installation of firefighting equipment, evacuation plans, and regular fire drills.

#### **Federal Law No. 24 of 1999:**

- Governs the handling and disposal of hazardous materials, ensuring environmental safety and protection.

#### **Health, Safety, and Environmental Regulations by Free Zones:**

- Free zone authorities have their own health and safety regulations, which complement federal and emirate-level laws.

## 2.1 Emergency Contact Numbers in the UAE

### **Police: 999**

When contacting the police in emergencies such as crimes or traffic accidents, communicate the following:

- Nature of the Emergency: Describe the incident (e.g., theft, car accident, or suspicious activity).
- Location: Provide the exact address or prominent landmarks.
- Description of the Situation: Include details like the number of people involved.
- Injuries or Medical Emergencies: Specify if anyone is hurt.
- Safety Concerns: Mention any immediate dangers.
- Your Contact Information: Share your phone number for follow-up.
- Follow Instructions: Adhere to guidance from the dispatcher.

### **Civil Defense: 997**

For fire emergencies, provide the following:

- Location of the Incident: Precise address or landmark.
- Type of Building: Residential, commercial, or industrial.
- Extent of the Fire: Visible flames, smoke, or explosions.
- Safety Hazards: Presence of flammable materials or gas cylinders.
- Injuries or Trapped Individuals: Specify if anyone is in danger.
- Evacuation Status: Indicate if people have been evacuated.
- Contact Information: Provide your details for follow-up.
- Follow Instructions: Act on the advice given by Civil Defense.

### **Ambulance: 998**

In medical emergencies, relay the following:

- Location of the Incident: Exact address or landmark.
- Nature of the Emergency: Type of medical condition or injury.
- Number of Casualties: Indicate how many people need assistance.
- Medical Information: Mention known medical conditions or medications.
- Safety Hazards: Describe any threats in the environment.
- Access to the Scene: Note if roads are blocked or restricted.
- Assistance Needed: Specify required resources like stretchers or oxygen.
- Contact Information: Share your phone number.

Follow Instructions: Comply with dispatcher directions. Certainly! When calling the police, civil defense and ambulance in an emergency situation, it's crucial to communicate the following information step by step:

POLICE: 999	CIVIL DEFENSE: 997	AMBULANCE: 998
<ul style="list-style-type: none"> <li>a. Nature of the Emergency</li> <li>b. Location</li> <li>c. Description of the Situation</li> <li>d. Injuries or Medical Emergencies</li> <li>e. Safety Concerns</li> <li>f. Your Contact Information</li> <li>g. Follow Instructions</li> </ul>	<ul style="list-style-type: none"> <li>a. Location of the incident</li> <li>b. Type of Building</li> <li>c. Extent of the Fire</li> <li>d. Safety Hazards</li> <li>e. Injuries or Trapped Individuals</li> <li>f. Evacuation Status</li> <li>g. Contact Information</li> <li>h. Follow Instructions</li> </ul>	<ul style="list-style-type: none"> <li>a. Location of the Incident</li> <li>b. Nature of the Emergency</li> <li>c. Number of Casualties.</li> <li>d. Medical Information</li> <li>e. Safety Hazards.</li> <li>f. Access to the Scene</li> <li>g. Assistance Needed</li> <li>h. Contact Information</li> <li>i. Follow Instructions</li> </ul>

Having the BACU Safety Manual accessible through Moodle, the library, and the website ensures all stakeholders can familiarize themselves with emergency procedures and contact details.

## 2.2 Orientation and Periodic Training for the Student, Faculties, and Administration staff

At BACU, we recognize the importance of ensuring that all students, staff, and stakeholders are well-prepared to contribute to a safe, inclusive, and supportive campus environment. Orientation and periodic training programs are designed to equip everyone with the knowledge and skills required to handle various situations effectively, while promoting a culture of safety and respect across campus.

### ➤ **New Student Orientation:**

**Objective:** To ensure all incoming students are familiar with BACU's safety policies, resources, campus facilities, and the support systems available to them.

### Components of the Orientation Program:

- **Campus Safety and Security Overview:** Students are introduced to emergency procedures, evacuation routes, and key safety protocols, including fire safety, medical emergencies, and building-specific evacuation plans.
- **Inclusion and Accessibility:** Special emphasis is placed on the facilities and services available to students with special needs, ensuring they are aware of accessible routes, assistive technology, and the support services available.
- **Student Code of Conduct and Policies:** New students receive comprehensive information on BACU's policies regarding safety, academic integrity, behavior expectations, and guidelines for using campus facilities, including IT resources and laboratories.
- **Health and Wellbeing Resources:** Information on available health and counseling services, including mental health support, is provided to ensure students' emotional and psychological well-being.
- **Security Awareness:** Students are educated on personal safety measures, crime prevention strategies, and how to report incidents to campus security.

#### ➤ Staff and Faculty Orientation:

**Objective:** To ensure new faculty and staff members are well-prepared to work in an environment that prioritizes safety, inclusivity, and compliance with regulatory requirements.

### Components of the Orientation Program:

- **Health and Safety Training:** All staff are trained in BACU's health and safety policies, including fire safety procedures, emergency response protocols, first aid, and handling hazardous materials (in laboratories and workshops).
- **Disability Awareness and Inclusion:** Training sessions cover the policies and procedures related to special needs students, ensuring staff understand their responsibilities in providing an inclusive environment.
- **Security and Emergency Protocols:** Staff are provided with detailed training on responding to emergencies, including how to assist students, visitors, and colleagues during evacuations, medical emergencies, or security threats.
- **IT and Data Privacy Training:** Faculty and administrative staff are given a thorough briefing on the responsible use of IT resources, data protection laws, and safeguarding student information.
- **Code of Conduct and Ethics:** Staff are introduced to the institution's ethical guidelines and behavior expectations to maintain a professional and safe learning environment.

#### ➤ Periodic Training Programs for Students and Staff:

**Objective:** To ensure ongoing awareness and compliance with BACU's safety, health, and emergency protocols, while keeping everyone updated on new policies, technologies, and best practices.

### Key Elements of Periodic Training:

- **Emergency Drills and Evacuation Exercises:** Regular fire drills and other emergency response exercises are conducted, ensuring all campus members, including students, staff, and visitors,

know how to respond in case of an emergency. These drills are scheduled at least twice a year to ensure effectiveness.

- **Health and Safety Refresher Courses:** Staff and faculty are encouraged to attend annual refresher courses on health and safety, focusing on the latest developments in workplace safety, first aid, fire safety, and the handling of hazardous materials.
- **Inclusive Practices and Sensitivity Training:** Periodic workshops are organized to promote awareness of inclusion, diversity, and sensitivity toward students with disabilities or other special needs, reinforcing BACU's commitment to an accessible environment.
- **Mental Health and Wellbeing Training:** As part of BACU's commitment to mental health, periodic training is offered to staff and students on recognizing signs of mental health distress and the procedures for providing support and seeking professional help.
- **Data Security and Cyber Hygiene:** Ongoing workshops ensure that both students and staff are up to date with best practices in cybersecurity, including safe use of online tools, data protection, and how to avoid digital threats.

## 3. Roles and Responsibilities for Ensuring Safety

### 3.1 Reporting Incidents

Incidents can occur anytime and anywhere inside the campus, ranging from minor to severe. The College has established procedures to ensure the safety and well-being of all individuals on campus. Not all incidents cause physical injury, but it's essential to know which ones need reporting.

#### ➤ What Incidents Should Be Reported?

A formal report is required for any event or occurrence at the College that:

- Causes harm or injury to a student, staff member, or visitor (an 'accident').
- Does not directly cause harm or injury but could have at another time ('near misses').
- Causes damage to the College's physical structure, site, or assets.
- Any kinds of threat or hazard.

#### ➤ Who Reports Incidents and How?

Incidents should be reported immediately or as soon as possible using the Incident Report Form. The following parties are responsible for reporting:

1. Anyone who witnessed the event or occurrence.
2. Anyone with direct information from a witness to the incident.

Information should be shared with the engineering and security teams to raise an incident report with accurate details. This helps in devising action plans and mitigation strategies to prevent and control future occurrences.

Emergency contact numbers are posted in every building, located in the corridors and near the main entrance and exit doors of BACU in case to report or inform any emergency situation.



Figure 06 : Emergency reporting contact numbers in BACU laboratories Corridors

**Note:** In any emergency, it is important to inform the relevant person directly. For medical emergencies, contact the Nurse immediately. For all other emergencies, contact the Health and Safety Officer directly, numbers are available on every building corridor.

Additionally, in all cases, including incidents, accidents, property damage, or other emergencies, the Student Affairs Department must be informed.

**Note:** In any emergency, it is important to inform the relevant person directly. For medical emergencies, contact the Nurse immediately. For all other emergencies, contact the Health and Safety Officer directly, numbers are available on every building corridor.

Additionally, in all cases, including incidents, accidents, property damage, or other emergencies, the Student Affairs Department must be informed.

## 3.2 Duties and Responsibilities in Case of Transportation Accidents

### Students/Passengers

Follow the driver's instructions during and after the accident. Remain calm and move to a safe location if required. Report injuries or observations to emergency responders (call- 999/998) or institutional representatives. Do not interfere with rescue operations or tamper with evidence at the accident site.

### Transportation Team/Driver

Stop the vehicle immediately and turn on hazard lights. Ensure the safety of passengers by guiding them to a secure area, away from traffic. Report the accident to the police and the institution's management. Cooperate with authorities by providing accurate details of the incident. Adhere to UAE traffic regulations and avoid tampering with the accident site unless safety demands it.

### Students Affairs

Work closely with local police, emergency services, and regulatory bodies during the incident response. Ensure adherence to UAE laws regarding accident reporting and resolution. Provide the necessary documentation and information to authorities. Arrange for alternative transportation for affected passengers. Offer counseling services for students and staff affected by the accident.

### Health and Safety Officer

Conduct an initial assessment of the incident to evaluate risks and hazards. Oversee the implementation of emergency procedures, including evacuation or medical aid if required. Ensure compliance with OSHAD and institutional safety policies during the response. Investigate the root cause of the accident and recommend measures to prevent recurrence. Compile a detailed report for institutional records and regulatory compliance.

## 3.3 Duties and Responsibilities in case of Terrorism, Bomb Threat, Weapons, Firing or Security Threats

### Students

Stay alert and report any suspicious activity or items to the faculty, security guard or other authorities. Follow instructions during lockdowns, evacuations, or other emergency procedures. Familiarize





themselves with emergency exit routes and safety protocols. Avoid spreading rumors, panicking or misinformation about the threat. Cooperate with faculty, security guards, and emergency personnel during incidents. Do not attempt to confront armed individuals or handle suspicious objects. Follow instructions from faculty, staff, security, or emergency personnel without delay. Avoid panic and remain in designated safe zones until the all-clear is given.

### Faculty

Act as leaders during emergencies, guiding students and staff to safety. Follow and enforce the institution's emergency response plan and protocols. Lock classroom doors and windows if instructed to shelter in place. Maintain calm and reassure students to prevent panic. Take attendance during an evacuation to ensure all students are accounted for. Report any missing or injured students to the appropriate authorities. Report any suspicious activities, individuals, or objects to security personnel immediately. Relay information about missing or injured students to authorities

### Security Guard

Identify and assess the threat (e.g., suspicious individuals, unattended items, or activities). Immediately alert higher authorities, such as the Health and Safety Officer, law enforcement (call-999), or emergency response teams. Secure the premises to prevent unauthorized access or evacuation bottlenecks. Implement lockdown or evacuation protocols as instructed. Continuously monitor surveillance systems for unusual activity. Patrol the premises to ensure the safety of all individuals and identify vulnerabilities. Direct students, staff, and faculty to safe zones or designated evacuation areas. Enforce strict adherence to emergency procedures during a threat.

### Health and Safety Officer

Develop and maintain a terrorism/security threat response plan in compliance with regulations. Conduct regular risk assessments to identify vulnerabilities in the campus. Organize drills and training sessions for staff, faculty, and students on handling security threats. Serve as the liaison between the institution and local law enforcement or emergency services. Coordinate with the facilities team and security guards to implement safety measures. Oversee the implementation of lockdowns, evacuations, or shelter-in-place protocols. Provide clear communication to all stakeholders during an emergency. Investigate incidents and document findings to improve future responses. Offer post-incident support, including debriefings and counseling.

### Student Affairs

Inform students about security threats and the necessary actions to take. Serve as the primary point of contact for student inquiries during emergencies. Provide emotional support and counseling services to affected students. Maintain updated emergency contact information for all students. Work with the Health and Safety Officer and other stakeholders to ensure students' safety during a threat. Assist with evacuation or lockdown procedures, ensuring that students with disabilities or special needs are prioritized.

## Nurse

Ensure the availability of fully stocked and easily accessible first aid kits and medical supplies. Conduct first aid and basic life support (BLS) training for staff and students to prepare them for medical emergencies during security threats. Stay updated on advanced first aid and trauma management procedures. Provide first aid to injured individuals during incidents involving terrorism or security threats. Based on the severity of their injuries and prioritize critical care. Coordinate with local medical services, hospitals, and paramedics to ensure timely evacuation and treatment of the injured. Monitor and provide follow-up care for individuals who sustained injuries or trauma during the incident.

## 3.4 Duties and Responsibilities During a Stampede

### Students and Visitors

Remain calm and adhere to directions provided by security, staff, or emergency personnel. Avoid pushing, running, or creating panic in crowded situations. Alert staff or security if you notice unsafe conditions or overcrowding.

### Faculty and Staff

Lead and guide students or attendees to safety in an orderly manner. Encourage calm behavior and assist vulnerable individuals, such as children, elderly, or disabled persons. Follow the institution's stampede management procedures and assist security and health officers. Take attendance of the students. Provide clear and consistent communication to the crowd to avoid panic

### Security guards

Monitor crowd behavior and identify signs of panic or overcrowding. Redirect people to alternate exits or safe zones to avoid bottlenecks. Quickly intervene to de-escalate panic and guide people in an orderly manner. Use barriers, hazard warning tape or designated pathways to control the flow of people. Relay critical information to emergency responders, health and safety officers, and management. Notify local authorities and emergency services immediately during a stampede.

### Nursing

Provide first aid to injured individuals, focusing on those with breathing difficulties or trauma. Set up triage areas to prioritize medical attention for severely injured individuals. Communicate the severity of injuries to paramedics and hospitals to ensure proper care. Offer reassurance and psychological first aid to those affected.

### Health and Safety Officer

Develop and implement crowd management plans for events or emergencies. Conduct regular risk assessments of areas prone to overcrowding. Oversee the evacuation process to ensure it is conducted safely. Coordinate with security and medical personnel to provide immediate assistance. Investigate the incident to determine its cause and recommend measures to prevent future occurrences.

### 3.5 Faculties and Lab Instructors

- **Ensuring Compliance:** Implement and enforce all health and safety policies in classrooms and laboratories. Monitor student adherence to safety protocols during activities.
- **Training and Awareness:** Educate students on safe practices, including proper use of lab equipment and personal protective equipment (PPE). Conduct regular briefings on emergency procedures.
- **Incident Reporting:** Report any accidents, hazards, or near-misses to the Health and Safety team immediately.
- **Maintenance of Safety Standards:** Ensure labs are tidy, equipment is functioning correctly, and hazardous materials are safely stored.

### 3.6 Receptionist / Facilities Staff Team

- **First Point of Contact:** Act as the primary liaison for visitors and ensure they are briefed on safety measures upon entry.
- **Access Control:** Maintain visitor logs and monitor access to restricted areas.
- **Emergency Support:** Communicate emergency procedures to visitors and assist in evacuation during emergencies.
- **Reporting:** Notify the relevant departments about maintenance issues or potential safety hazards.

### 3.7 Security Team

- **Campus Surveillance:** Monitor all areas of the campus through patrols and CCTV systems to identify safety risks.
- **Access Management:** Ensure only authorized personnel and students access the campus and its facilities.
- **Emergency Response:** Assist in evacuations, guide individuals to assembly points, and coordinate with emergency services.
- **Incident Documentation:** Record all incidents and provide detailed reports to the Health and Safety team.

### 3.8 Cleaning Team

- **Maintaining Hygiene:** Ensure all areas, including classrooms, laboratories, and restrooms, are clean and free of hazards.
- **Chemical Safety:** Handle cleaning chemicals according to COSHH (Control of Substances Hazardous to Health) guidelines.
- **Reporting Hazards:** Identify and report any spills, broken equipment, or unsafe conditions immediately.
- **Support During Emergencies:** Assist in clearing pathways and ensuring cleanliness during evacuation processes.

### 3.9 Health and Safety Team

- **Policy Implementation:** Develop, review, and enforce health and safety policies across the campus.
- **Risk Assessment:** Conduct regular inspections and risk assessments in all areas of the campus.

- Training and Education: Organize safety drills, workshops, and training for staff and students.
- Incident Management: Investigate accidents, identify root causes, and recommend corrective actions.
- Regulatory Compliance: Ensure the institution adheres to UAE health and safety laws and regulations.

### 3.10 Laboratory Technicians and Supervisors

- Equipment Management: Maintain and calibrate lab equipment, ensuring it is in safe working condition.
- Material Safety: Oversee the storage, use, and disposal of hazardous materials following safety guidelines.
- Support to Faculty: Assist instructors during lab sessions to ensure student safety.
- Emergency Preparedness: Ensure safety equipment such as eyewash stations and fire extinguishers are functional.

### 3.11 Administration and IE Team

- Policy Coordination: Work closely with the Health and Safety team to integrate safety policies into operational planning.
- Resource Allocation: Ensure adequate funding and resources for safety initiatives and infrastructure.
- Communication: Disseminate health and safety information through official communication channels, including emails and Moodle.
- Performance Monitoring: Evaluate the effectiveness of safety policies and suggest improvements.

### 3.12 Board of Trustees

- Strategic Oversight: Provide guidance and approval for the implementation of health and safety policies.
- Resource Approval: Allocate budgets for safety-related initiatives and infrastructure improvements.
- Accountability: Ensure compliance with UAE health and safety regulations at the strategic level.
- Review and Evaluation: Regularly review reports on health and safety performance and recommend strategic improvements.

## 4. Laboratories and Safe Environment

### 4.1 Safety Guidelines and Equipment Available in Workshops and Laboratories

At BACU, the safety of students, faculty, and staff in workshops and laboratories is a top priority. To ensure a safe working environment, we provide a range of safety equipment and safety procedures. This equipment is regularly checked, maintained, and updated to meet regulatory requirements and best practices.

#### General Safety Procedures

- Notify the Faculty member in case of accident.
- Inspect all power cables, sockets, and computer components for any signs of damage before use.
- Avoid overloading electrical outlets and ensure proper use of surge protectors.
- Keep all cables neatly organized to prevent tripping hazards.
- Ensure fire extinguishers (e.g., CO2) are available and accessible in case of electrical fires.
- Student Distribution: Ensure students are distributed properly to maintain comfort and safety
- Equipment Identification: All equipment and tools must have an ID and an information tag with safe operation instructions.
- Clear Aisles: Keep labs and aisles clear of obstructions like bags to avoid tripping hazards, especially during emergencies.
- Lab Cleanliness: Maintain clean and tidy labs with daily cleaned trash bins.
- Supervised Experiments: Conduct experiments only under teacher supervision.
- Post-Lesson Cleaning: Clean labs immediately after lessons and before reuse.
- Personal Protective Equipment (PPE): Use necessary PPE based on risk assessments. Avoid touching the face during experiments.
- No Eating or Drinking: Prohibit eating and drinking in labs at all times.
- Prohibited Items: Do not allow head covers, contact lenses, artificial fingernails, or jewelry in labs.
- Hygiene Supplies: Equip labs with soap, paper towels, hand sanitizers, and ensure proper hygiene practices.
- PPE Removal and Handwashing: Remove protective suits and wash hands after removing gloves.
- Emergency Equipment: Ensure labs have accessible emergency body and eye wash stations or use nearby washroom in case of emergency.
- Safety Gear: Equip labs with fire extinguishers and first aid kits.

- First Aid and Evacuation Training: Train staff on first aid and safe evacuation procedures.
- Lab Access: Keep labs locked when not supervised by authorized personnel.
- Color coding: Before operating any equipment look the color coding to understand the risk and operate only with the supervision of lab supervisor/faculty.
- Hazard warning tape (yellow and black/ red and white): ensure to not cross this hazard warning tape without the supervision of lab supervisor/faculty due to high risk activity.

#### 4.2 Electrical safety guidance

- Circuit Overload: Avoid overloading circuits by plugging too many devices into a single outlet or circuit.
- Work Area Cleanliness: Keep work areas clean and dry to avoid accidental spills that can cause electrical hazards.
- Unplugging Devices: Unplug electrical devices by pulling the plug, not the cord, to avoid damaging the cord.
- Circuit Breakers: Ensure all circuit breakers and electrical panels are accessible and clearly labeled. Do not block access to these panels
- Qualified Personnel: Only qualified and authorized personnel should perform electrical installations, repairs, or maintenance.
- Emergency Procedures: Know the location of the nearest emergency shut-off switch and how to use it. In case of an electrical fire, use a Class C fire extinguisher

#### 4.3 Chemical Safety guidance

- MSDS Availability: A copy of safety procedures for hazardous chemicals (MSDS) will be available in the lab and the clinic.
- Chemical Records: Maintain a record of all hazardous chemicals, including quantities and sources.
- Risk Assessment Register: register for chemicals, detailing risks, safe handling, and accident response procedures.
- Warning Labels: Store hazardous chemicals in properly labeled containers.
- Separate Storage: Store chemicals based on their characteristics, away from direct sunlight and flames.
- Water Reactive Chemicals: water-reactive chemicals should be stored away from water.
- Follow Instructions: Adhere to the instructions on Material Safety Data Sheets and labels for use and storage.
- Seal Containers: Ensure that chemical containers are sealed after use.
- Spill Management: Secure, report and clean areas where chemicals have spilled immediately, keeping the area supervised until fully cleaned.
- Chemical Disposal: Dispose of expired and waste chemicals on in designated waste bins using appropriate PPE'S

#### 4.4 Computer lab safety Guidelines

To ensure the safety of students, staff, and equipment within computer laboratories, the following safety guidelines and measures are to be observed:

- General Safety Guidelines for computer lab

- **Electrical Safety:** Inspect all power cables, sockets, and computer components for any signs of damage before use. Avoid overloading electrical outlets and ensure proper use of surge protectors. Keep all cables neatly organized to prevent tripping hazards.
- **Ergonomics and Workspace Safety:** Use adjustable chairs and desks to maintain proper posture while working on computers. Ensure monitor screens are positioned at eye level and at an appropriate distance to reduce eye strain. Encourage short breaks every 30-45 minutes to prevent repetitive strain injuries and fatigue.
- **Fire and Electrical Hazards:** Prohibit the use of personal electrical equipment without prior approval. Ensure fire extinguishers (e.g., CO2) are available and accessible in case of electrical fires. Turn off all computers and unplug equipment during extended breaks or in case of emergencies.
- **Cleanliness and Maintenance:** Keep computer labs clean and dust-free to prevent equipment damage. Prohibit eating or drinking inside the lab to avoid spills that can damage hardware. Report any malfunctioning equipment immediately to the lab technician or instructor.
- **Behavioral Safety:** Students must refrain from running, horseplay, or other disruptive behaviors that could cause accidents. Avoid leaving personal belongings on the floor to prevent tripping hazards. Follow all instructions provided by the lab instructor or technician.
- **Cybersecurity and Digital Safety:** Students must log in using their unique credentials and log out after completing their work. Do not install unauthorized software or download files that could compromise the network. Report suspicious emails, messages, or software issues to the lab supervisor immediately. Ensure safe and appropriate usage of the internet and lab systems as per the College's IT Policy.

#### 4.5 Electrical and Electronics lab safety Guidelines

The Electrical and Electronics Laboratory involves working with electrical circuits, tools, and equipment that can pose safety risks if not handled properly. The following guidelines ensure the safety of students, staff, and equipment:

- **General Safety Guidelines for Electrical and electronics laboratories**
  - **Pre-Use Inspection:** Inspect all electrical tools, wires, and equipment for visible damage before use. Ensure all connections, power sources, and instruments are in proper working condition.
  - **Electrical Safety:** Always handle live circuits and components with extreme caution. Never touch exposed wires, live circuits, or connections with bare hands. Use insulated tools and wear personal protective equipment (PPE) such as rubber gloves and safety shoes when working on electrical components. Keep flammable materials away from electrical devices or live circuits.
  - **Work Area Safety:** Keep the workspace clean and organized to prevent tripping hazards or accidents. Avoid placing liquids near electrical components to prevent short circuits or electrical hazards. Ensure proper ventilation in the lab to avoid overheating of equipment.
  - **Handling Equipment:** Use only the equipment that has been approved or assigned by the lab supervisor or instructor. Always turn off and unplug equipment before making adjustments, repairs, or modifications. Do not attempt to repair damaged equipment without proper supervision.

- **Safe Use of Power Supply:** Ensure all power supplies are turned off when connecting or disconnecting circuits. Use circuit breakers or fuses to prevent overloads. Avoid bypassing safety features or grounding on equipment.
- **Emergency Procedures**
  1. **Electrical Shock:** Immediately turn off the power source without touching the person affected. Call for medical help immediately and administer first aid if trained to do so.
  2. **Fire:** Use only Class C (CO<sub>2</sub> fire extinguishers) for electrical fires. Evacuate the lab immediately and follow the emergency evacuation procedures.
  3. **Short Circuits or Equipment Failure:** Report any short circuits, sparks, or equipment malfunctions to the lab technician or instructor. Do not attempt to use the equipment until it has been checked and repaired.

#### 4.6 Safety Guidelines for Laboratories with Machineries and Training equipment

Laboratories equipped with heavy machinery, mechanical tools, and training equipment require strict adherence to safety protocols to prevent accidents and injuries. The following guidelines are designed to ensure the safety of students, staff, and equipment in such environments.

##### ➤ General Safety Rules

- **Pre-Use Inspection:** Inspect all machines, tools, and equipment for damage or malfunctions before use. Ensure all safety guards and barriers are properly installed and functional. Report any faulty or malfunctioning equipment to the instructor or lab technician immediately.
- **Work Area Safety:** Keep the work area clean, organized, and free of unnecessary items or obstructions. Maintain clear walkways to avoid tripping hazards. Ensure adequate lighting and ventilation in the laboratory.
- **Machine Operation Safety:** Only trained and authorized individuals are permitted to operate machinery or equipment. Students must follow instructor guidelines for the proper operation of all machines. Use machines only for their intended purpose; never bypass safety features or overload equipment. Turn off machinery and allow it to come to a complete stop before making adjustments or repairs.
- **Protective Measures:** Never wear loose clothing, jewelry, or accessories that can get caught in moving parts. Tie back long hair and wear appropriate clothing, including coveralls and non-slip safety shoes. Always use the designated Personal Protective Equipment (PPE) while working with machinery.
- Never wear loose clothing, jewelry, or accessories that can get caught in moving parts.
- Tie back long hair and wear appropriate clothing, including coveralls and non-slip safety shoes.
- Always use the designated Personal Protective Equipment (PPE) while working with machinery.

#### 4.7 Use of Personal Protective Equipment (PPE) on Campus

##### ➤ Safety Goggles/Glasses:

- **Use:** Protects eyes from chemical splashes, flying debris, and hazardous fumes.
- **Precaution:** Always wear when handling chemicals or using machinery that may produce particles.



- Lab Coats:
  - Use: Shields clothing and skin from chemical spills and contaminants.
  - Precaution: Ensure the coat fits properly and is worn at all times in the lab.
  
- Gloves:
  - Use: Protects hands from chemicals, heat, and biological hazards.
  - Precaution: Use appropriate gloves for the specific task (e.g., nitrile, latex, heat-resistant).
  
- Face Shields:
  - Use: Provides full-face protection from chemical splashes or sparks during experiments.
  - Precaution: Wear in conjunction with safety goggles for complete protection.
  
- Hearing Protection (Earplugs/Earmuffs):
  - Use: Reduces exposure to loud noises in workshops or construction areas.
  - Precaution: Always wear when operating or near loud machinery.
  
- Respirators/Masks:
  - Use: Protects from inhaling harmful dust, fumes, or chemicals.
  - Precaution: Ensure proper fit and use according to the task at hand.
  
- Steel-Toed Boots:
  - Use: Protects feet from heavy objects or sharp materials in construction and maintenance areas.
  - Precaution: Always wear in areas where falling objects or puncture risks exist.



Figure 07 : PPE requirement Sign board

#### 4.8 Procedure for Using an Eye Wash Station

In case of an emergency where hazardous substances come into contact with the eyes, follow these steps to properly use an eye wash station:

- **Immediate Action:** Stop your activity immediately if your eyes are exposed to chemicals, dust, or any other harmful substances. Quickly move to the nearest eye wash station. Every second counts in minimizing eye damage.
- **Activate the Eye Wash Station:** Push the lever or foot pedal to start the flow of water. The station should begin delivering a gentle stream of water.
- **Hold Eyelids Open:** Keep your eyes wide open using your fingers to ensure the water reaches all parts of the eye. Avoid closing your eyes or blinking excessively, as this can trap harmful substances.
- **Position Your Eyes:** Position your face so that both eyes are in the water stream. Ensure the water is rinsing directly into your eyes, and rotate your eyeballs to allow water to reach all areas of the eye.
- **Flush Eyes for At Least 15 Minutes:** Continue flushing both eyes for a minimum of 15 minutes. This is critical to thoroughly remove the contaminant. If you wear contact lenses, remove them immediately while rinsing.
- **Avoid Rubbing Your Eyes:** Do not rub your eyes during or after using the eye wash, as this can cause further irritation or spread the contaminant.

- **Seek Medical Attention:** After thoroughly flushing your eyes, seek immediate medical attention even if the irritation seems to subside. Explain to the medical professional the nature of the exposure.
- **Report the Incident:** Ensure that the incident is reported to your supervisor, the health and safety officer, or the appropriate department in your organization.



Figure 08 : Steps to wash the hands

#### 4.9 Handling Common Injuries

##### Physical injuries

- **Cuts:** Clean the wound with warm water and soap, apply a clean bandage, and seek medical help if necessary.
- **Burns:** Cool the burn under cold running water for at least 10 minutes, cover it with a sterile dressing, and don't burst any blisters.
- **Fractures:** Immobilize the injured area, apply a cold pack to limit swelling, and seek immediate medical attention.

##### Dealing with Emergencies

- **Heart Attack:** Recognize the signs (chest pain, shortness of breath, etc.), call for emergency medical help immediately, and make the person comfortable.
- **Stroke:** Use the FAST (Face, Arms, Speech, Time) method to recognize a stroke. Call for emergency medical help immediately.
- **Choking:** Perform back blows and abdominal thrusts (Heimlich maneuver) to clear the airway. If unsuccessful, call for emergency medical help.

##### Calling an Ambulance

In the event that an ambulance is required to transport a person to hospital the following procedure must be followed

- Dial 998 and ask for the Ambulance Service.

- State the name of the building where the ambulance is required, together with the floor and room number. If the person requiring treatment is outdoors, state the location on campus.
- State the number of persons involved, and if possible, details of their condition.
- Confirm that the Ambulance Service has all the information it requires before you terminate the call.
- Telephone the Security Control Room (internal extension 115 or 067646333) and inform them that you have called an ambulance, giving details of why it is required and where it is expected to arrive.
- Go to the scene of the incident and confirm that an ambulance has been summoned.
- A Security Officer will normally attend to assist in guiding the ambulance staff to the location of the casualty. However, if they are unable to undertake this, ensure that there is someone at the entrance of the building to guide the Ambulance staff.
- **Arranging any person's car available at the college or Arranging a Taxi**

In the event that a taxi is required to transport a person to hospital the following procedure must be followed.

- Telephone the **Security Control Room** (internal extension 115 or 067646333) and inform them that you are a First Aider and require personal car to enter the campus and arrange the gates to open and guide the car to the location. Provide the detail of the driver's name, phone number and other necessary details and car details (number plate, color, type, etc.).
- Telephone the Security Control Room (internal extension 115 or 067646333) and inform them that you are a First Aider and require a taxi ordering for the transportation of a person to hospital and arrange the gates to open and guide the car to the location.
- Give your name and state the name of the building where the taxi is required. A Security Officer will then arrange a taxi to take the person to hospital.
- Provide the person who is to be conveyed to hospital with a business card that details the procedure for arranging their return journey to the University campus.



Figure 09 : Security Control Room at BACU

#### 4.10 Personal Protective Equipment (PPE)

Personal protective equipment is essential for protecting individuals from potential hazards in the workshop and laboratory environments. The following PPE is available for use in workshops and laboratories:

- **Protective Clothing:** Lab coats, coveralls, and aprons are provided for students and staff working with chemicals or in environments where contamination may occur.
- **Safety Goggles/Face Shields:** Essential for eye protection when working with hazardous materials, chemicals, or machinery.
- **Gloves:** Disposable and reusable gloves (e.g., nitrile, rubber) are available for handling chemicals, biological materials, and other hazardous substances.
- **Respirators/Face Masks:** Provided for working with airborne particles or in environments where inhalation of fumes or dust is a risk (e.g., chemical fumes, welding).
- **Hearing Protection:** Earplugs or earmuffs are available for those working in noisy environments, such as machinery or construction workshops.
- **Safety Footwear:** Steel-toe boots and slip-resistant shoes are provided to prevent foot injuries from falling objects or spills.

##### 4.10.2. Fire Safety Equipment

Fire safety is a critical concern in all laboratory and workshop areas. The following fire safety equipment is readily available:

- **Fire Extinguishers:** Various types of fire extinguishers (e.g., water, foam, CO<sub>2</sub>, powder) are strategically placed throughout workshops and laboratory spaces.
- **Fire Blankets:** Fire blankets are available in laboratory settings for emergency fire suppression, particularly for small fires involving chemicals or equipment.
- **Fire Hose Reels:** Located in larger workshops or areas with higher fire risks, fire hose reels provide a direct source of water for fire-fighting purposes.
- **Emergency Fire Exit Signs:** Clearly marked fire exits and emergency exit routes ensure that everyone can evacuate quickly in case of fire or other emergencies.

##### 4.10.3. First Aid and Medical Equipment

In case of injury or medical emergency, the following first aid and medical equipment is available:

- **First Aid Kits:** Fully stocked first aid kits are located in each workshop and laboratory area, containing bandages, antiseptics, burn dressings, and other essential items for basic medical treatment.
- **Eye Wash Stations:** Installed in laboratories and areas where chemicals or hazardous materials are used, eye wash stations provide immediate relief for eye exposure to harmful substances.
- **Safety Showers:** Available in laboratories for emergency use in case of chemical spills or contact with harmful substances.

- **Burn Kits:** Specialized burn kits are available in workshops and laboratories for treating burns, especially in high-risk areas like laboratories with open flames or hot equipment.
- **Automated External Defibrillators (AEDs):** AEDs are available for emergency use in case of a cardiac arrest, providing immediate support until medical professionals arrive.

#### 4.10.4. Chemical Safety Equipment

Handling chemicals in a safe manner is paramount in the laboratory environment. The following chemical safety equipment is provided:

- **Chemical Spill Kits:** Specially designed spill kits for chemical spills, including absorbents, neutralizing agents, and containment materials.
- **Fume Hoods:** Ventilated enclosures to remove hazardous fumes or vapors generated during chemical experiments or processes.
- **Chemical Storage Cabinets:** Properly labeled and ventilated storage areas for storing chemicals safely and minimizing the risk of chemical reactions or exposure.
- **Gas Detection Monitors:** Used in areas where there may be a risk of toxic gas leakage, such as laboratories with gas cylinders or chemicals that release gases.

#### 4.10.5. Electrical Safety Equipment

Electrical safety is critical in workshops and laboratories where electrical equipment is used. The following equipment helps ensure safety:

- **Circuit Breakers and Fuses:** Electrical circuits are equipped with circuit breakers and fuses to prevent overloads and reduce the risk of electrical fires.
- **Insulated Tools:** Tools and equipment with insulated handles are available to prevent electrical shocks when working with live circuits.
- **Lockout/Tagout Kits:** These kits are used to ensure that electrical systems or machinery are de-energized and cannot be accidentally started during maintenance or repair.

#### 4.10.6. Emergency Communication Equipment

In case of an emergency, clear and immediate communication is essential. The following equipment supports this need:

- **Emergency Phones and Call Systems:** Located in key areas, emergency phones and call systems allow staff and students to quickly contact emergency services or the campus security team.
- **Public Address System (PA):** The campus is equipped with a PA system to broadcast emergency notifications and evacuation instructions across the campus.
- **Alarm Systems:** Visual and audible alarms, including fire alarms, gas detection alarms, and general emergency alarms, are in place to alert occupants of the workshop or laboratory to potential hazards.

#### 4.10.7. Hazardous Material Handling Equipment

Certain workshops and laboratories involve hazardous materials. To ensure their safe handling, the following equipment is provided:

- **Containment Systems:** Special containment units (e.g., trays, sinks) for working with hazardous liquids or materials to prevent spills and exposure.
- **Laboratory Gloves and Tongs:** For handling hot objects, corrosive materials, or biohazardous substances safely.
- **Ventilation Systems:** Laboratory spaces are equipped with proper ventilation systems to remove harmful fumes and maintain safe air quality.

#### 4.10..8. Environmental Safety Equipment

To ensure a safe and environmentally responsible workshop and laboratory space, BACU provides the following equipment:

- **Waste Disposal Bins:** Clearly labeled bins for the disposal of hazardous and non-hazardous waste, ensuring compliance with environmental regulations.
- **Recycling Stations:** Separate collection points for recyclable materials to promote sustainability on campus.
- **Air Purifiers:** Installed in areas where pollutants or particulate matter may be present, such as certain laboratories or workshops, to ensure a safe working environment.

#### 4.10.9. Emergency Evacuation Equipment

Evacuation procedures and equipment are crucial to ensure safety during emergencies. The following equipment supports evacuation efforts:

- **Evacuation Chairs:** Available for use in evacuating individuals with mobility impairments from higher floors in case of emergency.
- **Exit Routes and Maps:** Clearly marked and accessible exit routes, along with emergency evacuation maps posted throughout the workshop and laboratory areas.

## 4.11 Storage, Distribution, Use, and Disposal of Hazardous Materials

The handling of hazardous materials in workshops, laboratories, and other facilities is of critical importance to ensure the safety of students, staff, and the environment. To ensure compliance with health, safety, and environmental regulations, BACU follows strict procedures for the storage, distribution, use, and disposal of hazardous materials. This includes chemicals, biological agents, radioactive materials, and any other potentially dangerous substances.

### 4.11.1. Storage of Hazardous Materials

Safe storage is the first step in managing hazardous materials. BACU adheres to international best practices and local regulatory requirements to ensure that materials are stored securely.

- **Chemical Storage Cabinets:** Chemicals are stored in purpose-built cabinets that are specifically designed for the safe containment of hazardous substances. These cabinets are clearly labeled with appropriate hazard symbols and are well-ventilated to reduce the risk of chemical reactions.
- **Flammable Materials:** Flammable materials are stored in fire-rated cabinets or rooms that are isolated from other substances to minimize the risk of fires. These storage areas are equipped with fire extinguishers and smoke detectors.
- **Corrosive and Reactive Materials:** Corrosive and reactive chemicals are stored in separate, clearly labeled containers to avoid accidental mixing with incompatible substances. Storage areas are equipped with secondary containment, such as trays or basins, to contain any leaks or spills.
- **Biological Hazardous Materials:** For biological substances (e.g., infectious agents), BACU uses biohazard containment units, such as bio-safety cabinets or refrigerators, that meet the necessary containment levels (e.g., BSL-1, BSL-2, etc.).
- **Radioactive Materials:** Any radioactive substances are stored according to regulations in designated, secure areas with proper shielding and monitoring equipment.
- **Temperature-sensitive Materials:** Substances requiring specific temperature conditions (e.g., refrigerated chemicals) are stored in controlled-temperature refrigerators or freezers.

#### 4.11.2. Distribution of Hazardous Materials

The distribution of hazardous materials within BACU is handled carefully to ensure that they are transported safely and are only provided to authorized personnel.

- **Labeling and Documentation:** All hazardous materials are labeled with appropriate hazard symbols and include Material Safety Data Sheets (MSDS) or Safety Data Sheets (SDS) that provide detailed information on handling, storage, and emergency procedures.
- **Authorized Personnel:** Only trained and qualified personnel are authorized to handle, distribute, or transport hazardous materials within the campus. Faculty members, lab technicians, and staff involved in hazardous material management undergo regular training in safe handling and emergency response.
- **Transporting Hazardous Materials:** When hazardous materials need to be moved from one location to another within the campus, they are transported in secure, labeled containers, and appropriate safety measures are followed (e.g., carrying spills containment kits, wearing PPE).

#### 4.11.3. Use of Hazardous Materials

The use of hazardous materials is strictly controlled to prevent exposure, contamination, and accidents.

- **Risk Assessment:** Before using any hazardous material, a thorough risk assessment is carried out to evaluate potential risks and determine the necessary control measures. This assessment is reviewed regularly to ensure its relevance and effectiveness.
- **Personal Protective Equipment (PPE):** All individuals using hazardous materials are required to wear the appropriate PPE, which may include gloves, goggles, face shields, lab coats, respirators, and hearing protection. PPE requirements are specified in the MSDS for each material.
- **Ventilation:** In laboratories and workshops where hazardous materials are used, local exhaust ventilation systems (e.g., fume hoods, biosafety cabinets) are in place to ensure that airborne contaminants, such as fumes, dust, or vapors, are safely vented outside.



- **Supervision:** Hazardous material use in labs and workshops is conducted under the supervision of qualified personnel who ensure that all safety protocols are followed and that proper procedures are in place for handling materials.

#### 4.11.4. Disposal of Hazardous Materials

Safe disposal of hazardous materials is essential to prevent environmental contamination and ensure compliance with regulatory standards.

- **Waste Segregation:** Hazardous waste is segregated by type (e.g., chemical, biological, radioactive, etc.) and stored in clearly labeled containers to prevent mixing incompatible materials. Waste containers are designed to prevent leaks or spills and are stored in dedicated hazardous waste storage areas.
- **Chemical Waste Disposal:** Chemical waste is disposed of in accordance with local environmental regulations and international standards. Chemicals are either neutralized, detoxified, or sent to licensed hazardous waste disposal companies for proper disposal.
- **Biological Waste Disposal:** Biological materials, including contaminated cultures, specimens, and gloves, are disposed of in biohazard waste bags, which are then treated by autoclaving or incineration to eliminate any risk of contamination.
- **Radioactive Waste Disposal:** Radioactive materials are handled and disposed of by trained personnel in compliance with national nuclear regulatory bodies. Waste is kept in sealed containers and is either stored temporarily for decay or disposed of at licensed facilities.
- **Electronic Waste (E-Waste):** E-waste, such as old computers and laboratory equipment, is handled through recycling programs. Any equipment containing hazardous materials, like batteries or mercury, is disposed of in accordance with specific environmental guidelines.
- **Incineration or Landfill Disposal:** As a last resort for non-recyclable hazardous waste, BACU works with certified waste management companies that have the capability to incinerate or safely landfill hazardous materials, ensuring that they do not pose a risk to the environment.

#### 4.12 Training and Updating First-Aid policy

##### **Purpose**

The purpose of this policy is to first aid treatment is available within the College premises for injured or ill person when necessary.

##### **Scope**

This policy applies to British Applied College community which includes faculty, staff, students, guests and visitors.

##### **Policy Statement**

British Applied College is committed to encourage and promote good health and to deal efficiently and effectively with illnesses and emergencies that may arise at the campus. The policy ensures that the

College has adequate and appropriate equipment, facilities and procedures to provide appropriate First Aid.

### Responsibility

Executive Dean : Deans is responsible for ensuring that an appointed persons and adequate equipment are available to provide first aid for faculty, staff, students and visitors at BACU.

### Health and Safety Officer

- Ensure first aid arrangements are communicated to staff, pupils and visitors, through induction, briefings and signage.
- Ensure any first aid kits held locally by the department are periodically checked and appropriately stocked.
- Carry out a first aid needs assessment to ascertain the needs of the College.
- Arrange appropriate first aid training.

### First-Aider

First Aiders are staff who hold a current first aid certificate issued by an approved Health & Safety training organisation. First-Aider will:

- Provide first aid, as required.
- Acting as first responders to any incidents; they will assess the situation where there is an injured or ill person, and provide immediate and appropriate treatment
- Respond promptly to all requests for assistance.
- Summon further help if necessary.
- Look after the casualty until recovery has taken place or further medical assistance has arrived.
- Report details of any treatment provided to the person completing the College Accident/Incident Recording form.

### First Aid Supplies:

Basic First Aid kits are available. They are easily identifiable and must be kept in a clean dry area. They are checked on every quarter to ensure the contents are there and up to date. The kit should contain at least the following:

10 adhesive dressings (plasters) of assorted sizes

- 3 medium sterile dressings
- 1 large sterile dressing
- 3 small sterile dressings
- 1 extra-large sterile eye patch
- 2 triangular bandages

- Safety pins
- Disposable latex gloves
- 2 small plastic bags- for disposable of soiled items
- 1 guidance card and contents list

## Training

Training and renewal of first aid qualifications will be coordinated and arranged through Health and Safety Department.

### Certified First Aiders on Campus

The following personnel are certified first aiders and available for emergency situations on campus:

- Inhouse Nurse
- Health and Safety Officer
- Lab Instructors and Lab Supervisor

### First Aid Kit Availability

- First aid kits are available in every building across the campus to ensure that immediate assistance is provided in the case of an emergency.

#### *4.12.1 Roles and Responsibilities in the Medical Emergency Procedure*

1. **Identify the Emergency**
  - Ensure the safety of the site before approaching the casualty.
  - Recognize signs of a medical emergency (unconsciousness, severe bleeding, breathing difficulties, etc.).
2. **Call for Help**
  - Dial campus emergency number or local emergency services immediately (e.g., 998 for Ambulance).
3. **Provide First Aid**
  - Administer first aid if trained and capable, until professional help arrives. Ensure safety and avoid putting yourself at risk.
4. **For Students**
  - Call emergency services immediately (e.g., 998) and provide details of the location and nature of the emergency.
  - Notify the nearest faculty member or security person.
  - Assist by keeping the area clear and providing comfort to the affected individual if safe to do so.
  - If trained, provide first aid until help arrives.
5. **For Faculty**
  - Ensure emergency services are contacted.
  - Provide first aid if trained and necessary.
  - Assign a student to direct emergency responders to the location.
  - Inform the campus nurse and security guard about the emergency.
6. **For Staff**

- Assist in contacting emergency services if not already done.
- Provide first aid within the scope of training.
- Help maintain a clear area around the emergency.

#### 7. Alert Campus Security

- Contact the security guard on duty, providing details of the emergency and to notify the Nurse, Health and Safety Officer, and Student Affairs Department.
- Ensure the scene is secure and clear of unnecessary personnel.
- Guide paramedics and emergency responders to the exact location.
- Maintain a log of the incident, including actions taken and involved personnel.

#### 8. Inform the Nurse

- Notify the on-campus nurse to prepare for immediate medical assistance.
- Administer necessary medical care and stabilize the patient until emergency services arrive.
- Gather the patient's medical history and other relevant details for paramedics.
- Communicate with emergency responders for the handover of information.

#### 9. Report to Health and Safety Officer

- Ensure that all procedures are followed and coordinate with different departments.
- Conduct an incident report detailing the nature of the emergency, response actions, and outcomes within 24 hours.
- Document the incident and coordinate any further response as needed.

#### 10. Notify Student Affairs Department

- Inform the Student Affairs Department about the situation and the affected student(s).
- Provide emotional and logistical support to the student and their family.
- Communicate with the college community about the incident, respecting privacy and confidentiality.
- Ensure the student receives ongoing support.

### 4.12.2 Arranging Hospital Transportation

**As a First Aider**, you may be responsible for arranging transportation for an ill or injured person. Depending on the severity, you will need to decide whether an ambulance is required or if a taxi should be arranged. Follow these procedures:

#### 1. Call Emergency Services (Ambulance)

- If the person requires immediate medical attention, dial 998 and request an ambulance.
- Provide the location details, including the building, floor, and room number, or if outdoors, the specific location on campus.
- Provide the number of individuals involved and their conditions.
- Confirm all details with the ambulance service before ending the call.
- Notify Security (internal extension 115 or 067646333) to inform them of the ambulance request and its details.
- Go to the scene to confirm the ambulance's arrival and assist the security officer in guiding them to the location.

#### 2. Arrange Transportation by Car or Taxi

- If a taxi is required to transport a person to the hospital:
  1. Call Security (internal extension 115 or 067646333) to arrange for a personal car or taxi and open the gates for access.

2. Provide details of the car (number plate, color, type) or the taxi.
  3. If using a personal car, ensure Security coordinates entry and escort to the scene.
  4. For a taxi, ensure that the taxi is ordered and ready for departure.
- **Provide Information:** Ensure the person receiving transport has a business card detailing return procedures to BACU.

#### 4.12.3 Basic First Aid Procedures

##### 1. Assessment of the Situation

- Before administering first aid, assess the safety of the environment and the casualty.
- Check for any hazards and evaluate the number of injuries and the nature of the situation.

##### 2. Basic Life Support (CPR)

CPR is a life-saving technique used if someone's breathing or heartbeat stops.

- **Scene Safety:** Ensure the area is safe and use PPE as necessary.
- **Check the Casualty:** If unresponsive, check for breathing or signs of life-threatening conditions.
- **Call for Help:** Call 998 for emergency medical assistance.
- **Start Chest Compressions:**
  1. Position hands in the center of the chest.
  2. Ensure depth is at least 2 inches, and the compression rate is 100-120 per minute.
  3. Allow full chest recoil after each compression.
- **Provide Rescue Breaths:**
  1. Open the airway using the head-tilt, chin-lift method.
  2. Pinch the nose and cover the mouth with your own.
  3. Ensure each breath lasts about 1 second.
- Continue CPR until help arrives or an Automated External Defibrillator (AED) is available. Minimize interruptions to compressions.

##### 3. Handling Common Injuries

- **Cuts:** Clean the wound with warm water and soap, apply a clean bandage, and seek medical help if needed.
- **Burns:** Cool the burn under cold running water for at least 10 minutes. Cover with sterile dressing, avoid popping blisters.
- **Fractures:** Immobilize the injured area, apply cold compresses, and seek immediate medical attention.

##### 4. Dealing with Emergencies

- **Heart Attack:** Recognize signs such as chest pain or shortness of breath, and call for emergency medical help.
- **Stroke:** Use the FAST (Face, Arms, Speech, Time) method to identify a stroke. Seek emergency medical help immediately.
- **Choking:** Perform the Heimlich maneuver (abdominal thrusts or back blows) to clear the airway. If unsuccessful, call for emergency help.

#### 4.13 Fire Emergency Evacuation Procedure in College

Fire is an ever-present risk, including within our College premises. To mitigate this risk, guidelines have been established for faculty, staff, students, and visitors.

Areas with controlled flames, combustible materials, and electrical equipment, such as laboratories and kitchens/pantries, pose the greatest risk of fire. In these areas, staff must:

- Exercise the utmost care when handling equipment and materials.
- Strictly adhere to fire safety protocols.
- Familiarize themselves with the locations of fire extinguishers and other safety equipment, provided they are trained to use them.
- Regularly check emergency doors to ensure they are unlocked.
- Always give priority for people of determination, pregnant women and aged people to evacuate and rescue in case of emergency

- **In the event of a fire:**

Faculty, staff, students, or visitors who discover a fire or suspect one in the College should:

- Evacuate the building by using the nearest exit.
- Do not stay behind to collect belongings.
- If possible, close the doors as you leave.
- Activate nearest fire alarm.
- Call civil defense number 997.
- If you can try to put off the fire using appropriate firefighting applications without risking your life.
- Gather in the assembly point without rushing (do not run).
- Do not return to the building until declared safe.

- **In case of hearing fire alarm:**

- Exit the building immediately using the nearest available exit.
- Maintain a calm pace; do not run.
- Proceed to the designated assembly point for safety.
- Avoid using elevators and escalators during evacuation.
- Gather at the front of the building outside the college entrance gates.
- Report any missing individuals to a faculty/staff member or health and safety officer.
- If possible, faculty should ensure all students are present by checking the attendance record.
- Do not re-enter the building until receiving official confirmation of safety.
- Staff discovering or suspecting a fire should promptly inform a senior staff member and assist in evacuation.
- Individuals not directly involved in firefighting should evacuate the building without risking their safety.

- **When the fire alarm sounds:**

Responding to a Fire Alarm: Staff and Students

- Staff and students will calmly line up and exit the room, led by academic staff who will guide them along predetermined exit routes. Windows and doors should be closed but left unlocked, and lights turned off.
- Administrative/support staff will ensure all students have evacuated their respective areas, including specialized labs, computer labs, and social areas. They will also secure the area, turn off lights, close doors, check for any remaining students, and carry a first aid kit and mobile phone.
- Academic staff will conduct a headcount of their students upon reaching the assembly point, reporting any missing students to senior staff immediately.
- Everyone will await the all-clear signal before returning to the building in an orderly manner.



Figure 10 : Environmental, health and cyber safety Signage in Computer Labs of BACU



Figure 11 : Safety Guidelines in BACU Library





Fig 12 : Lab Safety Signs use in BACU

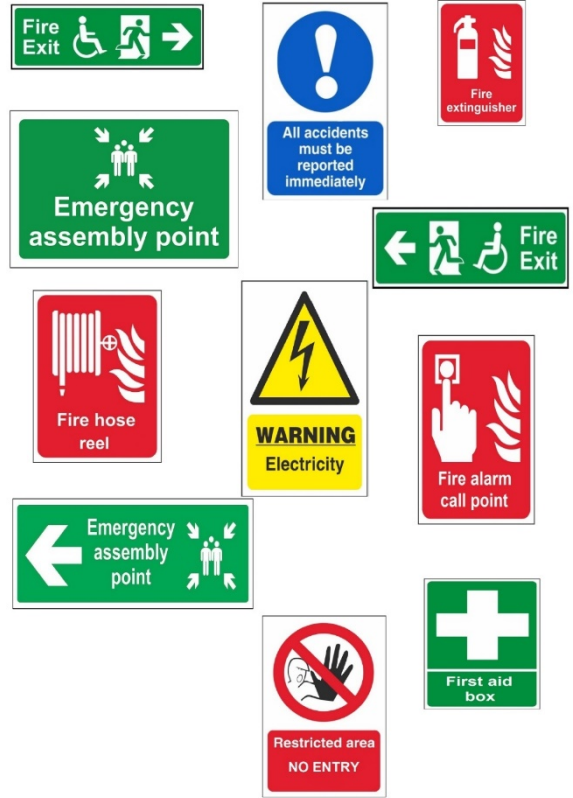
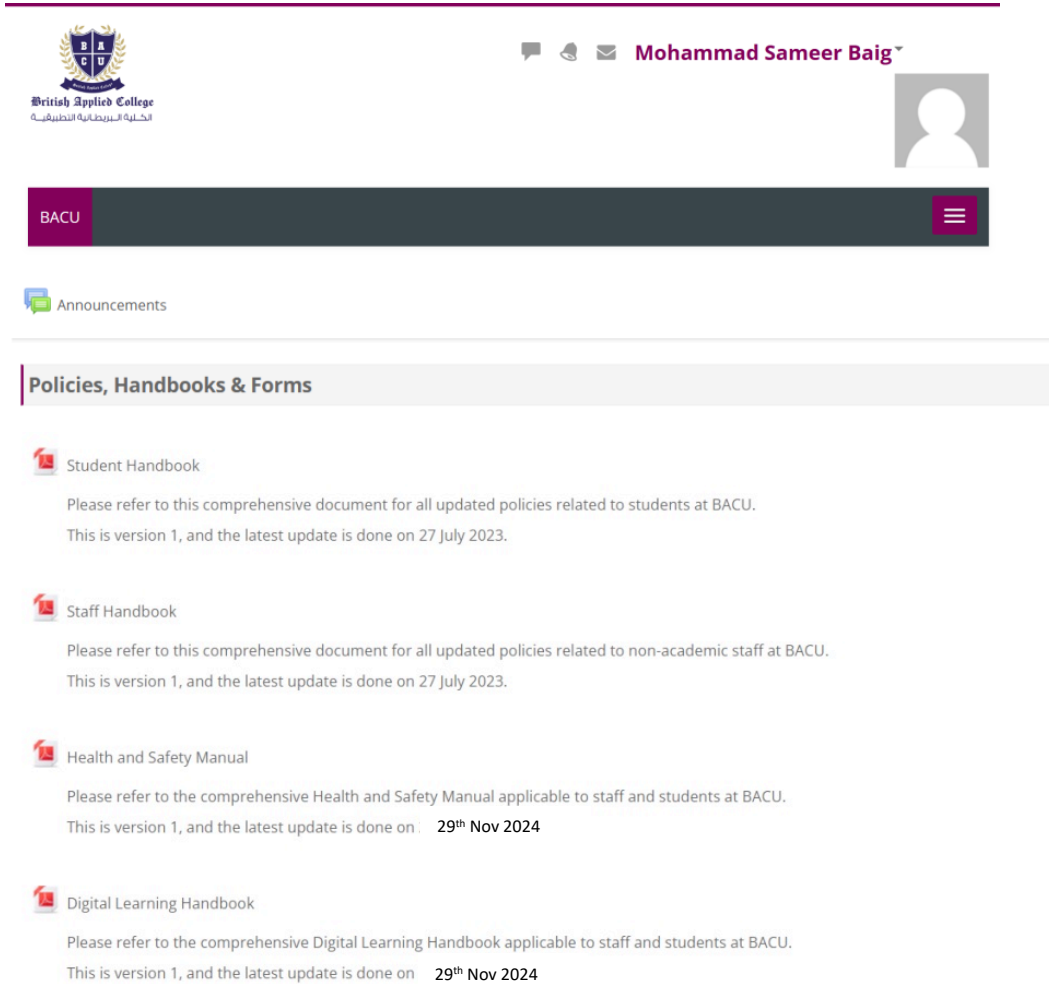


Fig 13: Emergency safety Signs use in BACU



#### 4.14 Safety Manual in Moodle, Library, and Website

To ensure the accessibility of the BACU Safety Manual for all stakeholders, including students, faculty, staff, and visitors, the institution has made the manual available through multiple platforms. These measures promote awareness, preparedness, and compliance with safety standards across the campus. These initiatives ensure that all stakeholders are well-informed about BACU's safety policies, procedures, and emergency protocols, fostering a culture of safety and accountability throughout the campus community.



The screenshot shows the Moodle LMS interface for British Applied College. At the top, there is a navigation bar with the BACU logo, the name 'Mohammad Sameer Baig', and a user profile picture. Below the navigation bar, there is a section titled 'Announcements'. Underneath, there is a section titled 'Policies, Handbooks & Forms'. This section contains four announcements, each with a red document icon:

- Student Handbook**: Please refer to this comprehensive document for all updated policies related to students at BACU. This is version 1, and the latest update is done on 27 July 2023.
- Staff Handbook**: Please refer to this comprehensive document for all updated policies related to non-academic staff at BACU. This is version 1, and the latest update is done on 27 July 2023.
- Health and Safety Manual**: Please refer to the comprehensive Health and Safety Manual applicable to staff and students at BACU. This is version 1, and the latest update is done on: 29<sup>th</sup> Nov 2024
- Digital Learning Handbook**: Please refer to the comprehensive Digital Learning Handbook applicable to staff and students at BACU. This is version 1, and the latest update is done on 29<sup>th</sup> Nov 2024

Figure 14: Health and Safety Manual in BACU Moodle LMS platform

#### 4.15 Basic First Aid and CPR procedures

##### ➤ Assessment of the Situation

Before providing First Aid, it's crucial to assess the situation. Ensure your safety first, then check the casualty and the surroundings. Identify any potential dangers, the number of casualties, and the nature of the injuries or illness.

##### ➤ Basic Life Support (CPR)



Two hands centered on the chest

Shoulders directly over hands; elbows locked

At least 2 inch  
100-120 compression per minute

Figure 14 : Steps to perform CPR

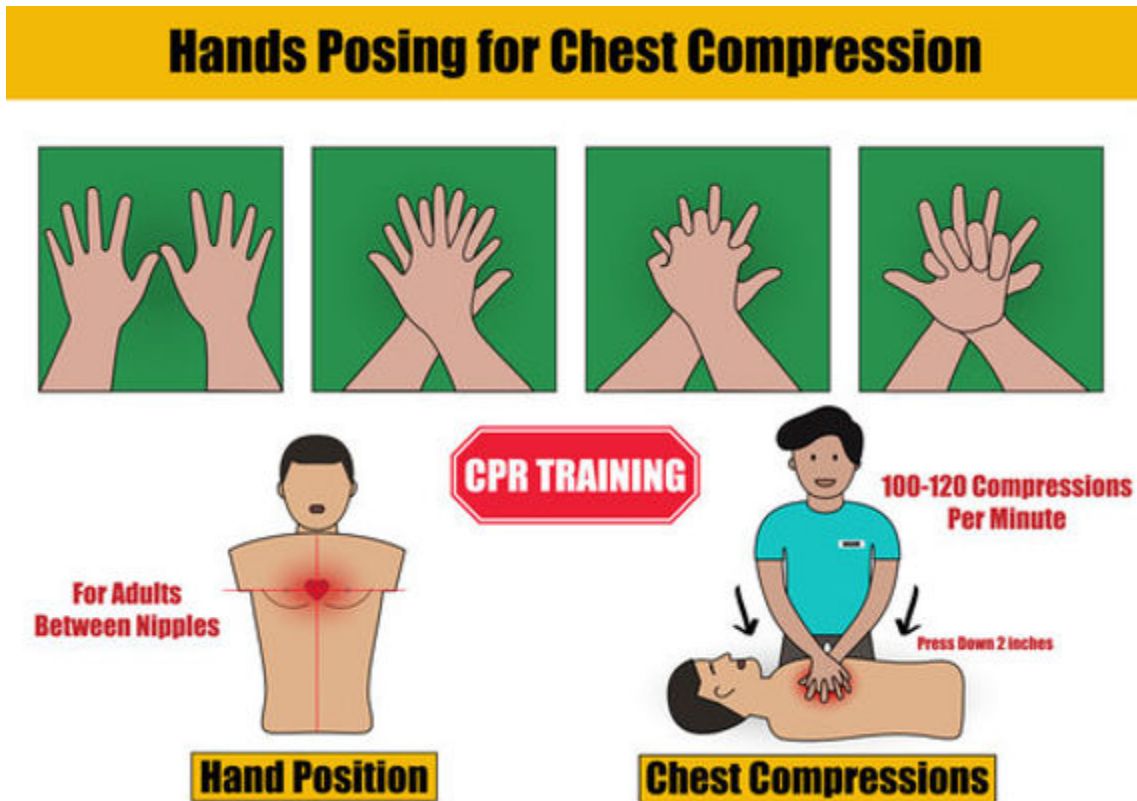


Figure 15: Hand Position and check compression point

Cardiopulmonary resuscitation (CPR) is a life-saving technique used in emergencies when someone’s breathing or heartbeat has stopped.

- Check the scene for safety, form an initial impression and use personal protective equipment (PPE).
- If the person appears unresponsive, check for responsiveness, breathing, life-threatening bleeding or other life-threatening conditions using shout-tap-shout.
- If the person does not respond and is not breathing or only gasping, call 988 and get equipment, or tell someone to do so.
- Kneel beside the person. Place the person on their back on a firm, flat surface.

- e) Give at least 30 sets of chest compressions:
  - Hand position: Two hands centered on the chest
  - Body position: Shoulders directly over hands; elbows locked
  - Depth: At least 2 inches
  - Rate: 100 to 120 per minute
  - Allow chest to return to normal position after each compression
- f) Give 2 breaths:
  - Open the airway to a past-neutral position using the head-tilt/chin-lift technique
  - Pinch the nose shut, take a normal breath, and make a complete seal over the person's mouth with your mouth.
  - Ensure each breath lasts about 1 second and makes the chest rise; allow air to exit before giving the next breath
- g) Continue giving sets of 30 chest compressions and 2 breaths. Use an AED as soon as one is available! Minimize interruptions to chest compressions to less than 10 seconds.

Remember, this is a basic guide and the actual CPR procedures may vary depending on the situation and the casualty's condition. Always get proper CPR training and when in doubt, seek professional medical help. Safety first!

## 5. IT Labs and BACU Networking

The Information Technology (IT) and networking systems at BACU are designed to provide a robust, secure, and user-friendly environment to support academic, administrative, and research activities. These systems ensure seamless connectivity, efficient data management, and secure operations across the campus.

### Policy Statement

Access to BACU and its computing resources is a privilege granted on a presumption that every member of the BACU will exercise it responsibly. Because it is impossible to anticipate all the ways in which individuals can damage, interrupt, or misuse BACU computing facilities, this policy focuses on a few simple rules. These rules describe actions that users should avoid and the principles behind them. Each rule is followed by a list of examples of actions that would violate the rule

### Procedures

The ICTO will monitor and educate BACU users on proper usage of all computing resources, software and ICT infrastructure. If the ICTO observes someone engaging in activities that would seriously compromise the security or integrity of a system or network, e.g., unauthorized access, intrusions, break-ins, service or access denials, injecting viruses and Trojan horses, the ICTO may take immediate action to stop the threat or minimize the damage. This may include termination of processes, scanning for rogue programs, disconnection from a network, protecting and gathering evidences for an impending investigation, or temporary suspension of an account. Account suspensions must be reported immediately to the Executive Dean and later to the concerned person involved.

#### 5.1 Student Lab Usage and Software Support

- A valid College ID card is needed for using the library computer lab and ICT facilities at BACU
- Library users must submit their valid College ID card to library staff while using computers
- Computers will be allowed for use on a first-come, first-served basis
- Computer and internet use is limited to 60 minutes for the individual sessions when others are waiting
- Reservations can be made in advance for individual or group sessions – this may be done through an email request to the Library and ICTO. This will also be done on a first come first serve basis
- Unethical and illegal use of ICT resources, internet content etc., are strictly forbidden
- A penalty will be enforced for damaging any library equipment – in accordance to the damage evaluation made by the ICTO.
- Student personal laptop and mobile phones are their own responsibility and ICTO will not take responsibility of their equipment –both inside and outside college premises.
- If any active student need support from ICTO for installing a college provided software, they may wither bring a storage device and collect the software for self-installation or seek the help of ICTO for installation.

- Installation requests needs to be notified in advance and approved by the ICTO on a specific time. If the ICTO finds any technical issue with the operating system that cannot be fixed immediately, and the installation cannot proceed any further, the student will do the needful to get it fixed before proceeding with the installation.
- BACU currently have active educational licenses for Antivirus, AutoCAD, Revit(limited), Lumion (lab install only), 3D StudioMax, Ansys, and free office 365 online. These licenses are allotted to all the students, faculty and staff members with a general guide on how to install the same.
- The college reserves the right to revoke any issued licenses after the active enrolment of the student is completed at BACU.
- The library computer lab will be monitored under CCTV surveillance.
- Students may approach ICTO directly or email (itsupport@acuq.ae) to report any
- issues with hardware and listed software
- that are pre-installed in the library
- computers. These will be attended by the Student IT Trainee and will be escalated to the ICT Manager, if it cannot be resolved by the trainee.

### 5.2 Employee ICT Equipment and Software Support

- All BACU employees will receive a computer from the ICTO to perform their official functions after signing an equipment checkout form. The same are to be returned undamaged to the ICTO upon termination of their employment.
- The computers will be preinstalled with MS-Office, Windows 10, Cisco WebEx, Microsoft Teams, 7Zip by default. The college has licenses for Educational versions of AutoCAD, Revit, Lumion, 3D StudioMax, Ansys, and free office 365 web versions (licenses are allotted to all the students, faculty and staff members).
- Certain users may be given permission to install software on case to case basis, but no unlicensed / pirated software are to be installed in the BACU property. This will be considered as a serious violation of licensing terms by the ICTO.
- For installing any approved software, the employees may request to the ICTO for installation support. Personal licenses will not be approved as ICTO cannot take responsibility on verifying the ownership of such licenses.
- Standard Antivirus software will be installed on each computer
- Printing will be preinstalled along with separate user codes for each employee computer. Color printing will be enabled for Head of Schools and for pre-approved employees.

### 5.3 Data Protection and Release Policy

#### **Purpose**

The purpose of this policy is to provide guidelines on the process of storing and processing Personal Data and Records of students, staff and faculty, both in manual and electronic form in line with General Data Protection Regulations (GDPR).

#### **Scope**

This policy applies to faculty, staff and students. This policy applies to all personal data, regardless of whether it is in paper or electronic format.

## Policy Statement

The British Applied College aims to ensure that all personal data collected about faculty, staff, students, visitors, and other individuals is collected, stored and processed in accordance with the Data Protection Law 2020 and the requirements of GDPR.

## Procedures

The College strictly adheres to all legal provisions regulating the collection, processing and retention of any personal data and records. The College employs technical and organizational security measures to protect student, faculty, staff and visitors' data from manipulation, damage, and destruction as well as unauthorized third-party access. The College ensures to take back-up of the database regularly.

## Definitions:

*Personal data:* Any information relating to an identified, or identifiable, individual.

This may include the individual's:

- Name (including initials)
- Identification number
- Location data
- Online identifier, such as a username

## Roles and responsibilities

- *Executive Dean:* The Executive Dean is responsible for ensuring that the College complies with all relevant data protection obligations. He acts as the representative of the data controller on a day-to-day basis
- *ICT Support Officer:* The ICT Support Officer is responsible for overseeing the implementation of this policy, monitoring our compliance with data protection law, and developing related policies and guidelines where applicable.
- *All Faculty and Staff:* Faculty and Staff are responsible for:

Collecting, storing and processing any personal data in accordance with this policy

Informing the Academy of any changes to their personal data, such as a change of address

Contacting the ICT Support Officer in the case any question about the data or if there has been a data breach

## Data Retention:

- Data will be retained securely for no longer than is necessary for the purpose or purposes. As a rule, the information will be kept for the duration of the individual's time with the College. Thereafter, the College will comply with regulatory body guidelines on the storage of Personal Data and records relating to a learner, faculty and staff.

#### 5.4 Computer lab safety Guidelines

To ensure the safety of students, staff, and equipment within computer laboratories, the following safety guidelines and measures are to be observed:

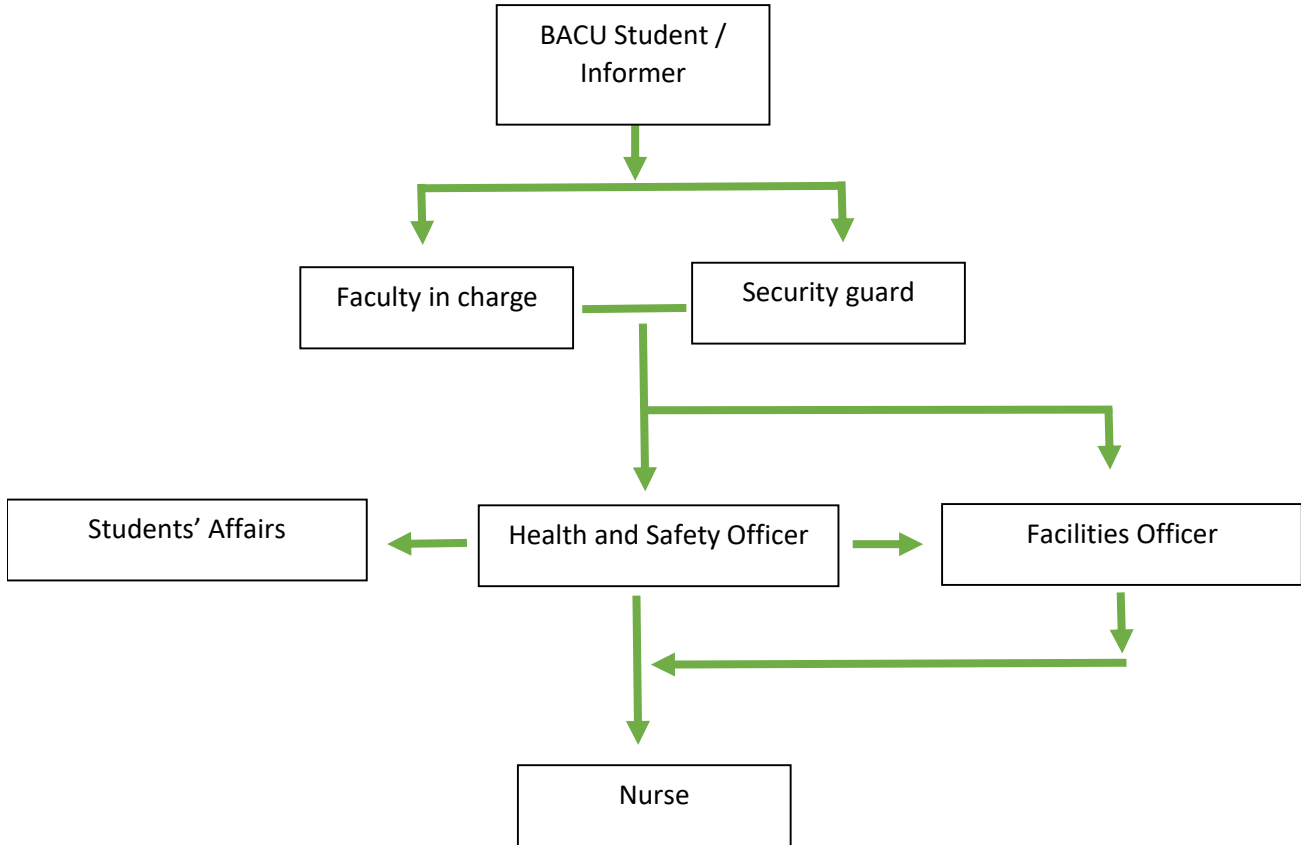
➤ General Safety Guidelines for computer lab

- **Electrical Safety:** Inspect all power cables, sockets, and computer components for any signs of damage before use. Avoid overloading electrical outlets and ensure proper use of surge protectors. Keep all cables neatly organized to prevent tripping hazards.
- **Ergonomics and Workspace Safety:** Use adjustable chairs and desks to maintain proper posture while working on computers. Ensure monitor screens are positioned at eye level and at an appropriate distance to reduce eye strain. Encourage short breaks every 30-45 minutes to prevent repetitive strain injuries and fatigue.
- **Fire and Electrical Hazards:** Prohibit the use of personal electrical equipment without prior approval. Ensure fire extinguishers (e.g., CO<sub>2</sub>) are available and accessible in case of electrical fires. Turn off all computers and unplug equipment during extended breaks or in case of emergencies.
- **Cleanliness and Maintenance:** Keep computer labs clean and dust-free to prevent equipment damage. Prohibit eating or drinking inside the lab to avoid spills that can damage hardware. Report any malfunctioning equipment immediately to the lab technician or instructor.
- **Behavioral Safety:** Students must refrain from running, horseplay, or other disruptive behaviors that could cause accidents. Avoid leaving personal belongings on the floor to prevent tripping hazards. Follow all instructions provided by the lab instructor or technician.
- **Cybersecurity and Digital Safety:** Students must log in using their unique credentials and log out after completing their work. Do not install unauthorized software or download files that could compromise the network. Report suspicious emails, messages, or software issues to the lab supervisor immediately. Ensure safe and appropriate usage of the internet and lab systems as per the College's IT Policy.



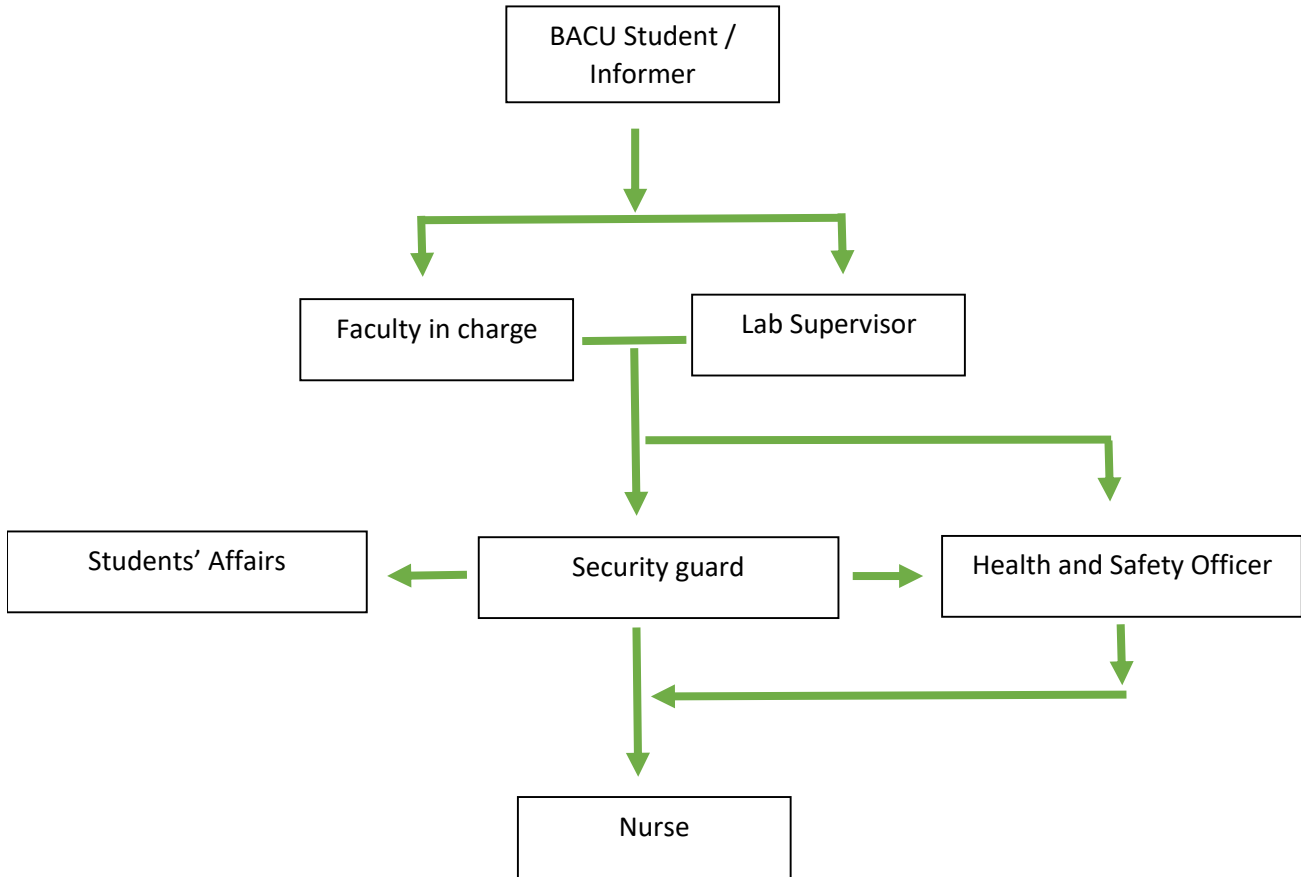
## Appendix Section-1 : Reporting Hierarchy General

### General Incident/ Accident Reporting hierarchy



## Appendix Section-2 : Reporting Hierarchy Laboratories

### Laboratory and workshop Incident/ Accident Reporting hierarchy

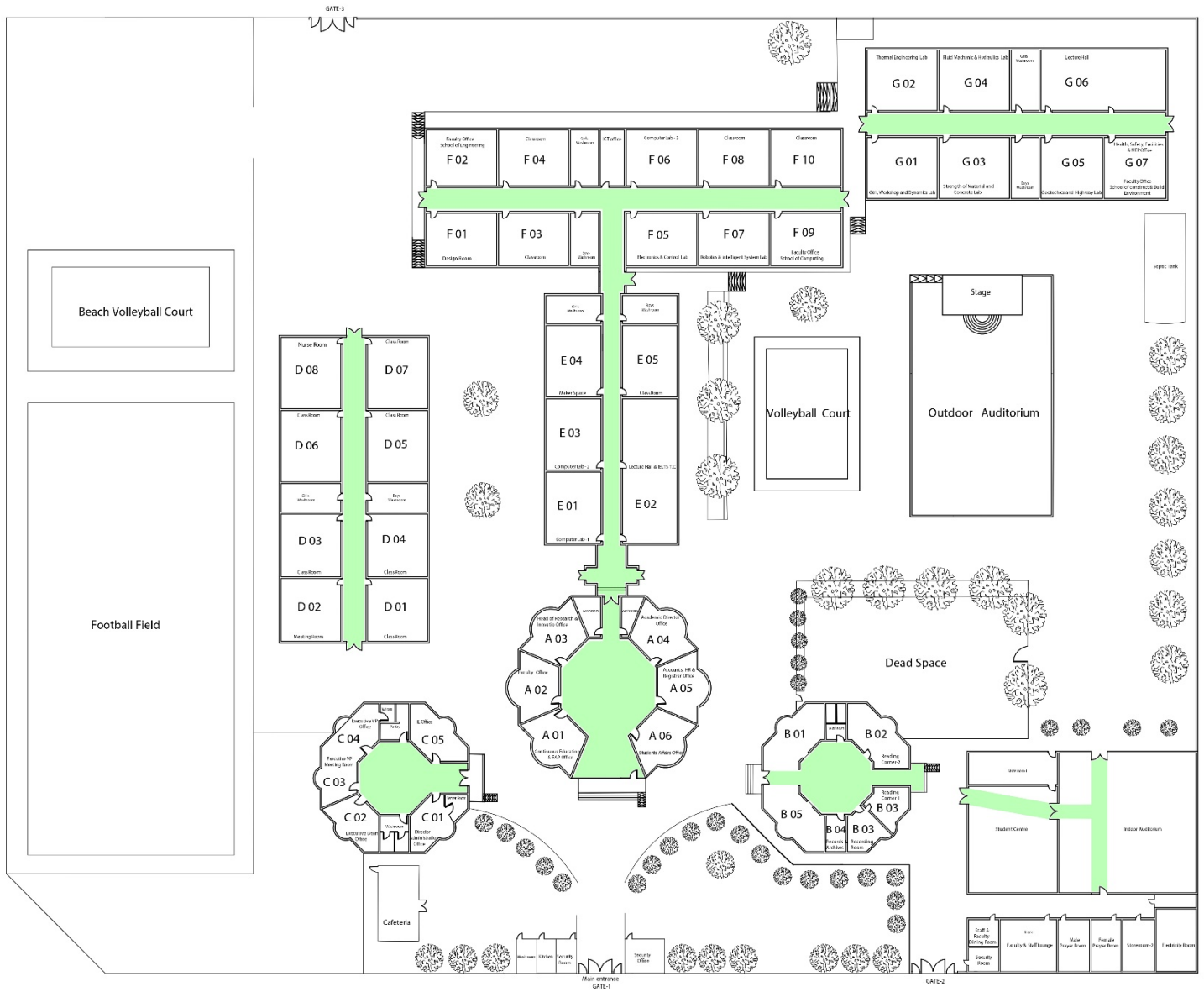


### Appendix Section-3 : Risk Rating and Risk Matrix

Risk Rating	Required Actions
<b>Low</b> (1 – 3)	Operations, activities or tasks can be carried out by the current procedures
<b>Moderate</b> (4 – 6)	Operations, activities or tasks can be maintained along with recommending the provision and implementation of other additional measures or procedures.
<b>High</b> (8 – 12)	Operations, activities or tasks can be maintained; however, they necessitate providing obligatory additional measures and procedures to control and handle within a specific period of time, while they are continuously monitored until additional measures and procedures are met, complete and re-evaluated. Operations, activities or tasks shall immediately cease function, if obligatory additional measures and procedures are not provided or achieved within the specified time agreed to.
<b>Catastrophic</b> (15 – 25)	Operations, activities and tasks shall not be initiated in the current situation. It must cease immediately until they are reconsidered as well as taking necessary control measures and procedures and carrying on re-evaluation for impacts and risks.

Likelihood (Probability)	Severity (Consequences)				
	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
<b>Very Unlikely (1)</b>	1	2	3	4	5
<b>Unlikely (2)</b>	2	4	6	8	10
<b>Probable (3)</b>	3	6	9	12	15
<b>High (4)</b>	4	8	12	16	20
<b>Frequent (5)</b>	5	10	15	20	25

## Appendix Section-4 : BACU Campus Layout



## Appendix Section-5 : Emergency evaluation plan

### EMERGENCY EVACUATION PLAN خطة الإخلاء في حالات الطوارئ



**You are here** أنت هنا

**Exit** مخرج

**Escape route** طريق الهروب

**Escape direction** اتجاه المخرج

**Fire extinguisher** طفاية الحريق

**Wheelchair Ramp** منحدر للكراسي المتحركة

**First Aid** الإسعافات الأولية

**Fire alarm** إنذار الحريق

**Emergency assembly point** نقطة التجمع في حالات الطوارئ

**Fire hose reel** بكرة خرطوم الحريق

**Ladder to rooftop** سلم إلى السطح

**IN CASE OF FIRE** في حالة الحريق

- \* Evacuate the building by using the nearest exit.
- \* Do not stay behind to collect belongings.
- \* If possible close the doors as you leave.
- \* Activate nearest fire alarm.
- \* Call civil defence number 997.
- \* If you can try to put off the fire using appropriate fire fighting applications without risking your life.
- \* Gather in the assembly point without rushing (do not run).
- \* Do not return to the building until declared safe.

- \* إخطار الجمنى باستخدام أقرب مخرج
- \* لا تبقى لجمع متعلقاتك
- \* إذا أمكن، أغلق الأبواب عند مغادرتك
- \* تفعيل اقرب إنذار حريق
- \* اتصل على رقم الدفاع المدني 997
- \* إذا استطعت، حاول إطفاء الحريق باستخدام وسائل مكافحة الحريق المناسبة دون المخاطرة بحياتك
- \* التوجه إلى نقطة التجمع دون التسرع (لا تركض)
- \* لا تعد إلى الجمنى إلا إذا صدر ما يليه بأن الوضع آمن

**EMERGENCY NUMBERS** أرقام الطوارئ

Civil defense	الدفاع المدني	997
Ambulance	سيارة الإسعاف	998
Police	الشرطة	999



## Appendix Section-6 : Risk Assessment Form



**RISK ASSESSMENT – WORKSHOP & DYNAMICS LAB**

<b>Location/Area:</b>	Block- G (G01) Workshop & Dynamics lab	<b>People at risk (Including those in vicinity):</b>	Students, faculty, staff, and visitors
<b>Responsible person:</b>	Health and safety officer	<b>Property at risk (Including those in vicinity):</b>	Lab machinery and equipment's

**Severity (S)** = Catastrophic (Death, Permanent Disability): 5; Major (Serious body injury): 4; Moderate (Casualty treatment): 3; Minor: First Aid Only/no lost time:2; Insignificant (too small/ unimportant worth to be considered): 1


**Likelihood (L)** = Frequently/Almost Certain :5; Often :4; Likely: 3; Possible: 2; Rare: 1

**Risk Level (RL)** = Extreme score (SC) is from 15 to 25, High (Score (SC) is from 8 to 12, Medium (Score (SC) is from 4 to 6, Low (Score (SC) is from 1 to 3.

SL.NO	ACTIVITY	HAZARD	RISK/CONSEQUENCE	EXISTING CONTROLS OR CONTROLS GENERALLY PRACTICED IN THE CAMPUS	RISK RATING				ADDITIONAL CONTROLS	RESIDUAL RISK RATING			
					L	S	L	R		L	S	L	R
							S	L				S	L
1.	Milling & drilling machine	Rotation of drill bit and chuck, Electrocutation. The equipment. Particles from the cutting material can get scattered.	Physical Injuries /hand injury/ eye injury, entanglement Fractures/cuts and wounds, Electrocutation, burn and fire hazard. Property Damages. Minor injury/ major injury.	Good housekeeping practices through the act Adopting activity. First Aid Box is available. Maintenance is done periodically. Movement inside part of the machine are been covered. Safety posters are displayed inside lab.	4	4	16	E	Chuck and drill bit should have case. Room should have ventilation system. Hazards & risks involved should be conveyed to the workforce by the supervisory staff through TBT, Risk assessment briefing prior to start the work. Should have floor carpet to avoid floor damage, grip and to avoid slips. Ensure the control measures are adequate & appropriate PPE to be worn throughout the activity like Safety Shoe/ full covered shoes, suitable Hand Gloves.	2	2	4	M
2.	Portable welding machine	Electrical arc and fumes arrived due to welding	Physical Injuries, electrocution, burns, wounds, inhalation of fumes, suffocation Property Damages. Minor/major injury.	Good housekeeping practices through the act Adopting activity. First Aid Box is available. Maintenance is done periodically. A warning tape has been used for not entering the danger zone. Safety posters are displayed inside lab.	4	5	20	E	Any flammable should be removed, barricade stand should be placed. The room should have proper ventilation system. All hazards & risks involved in the task should be conveyed to the workforce by the supervisory staff through TBT, Risk assessment briefing prior to start work. Ensure the control measures are adequate. Require appropriate PPE to be worn throughout the activity like Safety Shoe/ full covered shoes, suitable Hand Gloves, face shields, welding helmets, respiratory	2	2	4	M



## Appendix Section-7 : Accident / Damage Reporting Form

 <b>INCIDENT, ACCIDENT &amp; DAMAGE INVESTIGATION REPORT</b>	
<b>INSTITUTION NAME:</b> British Applied College	<b>BUILDING/WORK AREA AFFECTED:</b>
<b>DATE OF INCIDENT:</b>	<b>TIME:</b>
<b>WITNESSES (optional):</b> Anonymous Student	
<b>Describe the potential incident/hazard/concern and possible outcome (be detailed):</b>	
<b>Risk Level:</b>	
<b>Site inspection – Why was an unsafe act committed, or why was the unsafe condition present?</b> 1.	
<b>Recommendations/steps to take to prevent property damage:</b> 1.	
<b>PERSON CARRYING OUT INSPECTION:</b> Mohammad Sameer Baig	<b>DATE REPORTED:</b>
Signature of Health and Safety Office	Signature of Director of Administration & Operations



## Appendix-Section 8 : Wash basins and Eye Wash Station in Laboratories



Fig: Wash Basins in Laboratories

## Appendix-9 : PPE Requirements for Workshop And Laboratories



Figure 16: PPE Requirements in workshop and Laboratories

## Appendix- 10 : Sign Board of PPE requirements in Workshop of BACU



Figure 17 : PPE requirement Sign board

## Appendix-11: Safety Instruction board in Workshop of BACU

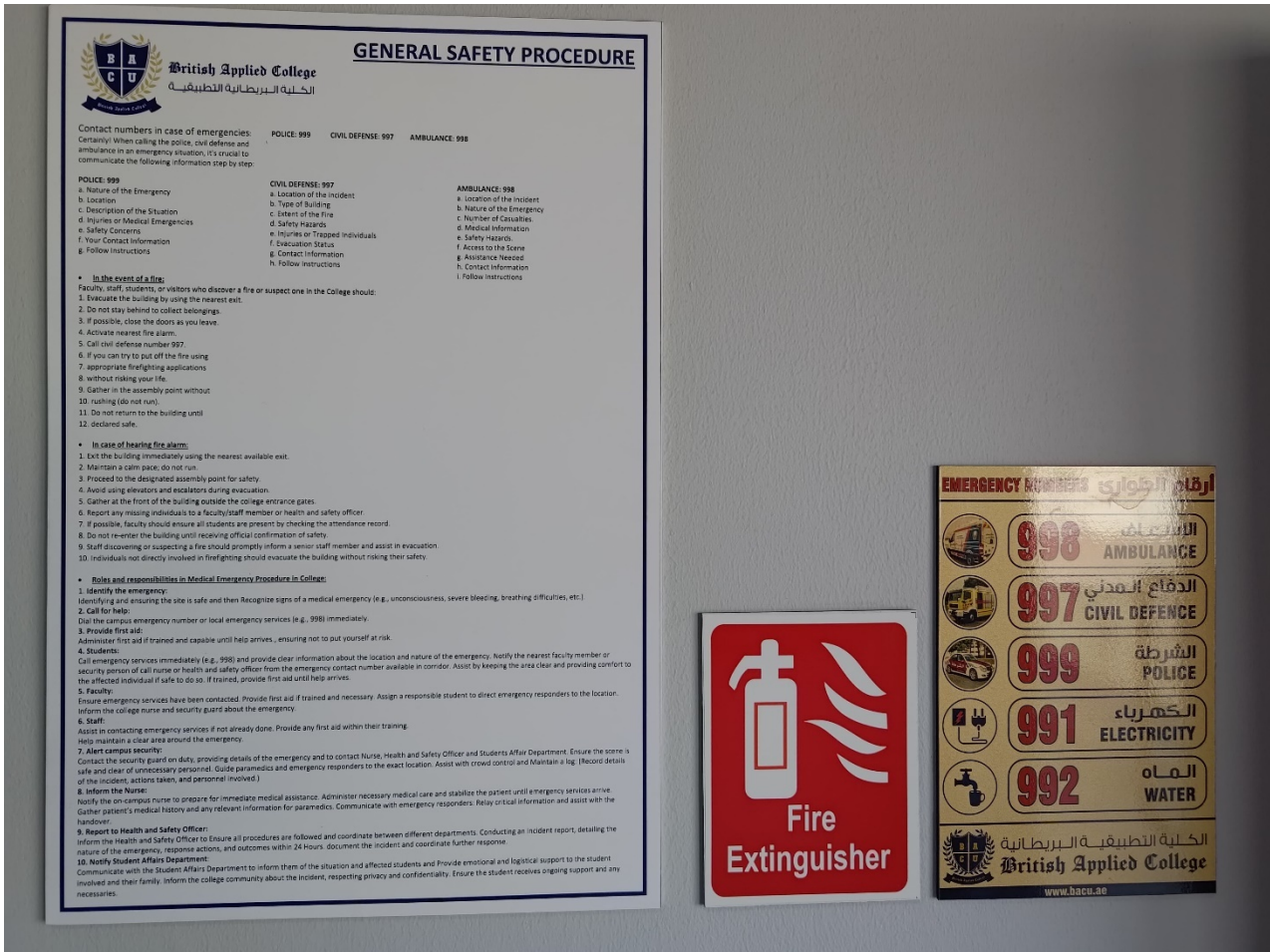


Figure 18 : Safety instruction and Emergency contact Sign board

## Appendix-12: Emergency Evaluation plan / First Aid in Workshop of BACU



Figure 19 : First Aid Box and Safety signages