

Safety and Incident Management Plan

Fabric Structure and Design Lab

Department of Textile Engineering (DTE)

Ahsanullah University of Science and Technology (AUST)

Introduction

The Fabric Structure and Design Laboratory of the Department of Textile Engineering (TE) at Ahsanullah University of Science and Technology (AUST) places the highest priority on the safety and welfare of its students, faculty members, and staff. As a core component of the undergraduate Textile Engineering program, the laboratory plays a vital role in linking theoretical knowledge with practical experience by providing hands-on training in fabric design analysis and testing operations. In line with accreditation requirements and the commitment to maintaining a secure learning environment, this plan details the procedures and measures established to prevent, address, and manage potential incidents and accidents.

Objective

To ensure a safe, well-managed laboratory environment by implementing a comprehensive plan to prevent and manage incidents and accidents in the fabric Structure and Design Lab, aligning with accreditation criteria.

1. Laboratory Safety Rules

1. General Rules

- All students, faculty, and staff must wear proper Personal Protective Equipment (PPE) at all times, including safety goggles, gloves, closed-toe shoes, and lab coats to avoid unnecessary incidents in particular through pin used for structure analysis.
- No unauthorized individuals are allowed in the lab.
- Food, drinks, and open flames are strictly prohibited.
- Mobile phones must not be used while operating machinery.
- All students must enter their information (ID, Name, Mobile no., Supervisor name) in the lab logbook before using any equipment apart from class time.
- For sessional course, all students must need to submit their id card to lab attendant before taking the counting glass. Upon returning of the counting glass, id cards are given back to the students.
- All laboratory users must be familiar with emergency procedures and the location and proper use of emergency equipment, including fire extinguishers, first-aid kits.
- No chemical use is allowed inside this lab.

2. Behavioral Rules

- Follow the instructions of the Lab Attendant and Lab In-Charge.
- Do not operate any equipment without prior training or permission.
- Always maintain a clean and organized workspace.

3. Machine-Equipment Specific Safety

- Conduct a pre-check on machinery and equipment before use to ensure functionality.
- Need to submit student id card before using the magnifying glass during sessional classes.
- For Final Year Design Project, students must need to fill up a form with signature of their concerned supervisor and Lab In-charge before conducting any test through the available equipment at FSD lab.

2. Safety Procedures and Practices

1. Before Lab Sessions

- The Lab In-Charge ensures that all machines are inspected for proper functioning weekly.
- The Lab Attendant confirms the availability of first aid supplies and functioning of emergency equipment (fire extinguishers, alarms).
- A safety orientation is conducted at the beginning of each semester covering machinery operation and chemical handling.

2. During Lab Sessions

- The Lab Attendant supervises student activities to ensure adherence to safety practices.
- Course teacher ensures that only authorized students operate machines and equipment.

3. After Lab Sessions

- Used tools (e.g. Magnifying glass. Yarn count tester etc.) must be returned to the lab attendant.
- Waste materials and debris must be disposed of following safety protocols.

3. Provisions in Case of Accidents and Health Hazards

1. Emergency Equipment

- First Aid Kit: Safely Stocked and easily accessible.
- Fire Safety Equipment: Includes fire extinguishers, fire blankets, and alarms, inspected regularly by the Lab In-Charge.

- Emergency Shut-Off Switches: Clearly marked on all machines, equipment and electrical system.

2. Emergency Response

- Minor Incidents:
 - First aid administered by the Lab Attendant.
 - Incident documented in the Lab Incident Report Log.
- Major Incidents:
 - Immediate notification to the Lab In-Charge.
 - Activation of emergency services via the AUST Fire/Disaster Safety Team.

3. Evacuation Procedures

- Follow AUST's established evacuation plan.
- The Lab In-Charge and lab attendant coordinates evacuation procedures.
- The Lab In-charge ensures all students exit safely and no one remains inside the laboratory.

4. Roles and Responsibilities

1. Lab In-Charge

- Supervise overall lab safety and compliance.
- Organize regular training sessions on lab safety and machine operation.
- Report emergencies to the Warden/Assistant Warden and ensure timely action.

2. Lab Attendant

- Ensure day-to-day implementation of safety practices.
- Conduct safety checks before and after lab sessions.
- Assist in emergency response and first aid.

3. Students

- Follow all safety rules and procedures.
- Report any unsafe conditions or incidents immediately to the Lab Attendant.

5. Documentation for Accreditation

1. Safety Rules and Procedures

- A written manual outlining all safety rules and experimental procedure for Fabric Structure and Design lab is kept in the laboratory.

2. Incident Records

- A Lab Incident Report Log book for all reported incidents, including date, time, nature, and actions taken is maintained.

3. Inspection Logs

- Documents of machine inspections, safety equipment checks, and safety training sessions are recorded in a logbook.

Conclusion

The Safety and Incident Management Plan of the Fabric Structure and Design (FSD) Laboratory ensure a structured and proactive approach to maintaining a safe, disciplined, and risk-controlled working environment. By adhering to established safety protocols, preventive measures, and clear incident reporting procedures, the laboratory promotes the well-being of students, faculty, and staff while supporting effective academic and research activities. Continuous monitoring, regular training, and periodic review of safety practices will ensure sustained compliance, risk minimization, and the development of a strong safety culture within the Department of Textile Engineering.