

Safety and Incident Management Plan

Ergonomics Lab

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Introduction

The Ergonomics Lab of the Mechanical and Production Engineering Department at Ahsanullah University of Science & Technology (AUST) is a vital facility that supports academic learning, research, and development in ergonomics and workplace safety. This lab focuses on minimizing occupational hazards, designing ergonomic tools and workstations, assessing risks, and enhancing labor productivity. Given its emphasis on reducing ergonomic risks, such as awkward postures, excessive force, or repetitive movements, a comprehensive plan is necessary to prevent and manage incidents and accidents effectively.

Objective

To implement a structured plan for preventing and managing incidents and accidents in the Ergonomics Lab, ensuring the safety and well-being of students and staff while fulfilling accreditation requirements.

1. Laboratory Safety Rules

1. General Rules

- Students and staff must wear appropriate personal protective equipment (PPE), such as anti-slip footwear and gloves when necessary.
- Access to the lab is restricted to authorized personnel during scheduled sessions.
- Eating, drinking, and other non-lab-related activities are prohibited.
- Electronic devices unrelated to the lab work must remain switched off.

2. Behavioral Rules

- Follow the instructions of the Lab In-Charge and Lab Assistant/Attendant.
- Maintain proper posture while using ergonomic tools to minimize strain or injury.
- Report any discomfort or equipment malfunction immediately.

3. Equipment-Specific Rules

- Ensure that tools and workstations are adjusted to individual user needs before starting tasks.
- Avoid applying excessive force during tool use.

- Use ergonomic assessment tools, such as force gauges or posture analysis software, only under supervision.
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2. Safety Procedures and Practices

1. Before Lab Sessions

- The Lab In-Charge ensures that all ergonomic tools and equipment are in safe working condition through weekly inspections.
- The Lab Assistant/Attendant checks the availability of first aid kits and emergency equipment.
- Conduct an orientation session at the start of each semester to familiarize students with lab rules and ergonomic practices.

2. During Lab Sessions

- Students perform tasks under direct supervision to ensure safe use of ergonomic equipment.
- The Lab Assistant/Attendant monitors for signs of discomfort or unsafe practices among students.
- Any ergonomic risk assessments or workplace hazard simulations must follow approved protocols.

3. After Lab Sessions

- All tools and workstations are cleaned and reset to their default configurations.
 - The Lab Assistant/Attendant logs any incidents or unusual observations in the Lab Safety Log.
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3. Provisions in Case of Accidents and Health Hazards

1. Emergency Equipment

- **First Aid Kit:** Stocked and easily accessible, containing bandages, antiseptics, and pain-relief sprays.
- **Emergency Eye Wash Station:** Available for immediate use in case of exposure to irritants.
- **Emergency Evacuation Plan:** Clearly displayed in the lab, with marked exit routes.

2. Emergency Response

- **Minor Incidents:**
 - First aid is administered by the Lab Assistant/Attendant.
 - The incident is recorded in the Lab Incident Report Log.

- **Major Incidents:**
 - Immediate notification to the Lab In-Charge.
 - The Lab In-Charge contacts the AUST Fire/Disaster Safety Team via the designated Warden and Assistant Warden.
 - 3. **Risk Management**
 - Identify ergonomic risks through regular assessments using tools such as the Rapid Upper Limb Assessment (RULA) or the Strain Index.
 - Adjust workstations, seating, and tools to mitigate identified risks.
 - Provide training on proper body mechanics and safe handling of ergonomic tools.
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4. Roles and Responsibilities

1. **Lab In-Charge**
 - Ensure compliance with safety procedures and oversee lab operations.
 - Coordinate periodic safety audits and risk assessments.
 - Report emergencies to the Warden/Assistant Warden and implement corrective actions as needed.
 2. **Lab Assistant/Attendant**
 - Conduct routine equipment and safety checks.
 - Monitor students for adherence to safety practices and ergonomic guidelines.
 - Assist in first aid administration and support evacuation during emergencies.
 3. **Students**
 - Follow all safety instructions and ergonomic practices.
 - Report any signs of discomfort or hazards immediately.
 - Handle all equipment responsibly and avoid risky behaviors.
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5. Documentation for Accreditation

1. **Safety Rules and Guidelines**
 - Maintain a safety manual detailing ergonomic best practices, equipment usage instructions, and emergency procedures.
2. **Incident Records**
 - Document all accidents and near-misses in a Lab Incident Report Log for analysis and preventive action.
3. **Inspection and Training Logs**
 - Record periodic equipment inspections, safety audits, and student training sessions.

Conclusion

This plan provides a robust framework for managing safety in the Ergonomics Lab, minimizing risks, and responding effectively to emergencies. Regular updates and training will ensure alignment with accreditation requirements and the safety of all users.