## A/ASSESSMENT RECAP

- The assignment requires students to work in groups to create and present a hazard and risk assessment poster.
- **Key objectives:** Build skills in **identifying hazards and risks**, planning **solutions**, applying appropriate models, and developing **communication**, creative **presentation**, **persuasive skills**, and **teamwork** capacity.
- The assignment involves forming a hazard and risk assessment poster to examine hazards associated with a particular job, providing a description of the work, identifying workplace health and safety (WHS) hazards and risks using body and risk mapping tools, and applying a risk analysis matrix.
- The final deliverable: a 15-minute in-class presentation explaining the poster, focusing on how visual tools like body and risk maps assist in understanding safety and health issues.

#### **B/KEYWORDS DEFINITION**

- **1. Ergonomic hazard:** Risks related to the design of a workplace, equipment, or process that contribute to discomfort or injury, often due to repetitive tasks, poor posture, or poor equipment design.
- **2. Biological hazard:** Involves exposure to harmful biological substances, like bacteria, viruses, or fungi, which can cause illness or infection.
- **3.** Chemical hazard: The potential for a chemical substance to cause harm or injury, including burns, poisoning, or long-term health effects like cancer.
- **4. Hierarchy of controls:** A systematic approach to managing safety by applying multiple layers of defense against a hazard, from most effective (elimination of the hazard) to least effective (personal protective equipment).
- **5.** Personal protective equipment (PPE): Equipment worn by employees to minimize exposure to hazards that cause serious workplace injuries and illnesses.
- **6. Substitution isolation**: Replacing a hazardous material or process with a less hazardous one to reduce risk.
- **7.** Administrative controls: Strategies to reduce or eliminate worker exposure to hazards, primarily through changes in management policies or procedures.

- **8. Risk assessment:** The process of identifying, evaluating, and estimating the levels of risk involved in a situation, followed by coordinating and planning resources to minimize, monitor, and control the impact of unfortunate events.
- **9. Physical hazard:** A factor within the environment that can harm the body without necessarily touching it, like radiation, exposure to sunlight, temperature extremes.
- **10.Slips, trips, and falls:** Common workplace hazards referring to instances where a person may slip on a wet floor, trip over an object, or fall due to uneven surfaces or other risks.
- **11. Repetitive task injury:** Injuries caused by performing the same motion over and over again, leading to strain and long-term musculoskeletal disorders.
- **12.** Engineering controls: Physical changes to the workplace, which can include modifications to tools, equipment, machinery, materials, or the work environment to reduce hazards.
- **13.** Fire hazards: Any material, situation, or condition that can cause a fire.
- **14.**Noise pollution: Harmful or annoying levels of noise, as from airplanes, industry, etc., which can be a hazard in some work environments.

## LIST OF ABBREVIATION

MSDS	Material Safety Data Sheets
OSHA	Occupational Safety and Health Administration
NIOSH	National Institute for Occupational Safety and Health
PPE	Personal Protective Equipment

## **C/REFERENCES**

#### ★ General Sources on Workplace Safety and Health

- 1. Occupational Safety and Health Administration (OSHA) Website
  - a. OSHA Official Website
  - b. Provides a wealth of information on workplace safety standards, guidelines, and training resources.
- 2. National Institute for Occupational Safety and Health (NIOSH)
  - a. NIOSH Official Website
  - b. Offers research and insights into various occupational health risks and prevention strategies.
- 3. World Health Organization (WHO) Occupational Health
  - a. WHO Occupational Health

- b. Provides global perspectives on workplace health and safety.
- 4. European Agency for Safety and Health at Work (EU-OSHA)
  - a. EU-OSHA Official Website
  - b. Offers extensive resources on workplace safety in different sectors, including case studies and risk assessment tools.

# **★** Specific Topics and Tools

- 5. Ergonomics and Repetitive Strain Injuries
  - a. "Ergonomics for Beginners: A Quick Reference Guide" by Jan Dul and Bernard Weerdmeester.
  - b. Useful for understanding ergonomic hazards and prevention methods.
- 6. Risk Assessment and Management
  - a. "Risk Assessment Tools, Techniques, and Their Applications" by Lee T. Ostrom and Cheryl A. Wilhelmsen.
  - b. Provides comprehensive coverage of various risk assessment tools and methodologies.
- 7. Workplace Safety and Health Management
  - a. "Introduction to Health and Safety at Work" by Phil Hughes and Ed Ferrett.
  - b. A guide covering the essentials of health and safety management in the workplace.
- 8. Online Risk Assessment Tools
  - a. OSHA eTools and Electronic Products for Compliance
  - b. Interactive, web-based training tools on occupational safety and health topics.
- 9. Hazard Mapping Manuals and Guides
  - a. OSHA Hazard Mapping Manual (Link to Manual)
  - b. A guide to developing hazard maps for educational and training purposes.
- 10. Hierarchy of Controls
  - a. "Managing Workplace Risks and the Hierarchy of Control" (<u>Pro Choice Safety Gear Article</u>)
  - b. Provides a practical understanding of applying the hierarchy of controls in risk management.