# Technological Design

#### **OVERALL EXPECTATIONS:**

By the end of this course, students will:

**D1.** describe and apply health, safety, and environmental practices related to technological design.

### **Specific Expectations:**

By the end of this course, students will:

- D1.1 describe the importance of health and safety laws, regulations, and standards that apply to technological design (e.g., regulations and standards from the Occupational Health and Safety Act, Canadian Standards Association [CSA], Ontario Building Code, and Workplace Hazardous Materials Information System [WHMIS]);
- D1.2 adhere to appropriate personal and environmental health and safety standards and procedures with respect to processes, materials, tools, equipment, and facilities throughout the design process and when performing related activities (e.g., use protective equipment; set tool and equipment guards properly; ensure adequate ventilation and ergonomic seating and other workplace arrangements; follow safe operating procedures; keep work areas clean and organized; store materials and dispose of wastes properly);
- **D1.3** use protective clothing, gear, and equipment appropriately (e.g., dust mask, safety glasses).

## **Technological Safety Checklist**

Technological Design	Comments
<ul> <li>Sufficient and appropriate personal protective equipment (PPE) such as safety glasses, ear protection or latex gloves for handling chemicals is available for all students.</li> </ul>	
<ul> <li>PPE is in good condition (e.g., safety-glass lenses are not scratched or deformed).</li> </ul>	
<ul> <li>Safety glasses are stored in an organized fashion (i.e., not left randomly in a bin).</li> </ul>	
<ul> <li>All materials or chemicals that are stored in secondary containers are clearly identified, as per WHMIS requirements.</li> </ul>	
<ul> <li>Appropriate safety posters or notices that remind students of the use of PPE, health and safety regulations, possible hazards, or safeguards and precautions are prominently displayed.</li> </ul>	
<ul> <li>Good housekeeping practices are evident e.g., the room is well-organized, there are no trip hazards, exits are clearly marked and clear of obstructions, the room is clean and inviting, etc.</li> </ul>	
<ul> <li>Ladders are stored appropriately so they are not trip hazards.</li> </ul>	
There are sufficient electrical outlets. Electrical outlets do not appear to be overloaded.	
<ul> <li>Computer workstations appear to meet basic ergonomic principles (e.g., computer chairs and desks are used for their intended purpose).</li> </ul>	

### **Technological Design: Sample Student Safety Passport**

Student's Name	Class and Year

Equipment	Date Competency Display	Student Signature	Teacher Signature
Multimedia workstations			
PC-based digital editing workstations			
Desktop publishing workstations			
PCs for internet access, word processing			