COURSE AGR3000: AGRICULTURE SAFETY

Level: Advanced

Prerequisite: None

Description: Students recognize and assess the hazards and manage the risks of working in agriculture.

Parameters: Access to appropriate agricultural facilities and/or equipment.

Note: This course is also the prerequisite course for all off-campus learning experiences.

Supporting Resources:
AGR1010: Introduction to Agriculture
HCS2020: First Aid/CPR with AED
HCS3000: Workplace Safety Systems

Outcomes: The student will:

1. **identify and describe potential hazards found in the agricultural**
   - 1.1 predict hazards within an agricultural environment; e.g., farm, ranch
   - 1.2 research the different types of hazards (e.g., chemical, physical, ergonomic, biological, psychosocial) and provide examples of each in an agricultural home or environment
   - 1.3 describe the major hazards related to farm machinery; e.g., pinch points, wrap points, shear points, pull-in points, crush points
   - 1.4 describe potential hazards related to animal management by:
     - 1.4.1 listing the most common injuries that occur around animals
     - 1.4.2 identifying and describing the warning signs of a threatened animal
     - 1.4.3 identifying and describing the appropriate way to approach an animal
     - 1.4.4 describing and demonstrating the appropriate way to handle an animal
   - 1.5 identify farm environmental hazards; e.g., sun exposure, water hazards, fuel, human factors
2. **examine and demonstrate standards/practices associated with agricultural health and safety**
   - 2.1 examine and demonstrate standards/practices associated with fire safety by:
     - 2.1.1 examining and justifying the need for fire safety standards
     - 2.1.2 identifying the fire classifications and comparing the appropriate extinguishers
     - 2.1.3 analyzing and discussing the elements of fire
     - 2.1.4 developing a plan to safely address potential fire hazards and identifying fire prevention methods
     - 2.1.5 demonstrating the use of portable fire extinguishers
   - 2.2 examine and demonstrate standards/practices associated with electrical safety by:
     - 2.2.1 investigating potential electrical hazards at home, at school and in an agricultural area
     - 2.2.2 developing a plan to safely address potential electrical hazards found in the home, at school and on a farm
     - 2.2.3 creating a strategy for establishing safe work conditions when working with electricity
     - 2.2.4 explaining and applying lockout/tagout procedures on electrical equipment

2.3 examine and demonstrate standards/practices associated with ladder safety by:
2.3.1 identifying equipment, machinery and structures where ladders are used in an agricultural area
2.3.2 identifying different types of ladders and differentiating when the different types should be used
2.3.3 illustrating the safe set-up and use of ladders
2.3.4 identifying and demonstrating the proper inspection, care and storage of ladders
2.3.5 diagramming ladder safety rules
2.4 examine and demonstrate standards/practices associated with confined space safety by:
2.4.1 examining and justifying the need for confined space standards
2.4.2 identifying and analyzing what constitutes a confined space and describing the associated dangers
2.4.3 determining what tests should be completed before entering a confined space, given the potential hazards of the space
2.4.4 creating a plan to be used before entering a given confined space
2.4.5 discussing the need for a rescue plan—what should be included, and what training should rescuers have (and why)
2.5 examine and demonstrate standards/practices associated with workplace chemical health and safety by:
2.5.1 examining and justifying the need for WHMIS legislation
2.5.2 identifying the classes of WHMIS controlled products
2.5.3 describing the role of labels on containers of controlled products and describing the type of information that would be found on them
2.5.4 describing the role of material safety data sheets and describing the type of information that would be found on them
2.5.5 explaining the responsibilities of suppliers, employers and workers when it comes to the safe handling of chemicals in the workplace
2.5.6 identifying risk management techniques associated with agricultural chemicals in regard to transportation, storage, spills, handling, exposure and disposal

3. identify and demonstrate methods for dealing with potential hazards in the agricultural area

3.1 describe and demonstrate the use of personal protective equipment (PPE); e.g., helmets, goggles, safety glasses, earmuffs, earplugs, dust masks, respirators, gloves, safety boots
3.2 identify and demonstrate the correct health and safety practices in ergonomic safety procedures; e.g., lifting, loading, shovelling, bending, working alone
3.3 identify and describe common health and safety practices and equipment that should be used around animals
3.4 create an emergency response action plan for rural areas; e.g., location of first-aid kits, emergency numbers, emergency addresses, cell phone availability, legal land descriptions and emergency response directions (create a rural emergency plan kit)
3.5 prepare a health and safety action plan for: 3.5.1 farm machinery and equipment safety
3.5.2 animal management
3.5.3 chemical safety
3.5.4 fire and electrical hazards
3.5.5 farm environmental hazards

4. research and identify legislation and/or exemptions for agricultural health and safety

5. demonstrate basic competencies

5.1 demonstrate fundamental skills to:
5.1.1 communicate
5.1.2 manage information
5.1.3 use numbers
5.1.4 think and solve problems
5.2 demonstrate personal management skills to:
5.2.1 demonstrate positive attitudes and behaviours
5.2.2 be responsible
5.2.3 be adaptable
5.2.4 learn continuously
5.2.5 work safely

5.3 demonstrate teamwork skills to: 5.3.1 work with others
5.3.2 participate in projects and tasks

6. create a transitional strategy to accommodate personal changes and build personal values

6.1 identify short-term and long-term goals
6.2 identify steps to achieve goals