COURSE OTH 9927: GREENHOUSE OPERATIONS AND CARE 33

Prerequisite: AGR3000: Agriculture Safety (Note: Students are required to complete the prerequisite course prior to enrollment in the first course of the Greenhouse Technician specialization.)

Description: Students demonstrate planting abilities; identify characteristics of plant development and growth; demonstrate product knowledge, marketing and sales factors; complete end-of-season duties, including equipment inspection and repair; understand how to overwinter plants; demonstrate a positive attitude toward safety; and demonstrate effective and appropriate interpersonal, communication and employability skills.

Parameters: Each of the three courses that constitute the Greenhouse Technician specialization is designed to be delivered off-campus. The annual inspection and approval of the work station and the monitoring, supervision and assessment of each student’s progress and performance must be done in accordance with the procedures specified in the Off-campus Education Handbook.

Prescribed General Outcomes: The student will:

- demonstrate characteristics of plant development, including:
  - explain how seeds germinate
  - describe plant development after germination
  - identify characteristics of plant growth
- demonstrate knowledge of plants grown in the greenhouse, including:
  - identify types of plants
  - identify plant systems and parts
  - identify stages of propagation
- demonstrate a knowledge of equipment inventory and repair, including:
  - carry out end-of-season duties and inventory
  - identify problems that can occur with equipment such as vents, injectors and air inflators
– check and prepare hoses, plant benches, shipping carts, fertilizer system and other tools or equipment for end-of-season storage
– check and prepare covers for greenhouse structures for end-of-season storage
• demonstrate product knowledge and marketing, including:
  – identify what makes a crop marketable
  – identify characteristics of greenhouse plants
  – identify selling factors
  – describe customer patterns during the greenhouse seasons
• understand the process of overwintering plants, including:
  – gather, prepare and cover plants for overwintering
  – complete routine inspections during winter months
• demonstrate how to test water and growing media for nutritional value, including:
  – explain how to use a pH/EC meter
  – collect water samples
  – check electrical conductivity (EC) and pH of growing media using an EC/pH meter
• demonstrate a positive attitude toward safety
• demonstrate effective and appropriate interpersonal, communication and employability skills

COURSE OTH9928: GREENHOUSE PROCESSES AND PRACTICES 33

Prerequisite: AGR3000: Agriculture Safety (Note: Students are required to complete the prerequisite course prior to enrollment in the first course of the Greenhouse Technician specialization.)

Description: Students demonstrate the ability to assist with upkeep of the greenhouse facility: monitor greenhouse conditions, including temperature, humidity, ventilation and lighting; identify proper growing conditions; apply water and fertilizer during stages of plant growth; prepare growing media; seed, root and transplant propagation material; carry out tasks in the greenhouse retail area; market and sell greenhouse product; and perform sanitizing, cleaning and upkeep duties between crops.

Parameters: Each of the three courses that constitute the Greenhouse Technician specialization is designed to be delivered off-campus. The annual inspection and approval of the work station and the monitoring, supervision and assessment of each student’s progress and performance must be done in accordance with the procedures specified in the Off-campus Education Handbook.

Prescribed General Outcomes: The student will:
• assist with upkeep of facility, including:
  – remove plants between crops
  – remove debris from the greenhouse between crops
  – wash and sanitize the facility between crops
• demonstrate ability to monitor and control greenhouse conditions, including:
  – monitor and control temperature
  – monitor and control relative humidity
  – monitor and control air movement and ventilation
  – monitor and control lighting
• identify growing conditions and monitor stages of plant growth, including:
  – monitor growing conditions for propagation of seeds and unrooted cuttings
  – apply water appropriately during stages of propagation
  – apply fertilizer and water appropriately during stages of plant growth
• demonstrate how to prepare to propagate plants, including:
  – prepare growing media
  – fill trays and containers with growing media
  – prepare area to receive propagation material
• demonstrate how to seed, root and transplant propagation material, including:
  – start unrooted cuttings
  – plant seeds
  – transplant seedlings and rooted cuttings
  – label, record and move seeded, rooted and transplanted plants
• demonstrate how to label and organize containers properly, including:
  – make correct labels
  – identify and organize plants in greenhouse retail area
• carry out tasks in the greenhouse retail area, including:
  – stock shelves and pull orders
  – create displays
  – move, package and load products

COURSEOTH9929: GREENHOUSE SUPPORT SYSTEMS 33

Prerequisite: AGR3000: Agriculture Safety (Note: Students are required to complete the prerequisite course prior to enrollment in the first course of the Greenhouse Technician specialization.)

Description: Students demonstrate the ability to perform and maintain daily and weekly cleanliness and sanitization procedures; assist with daily and weekly upkeep of the facility; distinguish between healthy and unhealthy plants; identify and scout for plant problems, including insects, disease, watering and external and internal problems that cause plant problems; assist with application of integrated pest management (IPM) strategies; remove diseased or infested plants; maintain production quality of crop; keep records; practise personal hygiene; interact with and sell products to customers; and monitor retail appearance.

Parameters: Each of the three courses that constitute the Greenhouse Technician specialization is designed to be delivered off-campus. The annual inspection and approval of the work station and the monitoring, supervision and assessment of each student’s progress and performance must be done in accordance with the procedures specified in the Off-campus Education Handbook.
Prescribed
General Outcomes: The student will:

- maintain safety, cleanliness and sanitization in the greenhouse, including:
  - assist with daily and weekly upkeep of the facility
  - sanitize tools and supplies
  - use equipment safely
- distinguish between healthy and unhealthy plants, including:
  - identify traits of healthy plants
  - recognize signs and symptoms of damage
  - monitor growing plants
- demonstrate an understanding of plant problems in the greenhouse, including:
  - identify damage from insect pests
  - identify basic crop diseases
  - identify problems caused by over- and under-watering
  - find sources of crop damage both inside and outside the greenhouse
  - scout, flag and report problems
  - assist with application of IPM strategies
  - remove diseased or infested plants
- maintain production quality of crop, including:
  - pinch, prune, trim, support and groom plants
  - apply spacing requirements for plants
  - maintain appropriate records for daily temperature, watering, propagation, pest management, plant problems, plant varieties and successes and failures
  - practise appropriate personal hygiene
- demonstrate how to market and sell greenhouse products, including:
  - apply communication skills and proper etiquette to interact with customers
  - interact with customers to recommend and upsell products
  - complete sales by using point-of-sales equipment and applying product knowledge
  - monitor appearance and apply standards to the retail area of the greenhouse