

Virginia Western Community College

HRT 226

Greenhouse Management

COURSE OUTLINE

Prerequisites:

None

Course Description:

Discusses the theoretical and applied practices of managing a greenhouse facility. Emphasizes greenhouse construction and design, environmental control, energy conservation, and related topics. Discusses fertilization and soils as it relates to greenhouse crop production.

Semester Credits: 3 **Lecture Hours:** 2 **Lab/Clinical/Internship Hours:** 2

Required Materials:

Textbook:

Boodley, James W. and Newman, Steven E. : The Commercial Greenhouse, Third Edition,
Delmar Cengage Learning, Clifton Park, NY, 2009, ISBN: 13:978-1-4180-3079-7.

VIRGINIA WESTERN COMMUNITY COLLEGE
School of Business Technology & Trades
3098 Colonial Ave SW
Roanoke, VA 24015
(540)-857-6388



Course Outcomes

At the completion of this course, the student should be able to:

1. Identify the parts of a greenhouse structure and the optional systems and components of a greenhouse depending on the crop to be grown.
2. Calculate heating and ventilation requirements for various size greenhouses.
3. Identify intended uses of various greenhouse systems and elements of construction.
4. Recognize and be able to use various growing media, fertilizers and chemicals available for use in today's modern greenhouses.
5. Have a basic knowledge and understanding of the types of crops or plants that maybe produced in a greenhouse and how to grow them.
6. Have a basic knowledge and understanding of postharvest handling and marketing of greenhouse crops.

Topical Description:

- I. Greenhouse Structures
 - A. Identification of Parts and Materials
 - B. Growing Systems
 - C. Glazing and Flooring
 - D. Types and Construction
- II. Greenhouse Environment
 - A. Heating and Distribution
 - B. Ventilation and Cooling
 - C. Light and Shading
 - D. Gases
- III. Controlled Plant Environment
 - A. Growing Media
 - B. Nutrition and Watering
 - C. Plant Propagation
 - D. Pest Management and Chemical Plant Growth Control



Notes to Instructors

1. Additional Reference Resources in W217 cabinets:
 - a. Horticulture Industry Periodicals

[ADA Statement](#) (PDF)

[Title IX Statement](#) (PDF)

VIRGINIA WESTERN COMMUNITY COLLEGE
School of Business Technology & Trades
3098 Colonial Ave SW
Roanoke, VA 24015
(540)-857-6388

