

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/Recitation Hours: 2

Required Materials:

[Click here to enter text.](#)

Textbook:

Course Text: 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
PO Box 14007
Roanoke, VA 24038
(540)-857-7273



The following supplementary materials are available:

1. Handouts
2. OPTIONAL: Lab Text: Boodley, James W. : Lab Manual to accompany The Commercial Greenhouse, Second Edition, Delmar Publishers, Albany NY, 1998, ISBN: 0-8273-8099-2.

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.



Greenhouse Management - HRT 226

Required Materials:

[Click here to enter text.](#)

Textbook:

The following supplementary materials are available:

3. Handouts
4. OPTIONAL: Lab Text: Boodley, James W. : Lab Manual to accompany The Commercial Greenhouse, Second Edition, Delmar Publishers, Albany NY, 1998, ISBN: 0-8273-8099-2.
- 5.

VIRGINIA WESTERN COMMUNITY COLLEGE
PO Box 14007
Roanoke, VA 24038
(540)-857-7273



Topical Description:**Topical Outline:**

- 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:

(List information about optional topics, departmental exams, etc)

- 1.
- 2.
- 3.
- 4.

